

An account of silence in diagnostic radiography:

A cultural quilt

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List of abbreviations

A&E	Accident and Emergency
ADC	Annual Delegates Conference
AHP	Allied Health Professions
CAHPO	Chief Allied Health Professions Officer
CEO	Chief Executive Officer
COR	College of Radiographers
CPD	Continuing Professional Development
CQC	Care Quality Commission
CT	Computerised Tomography
HCPC	Health and Care Professions Council
HEE	Health Education England
IR (ME) R	Ionising Radiation (Medical Exposure) Regulations (2017)
MDT	Multi-Disciplinary Team
MECC	Making Every Contact Count
MR	Magnetic Resonance
NHS	National Health Service
PACS	Picture Archiving Communication System
RCR	Royal College of Radiologists
RIS	Radiology Information System
SCoR	Society and College of Radiographers
SOR	Society of Radiographers
Staff	Assistant Practitioner, Diagnostic Radiographer, Undergraduate and Postgraduate Student Radiographer
UK	United Kingdom

Abstract

Scholarly studies have resulted in literature that lists numerous different types, functions and motives for silence. The intention of this study was to produce an account of the silences that present in general and accident and emergency radiography (X-ray); collectively referred to as projection imaging. Because silence is multi-faceted and often ambiguous, requisite methods of collages and follow-up conversations were used in the study providing the flexibility to explore a fluid concept.

Projection imaging staff consisting of assistant practitioners, radiographers and student radiographers were invited to take part in collage workshops that were supplemented by observations in clinical practice. Sixteen participants agreed to observations of their clinical practice. An additional twelve participants volunteered to join in collage workshops. The workshop participants chose images that represented silence in clinical practice and each produced a collage. Each workshop participant then attended an individual follow-up conversation to discuss individual collage. The methods allow the production of a series of collage images conceived to be a metaphorical cultural quilt: representing an account of silence and silent practices.

Thematic analysis indicates that silence strategies are used to facilitate the smooth every day running of X-ray departments focused around five themes: emotional labour and social defence; workload; conflict; hierarchy and; dilemma. Silence is used to reflect and enact empathy for patients and colleagues; to facilitate staff and patient wellbeing; also to keep patient waiting times to a minimum. Additionally participants considered that silence reduces the threat of legal action, decreases emotional anxiety, lessens the demands of emotional labour and promote harmonious teamwork.

The study has resulted in an increase in knowledge of silence and silencing strategies in relation to a focused area of projection imaging radiography culture. Set against a background of contemporary health care strategy that encourage the voice of staff and patients, this knowledge will be used to inform future service development,

possibilities for change and innovation in the culture of practice. The study concludes that silence is both a help and hindrance to services in a clinical setting.

Keywords

Diagnostic Radiography, Clinical Imaging, X-ray, Culture, Silence, Silencing.

Chapter 1 Introduction

This introductory chapter will provide a brief context to the decision to study silence and a rationale for the choice to provide an account of cultural silences. The chapter will also provide a short overview of the position of the researcher. The chapter is an introduction to a study that provides an account of the cultural silences from three National Health Service (NHS) clinical imaging departments in the North West of England. The study focuses upon projection imaging (X-ray). Volunteer participants worked in the areas of Accident and Emergency (A&E) radiography and general radiography, which consisted of hospital in-patient ward and out-patient clinic work. A methodology of visual ethnography was used. The methodology was able to take the fluidity of silence into account and also to provide an account of the types and functions of silence. A main visual research method, collage, was complemented by pre-collage observations and post-collage conversations.

The study is set within the context of United Kingdom (UK) healthcare, where the NHS is perceived to be in survival mode in terms of budget, which is unable to keep pace with demand (Committee of Public Accounts, 2018). The committee describe a need to invest in new ways of working that better serve the needs of patients. Contemporary developments, strategy and policy increasingly call for the voices of staff and patients to be heard in order to work cohesively as a whole system (Committee of Public Accounts, 2018).

In this study the term voice is used to refer to the expression of information, opinion and attitude in oral or written form. A wide range of strategies either explicitly or implicitly call for staff and patient voice. Two examples are provided here for illustration: First, the public health agenda aims to prevent ill health and to promote the wellbeing of the population. The public health agenda requires radiographers, indeed all health and social care professionals, to hold healthy conversations with patients (Public Health England & Royal Society for Public Health, 2015). Healthcare practitioners are directed to Making Every Contact Count (MECC) a strategy that bids to promote healthy lifestyles across the UK (Health Education England & Royal Society for Public Health, 2015); second, calls for patient voice are championed in

contemporary challenges to the model of the professional as expert. Patient voices are encouraged in strategies that are beginning to disrupt traditional hierarchies of professionalism in healthcare (Jones, 2016; NHS England, 2016; NHS England, 2017a; Fagan et al., 2017). The model of medical hierarchy in healthcare is based upon a tradition that continues to be subtly legitimised in contemporary strategies. For example, approaches of evidence-based medicine alongside values-based practice and more recently the concept of triple value imaging (Gray, 2017) purport to incorporate a patient's personal values and beliefs in imaging services but ultimately the situation can revert to a traditional model of hierarchy; true patient empowerment only occurs if a person is able to make critically informed and autonomous decisions (Anderson & Funnell, 2010). It is surmised that currently a humanistic element can be centred in imaging but cannot be the centre (Møller, 2016). The framework for an alternative approach has been suggested in person-centred approaches (Fagan et al., 2017). Further strategies that aim to disrupt professional hierarchy through voice include an expert by experience programme (Care Quality Commission (CQC), 2017), shared decision-making (NHS England, 2017a) and making good decisions in collaboration (The Health Foundation, 2013). Seemingly there are numerous laudable attempts at public and patient 'involvement' in UK healthcare but arguably few truly empowering approaches. Nonetheless, a result is a situation where numerous health care policies currently advocate the use of voice by staff, patients, carers and the public.

Consequently there is a background to this study where, in the main, societal norms lead to the hegemony of voice, which means that voice is regarded as the opposite to or antithesis of silence. The notion though is reductive. It results in a position that does not take into account the possibility of creativity and performance of silences in clinical practice and culture.

1.1 The topic of silence

Silence is a fascinating concept that is generally described as ambiguous and ephemeral (van Elfren & Raeymaekers, 2015). Multi-professional disciplines contribute scholarly literature that describe and classify silences providing evidence

of many different forms, functions and motives for silence. Important for this study, silence is regarded by some to be a social fact, overdue for scholarly attention (Sheriff, 2000). Paradoxically, the term 'screaming silences' has been used to epitomise areas of research that are absent or invisible (Serrant-Green, 2010).

Specific understandings of silence and culture are taken in the setting of this study. Silence is defined in Merriam-Webster's thesaurus to be 1) forbearance from speech or noise; 2) absence of sound or noise; 3) absence of mention (Merriam-Webster, 2016a). Culture is defined as a shared set of values, attitudes, goals and practices that characterise an institution, organisation, or a particular field (Merriam-Webster, 2016b). Silencing will also prove to be relevant to this study. Silencing is defined in this study as a silence imposed within or by a culture.

1.2 A raising of voice

There is evidence of opposition to the raising of voice in the radiography profession. For example, each year the Society of Radiographers (SoR), the trade union section of the Society and College of Radiographers (SCoR) holds an Annual Delegates Conference (ADC). A motion was raised at ADC in 2016 that offered support to public health intervention and the MECC initiative but the motion was contested by delegates and rejected. In the same year a study day proposed by the College of Radiographers (CoR, 2016), the charitable professional and educational section of SCoR, entitled 'social media for radiographers' was cancelled due to a lack of delegates. Both initiatives would have championed and raised the profile of radiographer voice while challenging traditional notions of professional-patient relationships. Also offering evidence of opposition to the use of voice, the Chief Allied Health Professions Officer (CAHPO), Suzanne Rastrick, led a 'call to action' aimed at raising the profile of Allied Health Professionals (AHPs) including radiographers. She recounts that there was recalcitrance on the part of radiographers and paramedics to participate in the initiative (Northwest AHP Network Event, 2017). With encouragement, however, radiographer and paramedic volunteers did eventually take part in the co-production of a strategy document: Allied Health Professionals into Action (NHS England, 2017b). Interestingly, in contrast to reports of recalcitrance,

radiographer and paramedic groups have proven to be the two professions consistently positive in attitude about their job roles (Dorning & Bardsley, 2014). Recently, the Scottish Council of Radiographers proposed a motion at ADC 2017 that recognised the broad scope across which radiographers can contribute to the prevention of illness and promotion of the wellbeing of patients (Motion 8, ADC 2017). The UK Council of Radiographers, which governs SCoR, subsequently supported the motion to drive forward the role of radiographers in public health intervention (SoR, 2017a). A requirement to advance the motion is that radiographers will be supported and able to use their voices to meet this goal. Despite initial UK Council support there appears to be further evidence that radiographers are again reticent to take part in contemporary developments; the delegates' ADC motions for 2018 contain no references to the public health agenda. The agenda appears to have been silenced.

1.3 Healthcare strategy in respect to culture

Healthcare strategy and policy particularly after the Francis report (Francis, 2013) has reflected a growing recognition of the importance and influence of culture to quality and safety in services. Example strategies that seek to influence culture and champion staff voice include: advocating an open culture and the use of voice in the form of safe haven whistle blowing (Francis, 2013); a statutory duty of candour (Francis, 2014); recommendations that healthcare development must take place in a safe, open, and transparent culture (NHS England, 2014). Likewise, the NHS constitution pledges to provide a positive environment with open cultures and also lists a right for staff to expect the freedom and confidence to act in the interests of patients (Department of Health, 2015a). Furthermore, the constitution outlines a right to be trusted and to be actively listened to. Active listening is an important point for voice to be heard. The body regulating diagnostic radiographers, the Health and Care Professions Council (HCPC)(2016) and also SCoR (2015) allude to the use of voice and active listening by endorsing a culture of honesty and transparency with patients.

NHS Improvement (2014) recognise that diagnostic and scientific services must be at the centre of future healthcare service transformation. Additionally, it is imperative that healthcare organisations build on and enable the intrinsic motivation of their staff to improve care (The King's Fund, 2014). Overall these examples of strategy and policy

document a range of approaches that seek to influence culture by raising the use of voice, to inspire active listening and to encourage the motivation of staff.

1.4 Position of the researcher

A brief position of the researcher is provided here which is expanded upon reflexively in chapter eight. An introductory positioning of the researcher is intended to offer additional information relevant to the background of the study.

When I commenced my doctoral candidature I was a diagnostic radiographer working in clinical practice. I had a Masters degree in advanced practice medical imaging and I had worked as an advanced practitioner radiographer in emergency care (a musculoskeletal trauma reporting radiographer) for nine years. I had also completed a postgraduate certificate in teaching and learning in clinical practice, which informed the other half of my role; I worked as a hospital-based radiography clinical tutor for fifteen years. In total the NHS was my employer for twenty-three years. The decision to undertake a study of silence was made while I still worked in the NHS. During my fourth year of doctoral study however I changed roles to work for SCoR. I am currently employed as a professional officer for clinical imaging.

Prior to commencing the research element of the professional doctorate, while completing a module that was centred upon professional practice, I began to question why it was that radiographers appeared to oscillate between the use of voice and silence. I noticed that quite vocal colleagues would remain silent during certain meetings. Also, for some aspects of their role, I noticed that radiographers were very open and candid with patients, for example with regards to radiation protection issues. For other aspects of practice I noticed that radiographers used silence. I wanted to explore and see if this really was the case and if so, in what circumstances.

1.5 Study aim and objectives

The aim of the study is to produce an account of the silences that present in general and accident and emergency radiography projection imaging (X-ray). There were three objectives:

1. To provide an exposition of the silences that present in radiography projection imaging practice.
2. To create knowledge of the types, functions and cultural uses of silence in projection imaging practice.
3. To identify and discuss the challenges presented by cultural silences set in the context of current healthcare policy.

Chapter 2 Background to study

2.1 Introduction to the chapter

This chapter will present a background to the study. It provides further rationale for the study aim and objectives outlined in the introductory chapter. This chapter called for a consideration of the history of radiography and the development of the discipline as a profession. This is followed by an overview of contemporary radiography culture. In particular the notion of radiography as an art science continuum is presented because this study uses an arts-based method of research. The issues raised in this background chapter will collectively support two underlying premises to the study. First, that the practices of silence in diagnostic radiography might be influenced and also produced by culture. Second, that the culture of diagnostic radiography presents with tensions because silence is both of help and of hindrance to clinical services and the roles of imaging staff.

2.2 A history of radiography

Wilhelm Roentgen, a physicist, discovered X-radiation in 1895. Subsequent experimentation with X-rays by photographers, electrical engineers, physicists and medical doctors enabled the production of X-ray images that resulted in public spectacle (Buzzi, 2012). It is contended that medicine progressed to a point where doctors were able to reliably save lives by around 1896 (Wootton, 2006). The contribution of X-ray imaging to this development was immense (Buzzi, 2012). The involvement of X-ray, referred to as clinical imaging in this study, arguably continues in healthcare; an ever-increasing number of imaging examinations are performed each year (Thomas, 2018). Perhaps recognizing the power of X-rays, in the United Kingdom (UK), medical doctors claimed medical leadership of the imaging professions in 1903 by forming the fledgling discipline of radiology (Price, 2001). At that time medical doctors claimed rights to the title radiologist. The staff working with X-rays had until that point been called radiologist or radiographer and the terms were still used interchangeably until the 1920s (Price, 2001).

This was an important strategy on the part of medical doctors that supported hierarchy. Until the 1920s, the group who were to become classified as radiographers were difficult to discriminate, in terms of workload at least, from radiologists. Radiographers performed X-ray examinations, wrote reports, gave immediate diagnosis and charged a fee for their trouble. Patients were clients who paid radiographers for their clinical opinion. The subsequent subordination of radiographers by radiologists was achieved by legal means, making use of the Medical Act 1858 (Legislation.Gov.UK, 1858); a move that restricted radiographer ability to perform certain tasks, particularly to provide a clinical report (Price, 2001). Radiologists proclaimed that clinical reports constituted a medical opinion. This account of radiography history outlines issues of hierarchy and subordination, which involve issues around the exercise of power. The pursuit of power is linked to oppression of the subordinated in silence and silencing literature (Ephratt, 2008; Freeden, 2015; Dingli, 2015). Issues of silence related to power will be explored further in chapter three.

Over time, the tasks previously carried out by both radiographers and radiologists diversified and professional boundaries developed. Boundaries are formed by social closure that entails legal monopoly and the ability to restrict access to the ranks of a profession (Nettleton, 2006). Social closure refers to the practice of preserving privilege by restricting the access of certain people or groups to resources and rewards (Crossman, 2017). The move translates to a form of professional occupational closure (Larson, 1977); a strategy which ultimately resulted in occupational control of radiographers (Freidson, 1970; 1994). The formation of a legal monopoly to write reports established by the Royal College of Radiologists (RCR) had a profound effect in terms of the silencing of the radiographer voice. The radiographer voice disappeared from diagnostic clinical reports officially in 1925 when the RCR was fully formed and radiologists took control of diagnostic reporting (Price, 2001). The silence literature reviewed in chapter three will demonstrate that this is an important point to note in relation to the history of the radiographic profession with regards to phenomena such as 'just the radiographer syndrome' and apathy related to medical dominance (Lewis et al, 2008; Sim & Radloff, 2009; Yelder & Davis, 2009). The move has controlled the course of growth for the professions of clinical imaging since. For a

large part of the twentieth century radiographers could produce radiographs (now digital images) but not write a formal clinical report (Price, 2001). Instead the ways in which workload were structured post-formation of the RCR added an additional step, a delay, before diagnosis was provided for patients who had to wait for a radiologist's report.

The RCR was able to establish the initial authority to define tasks and occupational boundaries because this was during a period when radiologists also acted as employers. The white, male, upper middle class radiologists of the 1920s (Decker & Iphofen, 2005) were able to secure their positions because social closure acted in their favour. Social closure was dependent upon the radiologist profession having structural characteristics, including class, gender, and race, that were similar to those with political power; commonly referred to as the 'old boys network' (Crossman, 2017). It legitimised radiologist claims to power and superiority (Nettleton, 2006). Radiologist employers commonly recruited to the position of subordinate radiographer from the ranks of the army and nursing (Decker & Iphofen, 2005). Hierarchy reflected the class system of society at the time and hierarchical X-ray departments were further legitimised by the structure of systems prior to the formation of the NHS; private practice, access to medical education and qualifications placed radiologists at the top of the structure (Wootton, 2006).

Wootton warns that an evaluation of the history of a profession in terms of power structure can result in opinion that polarizes the past in the form of confrontation. Paradoxically, the role of silence in dispelling or avoiding confrontation has been well documented (Miliken & Morrison, 2003; Nakane, 2006; Kurzon, 2007; Oduro-Frimpong, 2011). For almost a century the effect has been a hierarchy of power that meant the role of the clinical radiographer has been mostly one of silent subservience to the radiologist (Price, 2001; Ferris & Winslow, 2009; Ferris, 2009; Buzzi, 2012).

It appears that traditionally the culture of radiography has silently played according to the rules of the radiologist but multiprofessional clinical imaging teams have sought to expand the role and skills of the radiographer (RCR and SCoR, 2012). Of particular interest, since the 1970s, the patronage of radiologists, who act as mentors to radiographers, has enabled the advancement of professionalisation for specific advanced practitioner radiographer roles (Price, 2001). A result is that radiographers

can once again write formal imaging reports although this is limited to certain individuals following adequate Masters level training. It can be argued that the intention of this move was not the professional advancement of radiographers but rather it was an effect of the prevailing political and neo-liberal approaches in radiography departments at the time. The approaches have driven development according to market needs for cheaper than radiologist labour. It can also be argued that development is not necessarily driven by patient needs. Indeed the majority of patients still wait long periods of time for diagnosis (RCR, 2016a).

It appears logical set against a background of medical dominance that development of the rest of the imaging team and the ability to influence the progress of services in the future will be dependent upon previously subordinate staff and patient voices being raised and heard rather than silenced. Alternatively, staff and patients may choose to remain silent. A number of reasons why the radiographic culture may influence and result in a preference or desire for silence are considered in chapter three, for example, there is discussion of socio-cultural silences that function to maintain the status quo (Pinder & Harlos, 2001).

It is interesting to note that while specific radiographers now write imaging reports, thus resurrecting the radiographer voice in diagnosis, it is restricted to certain areas of imaging. In particular a recent survey of radiologists demonstrated that participants would not support radiographer reporting for the modalities of Computerised Tomography (CT) and Magnetic Resonance (MR)(RCR, 2016b). This raises questions about these areas. Despite the restrictions radiographers generally have the support of mentor radiologists in clinical practice. Timmons & East (2011) describe the medical profession as the arbiters of status for other professional groups in healthcare. However, the resurrection of the radiographer to report writer in some spaces has largely been due to the prevailing socio-political-economic conditions; explicitly service re-design, requirement for patient-centred care, strategic service re-design and vision (Kelly et al., 2008; Henderson et al., 2017). Together with the changing health needs of populations all of these factors represent major drivers for advancing clinical practice and extending the scope of practice of clinical imaging staff.

Tulinius (2010) posited that professionals seek to reproduce the comfort of their work spheres. Perhaps as a result of reproduction, the four-tier system of service delivery

in radiography has a hierarchical organisation consisting of the roles of assistant practitioner, radiographer practitioner, advanced practitioner radiographer and consultant practitioner radiographer (Price & Paterson, 2002). Radiographers who progress along the four-tier system arguably have increased levels of clinical autonomy, responsibility and additional roles especially at consultant radiographer level (SCoR, 2017). Consequently consultant radiologists are becoming deskilled in certain fields through reduced practice (Davis, 2008). Advanced and consultant practitioner radiographers now complete aspects of work previously the domain of the radiologist. Progressively there is blurring of role boundaries and increasingly radiologists no longer audit the work of reporting radiographers; instead radiographers peer review colleagues' work (Stephenson et al., 2012). This could be viewed as a strategy of radiographers to consolidate their position (Nettleton, 2006). There are further changes to hierarchical roles, for example, through technological development radiologists are now able to digitally manipulate images at their workstations. This is an example of occupational drift and blurring of boundaries where radiologists now carry out an activity once the domain of radiographers (Fridell et al., 2009). There are evidently cultural changes in imaging services that will influence the future socialisation of staff and students. This is an important point since socialisation perpetuates socio-cultural silences (Pinder & Harlos, 2001; van Dyne et al., 2003). Accordingly the changing culture of clinical imaging may influence future socio-cultural silences and highlight the need for conversations involving patients. Despite any service re-design it is possible that medical dominance will remain largely unchanged in imaging departments. For example, the dominance of medicine within the imaging professions persists in a discourse of subordinating terms such as 'non-medical' 'non-doctor' or 'non-radiologist' to refer to radiographers (Price, 2012). The RCR is casting judgement against the ability of reporting radiographers (RCR, 2016b). This overtly re-emerging polemic attitude is set in a polity of uncertainty and challenge to the RCR members' finances and employment. Not least the technological threat of artificial intelligence appears to be a major current concern of the RCR (RCR, 2018a; 2018b). The result is a status politics that threatens to affect the esteem of radiographers who are left outranked by the rhetorical power of the medical profession (Gusfield, 1986). The UK Council of the SoR (2017b) have responded to

recent RCR rhetoric with the assertion that there is no policy to prioritise radiographer image reporting in preference to reporting by consultant radiologists. Instead SCoR have attempted to divert attention back to patient need; SCoR reiterate the policy and necessity for teamwork (RCR & SCoR, 2012). The statement leaves a gap, or silence, in the assertion because it does not determine what patient need actually is. The view of patients appears to be silenced from the discussion despite current healthcare policy that champions and even attempts to regulate for patient-centred care (CQC, 2014; Hayre et al., 2016; Reeves, 2018). Objective three of this study will act to identify and discuss similar challenges that are raised by an account of cultural silences.

2.3 Radiography as profession

The development of professional practice takes place in historical and social contexts (Boud & Hager, 2012). Historical and social changes are each profoundly affected by economy and polity (Hartley & Benington, 2011). Historically, the ability of a profession to adapt and change has been important in order to maintain power relationships and purpose (Sommerlad, 2007). This ability constitutes a 'political nous' (Hartley & Benington, 2011) indicating political awareness that facilitates the development of a profession. Political silences are implicated in political nous and may have positive or negative effects depending upon context (Gray, 2012). A resulting diplomatic intelligence is required for all professions to thrive in contemporary healthcare. In addition, the notion that professions are about exercising control in controlling environments (Hilton, 2007) provides an important point considering the relationship of control and diplomacy to the concepts of silence and silencing in relation to patient-centred care.

In the social context professions evolve alongside society. Societal opinion of the expert is changing, resulting in a situation where professionals are increasingly likely to have their advice questioned, ignored, or rejected (Johnson et al., 2012). Historically this has not been the case; rather, professionalism of the practitioner in healthcare has been the prevailing trope (Christmas & Millward, 2011). As a result emphasis on community and patient expectations is designed to usurp power traditionally associated with professional authority (Johnson et al., 2012). Shared

decision making is championed toward this goal (NHS England, 2017a). Regulation of healthcare in England moves the goal forward and includes a rule that services will be patient-centred (CQC, 2014). An alternative view is that in reality patient-centred care is limited in clinical imaging (Hayre et al., 2016; Reeves, 2018); patient voices may not be heard or views may not be acted upon, a form of silencing. Scott et al. (2012) warned that within this new movement healthcare professionals risk being marginalized and seen as irrelevant by society, which results in tensions for professionals.

Clinical imaging staff have an important role in the steps to predicting the future health, wellbeing, illness and journey towards the end of life for patients. Their work involves providing images of health or illness that, at the extreme, foretell of impending death while a patient is still alive and in the care of the practitioner. Specific areas of the work of clinical imaging extend beyond the life course of patients. Imaging in the form of ultrasound, projection imaging (X-ray), fluoroscopy and CT scans provide information to assist with conception in infertility clinics and unravel the mysteries of death in the mortuary. Yet, the enormity of this role is underplayed, with a prevailing public and fellow healthcare professional perception of the radiographer that devalues skills and roles (Stretton & Dixon, 2009; Whitaker, 2013).

Documents such as AHPs into Action (NHS England, 2017b) seek to outline and defend the functions of the allied health professions. However, defending the professions is problematic in a space where it is difficult to define changing professional roles. Radiography has been described as a dualistic profession (Whiting, 2010). It encompasses scientific-mechanic technology and humanistic nursing work (Niemi & Paasivaara, 2007). In sum radiography is a profession of pluralism. Pluralism results from a need for different approaches to problem settings (d'Agincourt-Canning, 2012). Paradoxically pluralism has been viewed as evidence that a discipline does not possess the attributes of a full profession (Engelhardt, 2009). In defence, pluralistic professions reason that multiplicity represents artistry in response to the complexity of the world (d'Agincourt-Canning, 2012). In view of the current intricacy and demands of society this perhaps stands radiography in good stead for the future. The pluralism related to the field may however increase the complexity of silences related to the profession. Objective one of this study will provide an exposition of the areas

of silence in projectional imaging clinical practice. Objective two of this study seeks to outline what the types of silence are and how they function.

2.4 Contemporary radiography culture

Questions have been raised about the ability of radiographers to critically reflect (Sim & Radloff, 2009). Zhao (2012) links an epistemology of technical rationality to technical reflection. It follows from Zhao's reasoning that reflection within a technical-rational setting is concerned with achieving goals, for example imaging skills of positioning, production of an image, image interpretation et cetera. Radiographers' limited use of reflection has been attributed to workplace culture (Yielder & Davis, 2009). Theories of learned helplessness (Seligman, 1975) concur with such notions of constrained reflection set in a culture where to some extent radiographers' autonomy has been curtailed with an inability to effect change and lack of personal agency (Sim & Radloff, 2009). A resulting apathy has been described and the phenomenon is labelled the 'just the radiographer syndrome' (Lewis et al., 2008; Sim & Radloff, 2009). An alternative reading to the debate is provided by the notion that rather than a lack of ability to reflect or to enact change the radiographers' practical wisdom (Hartley & Bennington, 2011) is silenced in the presence of inter-disciplinary teams. As an example, critics have described radiography as a semi-profession because research undertaken by radiologists underpins radiographic knowledge (Price, 2001). This infers that research did not involve radiographers. Alternatively it is contended that radiographers, who were historically subordinate to radiologists and medical physicists, found that their contributions and roles were not acknowledged in research. Ferris & Winslow (2009) refer to the invisibility of radiographers who were pushing forward the boundaries of their profession and research. The result has been a silencing of radiographer voices and accounts.

In clinical practice diagnostic radiographers employ a number of strategies that arguably constitute forms of silence and silencing with patients and staff but are not overtly recognised as such. For example, methods of emotional management manifest as professional, social and emotional distancing in radiography, the norm within the culture (Booth, 2008; Strudwick, 2011; Reeves & Decker, 2012; Reeves, 2018).

Emotional labour is defined as an act or skill of caring that involves the recognition of the emotions of others and managing of our own emotions (Riley & Weiss, 2016). Imaging staff balance emotion work and emotional labour (Reeves & Decker, 2012). The distancing is reinforced by the use of para-linguistics and non-verbal cues to control radiographer-patient interactions (Booth, 2007). Technology also distances imaging staff from a patient (Murphy, 2006; Munn & Jordan, 2011). Social distancing works to reduce anxiety for radiographers but a norm of distancing can be detrimental to the development of communities of practice and networks required to raise radiographer profile, publicise voice in society and champion collaboration on social media (Lawson & Cowling, 2015). New models of healthcare in the NHS require collaboration and transformation of culture (NHS England, 2016). Radiographers could find the requirements difficult because they are socialised into a highly regulated environment with a high degree of conformity (Forsyth & Robertson, 2007; Lovegrove & Long, 2012).

Accompanying new models of care there are changes of ethos in the NHS - to focus upon the promotion of wellbeing and prevention of ill health rather than diagnosis and treatment. The change requires discussion between radiographers and patients with regards to current treatment and promotion of healthy lifestyles. One possible reason for the perceived resistance of radiographers to discussion is that the requirement for voice belies a bigger movement. Entrenched discourses, habits and practices become common sense and taken for granted as natural within the belief systems of a culture (Hart & Hazelgrove, 2001). Lyotard (1984) conceived the systems as a grand narrative, which he later refined to a master narrative (Bamberg & Andrews, 2004). Barone & Eisner (2012) consider that master narratives give meaning to cultural phenomena. In these terms the prevention of ill health is an alien concept that threatens the long-standing master narrative and meaning of radiography: diagnosis and treatment.

Radiographers' main contributions to public health are currently in areas that screen for, and thus by association help to prevent, advancing illness. Examples include national breast screening programmes and Dual energy X-ray Absorptiometry (DXA) screening for bone health and osteoporosis. But a problem lies in radiographers' recognition of their contribution and interpretation of the descriptions of public

health and associated terms; because they do not fit with the terminology used in the narrative of diagnosis, treatment and diagnostic radiography. A result is that the contribution of radiography to public health is not fully recognised by radiographers. The role is silenced because it has not yet been translated. For example the term 'making every contact count' can be interpreted to chatting to patients and good clinical practice. Moves to remedy this failure of communication must be made. Powell (1990) asserted that the medical profession had great power because its members had sole access to the health and wellbeing of the general population. This monopoly is no longer the case. Radiographers must take their share of responsibility for the health and wellbeing of the populations that they treat in order to enact social justice – for staff and patients.

Historically there have been calls for social justice urging radiographers to challenge a culture of silence (Cox, 2000). Cox championed clinical governance and whistle blowing as routes to creating an ethical culture. Clinical governance has evolved and the term whistle blowing has been replaced by initiatives that include 'freedom to speak up' championing the use of voice (NHS Improvement, 2016). This study, by providing an account of how silence presents in clinical practice, may provide an additional route towards an ethical culture by raising awareness of silence.

2.5 Radiography: art-science continuum

For this study to make a substantive contribution to clinical practice the epistemological and ontological approaches taken need to align with the professional paradigm of radiography clinical practice. There is some debate in clinical imaging which questions if diagnostic radiography practice is an art or a science (Hall & Davis, 1999; Bentley, 2005; Bolderston et al., 2010). The debate is important in the context of this study where the main research method is arts-based. An art-science dichotomy has the potential to have a major influence on how the research will be both perceived and received by the profession of radiography. Debates that polarize concepts, for example art or science, health or illness, male or female are challenged by postmodern philosophical approaches, to instead conceive of a continuum (Mazzei, 2007; Kontos & Grigorovich, 2018). The stance taken by using arts-based methods in this study

champions the continuum of art alongside science. Diagnostic radiography is perhaps better described as manifold; it is both art and a science rather than being either one thing or the other. Historically, scientific positivist approaches have overshadowed the reporting of creativity and artistry in radiography practice, the positivist paradigm largely leads to the testing of hypotheses in medical imaging research (Munn & Jordan, 2011). The concept or philosophy of science that a culture holds is important in explaining this position because it is related to the great rhetorical authority that science possesses in contemporary society (Potter, 2000). If artistry, creativity and radiographer accounts have traditionally been silenced from radiography research texts (Ferris & Winslow, 2009), then accordingly artistry and creativity have also been subordinated by the epistemological and ontological understandings of science fostered by early radiography leaders and academics. Therefore, a premise underlying radiography discourse is that science and a scientific philosophy take priority (Hall & Davis, 1999) acting to subordinate artistic and creative practice in published radiography literature and discourse.

Subsequently the technical rational model of professional knowledge (Schon, 2001) is reflected in radiography. The value of science in advancing evidence-based healthcare is not contested and arguably it intensified in radiography in pursuit of professionalisation in the form of Bachelors of Science degree level classifications in the UK in the 1990s (Price, 2001). However, it is contended that by following this model radiography relegated professional artistry subordinate to technical rationality and science. Paradoxically, in healthcare practice the direction of travel from novice to expert requires the development from technical-rationality to professional artistry; encompassing professional craft knowledge at some point (Richardson, 2001).

Margolis & Pauwels (2011) discuss how the preordained conflict of art and science results in a battle where science tends to render art subservient. It should be noted that conflict is only preordained if art and science are constructed at opposite ends of a spectrum. 'Art' or images are commonly used by the sciences as a method of engagement and dissemination to audiences (Barry et al., 2007). The deference of art to science is seen in aspects of clinical imaging practice too. Notably the artistic production of images (Strudwick, 2014) serves to enable the formal act of diagnosis. Prosser & Schwartz (1998) similarly attribute a limited status of images to the

elevation of scientific paradigms in social science. In spite of appearing the loser in the perceived metaphorical battle for superiority between artistic and scientific method, the possibilities of arts' contribution to healthcare research is increasingly acknowledged in contemporary approaches. Authors document varied uses, from demonstrating the impact that the arts can have upon health (Staricoff, 2004) to the assertion that arts-based research is enjoying a renaissance with regards to our understanding of what counts as evidence; reported as a paradigmatic shift (Boydell et al., 2012).

The culture of healthcare veers toward bureaucratic and technical-industrial approaches to research, but recently creative activity is increasingly being framed as meaningful inquiry (All-Party Parliamentary Group on Arts Health and Wellbeing, 2017). This study uses collage to generate findings rather than simply relegating the images to a dissemination of results. Leavy has written extensively on the subject (Hesse-Biber & Leavy, 2010, Leavy, 2012, Jones & Leavy, 2014, Leavy, 2014, Leavy, 2015); she classifies collage as an arts-based research method.

To conclude, this chapter has provided an overview of traditional radiography culture and its development. It provides a sense of the current challenges in relation to the evolving needs of clinical practice, staff and patients. Notably a background of power, medical dominance and evolving service design has been presented related to history. The approach was taken in order to explain the rationale for a study of silence. At this point in the study, issues around empowerment, use of voice and patient-centred practice related to cultural silence are highlighted. The next chapter provides a literature review focused upon concepts of silence.

Chapter 3 Literature Review: Silence

3.1 Introduction to the chapter

This chapter introduces the topic and concepts of silence. To create order a general introduction will be followed by an overview of the trajectories of silence studies. The approach then draws together and critiques a range of different understandings of the types and functions of silence.

With an intention to enable a greater comprehension of the concept of silence in relation to radiography, the work contained in this chapter is undertaken in the spirit of Rodgers (1989). Rodgers' method considers dispositional and evolutionary cycles of concept development that will guide the structure of this chapter; it will explore the progress of the concept of silence over time. The process enables a consideration of the influences of significance, the uses and the applications of silence.

Campbell et al. (2012) add that it is reasonable for a resulting synthesis of ideas to be expressed and presented in a summary table. A synthesis table was used to summarise the initial findings after a preliminary reading of sixty articles. An example page of the synthesis table is provided in Appendix one. This chapter will also provide evidence that although radiography scholars do not refer directly to silence there are instead tacit references and also surrogate concepts of silence in their work. Recently the work of Squibb et al. (2015) demonstrated silences in conversations between radiographers and patients but does not recognise the presence or concept of silence. A number of themes in the silence literature resonate with existent radiography narrative. By conclusion, this chapter will provide links between the clinical practice of radiography and the knowledge of silence. The discussion in chapter eight will serve to develop the links substantively and in relation to clinical imaging practice

3.2 Search strategy

A search using the keyword 'silence' on the University of Salford SOLAR library system enabled the initial retrieval of 60 articles. The criterion for selection was that the full text should be accessible via the library catalogue and presented in the English

language. The diversity of the body of work related to silence meant that a synthesis of the various themes was necessarily selective and reductive. For this purpose, all articles returned by the searches that were related to scientific research in gene silencing, genetic studies, and also literary reviews, mostly of poetry, were excluded. Reading the selected articles and the construction of a synthesis table enabled a snowball technique that was used to follow-up pertinent references (Wohlin, 2014). A perception of surrogate conceptual terms for silence related to healthcare was suggested within the synthesis; currently surrogate concepts for silence in radiography literature include the topics of invisibility, discretion, subordination, disengagement and apathy. Consultation with a medical librarian guided a second literature search exploring the notion of tacit and surrogate concepts for silence; the databases Health Business Elite, Cinahl and Embase were employed for a search related to Culture, National Health Service, Organisational Culture, Leadership, Health Care, Employee Empowerment, Organisational Relations and Professional Relations. The search returned an additional forty-seven full text English language articles, one of which had already been included in the initial synthesis and two of which had been referenced in the background to this thesis.

3.3 General overview of silence

The task of providing a concise background to the topic of silence proved difficult but necessary given the constraints of the word count for this thesis. Silence is a nebulous construct which is difficult to describe (Van Dyne et al., 2003). Silence is not just an absence, a void, or simply an opposite of speech and noise. Silence can also be active, conscious, intentional, and purposeful (Pinder & Harlos, 2001). Qualities of silence have been described using many words, for example: powerful, peaceful, good, calm, quiet, tranquil, resolute, stoic, dignified and golden (Corcoran, 2000). Despite the virtues inferred by these descriptions silence is not always viewed positively. For example, Aristotle claimed that being silent caused flatulence (Forster, 1927). Derrida criticised silence saying that primitive and pre-logical silence is a nihilist enemy of thought (Bass, 1978). Subsequently the conceptual development and understanding

of silence is challenging not least because of its conflicting yet simultaneous valuations as both positive and negative constructs (Tannen, 1985).

The phenomenology and the ontology of silence is complex (van Elfrén & Raeymaekers, 2015). Tannen (1985) reasons that the determining factor in peoples' evaluations of silence as good or bad is whether they feel something should be said. When people feel something should be said then silence can be uncomfortable and perceived as a lacking omission (Pinder & Harlos, 2001). A result is that silence means different things to different people. The consequence is an unavoidable subjectivity and ambiguity (Pinder & Harlos, 2001). Nonetheless, understanding the functions of silence in daily life can help to deal with the challenges associated in researching the concept (Kenny, 2011).

An important point for this study is that western traditions privilege voice, presenting it as the means to achieve empowerment in daily life (Malhotra & Carillo Rowe, 2013). Chapter two demonstrated that there is a call to hear the voices of staff and patients in contemporary UK healthcare strategy. Western society tends to conceptualise silence as the opposite to voice but scholarly literature demonstrates that is not the case (Zehir & Erdogan, 2011). An alternative view is that silence and voice are best considered to be separate multi-dimensional constructs, rather than two opposite ends of a continuum (Schlosser & Zolin, 2012). Freshwater et al. (2014) support Schlosser & Zolin's contention when they also dismiss the position of silence as the opposite to voice, labelling dichotic ideas an 'uncritical architecture of thinking'.

Generally scholars agree in the body of their work that silence and voice are theoretically separate constructs. Despite the agreement however, absurdly, the majority of studies still present their conclusions using terms that do in fact place silence on a spectrum with voice. A result is that understandings about voice are often applied in studies of silence but incorrectly (Brinsfield, 2013); studies that apply voice do not account for the range of silences that are unspoken, inconceivable or illogical. With regards to communication, the effective use and accurate interpretation of silence is a sophisticated communication skill (Lingard, 2013). Silence is an act of communication when an audience infers meaning (Gray, 2015). Alternatively silence can be used to temporarily or totally avoid communication (Nakane, 2006). It has been suggested that it is the audiences' interpretation of the communication that holds

greatest authority (Vlăduțescu, 2014). Accordingly, silence is rhetorically risky because usually the audience determines its meaning.

Conversational silence is common during communication. Its definition is 'what is not said' for example not mentioning a controversial opinion (Abel & Bäuml, 2015). In social interactions a listener can also silence the speaker through distraction and inattention to the conversation by not listening (Fivush, 2009). Social interactions dictate that silence is usually shared but it is possible to be silent alone, for example during meditation or quiet reflection, which can have positive benefits for people (Fivush, 2009). Both conversational and individual silence provides space for contemplation.

This section of the chapter has demonstrated that silences may be viewed as positive or negative; a communication tool that is a different theoretical construct to voice. In short, silences may be intentional or unintentional, provide a source of knowledge about a topic, a way to engage politically and are linked to issues of power especially in studies of organisations. Silences are an important part of social interaction. A recognition of the complexities of silence enables an opening and space to critically engage with the world (Herakova et al., 2011). The result of engaging with such complexities has been a tapestry of analytic trajectories of silence (Bailey, 2008). An appraisal of the trajectories of silence studies follows in the next section, which details various approaches that have been taken to study the concept.

3.4 The trajectory of silence studies

The paradigm and focus of various disciplines have influenced particular epochs or eras of the study of silence. A study of silence was first documented in the field of linguistics by Chapple (1939) consisting of a quantitative analysis of the sequence of speech and silences (spaces) between words. Chapple's study of silence has been described as an acoustic approach (Ephratt, 2008). Similarly, Sacks et al. (1974) employed discourse analysis to study turn taking in conversations. Both these acoustic approaches developed a notion of silence that was associated with negativity and passiveness. As a result, many linguistic scholars have also approached the study of silence with the premise that it represents absence. However, Jensen (1973) and

Bruneau (1973) were linguistic scholars who were more widely influenced by philosophy and literature (Ephratt, 2008); Jensen and also Bruneau's studies each moved beyond the notions of absence to consider the functions of silence. Jensen (1973) describes five aspects of silence that are all dual in nature: 1) it brings people together or pushes them apart; 2) it can harm or heal people; 3) it provides or hides information; 4) it signals deep thought or no thought; 5) silence can convey assent or dissent (Pinder & Harlos, 2001). The function to bring people together or apart represents a linking silence that binds people together or leads to the disruption of relations (Kurzon, 2007). This reinforces the assertion that silence is an important aspect of social interaction.

Building upon the final point on Jensen's list, Bruneau (1973) defined three forms of pragmatic silence that can communicate either assent or dissent: 1) psycholinguistic silences are the pauses and junctures in speech, for example, people fill silences with pause terms such as 'erm'; 2) interactive silence refers to pauses in conversation that contain inferences, judgments, or affect; and 3) sociocultural silence reflects group and organisation-level pauses that are often formalised. An example is the communal silence of parishioners who sit together in a church (Pinder & Harlos, 2001). Bruneau's early work had underpinnings of silence as absence which Saville-Troike (1985) posited was inevitable in a field which studied lexicography and grammar. Bruneau appears to agree, reflecting that the ways in which language had been studied denied the functions of silence (Bruneau, 1973).

A common critique of communication scholars' studies of silence has been that early work lacked recognition of the importance of silence as a component of interaction - limiting research opportunities (Poyatos, 2002). Nonetheless and despite this perceived lack of depth, communication literature has contributed knowledge which also emphasises the positive aspects of silence – they provide evidence that silence is a critical component of social interaction (Van Dyne et al., 2003).

Beyond the field of communication, Basso's (1972) work on silence within western apache culture was a foundation to the study of silence related to voice and culture in the field of anthropology (Malhotra & Carillo Rowe, 2013). Olsen's (1978) study of the role of silences in literature and literary culture was also hugely influential. In particular she brings attention to issues of power distinguishing between natural

silence and unnatural silences imposed on people because of class, race, sex, or educational disadvantage.

From the field of sociology, silence was investigated at an organisational level by social scientist Hirschmann (1970). Investigations of employee silence proliferated in the organisational sciences following Morrison & Milliken's (2000) study of organisational silence (Zehir & Erdogan, 2011). On-going organisational work has centred on what is classed as unnatural silence. Unnatural silence is a product of an intersection of a number of factors in work environments that are discussed further in subsection 3.10, organisational silence.

Dingli (2015) asserts that analyses of silence are a direct result of cross-disciplinary pollination with roots in the fields of literary theory, psychoanalysis, sociology and history. Dingli appears to have silenced the contribution of anthropologist scholars. She goes on to argue that current scholars who study silence adopt either a deconstructive epistemology of postmodernism or a materialist critique of hegemony often following the work of Gramsci (1971). She adds that the existing definitions of silence have implications that limit understanding of the concept. For example, by re-framing silence in terms of an active choice it transforms the action of remaining silent into a form of political engagement; an active expression of individual or collective choice (Gray, 2015). Silence is recognised epistemologically as a source of knowledge in rhetorical, socio-pragmatic, socio-psychological, psycho-linguistic, educational and sociological discussions (Lingard, 2013).

Overall, a synthesis of the concept of silence appears eclectic and is generally polarized in terms of good or bad, silence or voice, constructive or damaging. The contrasts in methodology, methods, and theory in silence studies reflect the efforts to capture what has been described as the slippery subject of silence (Pinder & Harlos, 2001). The metaphor of a web of silence (Kenny, 2011) reflects a sense of the complexity that this creates. Yet there is consensus among the different approaches and foci. The literature converges to a saturation of similar ideas, albeit using different language and terms. For example, Table 1 demonstrates the threads of silence literature reviewed in this subsection.

Table 1 Example trajectory of silence studies

Silence	Author
Act of communication	Johannesen (1974) Dauenhauer (1980) Poyatos (2002) Nakane (2006) Lingard (2013) Gray (2015)
The unsaid	Abel & Bäuml (2015)
Psycholinguistic silences; pauses and junctures between speech	Chapple (1939) Bruneau (1973) Sacks et al., (1974)
Sociocultural silence	Basso (1972) Pinder & Harlos (2001) Van Dyne et al., (2003)
Silencing	Olsen (1978) Gray (2015)
Organisational silence	Hirschmann (1970) Morrison & Milliken (2000)
Political silence	Dingli (2015) Freeden (2015)
Unconceptualisable silence	Dauenhauer (1980) Freeden (2015)

The convergence has enabled scholars to attempt to classify silence in a logical manner. Notably Saville-Troike (1985) and also Tannen (1985) provided accounts that greatly benefitted conceptual clarity in the 1980s.

Studies of motivations for silence in the 1980s were influenced by the fields of psychology, human research management and organisation studies. It has been argued that the epistemological and ontological approaches taken during the 1980s enabled empirical methodologies and quantification but limited the line of inquiry to intentional silences, not recognising unintentional silence (Brinsfield, 2013). Since the 1980s though an unintentional silence, in the form of silencing, has been recognised. Post 2000 and to date, studies are developing the notions of political, ethical and moral aspects of silence influenced by the fields of international relations and political

scholars. In particular political silences are perceived as enabling and condoning power structures (Freedon, 2015).

Until this point however, radiography scholars have not overtly pursued silence as an important area for research. Dauenhauer's (1980) work points to two features that can account to some extent for the lack of exploration by radiographers. Dauenhauer's philosophical work contemplated silence and the use of signs, sounds and gestures to express thoughts and feelings. The outcome was an understanding that a culture's epistemological and ontological perceptions of silence are important in two ways. First, they influence and identify what counts as silence for their members. Second, perceptions limit the range of possible meanings that may be read from silence for different circumstances (Gray, 2015). In these terms radiography scholars have not limited the range of possible meanings, rather the construct has not been overtly recognised, either epistemologically or ontologically.

This consideration of the trajectory of silence studies has provided an overview of the approaches that have been taken to study silence. To this point the chapter has demonstrated that the use of silence is influenced by culture, context and the individuals involved in interactions. The following subsection, types of silence, will consider some of the ways in which silences have been categorised.

3.5 Types of silence

The word typology, according to Merriam-Webster thesaurus, is generally used in the social sciences to refer to an analysis or classification based on types or categories (Merriam-Webster, 2016c). In these terms a large proportion of both seminal and contemporary work about silence have contributed typologies. Collectively the studies of Bruneau (1973), Jensen (1973); and Johannesen (1974) provided theoretical description of the forms, functions and possible contexts of silence. Johannesen (1974) outlines twenty types of communicative silence. Saville-Troike (1985) also provided a classification of the functions of silence noting approximately twenty different types of silence that are either institutionally determined, group determined, non-interactive, or individually determined and negotiated (Saville-Troike, 1985); she stated that in the future the work would need to be refined and amplified. In one such

attempt to amplify Saville-Troike's typology Kurzon (2007) drew attention to the nuances of intentional and unintentional silence. Consolidating the different forms, functions, and motivations posited by authors prior to 2007, Kurzon used a socio-pragmatic approach to develop a typology of silences. The work elaborated upon themes of unmentioned topics, textual silence and the situational silence of events where participants are silent by institutional sanction or expectation (Lingard, 2013). Kenny (2011) sought to refine the Saville-Troike classification consolidating the list to twelve aspects of silence: 1) wise or virtuous; 2) modest; 3) cunning or calculating; 4) eloquent; 5) dumbfounded; 6) culpable; 7) strong; 8) weak; 9) ceremonial; 10) satisfied; 11) idle; or 12) dead (Kenny, 2011).

More recently, Freeden (2015) mulls over three descriptions of silence. Freeden echoes the work of Dauenhauer (1980) but does not give reference to Dauenhauer. First, Freeden states that unconceptualizable silence relates to the epistemological inability of a culture to process knowledge: the uses of silence are not recognised or translated to knowledge. Ironically, unconceptualizable silence was evident in early silence studies, when researchers did not recognise the wide scope of silences. Second, Freeden explains that unthinkable silence refers to something that is unlikely, undesirable, or unimaginable. Third, Freeden conceives that unspeakable silence refers to topics that are morally horrific both culturally and ethically. The tenor of Freeden's work resonates with Wittgenstein's summation 'whereof one cannot speak, thereof one must be silent' (Wittgenstein, 1922). Freeden's typology adds dimensions of unintentional and unrecognised silences. Accordingly we can expand Wittgenstein's quote 'whereof one cannot speak' to become 'whereof one cannot speak, understand, or explain' one is silent.

Taken collectively the typologies of silence provide further argument that there are cultural, contextual and individual influences around the use of silence. With regard to individual influence, Noelle-Neumann (1974) suggested that feelings of self-doubt discourage individuals from expressing ideas that fail to conform to public opinion. Similarly, Brinsfield (2013) described diffident (hesitant) and defensive silences that also involve remaining silent to avoid negative outcomes. Diffident silence relates to internally focused negative outcomes, for example to avoid anxiety, whereas defensive silence is related to extrinsic negative outcomes, for example to avoid

ostracism. Silence that avoids a negative outcome can result in a spiral of continued silence (Noelle-Neumann, 1974). In those circumstances silence becomes a norm and people have difficulty articulating needs, responding to decisions, initiating actions, or discussing issues on equal terms (Gray, 2012). Van Dyne et al. (2003) build upon the notion of avoiding negative outcome and propose that defensive silence is motivated by fear and self-protection. The individual can also use silence to express pain (Ephratt, 2008), or to be contemplative and reflective (Oduro-Frimpong, 2011). Silence can occur spontaneously in situations of fear, grief, conformity, complicity (Zerzan, 2010). Deliberate silence can also express anger, dissent and opposition (Freeden, 2015).

On a cultural and contextual level, organisation studies list types of employee silence according to motive. In a large-scale study of American employees Brinsfield (2013) found fifty-nine different motives for silence across a range of industries. Pinder & Harlos (2001) are succinct in comparison describing two motives: 1) acquiescent silence when a group are passively silent because they do not believe they can make a difference and 2) defensive silence when groups do not proactively speak up. Van Dyne et al. (2003) built on the work of Pinder & Harlos adding the dimension of prosocial silence which is used by individuals in a culture to support others (Schlosser & Zolin, 2012). For example, an employee may withhold complaints or grievances conceiving the silence as showing patience and courtesy to others (Shajehan & Yasir, 2017). Prosocial silence is based on altruism and cooperation (Van Dyne et al., 2003). Van Elfren & Raeymaekers (2015) also examined cultural occurrences of silence and distinguish between symbolic, imaginary, and real silence drawing upon the work of Lacan's three psychoanalytic orders (Lacan, 1956; Lacan, 1966). Their approach made the point that studies must allow for multiple conceptualizations of silence because a combination of silences can intersect at any one time. In sum, this section adds that silences may be used to avoid negative outcomes for the individual or group. In some of these cases silence can become a norm. There is also recognition that both spontaneous and deliberate silences can express feelings.

3.6 Power, silence and silencing

A critique of the trajectories and types of silence covered a range of features of silence. It is important to specifically address power in this section because it is often central to episodes of silence (Lingard, 2013). A study of silence can reveal the dynamics of power and privilege within groups (Mazzei, 2007; 2008).

The flexibility of silence means that it may be either a strategic exercise of power or a resistance to it (Malhotra & Carillo Rowe, 2013; Bell, 2014); when silence offers a strategy of resistance to authority and power it can be regarded as a survival tactic that provides agency for the silenced. Green (2010) also conceives that silence provides agency for the individual because it can be a means to avoid politics. In some fields silence represents dissent to politics at both an individual and group level (Gray, 2012). In group environments, individual employees who feel low in power compared to work colleagues are more likely to remain silent about issues or concerns (Morrison & Milliken, 2000).

There is a type of silence related to power, that stifles the agency of individuals, labelled subaltern vocabulary: a silence that results when certain voices are not heard (Gray, 2012). In other words they are silenced. Silencing is a specific form of silence that is imposed upon not just individuals but also groups. There is a strong body of work exploring patterns of silencing (Lingard, 2013). Feminist sociocultural, post-structural and anthropological stances examine the differences between being silent and being silenced (Fivush, 2009). Gender studies, race studies, and post-colonialism literature take an approach that investigates silencing with the assumption that it represents suppression or oppression. Freedon (2015) described the ethical outrage of silencing and domination that deliberately deprives the oppressed and marginalized from finding and sounding their voice. Silencing is related to power and subordination when silencing deprives a person or a group of their expression (Ephratt, 2008; Dingli, 2015).

A key point to the silencing literature is that for the dominant to maintain power and authority the subordinate must be and remain silent. As an example, van Elfren & Raeymaekers (2015) studied so-called virtuous silence and religion. They posited that the silences they observed should not be regarded as virtuous; rather monks were

silenced to suppress dissent. The result was that authority and authorities were not challenged. Similar silences are recognised to function as a control device through socialization practices and norms (Bruneau, 1973; Pinder & Harlos, 2001). Alternatively the monks may regard their silence as maintaining status quo; power lies in situations of silent shared understandings because the canonical is unmarked with no need to be voiced (Simpson & Lewis, 2005). Put simply this means that when people have a shared tacit understanding of something there is no need to speak about it.

On a negative note silence can be implicated in violence (Dingli, 2015). Dingli drew upon Galtung's (1969) work about violence and advised that researchers need to recognise when silence results from structural or cultural violence. Honig (2013) also linked silence to power and violence. She reiterated the point that silence and silencing do not have to be a literal absence of voice. Honig posited that groups or individuals who are silenced may have *phonè* (from the Greek *φωνή*) or in other words mere voice/noise but not *logos*. *Logos* refers to factors that make voice intelligible and thus powerful. In other words only certain voices are heard. Silence then becomes a tool of power when a group can silence others (Fivush, 2009).

There is a report of silencing of radiographer voices reported in an oral history of the profession (Ferris & Winslow, 2009). Feminist scholars link silencing to oppression and medical domination in healthcare, stating that silence is equated with oppression and speech with liberation (Malhotra & Carillo Rowe, 2013). Further, Drane (2011) linked silence to an ambient sense of oppression; in cases of oppression silence is a refuge for the oppressed (Kenny, 2011).

This section has provided consideration of power especially in relation to subordination, silencing and oppression; which allows questions to be raised about the tacit assumptions and understandings about silence that are held in a culture or more widely by society. Recognition of assumptions and tacit understandings is particularly relevant in health care which has hierarchical organisations (Ehrich, 2006). Silence can enable the exercise of power or resistance to power. It can be a form of control through socialisation and norms that use silence to maintain the status quo. Silencing can be related to some forms of violence, subordination, suppression or oppression.

3.7 Healthcare silence

Healthcare is an arena where legal, ethical, and moral discussions are complex and debates include recognition of the roles that silences play in these areas. For example see Table 2.

Table 2 Silence related to legal, ethical & moral discussion in healthcare

Silence related to:	Author
Legal boundaries	Fox (2010) Berlin et al. (2014)
Shared understanding	Simpson & Lewis (2005) Gardezi et al. (2009)
Context of dilemma	Glaser & Strauss (1965) Lingard (2013)
Culture of silence	Costello (2000) Swathi et al. (2014)
Safety silence	Arachana-Manapragada & Bruk-Lee (2006)
Expression of emotion	Ephratt (2008) Kenny (2011) Lingard (2013)

Tensions exist in healthcare because although ethical values and legal principles are closely related, ethical obligations usually exceed legal responsibilities (Berlin et al., 2014). Silence is used as a tool to handle resulting dilemmas (Lingard, 2013). For example, health care staff control and manage information about a patient's terminal diagnosis (Glaser & Strauss, 1965). In which case staff maintain a conspiracy of silence about death, preventing patients from discussing their feelings about dying (Costello, 2000).

Similar tensions occur in imaging departments because, despite moral obligations to patients, one of the reasons reported for silence is the perception that a confession of error, for example an incorrect dose of radiation, or an incorrect diagnosis, would provoke legal action (Berlin et al., 2014). From a legal standpoint, Fox (2010) considers

a right to silence. Fox concluded that silence provides a sense of control for individuals from an ethical viewpoint but ironically it may result in legal consequences when read as a guilty silence.

Recently a duty of candour for healthcare professionals, which necessitates voice, has been mandated in the UK (CQC, 2015). Candour may be conceived as a mediation of moral and legal obligations. Alternatively the move may compound tensions because literature demonstrates that for the individual healthcare practitioner the uses of silence to avoid contestation (Lingard, 2013) and conflict (Oduro-Frimpong, 2011) are positive functions; positive in the sense that silence is a device to avoid legal, ethical, and moral problems in clinical practice at least in the short term. The longer-term implications of silence however can have negative consequences for a culture that seeks to improve engagement with patients.

In another area of healthcare, psychoanalytical literature presents a more positive view of silence, considering the use of silence with and for patients. Silence allows a patient to express and communicate embarrassment, shyness, and shame (Kurzon, 2007). The positive roles of silence are also recognized to encourage and represent healing processes in psychotherapy literature (Gensler, 2015). Additionally a report of a culture of silence on a neonatal intensive care unit recognises the healing properties of silence for the babies on the ward (Swathi et al., 2014). Meanwhile, contextual factors in healthcare such as a patient's presence, the nature of the task and the pace of the environment influence the use of silence to manage uncertainty (Lingard, 2013). The use of silence is evidently nuanced across healthcare.

Silence can signal the shared situational awareness of familiar colleagues doing routine work (Gardezi et al., 2009). In some circumstances shared silence may pass for collaboration when it actually demonstrates collaborative failure or dysfunction (Freshwater et al., 2014). Health professionals who recognise dysfunction often believe that they will be victimised, ostracised or bullied for raising concerns about colleagues or poor health care (Fontaine & Gerardi, 2005; Davies & Mannion, 2013). Again, remaining silent averts negative consequences for the self or team and maintains the status quo. The main points in this section are that silence can be used to avoid legal, ethical and moral dilemmas on the part of staff but, as with dilemma, silences are nuanced across healthcare. Despite this, employee silence in healthcare

is linked to detrimental outcomes including patient deaths throughout hospitals (Greenberg & Edwards, 2009).

3.8 Safety silence

Because safety issues in healthcare can lead to loss of life it is essential to pay attention to any employee silence related to safety (Shojaie et al., 2011). The silence literature tends to focus on the failure to speak about problems and concerns (Morrison et al., 2014). It has been proposed that researchers should explore what it is that people do not speak about and why; in that case silence would be conceived as an 'antidote to harm' (Kenny, 2011). Recently Schwappach & Gehring (2014) sought to examine fears and conditions conducive of silence but did not explore motives or functions. They missed the opportunity to develop a remedy.

A series of quantitative studies of motives for silence among nurses resulted in definitions of: relationship-based safety silence avoiding tension in the workplace that would result from speaking up; climate-based safety silence occurring when managers are unsupportive; issue-based safety silence manifesting when a safety issue is perceived as harmless; and job-based safety silence which happens when time and workload pressure prevent employees from speaking about safety concerns (Manapragada & Bruk-Lee, 2016). The studies support the contention that if an employee does not feel secure within healthcare culture then the result is a subconscious or conscious decision to remain silent (Deniz et al., 2013). Psychological safety is regarded as an antithesis to insecurity, increasing the chances that staff will discuss issues and therefore ameliorate silence (Dingli, 2015).

There are professional and social tensions associated with breaking silence to act upon concerns for colleagues (Moll, 2014). However making an environment safer to speak up does not necessarily reduce silence. In the meanwhile, healthcare workers use different means to raise issues which include workarounds, warnings and venting sessions (Maxfield et al., 2005), metaphor, humour and silence (Strudwick et al., 2012; Lingard, 2013).

It appears that the general media do not, or choose not, to recognise the different means used. For example, newspaper articles refer to silence in health care taking a

view that staff ignore poor care and are silent witnesses to malpractice, mistreatment and poor care (Mannion & Davies, 2015). The role of silent witness is always a negative role in healthcare literature. Informal strategies taken to avoid the role of silent witness include the use of humour or sarcasm to signal discontent and the use of off-the-record discussions rather than formal mechanisms of voice such as whistle blowing (Mannion & Davies, 2015). Distinguishing the different ways that healthcare staff use silence to articulate problems could challenge negative media perceptions of healthcare professional as silent witness. Silence can be negative and even pathological in healthcare safety literature. For scholars of safety the goal is to eradicate the sinister situation of a culture of silence (Mannion & Davies, 2015).

3.9 Radiography in relation to silence

Anthropologists refer to loud and noisy places of history with an assumption that the loudness and salience of issues in public discourse prove their social and political significance (Sheriff, 2000). This is an interesting and challenging notion in relation to the culture of radiography because arguably discourse includes notions to avoid noise. For diagnostic radiographers the concept of noise refers to unwanted technical interference on images (McNulty & McNulty, 2009; Baker, 2012). Noise causes a deficiency that can lead to misdiagnosis (Nerysunghoen et al., 2017). It is possible therefore that imaging culture may socialise staff to avoid noise. It is indeed an underlying premise to this thesis that in some circumstances radiographers also avoid noise in the form of voice. Lack of voice, however, results in silencing of the roles of the radiographer in healthcare: to the detriment of professional identity and political significance.

Bradley et al. (2015) raise the issue of rudeness in the specialty of radiology. They examined rude, dismissive and aggressive communication in medical specialties and found that radiology (radiologists) featured highly. Fivush (2009) suggests that departmental culture can account for rudeness. Silence on the other hand is an important feature of politeness (Nakane, 2006). In a study that involved radiography student interaction it was noted that silence was used for the avoidance of face threatening acts to enact politeness (Robinson et al., 2014). Radiographers may use

silence as contradiction and solution to a culture of rudeness. The use of silence to counter rudeness would be to the detriment of the radiographer however, because silence can perpetuate the position of subordinate that is necessary for the authority of the dominant (Freedon, 2015). Paradoxically, when there is awareness of domination then theories of counter-hegemony have been posited. In that case silence is used as a means to subvert dominance, an act of counter-hegemony (Gramsci, 1971). It has been contended that medical dominance and the effects of subordination represent a key concept in understanding the attitudes of clinical radiographers (Lewis et al, 2008).

Vlăduțescu (2014) used the term discretion to describe a form of silencing that manifests in language. The use of discretion has been described in a study of radiographers in Australia. When patients asked radiographers to indicate the results of diagnostic examinations radiographers used discretion to mediate answers (Squibb et al., 2015). Vlăduțescu's view that discretionary silence is illogical is thus challenged by the results of Squibb et al. Rather, silence can be regarded as a logical tool of communication when it is used to handle possible contestation (Freedon, 2015). The handling of contestation can arguably be regarded as a positive use of silence from the radiographers' viewpoint but not necessarily the patient. Squibb et al. (2015) demonstrated that it was the radiographer who decides what information is silenced, based on what they believe is beneficial to the patient; the situation places the radiographer in a position of power.

There is informal use of voice by imaging staff, including the use of online spaces for discussion, for example in Facebook groups. Radiographer voice on social media is however discouraged by prohibitive and prescriptive local employer social media strategies (Scragg et al., 2017); the strategies reflect anxiety about protecting employer reputations, the strategies promote silence.

Also with regard to voice, Lammer (2007) used a collaborative visual ethnographic approach in her study of interventional radiology in Austria. She reflected that when trying to mirror and represent the visual data the limits of spoken language in radiology were painfully obvious. Murphy (2006; 2009) sought to explore tacit aspects of clinical practice in the UK where he used a dramaturgical analysis for a study that included unspoken (silent) aspects of social interactions and behaviours in a Magnetic

Resonance Imaging department. Murphy drew upon the work of Goffman amongst others. Burri (2012) contends that the methods used by Goffman engage both visual representation and theory. In these terms Murphy's research was arguably also visual. In a study of a clinical imaging department in the USA, Burri (2012) developed a conceptual tool which she calls 'visual logic' to study images in society. Her approach was also one of collaborative visual ethnography, undertaking observations and exploring how the visual silently shaped clinical practice.

3.10 Organisational silence

Clinical imaging departments sit within wider healthcare organisations therefore literature about organisational silence is relevant. Morrison & Milliken (2000) provided foundational work about silence in organisational studies. They hypothesized that a climate of silence develops in organisations when there is shared belief that speaking up about problems in the organisation is not worth the effort. The resulting silence is labelled organisational silence, a collective behaviour when the majority of employees prefer to keep silent in an organisation (Henriksen & Dayton, 2006). Deliberate silence in an organisational context is conceived to be an act of intentionally withholding job-related concerns and opinions (Van Dyne et al., 2003). It has been described as doing or saying little in response to problems facing an organisation (Henriksen & Dayton, 2006). Medical literature also recognises this concept with questions about how to combat organisational silence (Dankoski et al., 2014). As a result silence mostly presents as a negative phenomenon in organisation studies. Central to these factors in NHS organisations are entrenched hierarchical status and power differences between professional and occupational groups (Mannion & Davies, 2015).

There are examples of silences presented in the organisational literature related to leadership issues (Rowling, 2012), psychological safety of staff (Bhambra & Shilliam, 2009), also engagement of groups (The King's Fund, 2015, 2016). To illustrate: first related to leadership, organisational deafness describes situations where issues are raised by staff but either not heard or acted upon by managers. It represents a form of silence by negation (Davies & Mannion, 2013). Second related to psychological

safety, organisational culture refers to a set of shared understandings, values, and beliefs which implicitly inform behaviour and develop sense of identity (Hart & Hazelgrove, 2001). In settings with low psychological safety organisational silence can manifest itself in various forms, for example, collective silence in meetings, low level participation in suggestion schemes and low levels of collective voice (Maria, 2006). Institutional contexts influence what silences are acceptable or otherwise rejected for signifying poor teamwork, blame and incompetence (Gardezi et al., 2009; Wooffitt & Holt, 2010). Third, with regards to the engagement of groups, despite the undisputed negative effects of silence in organisations a certain positive level of silence is needed to avoid chaos if individuals felt comfortable expressing their opinions about everything (Milliken & Morrison, 2003); to maintain the climate necessary for any political order (Dingli, 2015); and to enable social silence intended to benefit other people or the organisation - based on altruism or cooperative motives (Van Dyne et al., 2003). If levels of silence are excessively high however there are implications, for example, disengagement and a related risk of competency drift have been described among healthcare professionals who have low levels of organisational involvement (HCPC, 2015). Reinforcing all three themes a large-scale Turkish study listed common factors affecting healthcare organisational silence. Top of the bill were a culture of inconsistent treatment of employees, a climate of silence, and organisational culture (Deniz et al., 2013).

Morrison & Milliken (2000) argued that employees do not speak due to fear of negative consequences and belief that their opinion is not valued. In a critique of organisational approaches to studying silence, Van Dyne et al. (2003) point out that Morrison & Milliken and also Pinder & Harlos (2001) emphasized unfair situations and focused on factors that would cause employees to break silence. Both sets of researchers developed the principle that withholding is a main function of silence. Brinsfield et al. (2009) also consider silence at a team and organisational level. They expand understandings with a recognition that the individuals in a group exert influence over silence which can become contagious among teams (Zehir & Erdogan, 2011).

Morrison & Milliken (2000) also envisaged organisational silence as a collective phenomenon. They grounded questions about silence in the sociology of the

workplace not the psychology of the individual (Maria, 2006). The same premise is taken in this thesis therefore the methodology and methods discussed in chapter four were selected for their ability to provide an account of cultural silences.

3.11 Silence and culture

Cultural groups hold various ideas, customs and ways of acting, they therefore also experience or use various silences. In a hospital setting cultures of silence influence existing staff and also new staff who learn to conform to cultural expectations. The process results in the transfer of cultural norms (Szuchewycz, 1997). For example, chattering staff may appear to instinctively quieten down when patients are present in a clinical area. Accordingly the individuals within a culture perpetuate socio-cultural silences by a process of socialisation that teaches newcomers to conform (Szuchewycz, 1997).

Scholars of silence acknowledge the different ways in which individuals shape culture. Mnemonic silence, for example, influences whether an incident is recalled or spoken about by individuals. Not speaking about something affects the memory recall of the social group so that incidents are eventually forgotten (Abel & Bäuml, 2015). When this happens mnemonic silence leads to a form of social silencing referred to as a conspiracy of silence by Fivush (2009). Fivush gives an example of the silence experienced by survivors of trauma when people do not acknowledge or openly speak about their distress. Fivush's contribution supports Noelle-Neumann's (1974) theory of the spiral of silence by recognising the agency of individuals in deciding what memories are voiced or silenced within a culture. Noelle-Neumann provided seminal work about socio-cultural silence and public opinion (briefly mentioned under the subsection types of silence earlier). She theorized that peoples' fear of social isolation is a motive for silence. Noelle-Neumann's ideas about the spiral of silence had roots in social perception and control. Her work offers insight into how silence is maintained or broken (Pinder & Harlos, 2001; Bowen & Blackmon, 2003). There is controversy surrounding the rigour and origins of Noelle-Neumann's concept, especially regarding the perceived influence of Nazi propaganda on her insights. Nevertheless, Splichal

(2015) reasons that an increasing number of scholarly citations of Noelle-Neumann's theory is proof of the contemporary relevance and validity of the concept.

The concept of a spiral of silence underpins descriptions of a climate of silence in organisations (Pinder & Harlos, 2001) and a code of silence among healthcare professionals (Jones, 2003). They build upon the work of Noelle-Neumann and highlight the importance of cultural factors. A cultural conspiracy of silence has been described around certain topics in healthcare, particularly the topic of death (Field, 1989; Costello, 2000; Pinder & Harlos, 2001). Contradicting Noelle-Neumann however a conspiracy of silence is not necessarily founded in a quest to avoid isolation. Costello (2000) found a conspiracy of silence among nurses in the form of an unwritten policy, where students were socialised/taught at ward handover times to ensure that patients were not told of their terminal illness. Costello found that patient's families also entered into the conspiracy of silence, which he conceived grew from a climate of secrecy. While staff strove to protect patients from undue distress, not isolation, the silence actually prevented patients from discussing their feelings about dying; there was a lack of honesty. Similarly, staff are socialised to conform to codes of silence that function by restricting speech and affect psycholinguistic and interactive silences (Bruneau, 1973). Pinder & Harlos (2001) also use the term code of silence, later used by Jones (2003) in a less prescriptive manner to describe more general cultural norms and practices that influence the use of silence. Codes of silence can be broken, most notably through public revelations (Pinder & Harlos, 2001). A public inquiry in healthcare, the Francis report, describes cultures of silence (Francis, 2013). Equally Hart & Hazelgrove (2001) give examples of spirals of silence in healthcare when politics influence the manner in which incidents and topics are not spoken about; rather they are brushed under the carpet. Hart & Hazelgrove agree that in healthcare silences are shared socially. But, they cautioned against using the term conspiracy of silence because the term implies that there is a tacit consensus or agreement. They go on to challenge the notion of codes and conspiracies of silence in healthcare, arguing that it is erroneous to assume that cultures of silence are underpinned by conspiracies. They point instead to team and group loyalties that engender cultures of silence in the NHS. They offer an alternative reading and subsequently they drew from the work of Sheriff (2000) and concluded that instead

of a conspiracy of silence cultural censorship is evident in healthcare. Customary silences constitute cultural censorship as they are not coerced or enforced (Sheriff, 2000). Sheriff argues that cultural censorship is a socially shared silence that is important yet hidden. It is asserted that silent cultural censorship is endemic in western healthcare systems (Hart & Hazelgrove, 2001). Cultural censorship does not prevent people from saying and thinking outside the dominant ideology. Instead people express opinions when they are in a safe space or situation.

This section of the chapter reiterates that socio-cultural silences are taught by means of socialisation. Silence literature acknowledges the influence of individuals within a culture and various terms are used to describe cultures of silence.

3.12 Silence, truth-telling and concealment

Kenny (2011) equates silence with compassion in cases where wisdom lies in recognising what one does not know. For radiographers this translates to the knowledge that the clinical images that are produced each day are subjective and do not always lead to a definitive patient diagnosis or answer. Kenny believes that the type of wise and compassionate silence that results should be distinguished from posed wisdom, pretending to know the answer, and from the silence of sheer ignorance, not knowing the answer. Silence can also be a response when there is nothing to say about a topic (Bell, 2014).

The practice of communicating radiographic findings to the referring healthcare professional, not to the patient, is common within the field of radiology (Berlin et al., 2014). The content of information to be delivered is important, for example, decisions to speak about or otherwise silence specific information are influenced by whether the news is positive or negative (Van Dyne et al., 2003). Sometimes there is a deliberate decision not to share information with others because the speaker thinks the listener will not understand or the information is too distressing to hear (Fivush, 2009). Cinar et al. (2013) discuss the discomfort of delivering bad news. Costello (2000) described how healthcare staff can be reluctant to tell the patient a worrying diagnosis out of a sense of protective compassion; Costello refers to a closed awareness that is used to safeguard a patient from undue distress.

Hospital nurses caring for dying patients counter this ethical problem and resort to telling half-truths, giving vague responses or telling the patient lies (Costello, 2000). When staff are unable to be honest with a dying patient, they use avoidance strategies (Copp, 1999). Copp regards the resulting practice of deliberative silence to be an antithesis in contemporary philosophy to radical truthfulness. Radical truthfulness is the opposite in premise to the wise compassionate silence described by Kenny (2011), such an enforced truthfulness breaks wise silence (Lynch, 2001). People who agree with the principle that patients should always be told the full facts about their condition consider conspiracies of wise and compassionate silence unethical (Costello, 2000). The duty of candour also renders wise silence a tricky concept in relation to ethics in today's healthcare environment.

The result of silently concealing information is a secret. Secrets are necessary for some aspects of interpersonal relationships (Nyberg, 1993). Secrets can also play ethical roles in communication and are encouraged in some situations; honesty is not always the best policy (Van Dyne et al., 2003). Silent concealment has also been called conventional masking, which is necessary for social relationships (Strauss, 1969). The mum effect is a step on from conventional masking, it happens when people consciously set out to avoid or delay delivering bad news via means of silence (Van Dyne et al., 2003). Research demonstrates that good news is reported more quickly and bad news more slowly (Dibble & Levine, 2010). Silence is involved in concealment, secrets, conventional masking and the mum affect which all decrease personal discomfort of the professional and avoid the potential for conflict. They provide a defensive self-protective silence for health care staff.

Ethically, non-disclosure norms may be regarded as the professional either 'playing God' or abdicating responsibility for telling the truth (Costello, 2000). Situational ethics considers the moral worth of the truth; accordingly in some cases it is morally inappropriate to reveal the whole truth (Kubler-Ross, 1970). Scholars of silence would alternatively regard non-disclosure to be a form of silencing. The literature suggests that the silent lowlands of the perceived benefits of non-disclosure quietly toil in the background of the NHS. The situation perpetuates a culture of secrets and silences but also enables wise and compassionate silence.

3.13 Conclusion to chapter

This chapter has provided consideration of a wide range of scholarly approaches to the subject of silence. Silences contain meaningful data although it can be difficult for researchers to discern the intentions behind silence (Nakane, 2006; Mazzei, 2007). There are a number of key themes of silence within the literature that are potentially relevant for this study. First, communication is conveyed by silence, whether intentional or unintentional. Second, silence may avoid negative outcomes for the group or individual. Third, scholars of silence recognise that individuals and contexts influence silence thus cultures of silence are changeable. Fourth, silence can be related to silencing, subordination, oppression or suppression in an exercise of power or resistance to power. Fifth, socialisation perpetuates socio-cultural silences with norms and a tendency to maintain status quo. Silence can also become a norm. Sixth, silence can be related to matters that are legal, ethical, moral and related to safety. Finally, the interpretation of silence may express feelings and values; for example, non-disclosure may represent wise and compassionate silences or alternatively be regarded as secretive silence avoiding truth telling.

It is concluded by Greenberg & Edwards (2009) that there is a need for research conducted in field settings, to clarify the existing experimental and conceptual research on silence. This thesis will provide an account of silence from a field of radiography. The sentiment that a part of what cannot be said can be shown adds a visual dimension to the concept of silence (Wittgenstein, 1922). The sentiment influences both the selection of methodology and the method of collage for this thesis, discussed in the next chapter.

Chapter 4 Methodology and methods

4.1 Introduction to chapter

This chapter will provide a rationale for the choice of methodology and methods in this study. The chapter will commence by presenting the considerations that led to the selection of a visual ethnography, namely: a) the requirements of doctoral study; b) the research question posed; c) the positioning of the researcher. It will provide detail of the study design, consider potential issues and justify the method of analysis. Finally there will be information about analytical issues and participant validation.

4.2 Requirements for doctoral study

A thesis submitted as part of professional doctoral candidature must meet the criteria that professional contribution will be both original and substantive. Alongside specific academic criteria disciplinary traditions influence judgments about whether a piece of work is original and substantive. Radiography disciplinary traditions have promoted a technical-rational paradigm where the central tenets of the role of the radiographer have been described as the management of radiation dose and image optimisation (Hayre et al., 2017). Examples of recent research studies reflect the tenets, including research about the technique used for examination (Tugwell et al., 2017), radiation dose (Shanahan, 2017) and safety (Noonan et al., 2017). The result is an evidence-base and research landscape dominated by quantitative-positivist approaches; there has long been an imbalance of quantitative and qualitative research in the professions research profile, weighted towards the quantitative (Curtise & White, 2005; Reeves, 2008). More widely in health research, qualitative studies continue to be regarded as scientifically inferior; a position exacerbated by the current neoliberal knowledge economy (Kontos & Grigorovich, 2018). One of the reasons for the methodological choices made in this study was the perception that by following a positivist quest for evidence base the art of radiography, the production of aesthetic images and the implications of craftwork for radiographic culture, profession, and self-identity have

largely been neglected. Audre Lorde eloquently provides a metaphor:

'The master's tools will never dismantle the master's house.'

(Lorde, 1984, p114)

The quote reflects the premise here that a positivist and scientific method would not have produced knowledge of any artistic or creative practices of cultural silence and silencing in clinical imaging.

Alongside the originality of research methodology and methods the originality of the research question is also important. The concepts and theories of silence are evident in many disciplinary fields (see chapter three). It was evident from the literature review that there are few explicit references to the concepts or theories of silence in relation to radiography. To consider the concepts and theories of silence in relation to radiography, indeed in relation to any area, an account must acknowledge the subjectivity of human beings, cultures, and how this changes over periods of time. The points were especially important when exploring the subject in relation to diagnostic radiography because the topic of silence was an uncultivated area. New agendas including MECC and a duty of candour have consequences for radiography practice that highlight the importance of silence. This study is considered to be unique because it will explicate the significance of silences in an area of radiography practice.

4.3 The research question

It was important to clarify what the research question was asking because a subject or research topic guides the methods, findings, analysis, and presentation of qualitative research studies. It was reasonable to anticipate that questions would change during the study as understanding of concepts and interesting issues increased (Creswell, 2013). Subsequently the flexibility to adapt required an iterative approach that could have been achieved by a range of qualitative methodologies. The research questions for this study could have been framed in a number of ways, see Table 3 for examples.

Table 3 framing the research question in line with methodology

Approach:	Possible question:
Ethnography	How can silence be understood as a cultural issue in radiography? How might we explain silence in relation to radiography?
Phenomenology	What are the meanings of silence for radiographers?
Narrative study	What is the place of silence in the life history of radiographers? What is the place of silence in the history of the discipline of Radiography?
Grounded Theory	What characterizes the theory of silence in radiography clinical practice?

The lack of radiography literature about silence calls for a construction of the concepts of silence in a form that would be understood by the community of radiography. There were tensions because alongside the gap in the radiography literature there was the recognition that the subject of silence is an immense topic. The pressures resulted in a decision to focus upon the area of culture and silence. The scope would otherwise have been too nebulous for a doctoral thesis.

It is recognized that within a culture an individual radiographer's lived experiences are complex, multi-faceted and influenced by social environments. The subjectivity of time will also influence the research topic in the sense that the study would provide an account in a specific epoch of radiography culture. Accordingly the study acknowledges the contribution of individuals but ultimately it aimed to determine how silence was constructed at a cultural rather than individual level. The wider question must remain for the time being about how to conceptualize silence in relation to the radiographer in diagnostic radiography. It was important to provide an initial account of the manifestations of silence in the culture before drilling down to the individual practitioner level. The substantive contribution of this research, providing a critical account of how the concepts of silence present in a focused area

of the discipline, will unlock latent knowledge; bringing an awareness of the performativity of silence that should ultimately improve the services provided for patients. The study was undertaken in the spirit that research should seek to solve problems and be driven by an ameliorative purpose (Denzin & Lincoln, 2011).

Finally, considering the selection of an appropriate methodology related to the research question, there were three further requirements. First, the selection of an iterative approach allowed questions to evolve during the research process and to reflect an increased understanding of concepts and the socio-cultural processes involved (Creswell, 2013). Second, the ontological approach taken here maintained that reality was socially constructed with dual objective and subjective realities (Berger & Luckman, 1966). This understanding called for an interpretive representation, which provides an account of subjective and socially constructed silences at a specific point and place in time. Closely linked to this approach, although challenging, there was an aim to describe the nature of the culture without imposing any prior assumptions; this third point required an inductive approach. The study therefore required a methodology capable of allowing iteration, interpretation, and induction.

4.4 Positioning of the researcher

Contemporary qualitative research calls for the researcher to reflexively consider the relationship between their self, participants and also the researcher's position in relation to epistemological and philosophical standpoints. The selection of methods and the presentation of findings reveal the outlook of the researcher. The precepts of this understanding allow an acknowledgement of the multiple facets of bias that may be present. The capacity to reflexively examine multiple roles and perspectives during the research process can result in a need to change questions (Agee, 2009). In order for the choice of methods to be justified and the findings analysed in a transparent manner, it was necessary to reflexively examine relationships with participants and to acknowledge the effects of power. This area is explored and expanded upon in chapter eight: reflexive practice.

4.5 Methodology: Ethnography

Ethnography has been described as both a process and a product (Geertz, 1973). It enables an exploration of how subjects negotiate obstacles in the present historical moment (Wilf, 2011). Ethnography consists of immersion in a cultural group to study meaning of behaviours, of language, and of interaction (Creswell, 2013). Classical anthropological ethnography, also referred to as conventional ethnography, followed a natural scientific method to investigate 'primitive' foreign cultures (Hammersley & Atkinson, 1991). The Chicago school of sociology then built upon these foundations in the 1930s by studying urban cultural groups. There are various disciplinary approaches to ethnography, which give rise to the assertion that there has been a lack of overarching theoretical perspective and orthodoxy; Creswell (2013) describes a resultant plurality of approaches.

Classical ethnography investigated social groups, institutions and events. In contrast contemporary practices of critical ethnography attempt to document more focused elements of one's own society in the form of actions, interactions, and social situations (Knoblauch, 2005). The practice of critical ethnography has evolved to emphasize a focus on particular areas and to identify structures in groups. It is an important point that an ethnography focused upon the concept of cultural silence is considered to be a critical ethnographic methodology because of associated power structures and relations in healthcare clinical practice (Pink, 2004). The research question in this study was therefore suited to a focused critical ethnography.

Ethnographies that are focused upon practice are commonly characterized by being data and time intense, sometimes referred to as cheap and dirty research (Knoblauch, 2005). There are tensions rising from the opposing notions among disciplines that field studies should be either long-term, traditionally associated with anthropology or short short-term, traditionally associated with sociology. A prerequisite for the short-term approach is familiarity with the field. Because there was familiarity with the environment to be studied here this posed specific epistemological issues. Problems associated with strangeness in conventional ethnography were replaced by what Amann & Hirschauer (1997) refer to as the alienation of one's own culture, 'bestrangement', the notion of looking through a new lens at the familiar; because the

researcher had background knowledge, both implicit and explicit, of the field (Mannay, 2010). Bestrangement was important and called for awareness of familiarity that had to be addressed reflexively requiring mental and intellectual flexibility (Falzon, 2016). Anthropological methodological debates also consider issues of representation and legitimation (Knoblauch, 2005). However Knoblauch points out that the main problems of ethnography within the contexts of one's own society are posed by familiarity.

The challenges of representing the perspectives of participants, referred to as the emic perspective, as opposed to the perspective of the researcher, the etic perspective, still remain in a focused ethnography (Pauwels, 2010). It is noted that some focused ethnographies seek to ameliorate challenges of representation using technology in the form of audio and visual recording media as methods of objective participant observation (Knoblauch, 2005). This was not considered appropriate in the settings for this study. Confidentiality took priority and technology posed too big a threat to anonymity. The notion of attaining mimesis, a true artistic representation of life, remains controversial, whether data collection tools are human or technical (Pauwels, 2010).

The literary turn in anthropology refers to the literary ways that rhetoric can be used to make the power relationships used by authors transparent (Clifford, 1997). The literary turn questioned whether objectivity or subjectivity can be attained and posits that ethnography does not represent unmediated objective knowledge. Engaging reflexively meant that there was a requirement that the researcher pay attention to position in relation to participants. For example relationships of power need to be recognised before they can be addressed. With regards to reflexivity critical ethnography has been disparaged for focus on social change but lack of attention to the researchers own position as a research tool (Madison & Soyini, 2012). As an alternative, post-critical reflexive ethnography involves turning back (Davis & Butler-Kisber, 1999) to consider issues of research paradigms, positions of power and authority, and moral issues of representation and interpretation. This type of approach challenges the traditional neutral and technical-rational objectivity reported in radiography research (Curtise & White, 2005; Reeves, 2008). The ethical

transparency that results from turning back ultimately allows a balanced evaluation and judgment of research.

In opposition to this point Clifford & Marcus (1986) counter that the rigor of ethnography fieldwork depends less on the fieldwork and more on the persuasiveness of the researcher's establishment authority and textual representational authority. Both operate through text. This was an interesting point to consider because this study used visual methods and data to reduce the primacy of text to some extent. However, it was an inevitable part of data analysis that a stage was reached where the researcher had to make an interpretation of the visual information.

4.5.1 Ethnography to account for silence

Researchers who study silence may need to be creative and adapt approaches to fit with existing research genres, seeking acceptance by their discipline (Lingard, 2013). It is argued that taking an approach that adapts to fit with existing genres limits innovation, but in reality traditions and expectations exist and the research did need to fit with certain criteria. To date, silence has not been a central topic of research in radiography albeit there are studies that refer to historical silence, or rather, silencing of the roles of pioneering radiographers in innovation and achievements credited to radiologists, oncologists, and medical physicists (Decker & Iphofen, 2005; Barrett & Ferris, 2009; Ferris & Winslow, 2009). The methodologies for these studies were historical narratives. The findings demonstrate that existing genres used in radiography are capable of eliciting aspects of silence. Historical narrative was not selected in this case however because the aim was to provide an account of current not historical practice. Lingard (2013) reports that, more widely, limited research on silence reflects the difficulties of studying an ambiguous construct. The need for a level of flexibility meant that a visual ethnographic methodology was considered to be appropriate.

4.6 Visual Ethnography

Visual ethnography is both a methodology and a method (Pink, 2013). Because of the use of visual methods visual ethnography has been regarded as a relatively new field

(McWhirter, 2012). However, the opinion that visual research methods are new and innovative is disputed (Pauwels, 2010). Sociologists and ethnographers in particular disagree with the description of a fledgling methodology because they have employed visual research methods such as photography and filmmaking for decades. The notion that visual research is relatively new results when an a-historic approach is taken, there must be recognition of the underlying classical visual work of anthropology and visual sociology (Pauwels, 2011).

Kokk & Jonsson (2013) surmise that time plays a role in the status of visual methodology. A current surge in the popularity of visual research is linked to a rise of the importance of the visual in contemporary culture (Rose, 2013). This point was particularly relevant when considering contemporary culture and disciplinary assumptions in radiography. The acceptance of the epistemological and ontological challenges provided by visual research (Hogan, 2012) will be influenced by the time and place in which this research was undertaken. In a discussion of architectural practice, Trefry & Watson (2013) discuss a contemporary position where they believe that the positivist model is no longer realistic yet they conclude that because of professional ethos it is virtually inescapable in everyday practice. Similarly, hierarchy and the hegemony of positivist discourse in the ethos of healthcare research influences what is accepted in radiography research. The risk presenting for this study was that a visual qualitative methodology would not be understood or be deemed valid. Accordingly the dissemination of the findings and recommendations of this study will be carefully considered, creative, and tailored to engender the understanding of various audiences.

4.6.1 Visual research methods

Visual images are described as polysemic because they have multiple meanings (Sandywell & Heywood, 2012). Fluidity and multiple meaning result in tri-partite strengths associated with visual research methods that: 1) generate evidence that techniques such as interviews and surveys cannot reach; 2) enable an exploration of the taken for granted and implicit knowledge of everyday life; 3) foster a collaborative approach with participants (Rose, 2013).

Collage, the visual research method used in this study, is listed in a taxonomy of objects that aim to represent participant-produced data (Laila et al., 2014). Participant-produced collage is considered to be a social artefact that allows participants to express their perspectives and describe their subculture (Laila et al., 2014). In diagnostic radiography the patient image is regarded as an artistic product of clinical practice, a cultural artefact (Burri, 2012; Strudwick, 2014). Images are the means by which imaging staff craft diagnosis in a digital form. Similarly, research participants in this research project crafted collage pieces, which were then read and translated to narrative by the participants. The research topic of silence dictated that there could be no overarching truth waiting for participants and researcher to discover in the visual images (collage). Instead, novel findings were intended to reflect as closely as possible the views, experiences, and feelings that the participants conveyed about a specific culture.

4.6.2 Collage and visual metaphor

Visual research methods and collage production encourage the use of metaphor to communicate knowledge and experience (Pink, 2004). Visual metaphor acts as a conduit, making it possible to say things in image form that it is hard or impossible to articulate verbally (Hogan, 2013). Accordingly collage acted as a means of accessing conscious and subconscious cognitive stores by facilitating processes of emotion and communication (Diggs et al., 2015). Through the artistic endeavours of research participants a unique significance was provided that is beyond what words could convey (Langer, 1953). Belk et al. (2003) posit that the use of metaphor overcomes the limitations of language to convey ambivalent emotional and intuitive responses. The use of collage and associated metaphor circumvents linguistic barriers and facilitates communication (Williams, 2002).

Collage in arts-based research typically proceeds after the researcher sets specific questions to address (Diggs et al., 2015). The question for participants in this case was 'what does silence look like in the culture of radiography?' This method supported the intention to provide an account of silences that present in a specific culture of diagnostic radiography. Notably in the field of radiography Reeves & Decker (2012)

and Strudwick (2014) refer to and note the importance of the use of metaphor in clinical imaging practice.

Imaging staff are perceived as image creators with a parental or artistic relationship to images (Strudwick, 2014). The use of collage in this study was not artistic in a decorative sense, rather it was a 'cognitive tool' to prompt abstract concepts (Landau et al., 2010). Collage produced an aesthetic layer of knowledge that was conveyed through metaphor (Diggs et al., 2015). Diggs proposes that metaphor brings ideas to life. Prosser & Schratz (1998) challenge notions that visual methods such as collage are authenticating; instead they argue that visual methods and metaphor are a stimulant for conversation.

Williams (2002) studied inter-professional communication in healthcare and found that collage increased awareness of the different perceptions of shared issues and acted as a communication tool removing barriers to expression. Williams concluded that a value of collage was in participants not feeling intimidated by their possible lack of artistic skill. Collage also reduces anxiety because of the safety of metaphor; it enables attitudes, ideas and beliefs to be articulated via means of 'open expression' (Carter et al., 1983, quoted in Williams, 2002). Gauntlett (2007) draws upon a theory of constructionism (Papert & Harel, 1991) to add that people can learn through making collage and need time to reflect on their creation. To allow participants to reflect about the research question the follow-up conversations in this study were scheduled approximately one week after the individual's collage workshop date (further detail in methods subsection). Linked together visual ethnography, collage and metaphor were employed to provide a holistic approach to the concept of silence, reflecting aspects of culture. Burri (2012) noted that during her study of clinical practice, radiographers referred widely to what she labelled structure. The types of structured practice she refers to include image manipulation, image critique and judgments of visual image quality. This notion supported the rationale that this study should take a holistic and encompassing ethnographic approach to the study of silence. An approach modelled on traditional anthropological methodology would have provided more specific but less holistic visual methodology (Panofsky, 1962).

4.6.3 Visual research methodology related to radiography.

The understanding that society can both constitute and be structured by 'visual dimensions' is a necessary pre-requisite for an epistemological assertion that society, culture, and artistic practice can be reproduced by the visual (Burri, 2012). Diagnostic radiographers at a basic level reproduce embodied images of individual patients on a daily basis, an act that reflects the notion of reproduction of information. Collage was therefore a research method with a logical link to reproducing radiographic culture because it enabled participants to create a visual representation of their worlds (Mannay, 2010). Especially important for this research project, collage was a communication method capable of reproducing and giving form to ideas, intuitions, feelings, and insights that may escape rational thought processes (Jongeward, 2009). The concepts and presentations of silence would have been difficult to directly elicit by quantitative approaches, such as a questionnaire or survey (Hogan, 2013). The artistic properties of collage enabled the method to capture fluid and shifting data but it also meant that it was necessary to accept, for the purpose of this study, that translation to text would be subjective and categorization would be reductive (Hogan, 2013). In some ways this subjective practice is mirrored by the discipline in clinical imaging in the act of image interpretation where the latent knowledge in images is transferred to a tangible clinical report.

4.6.4 Ethical approval

A full ethical application for the study was submitted to University of Salford in May 2016. Approval was granted to the ethics application, HSCR16-40, in July 2016 (Appendix Two). The following subsections provide information about the research design.

4.6.5 Study setting

The study was set in an NHS trust that provided acute, elective and primary care (general practice) imaging services for a population of approximately 820,000 people in the North West of England. The trust employed 150 imaging staff consisting of radiographers, assistant practitioners and radiography students with honorary

contracts. Although classified as a 'non-teaching' trust, clinical placements were provided for 45 undergraduate student radiographers based at the trust each year. Observations took place in three X-ray departments, at three different hospital sites, which exemplified a variety of acuity of patient presentations and variable patient numbers per day (representing workload). The departments provided A&E, urgent care, in-patient, out-patient and primary care services.

4.6.6 Access to the field

The researcher approached the directorate manager at the trust where the study took place. The three participating departments required an outline rationale and projection of staff time required for the study. Written permission to continue was obtained from the directorate manager and also the divisional clinical governance lead. For authorization and registration with the trust research and development department a Governance Arrangements for Research Committees in the NHS (GAFrec) non-review application was submitted. Proof of university ethical review board approval was required by the trust. NHS ethical review board approval was not required because staff had been recruited by virtue of their professional roles.

4.6.7 Project duration and stages of research

The following sections will describe all stages one to three of the study (see Table 4). It will outline recruitment, consent, and data collection. It is also necessary to discuss collage authorship and copyright together with a summary of potential study issues.

Table 4 Stages of research



4.6.8 Participant recruitment

Following verbal advice and permissions of the trust communications manager a written introduction to the research study was placed in a monthly imaging department bulletin (Appendix Three). An email to imaging staff (Appendix Four) included two attachments: a flyer (Appendix Five) and a participant information sheet (Appendix Six).

The information provided for consent to observations at this stage was balanced against the possibility of bias (Greene, 2014). For this reason during stage one it was not the intention to refer to silence specifically. The more general term ‘communication method’ was used on recruitment material. In the spirit of transparency however, when a number of participants asked about the term ‘communication method’ the definitions of both silence and voice, provided in chapter one, were discussed.

The initial email informed staff about observation sessions and called for potential volunteers for stage two collage workshops. To aid in preparations for the study, a manager for local charitable art projects in healthcare, based at the trust, offered advice about workshop design and duration. His counsel mirrored literature about the design of collage workshops for research (Simmons & Daley, 2013; Chilton & Scotti, 2014; Margolin, 2014), advising that workshops should ideally be no longer than four hours duration - see Table 5 for workshop programme. Participants replied by email

or spoke to the researcher directly to volunteer. 15 participants replied with interest about the workshops at this stage.

4.6.9 Stages of informed consent

4.6.9.1 *Stage one consent*

Following guidance an aim was to allow a minimum twenty-four hours between participants receiving information sheets and signing written consent to be observed during their practice (University of Salford Ethical Approval Panel for Research, 2015). The period of time proved challenging for the observation sessions; staff shift rosters were subject to change at short notice. To mitigate, the staff bulletin had been used to provide information in advance and an information sheet was sent to individual email accounts. Staff may not have read the bulletin or emails but they were under no obligation to take part in the observations; they could withdraw consent at any stage of the research. In practice everyone provided consent. At the beginning of each observation session participants were invited to sign a consent sheet (Appendix Seven). Each of the six observation sessions was four hours in duration to take into account the possible effects of researcher fatigue (Mendel, 2003). Sixteen staff took part in observations.

4.6.9.2 *Stage two and three consent*

Fifteen members of staff responded to the email call for volunteers to participate in collage workshops. However, due to participant sickness and challenging shift rotas, 12 participants completed stage two workshops and follow-up conversations. The written consent of all 12 participants was sought at the workshop session. The signing of consent was carefully timed to take place following an introduction to the topic, introduction to collage methods and a coffee break. A coffee break prior to signing of consent offered the participants the opportunity to withdraw discreetly if required. No participant withdrew from the workshops.

4.6.10 Stage one observation

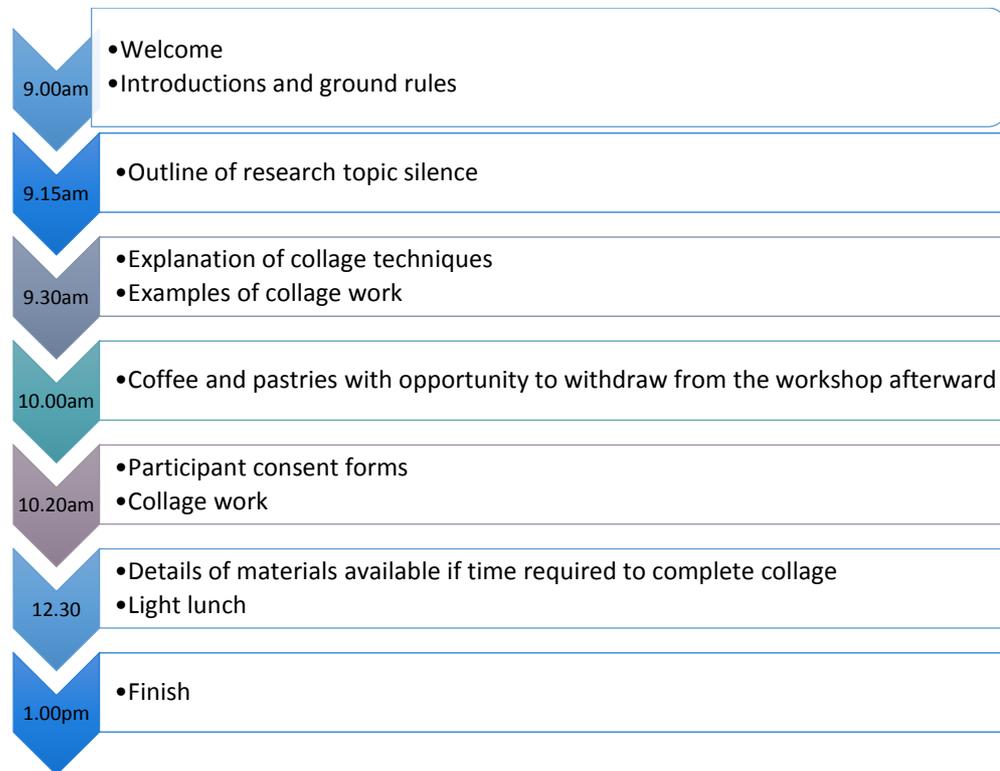
Observations in this study provided context (Nugent, 2007). Such an approach is referred to in ethnography literature as scoping the field. Observations took place in

the viewing areas of three X-ray departments. Viewing areas are patient-free spaces where imaging staff process and analyse patient radiographic images (digital X-rays) and update demographic data on a computer system. The decision was taken for the researcher to offer to help in especially busy periods by completing administrative tasks for staff in the viewing areas. If the researcher had not helped then staff could have viewed a lack of willingness, laziness or an air of superiority/alooftness. The researcher also wore a uniform during observation sessions to lessen this perception. Had the researcher witnessed any poor, unsafe, or even dangerous practice during observations then this would have required the researcher to make an ethical decision about whether to intervene immediately if there were any safety issues, or alternatively at a later stage. As an employee of the trust the researcher was familiar with access routes to managerial support and advice. During the study there were no issues for discussion with the imaging management team. The role of the observer as a participant in practice raises issues about power and the roles of the researcher (Gold, 1958). A consideration of such issues is addressed reflexively in chapter eight. Written field notes produced during the process of observation were focused upon the presentation and continuum of silence (see Appendix Eight & Nine). Schwandt (2015) advises that a focus on the research problem and theoretical constructs underpinning the research avoids cluttering notes with irrelevant information. The intention was for observations to explore silence and provide example cases for the collage workshops in order to present the concept in practical terms. The focus and intention of observation therefore called for field notes that chronicled broad concepts rather than the minutiae of speech and body language for example. The intention of observation was to provide contextual examples of cultural practice rather than to be a main vehicle of data collection. The field notes were visible on worktops in the viewing areas in the interest of research transparency (Moravcsik, 2013). Staff were assured that they could freely read the notes and comment. Six staff read the notes and started conversations concerning perceived themes. The comments from staff prompted useful discussion and were regarded as a serendipitous and valuable form of member checking to enhance trustworthiness (Carlson, 2010).

4.6.11 Stage two collage workshop

The collage workshops were all located in a seminar room at a hospital site central in location for the participants.

Table 5 Workshop programme



The intention was to split participants into two groups and for each participant to attend one four-hour workshop session. This would allow for practicalities such as space to use resources etc. Practical difficulties because of the participants' shift work meant that two further workshops had to be arranged to accommodate all twelve participants. A total of four workshops ran with three participants per workshop. Findings were collected at the workshops in the form of the collage pieces. The workshops consisted of an introduction to the concept of silence and collage methods using power point presentations (Appendix Ten). The participants commenced collage creation during the workshop. There was a large selection of magazines available with supplementary items including paint, glitter, felt tips, stickers, craft supplies etc.



Figure 1: Photographs of workshop table

The participants entered into the process of collage creation with enthusiasm. The participants did sit and chat with each other but there was often silence while they concentrated. The room had a radio, which the researcher switched on to provide background noise with the agreement of participants at each workshop – evidently the researcher was not comfortable with the silence! The atmosphere was one of collegiate purpose with participants focused upon the task of image production. Occasionally participants would comment on another participant's collage usually to give praise and encouragement.

Taking into account the fact that all twelve participants kindly attended the workshops and willingly gave their free time, participants were given the option to continue work on their collage at home should they need to, rather than staying beyond the end of the four-hour workshop. Two of the twelve research participants wanted to continue

working on their collage and finished their pieces at home. Both participants took extra supplies and returned their completed collage at their follow-up conversations.

4.6.12 Stage three post-collage conversations

Ethnographic interviewing allows the researcher to adopt an informal and conversational style to encourage participants to 'tell their own story' (Spradley, 1979). Because of possible falsity and formality associated with the term 'interview' (Clandinin & Connelly, 2000) the term 'conversation' was instead used on all information and consent sheets. The approach taken followed a 'dialogical conversation' (Freire, 1972); an open demeanour was used to encourage participants to challenge or provide opinions and ideas.

Individual participants were invited to talk through conversations in a one-to-one setting with the researcher. Conversations took place in offices situated at the main work site of the participant. The conversations were digitally recorded with verbal consent from all participants. All conversations followed the same format with a single question asked of the participant: How do you see silence in the culture of radiography? A set of questions could have constrained the conversations and answers to a route set by the prior knowledge of the researcher. The aim was to provide an account of silences while seeking to reduce the influence of a priori assumptions.

4.6.13 Collage authorship and copyright

Attention to issues of collage authorship and copyright were essential. In the UK the copyright of collage pieces (artistic work) extends until 70 years after the death of the image-maker. The image-maker is the copyright holder (Wiles et al., 2008). In this case the copyright holder for each collage will be the participant - who can sell or give the copyright to another person. Artists typically copyright their images by statement such as 'copyright of2017'. In addition to these property rights, in the UK the Copyright, Designs and Patents Act (1988) (Great Britain Legislation, 1988) adds a moral right for the owner of images to not have their images shown in a belittling or deprecating way (Wiles et al., 2011). If any part of a collage piece is to be used in an article or other

method of dissemination then this must be with the on-going permission of the participant copyright holder. As such, the informed consent sheets asked for permission to use collage pieces in the dissemination of findings but it was also necessary that participants were shown draft copies of work prior to dissemination. Permission had to be sought for the use of whole collage or sections of collage.

Research participants were given the option to choose what images, if any, could be displayed and presented in results. Issues about subsequent research dissemination were discussed during the follow-up conversations with collage participants. It was necessary to discuss with participants the multiple meanings of visual data and the notion that the meaning and significance of images can change over time (Chilton, 2013). Care had to be taken to report here and at the conclusion of the study that the collage and interpretations represent the participants' images of culture at a specific point in time. Care must be taken in both analysis and in the presentation of findings; it was important to clarify and verify ideas with participants (Pain, 2012). It was the participants' right to withdraw consent at any stage of the research with a choice to withdraw either all or part of the data from the study. No participant withdrew consent.

4.6.14 Research governance

The researcher's position at the trust was one of a registered diagnostic radiographer carrying out research in three NHS radiography departments. Consequently the study was guided by four policies: 1) HCPC (2016) standards of conduct, performance, and ethics; 2) SCoR (2013) code of professional conduct; 3) the UK policy framework for health and social care research (Health Research Authority, 2018); 4) the research governance policy of the local trust.

The Data Protection Act (2018) (Great Britain Legislation, 2018) governs the requirements for the storage and protection of the physical data gathered in the form of field notes, collage pieces, digital audio recordings and transcripts; all were kept in a locked office. Electronic data were stored on a password-protected file drive. Data will be kept on file for a minimum of three years after the completion of the research study however, considering the notion of authorship and ownership of art, the collage pieces were digitally copied to file store and the originals offered for return to the

participants. The participants chose to donate the collage pieces for use at dissemination of findings. At three years post completion of the study electronic data will be deleted from computer files and physical data and artefacts will be disposed in a local trust confidential waste bin.

Due to the nature of the collage workshop complete confidentiality of data was not possible for participants during the workshops. Participants were familiar with the requirements of confidentiality; this forms part of their everyday work and conduct with patients (HCPC, 2016). However, participants were reminded of their responsibility to respect the views of all present and not to discuss any personal information outside the workshop. The workshops were held in a private room and it was not possible for others outside the group to hear any discussion.

The follow-up conversations were confidential between the participants and researcher but their views, thoughts and expressions were shared as a part of the research findings including numbered participant quotes. It is possible that readers of the research who know the researcher personally will be able to ascertain which trust was involved but they would not be able to identify individuals or specific departments.

4.7 Potential issues

As research progresses issues can arise and on-going consideration to potential ethical issues was required. Researchers make ethical decisions in the context of their individual moral framework and are also guided by the advice of supervisors. Wiles et al. (2011) add that key virtues of integrity, truthfulness, and professionalism are linked to excellence in ethical standards.

4.7.1 Potential issues for participants

During stage one observations, participants could have felt pressured, insecure, or self-conscious about being observed. They may have felt concerned that observations or conversations with the researcher would include personal judgments of themselves and their work. Topics could have been discussed during the observations that participants did not want to be included as part of the research or to be published.

During stage two workshops, because visual methods facilitated the expression of emotions and tacit knowledge, participants could have revealed more than they were expecting to share with the researcher (Pain, 2012). Issues associated with silence could have elicited uncomfortable feelings for the participants.

During stage three conversations, there may have been some discomfort, embarrassment, upset, or even distress from participating in conversations. To lessen these possibilities at all stages participants were reminded that they did not have to share or discuss anything they did not wish to discuss. At the start of each of the sessions the participants were reminded that they were free to withdraw their consent to take part at any time. If a participant had required support or help examining issues that arose for them in their experiences of silence they would have been signposted to the local trust rapid access self-referral to counselling and psychological services. The confidential service was available to all trust staff and the counselling service coordinator was aware of the study, offering advice with regards to the access procedure for participants.

4.7.2 Potential issues for the local organisation and wider profession

If the findings of this research are perceived to include negative judgments of the profession or organisation then the effects could be significant; patients and carers could doubt a department's ability to provide the best care for patients. There is therefore a risk for the local trust and more widely the profession by being involved in the research depending upon the reception of the findings.

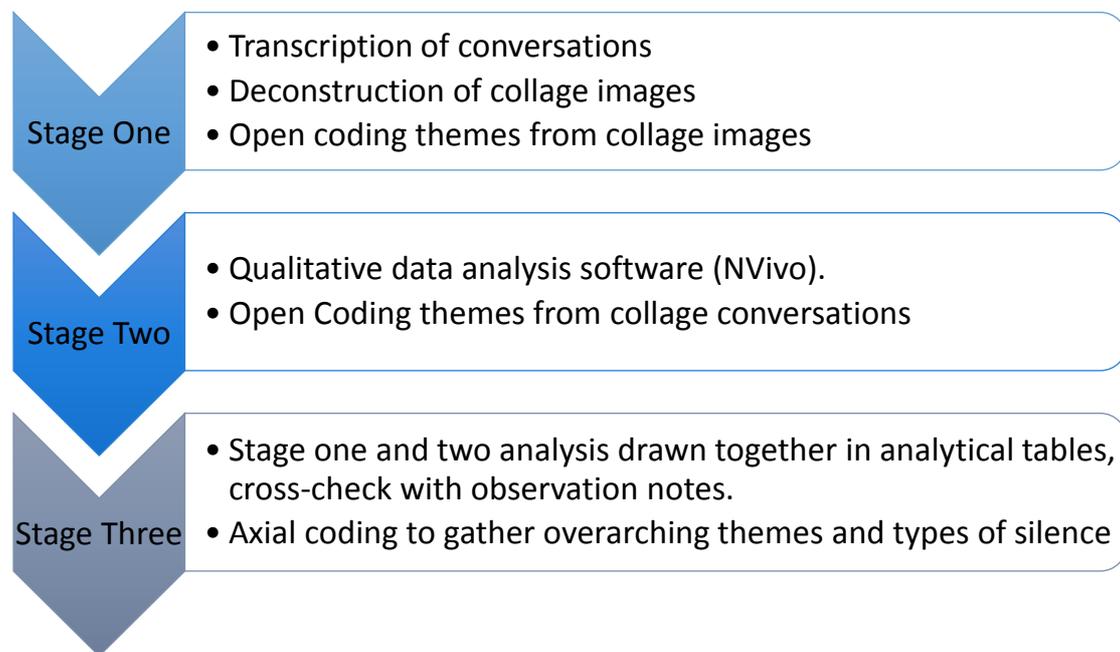
The use of the research findings for use of dissemination including but not limited to thesis, conference presentations, posters and academic articles are purposes specified on the participant consent forms and discussed with participants. There are assurances that maintaining the anonymity of both the trust and the research participants were a main consideration when disseminating findings. This presented a moral dilemma for the researcher because if a research participant wanted to be identified, for example as an author of a collage piece, it was not possible to comply. Morally and ethically the research had a critical element because the research topic of silence is related to silencing. Essentially, maintaining anonymity can also be regarded as silencing the participant. However, to name one participant would have

risked the anonymity of remaining participants and the local trust. For this reason all findings in this study will remain anonymous.

4.8 Stages of analysis

Analysis was a co-production between participants and the researcher during observations, workshops and conversations (see Table 6). The researcher approached the process of analysis with an intention to create knowledge in the form of informative findings rather than a detached display of data. Three specific stages of analysis were necessary to study and collate the findings.

Table 6 Stages of analysis



4.8.1 Analysis stage one

With the permission of participants all post-collage conversations were audio-recorded. For stage one of analysis the researcher transcribed the conversations to typed text in a word document, listening line-by-line and aiming to type the conversations verbatim representing a textual coding. Although it was necessary to translate the visual to verbal data for analysis in this study it was not considered necessary to review the minutiae of conversations; the analysis of conversations in this instance did not require in-depth attention to tone of voice, animated speech, use

of humour or emotion (Gerstenblatt, 2013). The study aimed to provide an account of silence at a cultural rather than an individual level.

Each collage was digitized and then deconstructed to individual pictures, cut and pasted into an individual word documents. Relevant conversational text was attributed to each image. The researcher searched for themes and wrote electronic memos during the transfer of images to the word documents. Open coding of the data led to the construction of themes and images that were then pasted and grouped together in a Microsoft Sway document, Office 365. Images were pasted under headings that highlighted the themes visually, representing visual coding (Vogt et al., 2014). Access to the stage one document is available online via this link: <https://sway.com/sfwCqka67MbXv5tw?ref=Link> the document works in the same manner as a web page.

A link to the sway document was sent to the participants for member checking. Participants were asked for comments about the researcher's interpretations of the observations. Participant validation was regarded as a method of checking for inconsistencies, created a space inviting challenges to the researcher's findings.

4.8.2 Analysis stage two

Transcripts of conversations were read through twice more before a process of open coding using qualitative software, NVivo 11. Analysis of the conversations acted to summarize the concepts and arguments that participants' words, imagery and collage pieces inspired in relation to the silence literature. Visual and narrative data necessitated that the process of analysis was to describe, condense, and interpret patterns in the data and to make sense of them (Rolling, 2013; Chilton & Scotti, 2014; Leavy, 2015). Collier & Collier (1986) took an analytical approach similar to this study, decoding visual to verbal data, which Pink (2013) argues was analogous to the translation of art to science. The translation was a necessary step for analysis in this study. See Table 7 for example NVivo screen shot.

Table 7 Example NVivo stage two analysis

Name	Sources	Referen...	Created On	Created...	Modified On	Modified By
▶ Empathy	10	31	26 Apr 2017, 21:27	TJ	7 May 2017, 21:05	TJ
Avoiding conflict	9	21	26 Apr 2017, 21:41	TJ	7 May 2017, 21:09	TJ
The unsaid	9	30	25 Apr 2017, 22:01	TJ	7 May 2017, 21:12	TJ
Emotional labour	8	36	26 Apr 2017, 22:44	TJ	7 May 2017, 21:13	TJ
Metaphor	8	22	26 Apr 2017, 22:55	TJ	7 May 2017, 18:48	TJ
Researcher	8	23	27 Apr 2017, 07:36	TJ	7 May 2017, 21:11	TJ
workload	8	24	27 Apr 2017, 20:37	TJ	7 May 2017, 21:12	TJ
Avoiding embarrassment	7	10	25 Apr 2017, 22:03	TJ	7 May 2017, 21:09	TJ
Silence providing space t...	7	13	25 Apr 2017, 22:05	TJ	7 May 2017, 18:44	TJ
Legal & Ethical	6	14	26 Apr 2017, 22:33	TJ	7 May 2017, 18:41	TJ
Looking & listening	6	13	26 Apr 2017, 22:35	TJ	7 May 2017, 21:00	TJ
Positive collage	6	11	26 Apr 2017, 22:29	TJ	7 May 2017, 18:49	TJ
The unknown	6	10	27 Apr 2017, 20:34	TJ	7 May 2017, 20:48	TJ
Hieararchy	5	14	7 May 2017, 11:19	TJ	7 May 2017, 21:10	TJ
Learning how to talk to pa...	5	9	25 Apr 2017, 22:04	TJ	7 May 2017, 17:25	TJ
Making assumptions	5	9	27 Apr 2017, 07:39	TJ	7 May 2017, 12:05	TJ
Non-verbal communication	5	13	26 Apr 2017, 22:40	TJ	7 May 2017, 18:42	TJ
Not challenging hierarchy	5	7	26 Apr 2017, 21:24	TJ	7 May 2017, 21:10	TJ
Physical barrier	5	6	25 Apr 2017, 22:00	TJ	7 May 2017, 18:39	TJ
Hiding behind protocol	4	4	26 Apr 2017, 21:28	TJ	7 May 2017, 18:47	TJ

At this stage the analysis of conversations highlighted that the researcher had made presumptions with regards to the relevant theoretical framework. The application of a theoretical framework has implications for the interpretation of meaning in terms of the focus of analysis (expanded subsection conceptual framework 5.2 below). The amended framework shifted the focus of analysis at stage three.

4.8.3 Analysis stage three

For stage three analyses the initial themes that had been drawn from the collage images were combined with the themes from participant conversations and observation notes into analytical tables (See Table 8). Comparison across the tables allowed an emphasis on reliability and consistency for quality assurance of the analysis (Vogt et al., 2014). The tables were reviewed in a process of axial coding to elicit overarching themes. A stage three analysis was considered to provide a form of assurance because the findings were correlated across sources and methods. Dependability was explored via source triangulation, which took place checking across the participants' tables. Method triangulation attempted to check for patterns across the conversational themes, collage images and conversations (Miller et al., 2008).

Table 8 Example analytical table participant one

Collage and Conversation Participant One	Correlation with observation notes
Atmosphere of depression	-----
Emotional exhaustion Radiographer inability to sleep	Increased levels of silence in viewing areas when pace of workload increased; radiographers waiting to use examination rooms with reduced interaction.
Emotional labour	Discussion of challenging cases especially patients in pain, cases of trauma, oncology and death.
Silent grief	Little time to reflect on emotions especially at site with heavy workload and low staffing levels.
Emotion management and suppression of emotion when family and carers present.	----
Dominance of images over voice	Referrers arriving to speak to radiographers about patients were automatically escorted to the Picture Archiving Communications System (PACS) monitors even when questions did not concern images.
Silent touch providing comfort for patients. The use of touch is a cultural aspect of diagnostic radiography; there is a need to position patients for imaging.	-----
Silence as a tool for communication when the anxiety of patients drowns out the sound of words	-----
Dilemma associated with anxiety and worry is compounded by silence	Radiographers expressing feelings of guilt at being unable to reduce patient anxiety by giving them the results of the examination.
Effect of heavy workload increases silence; focus moves to the primary task of image maker	Increased levels of silence in viewing areas when pace of workload increased.
Reference to calm	During observations staff joked not to use the 'C' word (calm) because it meant the workload would increase. A paper in the silencing/emotional labour literature spoke about witchcraft in nursing – not saying (silencing) certain words such as 'busy' etc. Similar beliefs in radiography.
Open communication aiding examination technique and patient care e.g. acknowledging patient pain. Social defence (silence) inhibits communication when used.	To acknowledge patient's emotions fits with the literature about bearing witness and sharing emotion A radiographer is coaching students what to say to patients "I'm sorry I know that you're upset".
Socialised to remain quiet and not show emotions	Staff discussion about spaces where it is acceptable to cry e.g. rest rooms.
Nightshifts / lower staffing levels affect the ability to unofficially debrief with colleagues	-----
Silence when experience is overwhelming / beyond words	-----
Protocols provide a means for silencing or avoiding conflict but also paradoxically produces conflict	Outpatient manager query about staff not accepting referrals from a practitioner – the practitioner had not undertaken IR(ME)R training therefore not authorised to refer. Outpatient manager was confrontational with staff. Staff ended the conversation saying that IR(ME)R overruled any argument.

4.9 Analysis points of note

Previous adaptations of analytical frameworks to fit visual analysis have included content analysis, social semiotics, ethnomethodology and rhetorical analysis (Rose, 2016). Pink (2013) discusses and concludes that 'normal' methods of ethnographic analysis, such as linguistics and semiotics are not commonly used in visual ethnography. A small number of analytical approaches have been developed specifically for visual analysis. An example is iconology providing analysis that describes and classifies images in an attempt to reveal underlying attitudes (Panofsky, 1962). Pauwels (2010) argues that previous frameworks have not systematically examined the social and cultural significance of images. This was an important point because this study sought to understand cultural aspects of silence. An integrated framework for visual social research was used as a guide to address the gap (Pauwels, 2010, 2011) paying attention to the nature of the images, research focus, design, format and purpose.

Participant-produced collage provided cultural data in a visual form that afforded a unique insider perspective. Pauwels (2011) labels the process native image production. Analysis made sense of the collage images and the part of the researcher was necessarily subjective with respect to the contingency of meaning in visual data (Pink, 2013). To understand the relationship between content, context, and meanings of silence the analysis facilitated connections between researcher and participant experience, field notes, and collage pieces. A reflexive ethnographic account (see chapter eight) adds context.

A collaborative analysis between the participants and researcher was supported by this visual ethnographic approach (Pink, 2013). Collaboration was essential for the situated and specific understandings of collage pieces (Leavy, 2015). An outcome was that the participant's cultural vision was framed and represented within the study results. Chilton & Scotti (2014) introduce the idea of a quilt of collage that produces an aesthetic layer of knowledge, previously unconscious or unarticulated. Collage visually illuminates what had only been abstract theoretical ideas prior to inquiry (Chilton, 2013). When images are combined with observed aspects of visual culture Pauwels (2010) posited that the result is a 'fixing of the shadows'. Therefore the

metaphorical cultural quilt of images produced during this study was considered to be a material depiction of the shadows of silence (Figure 75). The shadows of silence were illuminated by the participants' analysis at post-collage conversations.

4.10 Participant validation

All participants and research supervisors were invited to read the first stage analysis via a link to the online sway document. Participants were asked via email for comments about the researcher's interpretations of the collage pieces. Participant validation provided a method of checking for inconsistencies. The process also provided an opportunity to re-visit and re-analyse the findings for the researcher. It was intended to establish confirmability with a goal to proactively evaluate and verify processes (Miller et al., 2008).

Chapter 5 Findings

5.1 Introduction to chapter

The purpose of this study was to provide an account of the silences that presented in projectional imaging (X-ray) practice. To do this the study explored the types and functions of silence in a culture of diagnostic radiography.

Six observation sessions took place as an adjunct to main collage findings; two sessions at each of the three imaging departments involved in the study. Findings of observations are included in Appendices Eight and Nine rather than in the main body of the text. In traditional ethnographic approaches observations are main methods of data collection. In this study observations allowed the formulation of initial impressions of silence that were explored with participants at the time. These initial and also emergent ideas were openly discussed during the observation sessions, the collage workshops and follow-up conversations with participants.

Collage was the main method for exploration in this study. Twelve collage participants each produced an individual collage. The findings for this study are predominantly visual, therefore it was necessary for the participants to translate their meaning orally for interpretation; each individual collage required follow-up conversations with the participant who created it. The conversations were essential for interpretation of the polysemy of meaning present in the collage images.

Each conversation took place in an office situated at the work site of the participant. The conversations were digitally recorded with verbal consent from all participants. The shortest conversation was eighteen minutes, in comparison the longest conversation with duration of 46 minutes. All conversations followed the same format with an introductory question asked of the participant: 'How do you see silence in the culture of radiography?' The topics discussed through the medium of collage were varied and fluid. It was necessary on some occasions to gently re-focus participants around the central theme of silence. The participants were all able to quickly re-focus when prompted.

5.2 Conceptual framework

The terms theoretical framework and conceptual framework are often used interchangeably with confusion about the differences between the two (Green, 2013). A distinction can be made with a suggestion that the term theoretical framework should be used when one theory underpins research and the term conceptual framework should be used when the research draws on concepts from various theories and findings (Parahoo, 2006). This study used a conceptual framework drawn from two theories, the concepts were selected as a result of the analysis of findings. A similar process has been likened to crystallisation, with emerging or tentative factors relevant for the study becoming visible (Sinclair, 2007).

The conceptual framework directed the analysis and discussion of this thesis. The introduction (chapter one) and background to the study (chapter two) provided an overview that meant it was initially anticipated that concepts from theories of power and surveillance would be relevant. The assumptions were made in relation to the effects of medical dominance, technology and hierarchy in healthcare and radiography culture. In fact, power and surveillance, although featuring in the findings, played a lesser role in the picture of the culture of silence than expected. Instead themes pointed to the relevance of the concepts of social defence and cultural censorship.

Social defence theory can be traced to an initial hypothesis posited by Jaques (1953). Jaques studied a 1950's industrial factory and theorised that social defences against anxieties and emotions were aroused by organisational tasks and dynamics (Long, 2006). Long concurs that communities act collectively yet unconsciously to move unbearable feelings from one to another. Jaques' colleague, Menzies-Lyth, developed the notion of social defences in healthcare with a seminal piece of work studying nursing (Menzies-Lyth, 1960; Menzies-Lyth, 1998). It was possible that associated concepts of emotional labour, emotional regulation and social anxiety would be relevant to this study. It was therefore necessary to perform a second literature review (chapter six) to inform Chapter Seven discussion.

In addition to theories of social defence, the findings and analysis suggested that the concept of cultural censorship would provide a structure to guide the discussion of

the cultural silences found in this study. The theory adds an additional layer of understanding to the theories of social defence when both are used in combination. Cultural anthropologist Sheriff (2000; 2001) theorised a cultural censorship in relation to silence in a Brazilian community. Sheriff posited that a set of communal, un-enforced, and un-coerced silences may be shared in a cultural group. The shared silences shape social and political landscapes. Hart & Hazelgrove (2001) first conceived that Sheriff's theory was also applicable in healthcare. Hart (2006) used a framework of cultural censorship to recognise a conceptual theme of invisibility running through three medical anthropology studies. She developed the notion of situations where healthcare employees' attempt to speak in organisations but feel suppressed or marginalised. She used Sheriff's concept of cultural censorship particularly when studying healthcare because it is built upon an understanding of socially shared silence. Socially shared silences are endemic in health services (Hart & Hazelgrove, 2001). Socially shared silences were evident in this study. Some shared silences result when dominant views become the taken for granted norm, therefore dissent is not possible because people do not recognise the silences. Cultural censorship is different because people recognise issues and will speak about them in certain situations, they do not accept dominant ways of thinking. Instead people, or more precisely a collective culture, may withdraw into silence communally on the basis of tacit understandings (Hart, 2006). Cultural censorship provides a powerful analytical device to explicate such silences (Hart & Hazelgrove, 2001)

5.3 Study participants

Appendix Eleven provides an example transcript post-collage conversation. Appendix Twelve provides details of role, band and gender of staff that took part in the study. The details are placed in the appendix because this study provides an account of silences from a cultural rather than an individual approach. It is not possible to extrapolate findings because of issues such as previous experience of staff and students. This information is provided for context only. The study participants were radiographers, assistant practitioners and student radiographers. There were 28 participants in total: 19 radiographers, 1 assistant practitioner and 8 student

radiographers. Sixteen participants were observed in clinical practice. Twelve participants who had not been involved in the observation sessions attended collage workshops and follow-up conversations.

5.4 Presentation of findings

The use of collage as a research method is novel to diagnostic radiography at this time. Radiography scholars may consider the presentation of findings in this chapter unusual because of the dominance of images, yet the production of images is a primary task of the diagnostic radiographer in clinical practice. The presentation of findings must comply with convention for the submission of this doctoral thesis in line with the regulations of the school of health and society at University of Salford. Alongside the perceived need for convention, the findings called for a creative presentation in order to keep the essence and not reduce the impact of the images. The findings are presented here as a balance of convention and creativity. Whole collage pieces are first presented for context. Findings are then illustrated by focused sections of the collage images, organised and presented in terms of major themes. The findings include example excerpts from the conversations with participants during observations of practice and quotes from participant conversations.

5.5 Whole collage images

Whole collage images are presented over the next series of pages in order of participant number.



Figure 2: Collage participant one



Figure 3: Collage participant two



Figure 4: Collage participant three



Figure 5: Collage participant four

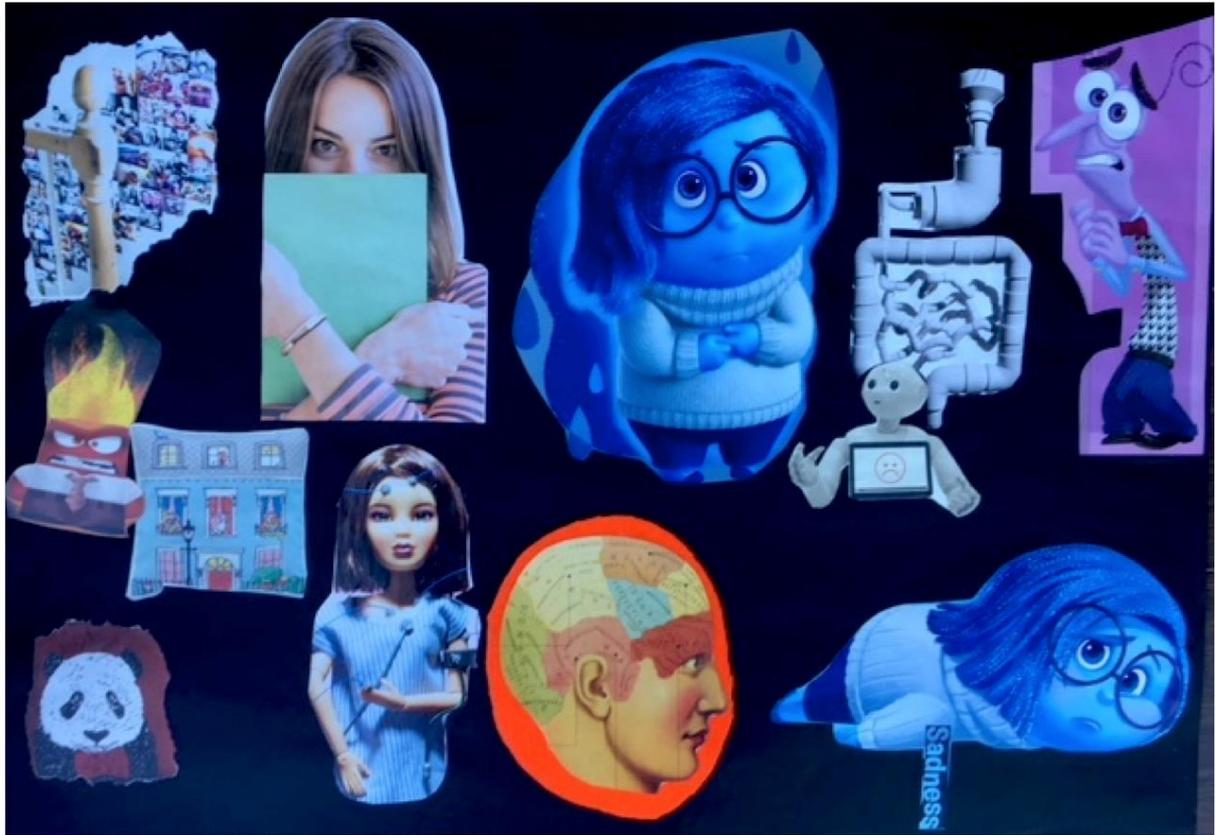


Figure 6: Collage participant five



Figure 7: Collage participant six

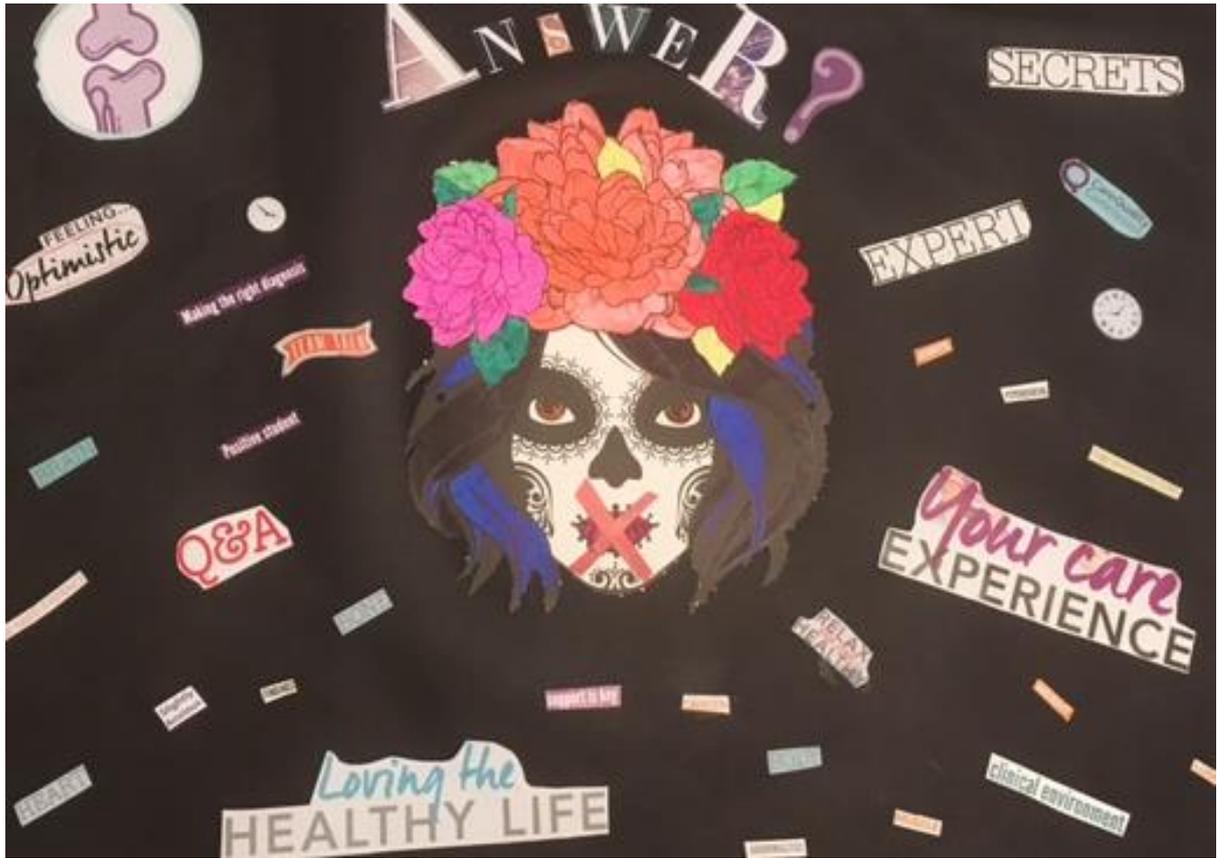


Figure 8: Collage participant seven



Figure 9: Collage participant eight



Figure 12: Collage participant eleven



Figure 13: Collage participant twelve

5.6 Findings: major themes

The researcher conceived that there were five major themes demonstrated across the findings. Accordingly the findings are presented in terms of the major themes: emotional labour & social defence; workload; conflict; hierarchy; dilemma.



Figure 14: Diagram major themes

5.7 Theme One: Emotional labour and social defence

Participants spoke of sorrow, hope and fear in the terms of particular emotions that they conceived to be common in their culture of diagnostic radiography. Many of the participants discussed these three emotions and felt that they led to feelings of empathy for patients. Supposing how patients felt, participants discussed that anxiety was a tangible emotion displayed by patients when attending imaging departments. Participants described a limited range of patient involvement or liaison with radiography staff beyond attending for examinations. For example, a participant was concerned that services sought feedback from patients but did not feedback to staff. Participants spoke about the emotional energy required for radiography clinical practice with references to emotional exhaustion in some of the collage images. All of the collage workshop participants reported some form of suppression of emotions in

clinical practice. The use of a silent emotional mask was conceived to be a tool to suppress emotion. Participants noted that patients use silence to communicate with staff and also to suppress the patient's own feelings.

Participants discussed aspects of emotional labour particularly in instances where a patient's images demonstrated pathology that was possibly malignant; a patient was near end of life; or when a patient was visibly emotionally distressed or in pain. The context of the situations dictated how staff responded: use of silence was fluid and changed according to perceived patient needs. In doing so participants indicated that they considered intersections of patients' personal lives, illness and diagnosis in a holistic manner. For example:



Figure 15: Participant one

"It represents bad news"



Figure 16: Collage image participant one

"Sometimes words are too much, you know, just even, stroke their hair or stroke their hand and let them settle down"



Figure 17: Collage image participant five

"I put this as bad news about a health issue. There's silence as well because you don't want to say.... Let's say if you've got a patient and you've found a mass on their chest"



Figure 18: Collage image participant one

"Death in the workplace and how we deal with what, whether we use silence, or whether we don't. The way I've seen it, it's always been in a silent way"



Figure 19: Collage image participant one

“Even though you’ve got so much activity, you’ve got that, almost, that mode of depression”



Figure 20: Collage image participant two

“Radiographers would probably be good at playing poker after working in a digital room”



Figure 21: Collage image participant one

“Grief, that’s what that represents. The way we deal with grief, that sorrow and facial expression”



Figure 22: Collage image participant four

“Yes so these are all the emotions that come out”

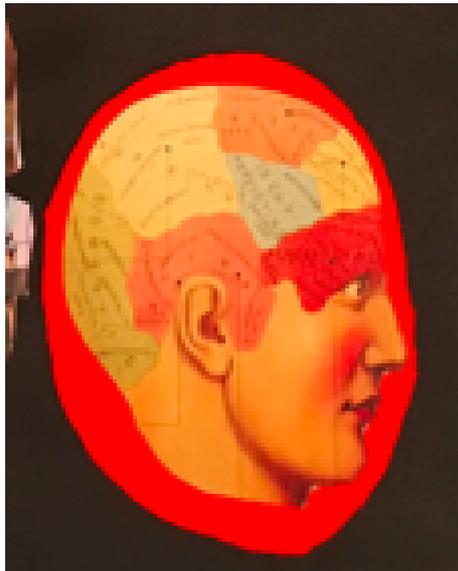


Figure 23: Collage image participant five

“This shows fear and fear can, if you fear something that causes silence. So let’s say if you don’t want to say out of fear of someone higher or maybe you see something wrong and keep it to yourself just out of fear. You don’t want trouble”



Figure 24: Collage image participant two

“Yes you put your mask on and come to work”



Figure 25: Collage image participant eight

“I am quiet when I attend the patient and I smile. That’s a positive communication that’s started the introduction”

5.8 Theme Two: Workload

Silence was described in the terms of a tool to speed up workload when staff were under pressure.

There was a common theme of being watched – participants described the silent gaze of patients and managers.

Participants outlined the silent and invisible role of the radiographer that resulted in a lack of knowledge about radiography among patients and fellow health professionals.

Participants noted that the nature of the radiographic encounter means that staff have little information or background with regards to the patient when they present in the department.



Figure 26: Collage image participant eleven

"You know you haven't got time for noise and chit chat. You've just got to go"



Figure 27: Collage image participant two

"There are so many kinds of silence in our work. This is silence in the waiting room. They are silent but the way they are watching you is like 'We see you, we are watching!'"



Figure 28: Collage image participant eleven

"Then there's this silence lurking"



Figure 29: Collage images participant three

"We're dealing with radiation and it's dangerous. Sometimes there's silence because of that situation"



Figure 30: Collage image participant three

"You chat and everything and when you're behind it's getting down to business: the banter stops and people don't talk"



Figure 31: Collage image participant eight

"When the clock is ticking, just like, you know, keep going. You will be trying to be fast but you won't show it"



Figure 32: Collage image participant eight

"You need a bridge to cross that river and that bridge is communication. The patient has their own fears but with all these communications, you know all these strategies how to deal with it, then you just come across the bridge"



Figure 33: Collage image participant twelve

"The patient and you hoping. Silently hoping for the best"

5.9 Theme Three: Conflict

Participants spoke about conflict and reported few attempts to communicate with managers about issues that concerned them. Participants recalled encounters with managers and reported a culture where there was an inability to act on the part of line managers (for a variety of reasons including hierarchy of organisation). Participants commonly empathised with managers and validated their actions. Qualified staff indicated that managers either didn't listen or else silenced their concerns with tactics such as inaction and brushing under the carpet of pertinent issues.

Student radiographers did not speak about management in their conversations.



Figure 34: Collage image participant four

"That's just about what's around you, why you're quiet, people"



Figure 35: Collage image participant two

"Yes that puts you on one kind of silence. Even if she wants to help she can't really do anything. There's no point complaining because you know they're in an awkward place"

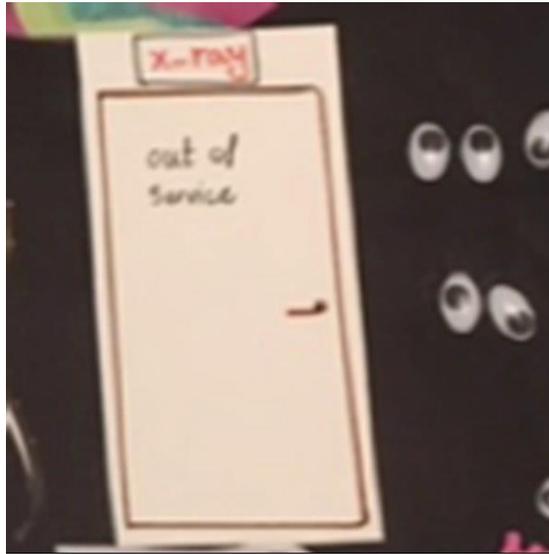


Figure 36: Collage image participant two

"Conflict means that communication falls apart and how that leads to people feeling silenced"

5.10 Theme Four: Hierarchy

Some of the situations that were observed and participants described can be described as oppressive, for example when a doctor came to speak about a patient but did not speak with a student radiographer or assistant practitioner – who were equally as capable of discussing issues such as how to prioritise urgent cases, whether a patient had prior imaging available or to ask about waiting times. Often managers and other healthcare professionals would seek out ‘the person in charge’.

Alternatively a participant discussed the idea that cultural artefacts replace voice. In that instance the participant described scenarios in which hierarchy resulted in the suppression of voice. For example, at one point the official (MSc trained) reporting radiographer was unavailable. The imaging staff present, however, were equally as capable of providing a preliminary evaluation of images. Instead a referrer elected to view images on a PACS monitor, not speak to the staff. The clinical imaging staff stood and looked at each other in what could be conceived as a prosocial silence or reverential silence.



Figure 37: Collage image participant one

"This is how we let our work talk for us...I think we've all been there and done it, where we automatically assume our images will talk for us"



Figure 38: Collage image participant two

"Patients fill out surveys in reception. I don't know, it was something about hand washing and did staff introduce themselves, but I don't know what else. It's not particularly involving them. We didn't get the results"

5.11 Theme Five: Dilemma

Silence was used to mediate dilemma and dichotomy in day-to-day practice which mostly arose as a conflict between perceived legal issues and ethics. Regularly this was in relation to the questions posed by patients about diagnosis and results.

Not commonly discussed in clinical practice, participants used collage images to represent tacit feelings of contentment with their role while also providing evidence that imaging staff are sometimes limited in their ability to relieve the emotional and cognitive suffering of patients due to service design and hierarchy. The participants described both positive and negative roles of silence in clinical practice that result in dilemma.



Figure 39: Collage image participant twelve

"It's a balance of head and heart"



Figure 40: Collage image participant two

"Initials for confidentiality, to show they're not just sets of eyes - they are people"



Figure 41: Collage image participant three

"Knowing what to say and what not to say. It's knowing when to be quiet"



Figure 42: Collage image participant twelve

"That's about silence; because we know what's there but should we say something or should we not? There's this dilemma depending upon the person and not knowing what the reaction will be"



Figure 45: Collage image participant four

"So you've got all these emotions going on around you, and then it's quiet, peace"



Figure 46: Collage image participant eight

"Oh it's beautiful you know, your patient is happy and you smile"



Figure 47: Collage image participant eight

"I've done for my patient the best I could and you feel like, phew, I've done it. So I put some flowers because you know it's a rewarding thing for us as well"

The findings in this study contribute an account of silences in diagnostic radiography clinical practice. The topics discussed through the medium of collages resonated with the extant silencing literature. The findings were collated and presented in themes that summarise the work in terms of: emotional labour and social defence; workload; conflict; hierarchy and dilemma. The following chapter will provide a review of emotional labour and social defence prior to the discussion of findings in chapter seven.

Chapter 6 Literature Review: Emotional Labour and Social Defence

6.1 Introduction to chapter

The analysis in this thesis explored the findings from collage images, conversations and observations of clinical practice. It was originally anticipated that silences might be related to power structures and silencing. While that is still the case, to a greater extent the participants' accounts of silences direct the study to the areas of emotional labour and social defence. It was therefore necessary to explore literature around both areas to elicit further understanding.

This chapter of the thesis will provide a synopsis of literature in the fields of emotional labour and social defence relevant to this study. Emotional labour and social defences have proved to be particularly germane to this account of silence and radiography clinical practice. This chapter therefore provides contextual information prior to the discussion in chapter seven.

An initial search used the database EBSCO host with the keyword healthcare combined with: emotion management, socialisation, emotional labour, emotion regulation, support and wellbeing. NVivo 11 software was used for management of articles and a snowball technique was used to follow-up pertinent references (Wohlin, 2014).

6.2 A definition of emotions

Emotions are described as spontaneous processes in emotional labour literature. Anxiety, envy, anger, disappointment, pride, excitement, fear and depression are all examples of emotions felt at work (Gabriel, 2017). Gabriel also adds that compassion, disdain, fear, love, nostalgia, hope, pride and a range of other emotions tend to be amalgamated and simply referred to as emotion. A single emotion, for example

compassion, will have different meanings for individuals which results in difficulty drawing conclusions about emotions and emotion work (Hurley, 2007). The nebulous characteristics of emotions are akin to silence and they are also context dependent. This study follows a definition that conceives emotions on a continuum (Dudley, 2017). Dudley considers and explains that when spontaneous emotions are recognised by the individual they become feelings, which may fade in intensity and become described as moods. In contrast to spontaneous emotions and moods, people also experience feelings that can be controlled, enhanced, moderated or even suppressed. Social situations and culture shape how spontaneous emotions and moods are expressed and interpreted. Cultural rules influence what kind of feelings can be publicly shown or silenced and how they are interpreted. Silence scholars conceive that either spontaneous or deliberate silence may be used to express feelings (Zerzan, 2010; Freedden, 2015).

In particular, anxiety has been posited as a sovereign among workplace emotions, especially in psychoanalytic accounts (Gabriel, 2017). This appears logical in a healthcare setting, considering that anxiety was central to the development of seminal theory of social defences in nursing (Menzies-Lyth, 1960). Social defences are important in this study of silence and will be expanded upon later in this chapter under the subheading social defences. Beside anxiety the range of emotions, feelings and moods mentioned by participants included hope, joy, sorrow, grief and fear.

6.3 Positive and Negative emotions

Emotions are again similar to silences in that despite presenting on a continuum they tend to be described in binary terms: either positive, for example, joy, calm and pride; or negative, for example, anger, shame and sadness (Zammuner et al., 2003). A diversity of emotional experiences have been described in peoples' working lives; a study of UK special educational needs teachers found positive experiences of care and love through to darker emotions of anger, isolation, loneliness and frustration (Mackenzie, 2012). Tugade & Frederickson (2004) found that experience of positive

emotions influences negative emotion regulation. Accordingly positive emotions can positively influence stress and coping mechanisms.

Also in line with silence, emotions are perceived as taking a more negative or positive function depending upon the standpoint of the individual or group. Emotions can function as devices of power; the feelings related to shame, guilt and happiness can be employed by supervisors and organisations to control their employees, for example, under-performing employees may be highlighted in organisations, using embarrassment as a form of control (Gabriel, 2017). The same process can be applied to organisations and more widely healthcare services are named (and shamed) in CQC healthcare rankings. Currently software dashboards are used as a method to measure quality and standardisation in radiology (Karami & Safdari, 2016; Scottish Clinical Imaging Network, 2018). Monitoring of clinical imaging may be in the form of performance measures, waiting times and workflow, time to diagnosis and friends and family questionnaires. At the level of the individual imaging practitioner, performance and errors are recorded on databases and discussed at Multi-Disciplinary Team (MDT) discrepancy meetings. These examples can be related to emotions, particularly shame and embarrassment, which can be 'turned against' employees (Gabriel, 2017). Defensive silence may be used to protect groups or individuals against negative emotions such as shame and embarrassment (van Dyne et al., 2003; Brinsfield, 2013). Participants in this study described emotions including hope, grief, sorrow, fear and joy.

6.4 Elements contributing to emotion

Studies through the lens of biology, psychology and culture contribute to understanding of emotions. First, in simple terms, emotions involve changes in bodily systems; they have a biological effect. Of particular note for healthcare staff emotions can unconsciously affect physiology in the form of non-verbal facial and bodily expression (Cote & Morgan, 2002). Second, because emotions give rise to conscious feelings they also have a cognitive and psychological perspective. People regulate either their emotion or expression according to changing contexts (Weiss &

Cropanzano, 1996). Silence aids regulation. Third, emotions are given labels, for example happy, angry, sad; they are named and categorised within society from a socio-cultural perspective (Turner, 2007).

Emotion is exceptional among the senses because it is related to an orientation toward action (Hochschild, 1983). One such emotion that currently appears to give orientation to action in healthcare is compassion. Compassion is now stipulated as a 'value' that is required of healthcare workers in the NHS constitution (Department of Health, 2015a). It is also the mainstay of values based recruitment of staff (Health Education England, 2014). Arguably however, a spontaneous emotion is difficult to stipulate, measure or regulate. Compassion has been defined by radiography scholars as an awareness and feelings of discomfort around another's suffering with a desire to act (Bleiker et al., 2016). There is a strong link to silence because silence can function to reflect or enact compassion, a role outlined in chapter three. When employees are paid for this deed/emotion/value it can be classed as a form of emotional labour.

6.5 Emotional Labour

6.5.1 Definition

Hochschild, an American sociologist, provided seminal theory about emotional labour. She used the term emotional labour to describe the regulation of emotions to remain within social norms (Hochschild, 1979; 1983). More widely scholars have used different terms to describe emotional labour, influenced by their background and underpinning theories. The most commonly and interchangeably used terms have been emotion work, emotional labour and emotion management (Riley & Weiss, 2016). All share a common thread of emotional labour referring to emotional expression at work (Grandey, 2000).

The scholarly field of emotional labour is now well established with a large amount of research on the topic (Dudley, 2017). A generous proportion of the studies have been either theoretical, ethnographic observations, or empirical investigations of psychological constructs that are related to emotions. The concept of emotional labour provides a framework for thinking about emotional dynamics at work;

especially when staff have to manage the interaction between natural/felt emotions and required/displayed emotions (Mesmer-Magnus et al., 2011).

6.5.2 Feminist Substructure

The concept of emotional labour has been largely shaped by gender (Elliott, 2017). It is argued that emotional labour has a feminist substructure because women, mothers and nurses have commonly been considered to be natural emotional labourers (Gray, 2009). There remains a prevailing stereotype that emotional labour is a natural tendency for women: it has de-valued the concept in health and wider society (Elliott, 2017).

There is a relatively large body of research related to nursing and emotional labour. The use of the word labour to define the work of emotional interaction is highlighted because it is symbolic in nursing (Elliott, 2017). It allows staff to disengage cognitively from negative emotions in order to maintain their objectivity and emotional equilibrium (Biron & Veldhoven, 2012). Nurse scholars have argued that a broader concept and the term 'emotion work' should be used to acknowledge the autonomy and discretion that staff use with patients and colleagues (McClure & Murphy, 2007). Elliott (2017) discusses and concludes that to enable change, staff must rescind the masculine notion of professionalising emotion to protect the practitioner and encourage emotional involvement with patients. What Elliott does not discuss however, is what form the protection of the practitioner should take and what level of emotional involvement patients are comfortable with. To enable emotional involvement imaging staff would need to raise voice and suppress the silence traditionally associated with management of emotions.

6.5.3 Types of emotional labour

Early literature tends to conceive two types of emotional labour: surface acting and deep acting. When surface acting, a worker suppresses felt emotions and simulates emotional displays in keeping with organisational culture (Biron & Veldhoven, 2012). Deep acting, in contrast, is considered more onerous, with effort to transform felt emotions and actually experience the emotions that are required for display (Biron &

Veldhoven, 2012). Organisational and professional display rules determine what the appropriate expression of emotion is for the situation (Hochschild, 1979; 1983; Ashforth & Humphrey, 1993; Diefendorff & Gregarus, 2009; Biron & Veldhoven, 2012). Display and feeling rules are related to culture and are discussed in the culture subsection in this chapter.

Emotion work and labour have also been described as 'impression management' when they are regarded as a coping strategy in the settings of education, general practitioner surgeries, airline industry, manual labour and nursing (Reeves & Decker, 2012). It is posited that the ability to perform impression management is influenced by an employee's level of job experience, in terms of total number of years spent in a job, alongside personal variables, such as gender, age, and personal status (Zammuner et al., 2003). Zammuner et al. studied other variables including type of hospital ward or department, number of patients, duration of interaction and number of years employees had been working – none could be related to emotional labour apart from a measure of surface acting - which correlated directly with the number of years a worker had been in post. The finding is surprising, it challenges assumed links between wisdom, empathy, and length of service. However, Zammuner's results suggest that length of service is related negatively to levels of emotional exhaustion or burnout. Study of the phenomenon of staff burnout identifies that emotional exhaustion impacts on the health and well-being of individuals in the workplace (Thanacoody et al., 2013). The work demonstrates that the suppression of negative emotions and the display of inauthentic positive emotions are arduous components of emotional labour that contribute to individual exhaustion and silence.

Supervisor's abusive behaviours and leadership have been cited as major causes of emotional exhaustion among employees in quantitative surveys of healthcare staff (Thanacoody et al., 2013). Also, in a qualitative study of teachers, when staff explicitly mentioned stress as a factor in their working lives they often focused on colleagues (Mackenzie, 2012). Recently, silence has been recognised as a strategy employed to manage conflict with colleagues by hospital nurses (Riley & Weiss, 2016). The findings resonate with silence literature and the functions of acquiescent and prosocial silence, discussed earlier in chapter three (Dedahanov et al., 2015).

6.5.4 Regulation of emotions

Beyond simply thinking in terms of surface and deep acting scholars have discussed a number of issues from the viewpoint of emotional regulation. A discordance–congruence perspective (Mesmer-Magnus et al., 2011) advances that emotional regulation is employed to suppress, transform or in some way control thoughts and feelings (Biron & Veldhoven, 2012). The perspective highlights that approaches taken by an individual may vary depending upon situation but they do tend to be habitual (Biron & Veldhoven, 2012). Thus individuals and the cultures of which they are members tend to have a *modus operandi*. The notion of a *modus operandi* is also reflected in silence literature that conceives cultural codes of silence (Pinder & Harlos, 2001; Jones, 2003).

The body of work on emotions demonstrates that simply thinking in terms of surface or deep acting is reductive. Grandey (2000) contributes a discussion of emotional consonance related to genuine emotions; when emotions are genuine and meet the rules that a culture has about feelings there is no need for surface or deep acting. Genuine emotions determine the extent to which emotion regulation is necessary (Zammuner et al., 2003). For example, radiographers may genuinely feel sympathy toward an injured and/or distressed patient resulting in emotional consonance with no need to silence emotions. The term emotional dissonance refers to the degree of congruence between genuine feelings and those perceived to be required to fulfil the expectations of the job role (Kinman et al., 2011). Emotional dissonance is tested in emotionally challenging situations (Small et al., 2017). It results in a suppression of emotions when emotions are regulated to inhibit feelings that are inconsistent with culturally accepted display rules (Mesmer-Magnus et al., 2011). The result is silencing of feelings.

Final in this list of issues, emotional suppression can result in disengagement of staff groups. Disengagement is related to emotional exhaustion, it effects intention to leave a post or even profession (Thanacoody et al., 2013). Emotionally exhausted groups can also engage in coping behaviours that include reducing effort and withdrawing from work. In radiography literature, coping behaviours of reduced effort and withdrawal have been reported (Makanjee et al., 2006). Coping behaviours have also

been referred to obliquely in radiography literature, with a label of 'apathy' applied to the radiography profession (Yielder & Davis, 2009). Levels of organisational silence are raised in the presence of apathy (Pinder & Harlos, 2001).

6.5.5 Emotional intelligence

When emotional intelligence is used at work it becomes a form of emotional labour (Dudley, 2017). Emotional intelligence is regarded as an individual's ability to identify, assess and regulate emotions (Gabriel, 2017). Hence, measures of emotional intelligence focus at the individual rather than cultural level. In contrast, Mackay et al. (2012) note that subgroups of the radiographic profession, specifically staff in mammography and angiography, scored highly for emotionality in an empirical test of emotional intelligence. A possible explanation for this is that team based jobs find team members are directly affected by the emotional states of their colleagues (Rizkalla et al., 2008). The concept is generally referred to as emotional contagion, discussed under the subsection culture in this chapter. Mackay et al. also found that radiographers scored higher than the norm for dispositional empathy but scored lower for ability to mitigate personal distress. Bleiker et al. (2016) discuss and conclude that this result was an effect of a culture of reductionist language and emotional distancing. Cultures influence emotion work and silence.

There have been a number of studies of radiographer's emotional intelligence (Mackay et al, 2012; Mackay et al., 2013; McNulty et al., 2016; Galvao et al., 2017). The fact that studies have focused upon the concept of emotional intelligence in radiography is arguably a result of the dominance of emotional regulation in the paradigm. Concentrating on the ability of individual staff to regulate emotions acts to subvert the development of any alternative approaches or group responsibility. The studies do not genuinely value and accept emotion work or recognise silence: instead they support a hegemonic ethos of regulation of emotion.

6.5.6 Emotional labour related to service and field

Emotional labour has been investigated from the viewpoint of a range of disciplines with poignant contribution to healthcare from oncology (Thanacoody et al., 2012;

2013; Berry et al., 2017) and nursing (Smith, 2012; Elliott, 2017). Contribution from a range of other fields has also informed this synopsis (Albert, 2001; Zammuner et al., 2003; Kinman et al., 2011; Mesmer-Magnus et al., 2011; Mackenzie, 2012; Williams, 2013a; 2013b; Shagirbasha, 2017).

When undertaking emotional labour staff create a publicly observable face or bodily display that Hochschild (1979; 1983) conceives to have an exchange value, because the process earns staff a wage. However, emotion work is not always or only performed because it is paid work (Miller et al., 2008). Hochschild's concept of emotional labour, although widely accepted and used as a theoretical framework, has been criticised for separating out private and public emotions whereas there are intersections (Brook, 2009).

Elliott (2017) considers the primary limitation of Hochschild's (1983) work to be that her study of airhostess staff was in a target driven and competitive airline industry. However, Elliott acknowledges that recent changes to NHS culture have increased the validity and transferability of Hochschild's work in an increasingly target focused NHS system. Caring in a target focused system has been described as an act that requires additional skills and emotional resources (Smith, 2012) . The findings in this study indicate that silence is a resource used by imaging staff.

It has been posited that the negative effects of emotional labour are strong in customer service occupations, stronger than healthcare or education. Specifically, there are stronger associations in customer service roles between emotional labour and burnout, poor health, low job satisfaction, withdrawal behaviour and intentions to leave the job (Mesmer-Magnus et al., 2011). Healthcare differs because cultural display rules influence emotional labour to a much greater degree when compared with customer service jobs. In contrast to a large proportion of the service industries, healthcare staff often instrumentally suppress positive mood or emotions in favour of a more subdued emotive display (Mesmer-Magnus et al., 2011). This is considered to be an act of caring by individuals, recognizing the emotions of others and managing self (Riley & Weiss, 2016). The management of the emotions of self and others is also regarded as a strategy taken in order to improve patient care (Miller et al., 2008). Socio-cultural silences enable this type of work (Bruneau, 1973).

6.5.7 The healthcare environment

Healthcare is an environment characterised by constant institutional change and uncertainty (Thanacoody et al., 2013). The type of work undertaken is fast-paced and can be emotionally stressful; the effort needed to manage emotions can have detrimental effects on healthcare workers (Berry et al., 2017). It has been noted that brevity in encounters typifies healthcare in the NHS (Elliott, 2017). The terms blip culture (Murphy, 2009), hit and run carer and fleeting encounters have been used to describe the time spent with patients in clinical imaging practice (Reeves & Decker, 2012). More widely it has been noted that the pace of work for AHPs is quicker in comparison to nursing (Miller et al., 2008). However, the effect of the duration of interaction on emotional labour has been studied across a variety of professions with no direct empirical relation to emotional labour (Zammuner et al., 2003).

In particular, healthcare staff bear silent witness to suffering when patient's share experiences and narratives of illness (Prince-Paul & Kelley, 2017). Miller et al. (2008) add that the sharing of experiences is critical because the moral residue of care is eased when someone bears witness with the individual. Sharing correlates with the restorative function of professional supervision that is advocated for practitioners by the CoR (2013) and HCPC (2015) in the sense that it may ease emotional dissonance and alleviate stress. In these terms the process of professional supervision guides reflection around the disconcerting issues that arise in clinical practice. Contemplative and reflective silences function in this area (Oduro-Frimpong, 2011).

Interaction with patients and caring for the ill and dying is a major stressor for healthcare practitioners (Glaser & Strauss, 1965). Stress has been exacerbated further in the last decade due to increased time pressures and workloads in the NHS; a result of ever decreased resources and increased demand (Thanacoody et al., 2013). Increasing recognition of the importance of emotional labour is further intensified by contemporary issues brought to the fore after the Francis report (Francis, 2013). Prior to the Francis report research into the importance and value of emotion in health provision tended to be undermined by socio-political factors in both the clinical and academic setting (Elliott, 2017). Currently, discussion of emotional labour is moving beyond the realm of nursing and becoming part of the wider healthcare service

discourse (Elliott, 2017). The discourse is evident in radiography but discussion of silence is absent.

6.5.8 Emotional gifts and relational work

It is the relational work of emotional labour that has traditionally been undervalued (Elliott, 2017). There can be autonomous use of emotions, where individuals offer emotional gifts freely with no expectation of reciprocity (Riley & Weiss, 2016). For example, taking extra time to listen and attend to the needs of an anxious patient on completion of an examination. Hochschild (1979; 1983) described the concept of individual gift exchange in situations of private life but not related to work life. Some researchers have questioned the application of aspects of Hochschild's thesis to the healthcare setting and draw attention to the more complex, sometimes hidden and dynamic aspects of emotional labour for example, satisfaction can be gained by offering emotional labour and derived from the ways it is valued by patients (Riley & Weiss, 2016). However, Hochschild's concept of the emotional gift indicates she recognises that emotional satisfaction can originate from caring. It is also asserted that satisfaction can be derived from the silent care provided in clinical imaging (Riley & Weiss, 2016).

6.5.9 Sources and effects of emotional labour

Authors describe how managing distress, suffering, trauma, death, bereavement, anxiety and anger are all common sources of emotional labour for healthcare professionals (Riley & Weiss, 2016). People using imaging services are often in a vulnerable state (Munn & Jordan, 2011). Yet recognition of how the design of imaging services contributes to vulnerability of patients and the labour of staff is lacking. Much of the emotional labour literature focuses on burnout and stressors among healthcare professionals.

Scholars rarely link reactions and burnout to the effects of grief in the workplace. Albert (2001) notes the negative implications of a culture in which staff experience a sense of loss but do not have the socially recognized right or role of a grieving person. Little research has focused on identifying grief in healthcare professionals although

the importance of education around death and dying has recently been discussed in relation to therapeutic radiographers (White, 2017). There are emotional consequences because in busy environments healthcare staff have little or no time to process emotions or deal with grief (Albert, 2001). In a study of the sociology of dying and death-related behaviour Vernon (1970) describes disenfranchised grief; a loss that nurses experience when a patient dies (Albert, 2001). An important point is that diagnostic radiographers also care for patients with complex, life-threatening disease processes, traumatic events and death on a daily basis. The need for compassionate care can be emotionally draining in radiography where workload, shift work and emotions associated with clinical imaging are stressors (Bleiker et al., 2016).

Emotional labour in terms of patient care responsibilities are sources of personal reward for healthcare professionals (Thanacoody et al., 2013). A nurturing environment created by extending kindness to others, including colleagues, improves well-being and acts as an antidote to staff physical and emotional exhaustion and burnout (Berry et al., 2017). Research links emotional labour to both personal accomplishment and emotional exhaustion but it is the negative consequences of emotional labour, especially burnout, that are usually studied (Mesmer-Magnus et al., 2011). Silence is associated with a state of burnout.

Burnout describes a state of mental weariness and has been portrayed as a syndrome of emotional exhaustion and depersonalisation, also referred to as cynicism (Riddell et al., 2008). The term burnout is linked to compassion fatigue (Elliott, 2017) and empathy decline in radiography (Bleiker et al., 2016). Emotional exhaustion can be exhibited in expressions of irritation, anger, depression, and disappointment (Grandey, 2000). Three specific dimensions of burnout were identified by Maslach and Jackson (1981): depersonalization, reduced personal accomplishment, and emotional exhaustion. Employees experiencing depersonalization are no longer able to effectively manage their emotions; they emotionally retreat and may become apathetic and distant from the situation by viewing the customers (patients) as objects (clinical images) rather than persons (Mesmer-Magnus et al., 2011). In situations where staff continue to successfully work with the 'proper' emotional display they can suffer from reduced personal accomplishment when they feel that their performance is inauthentic, preventing them from taking credit for any achievements (Mesmer-

Magnus et al., 2011). In radiography this has been recognised and labelled just the radiographer syndrome (Lewis et al., 2008; Sim & Radloff, 2009). The third indicator of burnout, emotional exhaustion, correlates with levels of emotional labour (Mesmer-Magnus et al., 2011).

Uncertainty, organisational problems, social stressors, negative emotions, time pressure and emotional dissonance have all proven to be key predictors of burnout in quantitative studies (Zapf et al., 2001). In clinical imaging practice burnout has been linked to empathy decline, compassion fatigue and stress, all factors that act as potential barriers to compassionate care (Bleiker et al., 2016). Recent discussion of compassionate care in radiography provides further evidence of a reflex approach in radiography that advocates emotional regulation not psychological flexibility. Psychological flexibility allows for the display and discussion of emotions rather than the management of emotions associated with emotional regulation (Biron & Veldhoven, 2012). Compassionate silences are perpetuating the situation.

6.5.10 Emotion work and coping strategies employed in radiography

Radiography scholars have conceived emotion work to be the process of handling daily personal emotions while emotional labour is related to managing emotions that are required of a job (Reeves & Decker, 2012). Positive coping strategies that health professionals use to bolster resilience include the use of humour and social support from colleagues (Howe et al., 2012). The use of humour is a coping strategy that has been recognised in radiography practice (Strudwick et al., 2012). Strudwick observed the use of dark humour; radiographers use comedy and wit to deal with disturbing and distressing aspects of their work. The power of humour and silence were each the focus of a paper which demonstrated the significant contributions of both concepts to socialisation in medical clinical training (Lingard, 2013). Whereas the use of humour has been reported in radiography settings until this point the use of silence has not. This thesis is unique in raising knowledge of the concept of silence in relation to radiography practice.

Reeves & Decker (2012) specifically use the term emotional management rather than labour in their study of radiography practice. By using the term they signal a requisite that the suppression of emotion in radiography is in a controlled manner. Although

not overtly discussing instrumental uses of emotion in radiography Reeves & Decker tacitly outline strategies of coping with emotions. Similarly, a range of scholars across healthcare disciplines have suggested that distancing and reductionist language are techniques adopted by healthcare professionals when handling difficult situations. Nurses distance themselves by referring not to people but to medical conditions, for example the cardiac case (Clancy, 2017). A study of neonatal intensive care nurses also demonstrated a phenomenon where nurses withdraw from emotional pain by limiting eye contact and interaction with patient's families, focusing solely on the procedures and tasks at hand (Cricco-Lizza, 2014). Task orientation and the actions of reducing eye contact and using closed questions to close communication channels is also reported in radiography (Booth & Manning, 2006). The emotional distance that is created between staff and patient has been recognised as a coping strategy (Bleiker et al., 2016). Silence facilitates emotional distancing which in the terms of Thurlow & Moshin (2018) can be conceived as a 'containment game', distancing oneself from cultural taboos of emotional involvement. Reeves & Decker (2012) postulate that diagnostic radiography display rules are different from nursing and other AHPs; they incorporate a greater degree of distancing from the patient, use reductionist language and focus on equipment manipulation that constitutes an emotional shield (Reeves & Decker, 2012; Reeves, 2018). Considering the social defence strategies used across healthcare however, arguably all healthcare professions employ nuanced forms of defence dependent upon the primary task of the profession or group (see section about social defences in this chapter). Radiography is not unique in the use of strategies of social defence and coping mechanisms, which include silence.

Masculine cultures in professions such as the paramedic and emergency care services socialize individuals to suppress and control their emotions (Riley & Weiss, 2016). It is contended here that a minority of radiography scholars arguably take a feminist stance because they actively recognise and raise understandings of the concept of emotional labour and associated factors in radiography. The scholars advocate emotional support for staff (Makanjee et al., 2006; Yelder & Davis, 2006; Booth, 2007; 2008; Reeves & Decker, 2012; Bleiker et al., 2016). This study contributes to their work by providing an account of silences and the image of a metaphorical cultural quilt that protects the profession.

6.5.11 Silence in emotional labour literature

Silence is regarded as generally positive in relation to emotional labour and healthcare because it can be used to enhance patient care and reduce emotional labour. For example, recognizing and acknowledging when a patient or family member is emotional by employing a non-verbal, silent use of space and touch creates room to convey empathy and support (Prince-Paul & Kelley, 2017). Non-verbal behaviours also support the therapeutic use of silence by creating a healing or compassionate presence (Prince-Paul & Kelley, 2017). Scholars of silence literature have provided examples of such functions in the form of empathic silencing discussed in chapter three. An example of the role of empathic silence in emotion work has been discussed in clinical imaging. Berry et al. (2017) recount a situation where imaging staff acknowledged the husband of a patient with cancer was physically and emotionally fatigued. The patient appreciated that the silent actions of staff indicated an awareness of her husband's needs and his suffering was seen (Berry et al., 2017).

A role of silence in emotional regulation has been described where silence can help to suppress feelings of disgust or anger towards a patient (Riley & Weiss, 2016). Regulated and silenced emotions may conversely employ silence and use that silence to fuel certain types of resistance to oppression (Gabriel, 2017).

6.5.12 Culture and emotional labour

Culture was briefly mentioned in subsection 6.5.3 with respect to types of emotional labour. Culture plays a role as one of the elements that influence silence and emotion. Culture is an important consideration when discussing and utilising theories of emotion work. Research around emotional labour however has been criticised for a solipsistic approach: a single focus that concentrates on individual experience excluding social structures and support mechanisms (Burman, 2009). A single focus is remiss and especially when investigating professions because emotional labour is performed amid a landscape of professional socialisation (Miller et al., 2008). Work teams are heavily influenced by context including cultural feeling rules, display rules and emotional history (Kelly & Barsade, 2001; Miller et al., 2008).

The term display rule is used interchangeably with the term feeling rule. The term display rule may be preferable to feeling rule in recognition that it is difficult to direct true feelings. Organisations, occupations and cultures have expectations about how emotions and feelings should be expressed and suppressed (Dudley, 2017). This study provides information related to display rules and silence. The expectations result in rules that are socially constructed. The rules function to regulate emotions to feelings that are appropriate for social situations (Diefendorff et al., 2011).

There have been shifts in the fields of emotional labour to explore teams including professional groups. Various investigations have considered the phenomenon of emotional contagion. Emotional contagion refers to a situation in which team members' emotion states are influenced by other group members and teams (Schoenewolf, 1990). It is comparable in some ways with the idea of cultural censorship in silence literature (Sheriff, 2000; 2001) and spirals of silence (Noelle-Neumann, 1974). Alternatively another term, emotionology, tends to be used by organisational study scholars who add that social emotions are generated by popular discourses and ideologies (Fineman, 2004). Emotionology enhances notions of emotional contagion. A combination of the trilogy of discourse, ideology and group emotion can help to understand the development of social defences.

6.6 Social Defences

The work of Elliott Jaques (1953) and Isabel Menzies-Lyth (1960) was ground-breaking (Waddell, 2015). They examined unconscious anxiety and resulting unconscious defences in the terms of psychosocial processes. The approach had origins in the field of psychoanalysis and especially the work of a colleague of the two, psychoanalyst Melanie Klein (Armstrong & Rustin, 2015). Jaques originally studied an industrial factory followed by Menzies-Lyth's study at a hospital. Menzies-Lyth found that nurses were exposed to intense mental pain through the impact of patients' suffering. Both conceived the development of unconscious defences against anxiety. They hypothesised that defences were: 1) socially constructed and maintained; 2) institutionalised as inflexible routines and practices; 3) trainees were socialised and expected to conform (Armstrong & Rustin, 2015). Social defences have since been

noted in a range of occupations. Defences are constructed as a means of coping with anxieties and then become embedded and enforced by structure, rules and culture. Social defences become routine assumptions and practices taken for granted as the way that things are done (Trist et al., 1990). Participants in this study described some silences in these terms.

The original studies took place in settings of boundaries and hierarchy, which have to some extent undergone change in today's society; contemporary society now uses methods to inspect, measure and audit activities and services (Armstrong & Rustin, 2015).

Menzies-Lyth's work contributed towards a shift to personalised care of patients in the 1970s, but, it is contended that some of the lessons about the need for relationship-sensitive care have been lost, or rather silenced, in the current situation of contemporary economic scarcity and depersonalising managerial styles of the NHS (Tutton & Langstaff, 2015). There have been positive changes, yet hospital systems still retain defensive functions to keep the emotional experiences of providing care at a distance (Evans, 2015).

6.7 Development of social defence theory

Chernomas (2007) critiques Menzies-Lyth's paper and argues that the hospital has been organised in the interest of managers, not to defend nurses from psychotic anxieties. Chernomas, however, underestimates that a defence system is not a deliberate way of acting (Ramvi, 2008). A social defence system is an unconscious result of an unconscious problem therefore it cannot be described in terms of a rational conscious action (Ramvi & Gripsrud, 2017). The notion mirrors the contention made by a silence scholar that particular silences are irrational (Vlăduțescu, 2014).

Since the 1950s, alongside the development of psychoanalytic theory a range of influences, including societal and technological advances, have been applied to the study of group and individual processes (Waddell, 2015). Put simply, social defence theory has evolved yet the role and impact of unconscious mental processes, which lie at the centre of the original paradigm, remain relevant. Anxiety and the nature of

defences against it remain important to studies of organisational, institutional and personal lives (Waddell, 2015).

Boxer (2015) differentiates between existential, performance and annihilation anxiety. Existential anxiety relates to the survival of teams and organisations. A contemporary example of existential anxiety manifests in the prescriptive dictates about the use of social media demonstrated in the policies of various hospital trusts (Scragg et al., 2017). NHS social media policies aim to maintain the reputations of teams and organisations, many advocating discretionary silence. A pervasive anxiety about survival has also been described in the panics that are evident in the ways organisations and governments respond to perceived risks (Hoggett, 2015). Performance anxiety relates to angst about individual performance in roles. An example is monitoring of individual practitioner's CPD by regulatory bodies of healthcare (Cole, 2011). Annihilation anxiety relates to fear of being overwhelmed or fragmented (Robinson & Gadd, 2016). Annihilation anxiety is demonstrated when healthcare organisations present their future as uncertain in relation to economics and performance targets (Hinshelwood, 2012). Recently, positive aspects of anxiety have been recognised for example during pursuits that are exciting and energizing (Hirschhorn & Horowitz, 2015). Anxiety takes on different forms and functions today than in previous stable and hierarchical systems.

Armstrong & Rustin (2015) question whether original social defence theory is able to generate new insights in a changing landscape. They conclude that theories of social defence have extended beyond the mere role of containing anxiety toward a broader paradigm, protecting against a range of overwhelming feelings. It is contended that social defence systems have developed slowly and gradually become a part of external realities (Gabriel, 2017). Reality in radiography practice manifests in the existence and uses of silence.

This chapter has presented a review of literature that provides links between silence, emotional labour and social defence. Participants in the study directed the researcher toward overarching themes of emotional labour and social defence. It was consequently necessary to explore both areas to elicit further understanding. To summarise, the chapter has presented a review that includes: a definition of emotions; links between emotions and silence; the role of silence in the regulation of

emotions; emotional labour in the context of healthcare and radiography discourse; a synopsis of social defence theory. This chapter has therefore provided contextual information prior to the discussion of findings in chapter seven.

Chapter 7 Discussion

7.1 Introduction to chapter

The aim of this study was to produce an account of the silences that presented in three diagnostic radiography clinical imaging departments (X-ray). The study pursued three objectives:

- 1) To provide an exposition of the different silences that presented in radiography projection imaging practice.
- 2) To create knowledge of the types, functions and cultural uses of silence in projection imaging practice.
- 3) To identify and discuss the challenges presented by the cultural silences set in the context of current healthcare policy.

This chapter will position the findings of the study in relation to the background and the two literature reviews contained in this thesis. The discussion that follows draws upon a conceptual framework of social defence (Jaques, 1953, Menzies-Lyth, 1960) and cultural censorship (Sheriff, 2000) first presented in subsection 5.2.

First, to meet the objective to provide an exposition of silences in radiography, the findings will be discussed in the order of five overarching themes that are grounded in the findings of this study (see figure 48). The discussion is based around each theme referring to specific silences that presented in clinical practice. Second, to meet the objective to create knowledge of the types, functions and cultural uses of silence in diagnostic radiography, the discussion moves on to summarize and relate the silences to radiography culture and cultural censorship. Third, to identify and discuss the challenges presented by cultural silences, the findings will be reviewed in relation to current healthcare policy that was presented in chapters one and two. Finally, this chapter will consider the limitations of the study.

7.2 Objective One: To provide an exposition of the different silences that were present in projection imaging practice



Figure 48: Diagram, overarching themes of silence

7.2.1 Theme One: Emotional Labour and Social Defence

7.2.1.1 *Compassionate silence*

The participants in this study considered that silences were methods of communication. Silences were employed to express sympathy, empathy or compassion towards patients in the clinical imaging departments. This was context dependent and especially the case for examinations that involved patients who had experienced trauma, diagnosis of cancer, or patients who showed visible signs that they were in emotional or physical pain. Bleiker et al. (2016) assert that there is a need to find ways to reveal the manifestations of compassion in radiography practice. The participants in this study describe compassionate silences. Compassionate silences have been defined as an enriching form of communication derived from contemplative practice (Back et al., 2009).

It has been argued by a scholar of silence that contemplative silence, 'silent quiet', is unintentional; consequently logic becomes deficient when applied to silence

(Vlăduțescu, 2014). However, practitioners in this study described and enacted silence that was both intentional and logical. Silence is used as an authentic means to express and communicate the emotional experience (Pinder & Harlos, 2001; Ephratt, 2008). Particular cultures use intentional silence as a strategy when there is uncertainty about the expression of emotion (Saunders, 1985). The participants considered that paradoxically silences could both cause or mask uncertainty, noting that it is an ambiguous means of communication in clinical practice. The participants described a culture that socializes staff to mediate possibly unclear empathetic, sympathetic and compassionate silences with the use of touch or a smile. For example, participants provided the following images:



Figure 49: Collage image participant one



Figure 50: Collage image participant two

Molseed (1989) reports that supportive silences are presented alongside the use of non-verbal communication such as a nodding head and smiling to encourage collaboration. The significance of non-verbal communication has been discussed previously by radiography scholars, for example Booth (2007); Halkett et al. (2010); Hulley et al. (2016). Touch has been linked to emotional labour in radiography. For example, touch is considered to be: 1) necessary to position patients for imaging, it acts as a mediator of the distancing employed by radiographers for emotional self-protection allowing the practitioner to connect with patients (Reeves & Decker, 2012); 2) diagnostic imaging must be complemented by the humanity of high-touch care, it mitigates the effects of technology and offers kindness (Berry et al., 2017); 3) small gestures of touch reduce the solitude of anxious patients and influence the ability of the radiographer to engage empathetically with a patient (Bleiker et al., 2016). The three statements demonstrate that while radiography scholars appreciate the use of touch, they have not overtly recognized that it also functions to mediate the silences used in clinical encounters. Reeves & Decker (2012) critique the function of touch and suggest that, for some practitioners, the use of touch to connect with individual patients may be a preferable alternative to emotional investment.

The Japanese label silent communication 'haragei' which is closely linked to smiling (Saville-Troike, 1985). During emotional labour staff may employ a smile while surface

acting, using a facial mask to fake or hide actual emotions (Ashforth & Humphrey, 1993). Gabriel (2017) warns that when a smile is included in the mask and appropriated as an emotional rule, the onus of smiling becomes oppressive. In such cases staff will have to strive to maintain a smile (Miler et al., 2008). A participant appears to agree in the case of radiography, for example:



Figure 51: Collage image participant twelve

*“So you have to be able to keep that smiley face and keep that mask on and keep calm even if the situation is escalating”
(Conversation, Participant two.)*

In these circumstances the smile belongs to the organisation or culture, not the self (Hochschild, 1983). Radiography scholars have linked the organisational requirement for a smiley face to prevailing political and management styles (Reeves & Decker, 2012).

7.2.1.2 *Silence an expression of genuine emotion*

Reeves & Decker (2012) comment that the duty to smile is reinforced by a culture of blame in radiography; Strudwick et al. (2011a) posit the notion of a blame culture in radiography. However, organisations do not always set emotional agendas (Dudley, 2017). The silent smile can represent genuine empathy not just the cynical face of a service provider (Bolton & Boyd, 2003). The participants in this study describe situations where dependent upon context staff choose to use touch or a smile to mediate the ambiguity of silences and regard it as a means to provide comfort.

Emotional labour can involve the expression of genuinely felt, authentic emotions (Ashforth & Humphrey, 1993; Ashforth & Tomiuk, 2000; Diefendorff et al., 2005). Recognition that practitioners can express genuine empathy, sympathy and compassion through silence allows us to acknowledge the agency or autonomy of practitioners within the culture of radiography. Napier et al. (2014) define agency as human intention and action, noting that it is important to recognise the relationship of agency to a culture.

It has been suggested that particular cultures may gain satisfaction from silently caring (Riley & Weiss, 2016). Participants in the study used both images and words that agree with this notion. For example:



Figure 52: Collage image participant eight

"I've done for my patient the best I could and you feel like, phew, I've done it. So I put some flowers (in the collage) because I felt like you know, it's a rewarding thing for us as well."

The participants in this study reflected a situation where staff in healthcare resist organisational devaluing of emotional care and continue to find meaning and satisfaction in their work (Riley & Weiss, 2016). Participants used the words peace, calm and satisfaction to describe feelings derived from the work of silently caring in diagnostic radiography. A participant created the following image:



Figure 53: Collage image participant four

Satisfaction can be gained by offering emotional labour and derived from the ways it is valued by patients (Riley & Weiss, 2016). Arguably radiography staff may unconsciously feel that they provide emotional gifts in the form of extra support, care and compassion for patients who are in distress (Riley & Weiss, 2016). For example, to: take extra time and care with a patient who is worried about their diagnosis; sensitively discuss the role of imaging modalities with patients newly diagnosed with cancer; volunteer and take care of the deceased with dignity and respect during post-mortem examinations; or walk to another hospital department with a patient who is unsure of the way. These tasks are not necessarily performed just because of pay, they can also be considered to be emotional gifts of caring.

Reeves & Decker (2012) state that the diagnostic image is the long-term goal of the radiographer. If this is the case then the radiographer conceivably relegates the humanistic interaction to a short-term goal to achieve the image. The notion renders the emotional labour involved superficial and does not allow for the concept of emotional gifts and emotional wellbeing (Hochschild, 1979; 1983; Riley & Weiss, 2016). The downplaying of emotion work is an important point for radiographers. Professions where relationships with other people are a crucial part of their work should recognise that their members are relational workers (Ramvi & Gripsrud, 2017).

7.2.1.3 *Silence a sign of respect*

The twelve collage participants all referred to the importance of silence to pay respect to patients, families and carers. It has also been noted that emotion management is

used by some health care practitioners as a way of paying respect with feeling (Bolton, 2001). In clinical practice radiography professionals are expected to compose themselves, an act of emotional labour, which practitioners in this study considered to be a sign of respect for patients. When speech is difficult or impossible for patients, for example following a traumatic experience, silence can be the culmination of a physical and emotional impasse (Corcoran, 2000). For imaging staff however, with a role to perform, an impasse is not feasible. Instead radiography culture engenders emotion management. Clearly, emotional labour and emotion management in this study involved silences. The study demonstrated that assumptions are being made by practitioners with regards to how silent emotion work is perceived and received by a range of patients, families and carers. This is an important point for future research. A gap in radiography literature exists with a lack of patient involvement; the view of patients, arguably participants and recipients in emotional labour, has not been investigated. Accordingly the protagonists in healthcare emotion work are commonly not the patient or service user, rather the protagonists are the staff. This position perpetuates a situation of professional patriarchy. When the purpose of a silence is to protect a patient assumptions are being made by imaging staff about how emotion work is perceived and received. The next step for practitioners and scholars is to ask the opinion of patients.

Although the relational work of radiographers is crucial, it has been undervalued traditionally (Ramvi & Gripsrud, 2017; Elliott, 2017). The culture therefore follows the path of a simultaneously generative and yet constraining force of silence theorised by Ziarek (2010). Participants in this study perceived that silences generated enriching empathic, sympathetic or compassionate spaces for patients but that the practitioners were themselves sometimes constrained by a culture of silence and emotion management.

For strategies and mechanisms that support staff emotionally to be adopted successfully, current discourses will need to evolve. The traditional science-orientated medical model professionalized emotional involvement with patients; a result is the depersonalization of the approach to patients (Hochschild, 1979; 1983). Depersonalisation is a coping strategy to deal with difficult situations such as bad news (Gray, 2009). Depersonalisation has been reported in radiography practice (Reeves &

Decker, 2012). Participants in this study used depersonalization in practice in terms of reductionist language, for example referring to the 'chest in the waiting room'. However, practitioners did consider patients more holistically. For example, rather than delivering blunt answers to questions from patients staff employed silences in evasive answers. Patients may consider the situation unhelpful when they are given no true indication of the outcome of examinations (Mathers et al., 2011). Participants viewed the silences differently, the silences were considered to be a sign of respect for the feelings of the individual patient. A participant provided an image that shows resistance to the notion of depersonalisation:



Figure 54: Collage image participant eleven

"Essence in a glass: but the image is not what this person is boiled down to, they're a whole person."

(Conversation, participant eleven)

The use of evasive answers was a response taught to students, in effect a coping mechanism in which silence was used to ameliorate the harmful effects of emotional labour on the professional group. It has been noted previously that diagnostic radiographers avoid emotional investment with patients as a coping strategy (Strudwick et al., 2011b; Reeves & Decker, 2012). The participants in this study regarded the silences to be a coping strategy that they used to respect the feelings of patients. The majority also gave accounts of silences that avoided practitioner distress.

Other roles of silence in emotional regulation can be to suppress feelings of disgust or anger towards a patient (Riley & Weiss, 2016). Equally, regulated and silenced

emotions may also represent types of resistance to oppression rather than simply functioning to suppress feelings (Gabriel, 2017). A participant described both the suppression and oppression of emotions by regulation in radiography practice via images for example:



Figure 55: Collage images participant five

In terms of the silence literature, the fluidity of silence described by the practitioner, moving between suppression and oppression, can be compared to the spiral of silence comprehended by Noelle-Neumann (1974).

7.2.1.4 Organisational silence and social defence

Practitioners in the study outlined scenarios that alluded to the social defence function of silence. Silence generated a form of protection for the practitioner from the demands of emotion work. Menzies-Lyth (1960) observed that nurses who were deeply disturbed by their feelings at work developed rigid social defences (Armstrong & Rustin, 2015). The specific emotions, feelings or moods that participants named in the post-collage conversations were hope, joy, sorrow, grief and fear. Notably, Morrison & Milliken (2000) place particular emphasis on fear as a key motivator of organisational silence (Van Dyne et al., 2003). It is posited by this thesis that silence is

used to provide a social defence within the radiography cultures in this study resulting in organisational silence

Participants in the study described metaphorical forms of silent defences. For example speaking of 'masked feelings', the 'silent mask' and the resultant 'radiographer poker face' all conceived to represent a cultural defence, for example:



Figure 56: Collage image participant six

A similar emotional mask has been described by emergency care practitioners, who suppress feelings of horror at the injuries encountered when dealing with badly wounded patients (Guy & Lee, 2013). Self-control during moments of adversity, referred to as equanimities, represents a state of composure that enables psychological stability; it is evident in physicians who control their facial muscles and nerves (Bryan, 2006). A smile incorporated in the mask may repress silent disgust, hide anger or be genuinely empathetic (Dudley, 2017). During post-collage conversations about various images of masks, skulls and smiles participants reported a variety of emotions that called for composure. It appeared that emotions manifest by way of silent feelings that are traditionally suppressed in the radiography culture of the participants. Accordingly it can be conceived that silence is used as a social defence because it provides a form of feeling camouflage. The disguise provided by silence, conversely, perpetuates a cultural spiral of silence that socializes staff to conform to feeling rules (Noelle-Neumann, 1974; Hochschild, 1979).

A participant in the study described how patients could also be perceived to use a mask:

"I was thinking of the ways that we use silence but actually patients use it with us. You can tell when they don't want to talk, they wear a mask as well"

(Conversation, participant six)

Silence and inaction are strategies to avoid dealing with tensions (Moll, 2014). Paradoxically, patient satisfaction surveys at the departments that took part in this study suggest that the highest level of patient satisfaction was in the department where workload was highest with fast examinations. It may well be that not everyone wants to talk. Patients are perhaps subscribing to the notion that there is always a need for fast examinations in healthcare (Hayre et al., 2016; Reeves, 2018). This finding supports the notion that patients see imaging as a process of their diagnosis (Mathers et al., 2011; Hayre et al., 2016); by implication there is little expectation of care (Bolderston et al., 2010).

7.2.1.5 Silence related to emotional demands

The seminal work about social defences in a factory (Jaques, 1953) and a hospital in-patient ward (Jaques, 1953; Menzies-Lyth, 1960) focused upon notions of anxiety. Participants in this study add to the picture by describing a wider range of feelings experienced in clinical practice. The findings in this study therefore expand on seminal theories of social defences to support Armstrong & Rustin (2015), who state that models of social defence should be extended beyond the original ground breaking notion that they contain anxiety; a contemporary approach must conceive a broader paradigm to include a range of emotions and feelings alongside anxiety.

Different areas of healthcare place different emotional demands on both staff and patients (Armstrong & Rustin, 2015). A result is that emotions are displayed according to shared and latent rules governing the kinds of reaction that are acceptable for situations, referred to as display rules and expectations (Crawford & Brown, 2011). Display rules guide how practitioners behave for different scenarios. Practitioners may present emotions in accordance with display rules but not genuinely feel them. Two

participants describe how adhering to display rules can result in dissonance and be emotionally exhausting:



Figure 57: Collage image participant five

“She is exhausted because of all these reasons: I have to be silent because of this, I have to be silent because of that, I can’t talk because I don’t want to upset someone, I can’t talk because I don’t want to be rude to someone, or can’t talk because I don’t want to hurt the patients feelings; all this will cause ... ”



Figure 58: Collage image participant twelve

“It’s like Russian roulette I suppose and you know for that patient they’re silently hoping for the best and you’re doing that all day long – that’s exhausting.”

Emotion has traditionally been viewed as the antithesis of reason; emotions have been regarded as unhelpful, something to be transcended to maintain competency in health care (HCPC, 2015). Goleman (1996) provided seminal work about competence as an emotional construct and enabled an understanding that emotion and reason are interconnected (HCPC, 2015). As an example, professionals may take home their emotional demands and experiences when they are off-duty despite their efforts to rationalize their experiences (Cricco-Lizza, 2014). Participants in this study in particular

describe the sorrow that imaging staff take home. This is the case in professions that deal with mourning or the suffering of others (Dudley, 2017). Presently, the emotional exhaustion portrayed by the participants is rarely recognized overtly in radiography policy or guidance documents but the participants considered exhaustion to be a salient feature of emotional labour in the study departments. The participants' descriptions constitute an overall approach of emotional regulation. In contrast, psychological flexibility is a concept based on the premise that emotions should be accepted, not regulated; because regulating emotions diminishes practitioner wellbeing (Gabriel, 2017). For imaging staff to achieve psychological flexibility the radiographic profession must recognise that emotional regulation has dominated practice. In order to actively discuss, accept and value emotion work in the future imaging staff must be supported in a culture where psychological flexibility is championed; not regulation.

More positive aspects of anxiety have recently been recognized in literature, for example, positive anxiety may be experienced during pursuits that are exciting and energizing (Hirschhorn & Horowitz, 2015). Participants in the study echoed this positivity when they spoke about the site with the highest workload to staffing ratio in the study. They considered it to be an exciting workplace, for example:

“But, when I went and observed at the xxx I also liked that.... So you know, it's that busyness and that pace and the getting people in and out getting good quality images, that challenge.”

(Conversation, Participant three)

Busyness is deemed to signify value and importance in some healthcare settings (Skogstad, 2000). Participants in this study described a culture that subscribes to the same view.

Anxiety therefore takes on different forms and functions today than in previous stable systems and societies resulting in the development of protective frames (Hirschhorn & Horowitz, 2015). Protective frames are cultural constructions that enable risk and anxiety to be managed rationally. In these terms participants described and conceived silence to be a protective frame in the presence of a range of emotions: silence is a metaphorical cultural quilt providing comfort where there is anxiety.

To sum up this first theme, silences were used as a social defences in clinical practice to mediate the effects of emotional labour on imaging staff. The participants conceived cultural silences as tools that enact and communicate empathy, sympathy and compassion towards patients. In such cases the participants described silences that were arguably noble, well intentioned and altruistic: some silences are deliberate acts of caring. The darker notions of silence, for example enacting power, dominance, and suppression linked to silencing were also evident in conversations with participants. However, participants rarely conceived negative aspects of silences in relation to patients. Instead, participants directed their descriptions of negative silences towards colleagues and managers. For example:



Figure 59: Collage image participant three

“The sharks, that’s just about what’s around you. When you’re doing the work and sometimes people.....just people..... Sometimes people make you feel like you should be quiet and not talk.”

The situation may represent silencing of the negative aspects of silence in relation to patients, in the form of cultural denial.

7.2.2 Theme Two: Workload

In the departments that took part in this study, particular aspects of the workload influenced the use of silence. Participants gave an account of the use of silences to ease the flow of work - to follow protocols and support effective teamwork. Throughout the conversations the most dominant issue related to workload was one of time constraint in a culture that conforms to pressures and expectations of speed. The clinical imaging departments were bombarded with time targets from different

areas of healthcare. The targets merge and create anxiety about time within the imaging departments. Hayre et al. (2016) found a 'in and out' culture where patients were hurried and rushed out of X-ray rooms when time pressure increased. Participants spoke about the pressures of time, with some participants including images of a watch or clock in their collage. One participant also used the analogy of a race against time:



Figure 60: Collage image participant eleven



Figure 61: Collage image participant eight

The participants provided conversation and images to support Booth's (2008) contention that, faced with time pressures and trying to keep departments running, imaging staff use tactics to control the speed of examinations. For example, reducing eye contact and limiting responses to conversation. The position represents strategic silence. Booth reports that communication becomes less important when departments are busy. This study contributes the idea that communication is not necessarily less important, instead it becomes (strategically) silenced.

7.2.2.1 *Speed and conflicting goals*

In the study departments, A&E patients had a four hour wait target, primary care (GP) patients had a seven to ten day report turnaround target, some out-patients would return to clinic immediately, patients with suspected cancer had a two week wait to diagnosis target and in-patients had either one, twelve, or twenty four hour imaging targets. The situation was one of conflicting organisational goals, targets and roles (Armstrong and Rustin, 2015). When targets were not met it was mainly due to the combination of high workload, lack of functioning X-ray examination rooms and lack of staff. The missed targets manifested in and provided opportunity for the shifting of anxieties in the organisation - blame was often directed towards the practitioners in the imaging departments by referring departments.

Silence is a defence that can be linked to cultures of blame. A blame culture has been described in radiography by Strudwick et al. (2011a). During the observations phase of this study, numerous imaging staff were deflected from imaging tasks to answer phone calls related to waiting times and targets. Silence is a form of defence for imaging staff against blame and targets. It is a defence in the sense that silence provided a way for participants to use signals and cues to silence patients, functioning to increase the speed of examinations. Similarly, a study demonstrated the use of non-verbal cues that midwives communicated to women; the cues signal a preference for the women to assume a silent, passive role. The function of the silences was to facilitate the midwife's time-pressured agenda (Stapleton et al., 2002). Likewise silence functioned by increasing the speed of examinations in the radiography departments. The pressures of targets in the absence of adequate equipment and staffing amplified the need for speed. Increased speed, though, often results in the silencing and associated disempowerment of patients. Medical imaging technology compounds the situation because it strips away the patient's sense of self and allows professionals to objectify their patients (Reeves & Decker, 2012).

7.2.2.2 *The dual task*

It has been argued that radiographers regard radiography as task-orientated work (Baird, 1998). Also, that radiographers' primary focus is on the task of producing an image (Reeves & Decker, 2012) with maximum efficiency and throughput (Hayre et

al., 2016). In chapter two of this thesis it was surmised that the master narrative of diagnostic radiography, which gives meaning to cultural phenomena (Barone & Eisner, 2012), is one of diagnosis and treatment; the language used in the culture heightens and justifies the primacy of the image. The idea of the primary task can be used to identify the principle goals of an institution or sub-group within it but the primary task is constructed and can be disputed (Armstrong & Rustin, 2015). Niemi & Paasivaara (2007) challenge the notion of a single primary task for radiographers, stating that radiography has a distinct philosophy of work, a dual identity; mastery of technology sits alongside humanistic and protective nursing work. The challenge is not new; Booth (2008) discusses that in 1978, Fengler proposed that radiographers had two roles in caring for patients: technical and psychosocial. The point that master narratives may evolve is an important argument for the future of the profession, discussed further under subsection 7.3.2.

Groups that have specific tasks also have corresponding and distinct forms of anxiety. Armstrong & Rustin (2015) call this the corresponding primary anxiety (dual in the case of radiography). First, the participants in this study described anxieties related to targets and technology, related to perceived expectations of fast examination times and patient throughput. Second, protective anxieties were related to risks and to the safety (survival) of patients. Perceived risks can result in a motivation to speak up in healthcare when there is threat to patient safety (Schwappach & Gehring, 2014). Yet employee silence remains in the face of risk and it is linked to detrimental outcomes in healthcare, including patient deaths in hospitals (Greenberg & Edwards, 2009). The participants described tensions that result between the psychological safety of imaging staff and the level of perceived threat to patients. Manapragada & Bruk-Lee (2006) label this type of silence a safety silence.

Individuals need a degree of psychological safety to mediate the effects of anxiety on safety silence (Rong Wang & Jiang Jiang, 2015). Various contextual factors influence whether, why, and how people maintain their silence or break it (Pinder & Harlos, 2001). Safety silence is broken by staff when they perceive that there is an immediate threat to patients' health (Schwappach & Gehring, 2014). The participants described a variety of approaches to raise concerns about workload and safety. Participants were particularly safety conscious and concerned in relation to their use of ionizing

radiation; describing how adverse safety events can also result in physical, emotional and professional distress for staff (Wijma et al., 2018). A participant provided an image describing the effects of safety silence for patients:



Figure 62: Collage image participant three

Participant narratives echoed the ethos of having the courage to speak up in the presence of safety silence. Courage is one of the '6 Cs' currently in vogue alongside care, compassion, competence, communication, and commitment; a set of values that underpin compassion in practice (Department of Health, 2012).

7.2.2.3 End of life care

Radiography practitioners in this study perceived that there was a silence about their involvement in end of life care; defined as care where cure is not achievable (White, 2017). This is a silence related to a particular aspect of the workload. It has been suggested that all health care professionals must have a basic knowledge of palliative care (Gamondi et al., 2013). Dealing with terminally ill patients is emotionally challenging (White, 2017). White considers that experiential learning helps to develop emotional resilience and coping strategies but that variation of workload in radiography results in sporadic interaction with end of life care. Diagnostic radiographers working in A&E during the study were sometimes present at the end of sudden and traumatic deaths, for example in resuscitation trauma rooms. Although radiographers are prepared for some types of death, for example, they are taught about the physiological effects of advanced cancer (White, 2017), not all deaths witnessed by radiographers are predictable. One participant described feelings of

helplessness in the form of a limited ability to contribute with diagnostic care for dying patients. A similar position was discussed among radiographers during the observation phase, for example a participant asked “why did they bother?” in reference to a clinician’s request for a chest X-ray on a patient who was expected to die in the next few hours. White (2017) states that end of life care teaching helps radiography students to identify their role within the context of the patient journey. Participants in this study lacked clarity in their role at end of life and appeared to be silenced around the matters. The participants did not receive any form of structured clinical supervision or guided reflection despite openly acknowledging the emotional exhaustion associated with performing end of life care, trauma and forensic examinations.

It is argued that the exposure of radiographers to these events during their daily routine challenges individual personal identity and world view in the effort to achieve balance between emotion work (personal) and emotional labour (professional) (Reeves & Decker, 2012). In common with Hochschild’s (1979) original conception of emotional labour and the managed heart, Reeves & Decker give little attention to the fact that there can be an intersection of the two positions, personal and professional.

7.2.3 Theme Three: Conflict

In certain areas of healthcare zones of silence exist which function to avoid confrontation or intimidation (Fontaine & Gerardi, 2005). Fontaine & Gerardi describe a resulting uneasy quiet which is similar to the climate of silence described in organisational studies of silence (Morrison & Milliken, 2000). The climate of silence may be interrupted, because although certain topics with potential for conflict or upset require the use of silence, others require talk, a result of the socially constructed nature of human communication (Oduro-Frimpong, 2011).

7.2.3.1 *Image in place of voice*

In some cases staff in this study used the visual to avoid conflict, by showing a referring clinician X-ray images on PACS monitors. In those cases potential conflict was eased by the use of silent visual artefacts: mirages of help to the practitioner, effectively silencing clinicians who threatened conflict. An effect of the dominance of images in

the culture of imaging meant that the visual, in the form of silent images, could be perceived as a surrogate for voice. Grasseni (2004) postulates that skilled workers develop a skilled vision during training, which means that people 'see' things differently. The participants in this study echo the notion and also suggest that workers develop a cultural way of speaking and hearing. For example, a participant described:

"This is how we let our work talk for us.....we automatically, we all do it, even to let our images talk for us."

(Conversation, participant one)

7.2.3.2 Silent resistance to maintain the status quo

Although a culture may encourage members to avoid conflict, emotions resulting from conflict can still engender resistance to controls and pressures at work (Gabriel, 2017). An example of resistance and silent regulation of emotion was noted during the observation phase of this study. A manager's typed note, pinned to a notice board, instructed staff not to accept a particular category of patient for imaging at one site. Staff disagreed with the instruction mostly in terms of the inconvenience that it would cause to patients. To avoid conflict they appeared to simply remain silent about the issue and carry on as normal. The silencing literature refers to this type of phenomenon as the deaf effect, organisational deafness or strategic deafness and describe it as a silence by negation (Pinder & Harlos, 2001; Mannion & Davies, 2015). However, the deaf effect is usually reported in organisation studies when management does not act upon information (Davies & Mannion, 2013). In this case, instead, the participants appeared to remain silent about a set of instructions. This could be viewed either as staff choosing to exercise autonomy as practitioners, to act in the best interest of patients, or alternatively, it was an example of silent resistance that avoided conflict. It is recognized in the silencing literature that employees use silence as a response to perceived injustices (Pinder & Harlos, 2001) whereas the reduction of conflict can be perceived as a means to maintain harmony. Following the work of Hirschman (1970) organisation studies generally equate silence with loyalty, assuming that silence represents inaction and endorsement of the status quo (Pinder

& Harlos, 2001). In this case rather than inaction, the practitioners in this study used silent action to maintain the status quo by carrying on as normal. Maintenance of the status quo is an important focus of scholarship on silence (Lingard, 2013). Using silence to avoid conflict maintains the status quo.

7.2.4 Theme Four: Hierarchy

A study in Australia resulted in the assertion that due to power dynamics and hierarchy the culture of diagnostic radiography was characterized by low self-esteem, apathy and resistance to change (Yielder & Davis, 2009). Silence is related to this portrayal because silence can be a result of the potential harm associated with speaking up to people in positions of power in a hierarchy (Brinsfield, 2013). Hazen (2006) conceives that for certain groups within hierarchical systems silence manifests in speaking or writing without authenticity, confidence or authority. Power inequalities among groups prevent equal participation in conversations (Malhotra & Carillo Rowe, 2013). A participant in this study described a culture that supported the voicing of concerns via contemporary policy, for example freedom to speak up, which contradicts Brinsfield (2013) to some extent. Participants described scenarios and provided collage images that allude instead to a lack of authority, which supports Hazen, (2006); Yielder & Davis (2009); and Malhotra & Carillo Rowe (2013). For example:



Figure 63: Collage image participant nine

“It all started with that picture and a thought in my head that, I don’t know if I’ve said this to you before, but sometimes I just feel like I’m shouting into the darkness and nobody is listening and I kind of give up.”
(Conversation, Participant nine)

When teams operate in a hierarchical system then a lack of collaboration can reinforce employee silence (Ramanujam & Rousseau, 2006). People's perceptions of unequal power relations affect silence (Pinder & Harlos, 2001). Informal strategies taken within healthcare cultures to counter this type of subordination include the use of off-the-record discussions, sarcasm or humour to signal discontent (Mannion & Davies, 2015). The informal strategies are contrary to the traditional dichotomy of either voice or silence (Gray, 2015). Participant in this study used humour to allude to a situation where a hierarchical management structure meant that there was silencing of participants around issues of service and quality improvement. For example, a participant signalled discontent about patient waiting times using humour:



Figure 64: Collage image participant three

“I think I sort of put the skull in with the waiting room as a joke like, with them (patients) waiting that long.”



Figure 65: Collage image participant nine

“I picked him because I was thinking sometimes it can take so long to get the message across that you get bored half way through (laughs) and you give up.”

When voices are not heard, over time practitioners may develop a sense of helplessness as well as reduced job satisfaction and increased staff turnover (Milliken & Morrison, 2003; HCPC, 2015).

7.2.4.1 *Censorship*

Theories of censorship can provide an explanation for the presence of silence in healthcare cultures that are based on secrecy, professional protectionism, defensive behaviours and deference to authority (Walsh & Shortell, 2004). The hierarchical constructs of organisations and power also contribute to employee silence in that silence may occur too far from senior management's attention for it to be of relevance to them (Slade, 2006). Alternatively, managers may equate silence with loyalty, in which case it may be incorrectly assumed that when concerns are not raised then there is nothing wrong (Shojaie et al., 2011). The participants in this study described situations where management did not hear their voices, representing the censorship that results from the deaf effect discussed earlier (Davies & Mannion, 2013), for example:

"The thing is you can be making all the noise in the world but still being silent because it's not translating from one side."
(Conversation, participant one)

Instead of the absence of issues a key role of silence can be the withholding of issues (Zehir & Erdogan, 2011). Collectively the comments made by participants in this study suggest agreement that within a hierarchy there is silence when there is nothing wrong and alternatively when something is being censored.

Hierarchical systems in healthcare also act to censor patients. For example, patients are reported to remain silent throughout consultations; health professionals rarely allow time for questions (Stapleton et al., 2002). The findings mirror an Australian study that postulates that radiographers allow little time for questions to try to shield both themselves and the patient from difficult situations (Squibb et al., 2015). Observation in this study demonstrated that this did happen in practice especially

when there was a threat of emotionally challenging conversations. This study also builds upon previous research by demonstrating that silence is used to enforce censorship of patients in a strategic manner, for example, levels of silence increased during periods of high workload and decreased when participants had more time to spend with patients.

Finally in this theme of hierarchy, participants described diagnostic ordering; services are structured with radiography staff routinely making decisions about how much information or support a patient will need, but they are limited in their endeavours by the little background information that referrers provide on examination request cards. Murphy (2009) wrote of similar situations where practitioners make judgements about service users across healthcare. A participant conceived the lack of information on request cards to be one of silence about the background of the patient, regarded here to be the Silent Pandora's box of patients:



Figure 66: Collage image participant eight

“Before you start doing anything you’re kind of judgmental and this is the closed box.....you don’t know what you’re coming across, how are you going to deal with it, so it’s all challenges that are closed in that box.”

A recognition of the assumptions that are made about patients is especially important in the setting of hierarchical health care (Ehrich, 2006). Health cultures should not perpetuate a dyadic relationship between a single professional and a patient (Department of Health, 2015b). Instead a power shift should be advocated to develop people from being passive recipients to active citizens in health (HCPC, 2015). Put simply, the practitioners could have asked the individual patient about their background history and what was important to them. To enable practitioners to support active patient engagement in the future, questions need to be raised about

the tacit assumptions that are made about patients and the silences that persist in radiography clinical practice. We need to open the Silent Pandora's box.

7.2.5 Theme Five: Dilemma

7.2.5.1 *Tensions: a balancing act*

Healthcare staff find tensions between disclosing information, the moral justification for withholding it and uncertainty about whether the patient really wants to know (Costello, 2000). Findings in this study resonate with a report that radiographers particularly find dealing with oncology patients stressful; they find the strong emotions involved difficult to deal with and are apprehensive about causing patients psychological harm (Murray & Stanton, 1998). Participants discussed withholding information from patients, for example:



Figure 67: Collage image participant five

“Yes when someone says to you is everything okay? That’s You can’t say yes, everything’s okay because that’s a lie, and you can’t say to them oh no I’m sorry you’ve got(points to an image referring to chest metastasis)”

Another participant discussed worries further associated with diagnosis for trauma patients:

“Yes it might be a major thing for them - somebody who’s going to be not working and they’re the major breadwinner, it’s going to be a shock. Say it’s a painter and decorator and they’ve injured their wrist.”

(Conversation, participant twelve)

A patient may not understand or not want the information that is given to them depending upon various factors including their health literacy (Daye et al., 2018). Costello (2000) found that oncology staff were reluctant to discuss prognosis with patients out of a sense of protective compassion that was used to safeguard the patient from undue distress. Tactics of silence and concealment contribute to good care within particular moral domains (de Klerk, 2012). Participants in this study provided images and conversation that described how, not wanting to deliberately mislead patients, staff would incorporate silence to allude to prognosis in different degrees. The tensions were conceived to be a metaphorical balancing act. The phenomenon has been described previously in an Australian study which concludes that in the absence of a clear medico-legal position radiographers draw on experience and an ethical framework to make decisions about disclosure to patients (Squibb et al., 2015). Squibb et al. found that discretion is used in radiography to replace a direct, possibly perceived as blunt, answer with a disclosure that is selective, diagnostically vague and an ethically filtered truth. Comparably in primary care clinicians choose whether to discuss prognosis with patients, rationalizing that the situation is a means of perpetuating hope and avoiding anxiety (Thai et al., 2013). A participant in the study described the situation as a balance between head and heart. Silencing literature labels this type of silence a type of silent wisdom that is related to compassion (Kenny, 2011; Dingli, 2015). For example:



Figure 68: Collage image participant twelve

“So your brains telling you, you know, it’s alright to tell them things but then your heart’s saying it kind of isn’t, you know, kind of withhold it.”

7.2.5.2 Concealed discourse

To enact this type of discretion sometimes silences are obscured or concealed by words (Bilmes, 1994). Silencing literature refers to this notion as concealed discourse (Hart & Hazelgrove, 2001). For example, a patient may speak but not make an overt reference to their illness. A radiographer may reply to a question about diagnosis but not give any opinion or specific answer. Concealment is therefore never a complete silence (de Klerk, 2012). Berry et al. (2017) describe such practices as the desire to temper emotional turmoil. In this study the participants did recognize that staff use deliberate silence to temper emotional turmoil. The participants in the study perceived silence as an alternative to increasing or even inducing anxieties among patients, families and carers. The participants did not want to fan the flames of worry. For example:

“Plus, you’re only going to be with them for like two minutes. Especially if the departments busy, and you really do want to sit with them and have like a thirty-minute chat you know, just to comfort them, but you really haven’t got time for that. You’re going to spark, ignite, this thing and then set them off, worrying about it.”

(Conversation, participant twelve)

Being silent can have positive benefits for patients (Fivush, 2009) yet conversely voice can also have positive benefits. Crawford & Brown (2011) describe epiphanies of reassurance; brief but powerful personal remarks that inculcate hope for patients. They note that emotion work involves an understanding of how language can mean more to patients than is intended by words. Participants in the study also described the use of reassurance to inculcate hope, for example, teaching students to use stock phrases such as ‘oh you won’t need any more images’, ‘those pictures are beautiful’, ‘I’d be happy if that was my knee’. The participants reflected a tacit understanding of what has been described as the iatrogenic potential of words in healthcare (Barsky, 2017). But, balancing the requirement for complete disclosure (candour) with the iatrogenic potential of some information is tricky (Barsky, 2017). Squibb et al. (2015) found that radiographers work with a continuum of disclosure that ranges from providing hints to diagnosis with the notion of the radiographer’s whisper (Willis, 1994), to amorphous, vague or imprecise language and stretching the truth. The continuum includes varying forms of silence not overtly recognized by Squibb et al. However, they do allude to silence by saying that in some circumstances ethical action requires constraint. Participants described how silence functions to provide constraint for example a participant commented:

*“Sometimes we’re trying to avoid having a bad effect on them (patients) if you know what I mean?”
(Conversation, participant two)*

Berry et al. (2017) suggest that asking patients how much they want to know about their illness is a kind alternative to disclosure and constraint, which are practitioner determined and paternalistic.

7.2.5.3 Legal positions

An additional reason for silence, alongside moral obligations to patients, is a dilemma resulting from the perception that error will result in legal action for negligence. The fear of being sued is a strong motive to remain silent in clinical practice (Berlin, 1997). Berlin suggests that silences are used in clinical practice to protect against the anxiety of legal action. Participants in the study shared this view. Chapter two described a

legal move by radiologists in the 1920s that effectively quenched radiographers' ability to deliver instant results to patients. Essentially the tactic was a silencing of the radiography culture by a legal means. It legitimized subordination of radiographers on the grounds of their lack of medical education. The move perpetuated a situation of medical dominance in the radiology department by the radiologist until at least the 1970s (Price, 2001). Despite recent innovations, not least that many radiographers now issue reports, ways of working in imaging departments still delay timely care for the patient groups who wait for the results of investigations. In many ways, despite technological progress, hierarchical processes in UK clinical imaging remain unchanged from the system that developed in the 1920s. The ensuing wait can be an anxious time for patients (Mathers et al., 2011; Mathers et al., 2013). A cancer patient waiting for the results of breast imaging described the wait as 'absolute hell' (Mathers et al., 2013). The associated feelings of lack of power to help a patient can also be distressing for the practitioner. Mathers et al. (2013) recommend that clinical imaging departments review result-giving policies to include multi-professional and multi-departmental approaches to provide seamless results for all patients.

Participants spoke about using silence to prevent distress to patients in the current system, but the extent to which the strategies are successful are undetermined. For example, practitioners described situations where if a patient asked what the practitioner could see on an image the practitioner would subvert the question with replies that included 'Oh I don't know enough about it to comment', 'I don't read the images, that's the doctor's job' and 'the person who writes the report needs to look on a sharper screen'. This practice is unlikely to lessen anxiety for patients, instead it represents a paralysis or delay to decision making because the practitioner suspends the need to decide instead substituting a learned response (Holian, 2006). As a result, it is posited that practitioners in this study avoided their own emotional anxiety about the threat of legal action by evading honesty with patients using silence. Participants in the study reported that generally they did not give any diagnosis to patients but they did disclose uncertainty, by referring to the need for further test results or extra discussion at MDT meetings etc. A participant reflected upon the situation:

“It’s whether you want to break that bad news or not, I know that legally you might be allowed to but it’s the ethics of it isn’t it?”

(Conversation, participant twelve)

Essentially the culture held norms about authorized conversations. Certain topics could be discussed with patients depending upon context while others could not, a tacit cultural agreement. The presence of authorized conversations and legitimate silences resonates with and provides evidence of the phenomenon of cultural censorship (Sheriff, 2000; Hart & Hazelgrove, 2001).

7.3 Objective Two: Create knowledge of types, functions and cultural uses of silence in projection imaging practice

7.3.1 Type and functions of silence in the study

The types and functions of silence present throughout the five overarching themes are:

1. **Prosocial silences** facilitate relationships. Participants in this study described the use of prosocial silences to aid teamwork, to facilitate the speed of workload, and to keep patient waiting times to the minimum. For example, participants described a cultural use of silence to avoid conflict between colleagues; they considered that it was a strategy to maintain cordial interactions between people. Prosocial silence promotes and facilitates harmonious teamwork, it functions to maintain unity (Van Dyne et al., 2003; Dedahanov et al., 2015).
2. **Legal silences** are the means to reduce anxiety about threat of legal action. IR(ME)R (2017) was a cause of anxiety with regards to following protocol and safety. Silence was used to evade answering questions in situations of practitioner uncertainty. Paradoxically IR(ME)R (2017) was also used to silence others, patients and the interdisciplinary team, a form of silencing by IR(ME)R. For example, during an observation session, a manager from a department external to radiography was confrontational with staff who responded by

quoting IR(ME)R (2017) regulations as a reason for their actions. The move effectively silenced the manager.

3. **Compassionate silences** are used to display concern, to provide space to think and to reflect; an attempt to relieve the perceived suffering of others. Compassionate silence facilitated staff and patient wellbeing. It was used to express genuine emotion and participants described the satisfaction derived from silently caring. Feelings of compassion evoked an active use of silence to relieve various forms of suffering of patients and also colleagues. Compassionate silence was logical and intentional. On the same spectrum, silences also functioned to reflect and enact sympathy and empathy, perceived to be less engaged or active forms of compassion. For example, participants described the ways that practitioners use silence with patients who are emotionally overwhelmed by their experiences in circumstances of trauma and oncology. One participant reflected that for some patients 'words are too much'. Participants described that this type of silence was often mediated by touch and / or a smile.
4. **Emotional silence** presents when there is uncertainty about the expression of emotion. Silence offers a social defence that lessens the demands of emotional labour for staff. Emotional silence is a coping mechanism that acts to decrease emotional anxiety and to diminish the demands of emotional labour on the participants. Silence also functions to avoid emotional investment for some radiographers (Reeves & Decker, 2012). For example, participants described silences that facilitated concealment in the form of indirect answers to questions; especially when answers were perceived as having the potential to provoke anxiety for patients or participants.
5. **Organisational silences** are defined as the collective act of doing or saying little in response to important problems or issues (Davies & Mannion, 2013). Organisational silences provide cultural defences against oppressive hierarchy. For example, participants disagreed with a management decision and silently carried on with their normal everyday practice. Participants believed that power influenced whether issues raised by staff were heard.

6. **Reverential silence** was socially constructed, it called for silence during certain points of examinations. For example, during the period of radiation exposure, participants reported that they would pause and be silent for a few seconds. Participants also described reverential silences that signalled respect. They gave particular examples of forensic imaging, cardiac resuscitation and imaging at the death or dying of a patient such as imaging pre-organ harvesting. Participants considered that this type of silence signalled respect.
7. **Strategic silence** is related to workload in a culture that subscribes to a need for speed. Staff are socialised with tacitly shared understandings that silences can be used as tools to reduce waiting times and achieve targets when workload is high. During observations, when workload reduced then levels of silence also visibly (or rather audibly) reduced.

7.3.2 Cultural uses of silence

Menzies-Lyth (1960) described how nurses minimize personal contact with patients, which Armstrong & Rustin (2015) regard as paradoxical since nurses may enter the profession with an expectation of being able to give personal care to patients. Similarly, Reeves & Decker (2012) describe how radiographers strategically distance themselves from patients but paradoxically must use physical touch to position patients for examinations. Such approaches result in a displacement of sensitive forms of care by the ritualistic following of rules and maintenance of rigid hierarchies (Armstrong & Rustin, 2015). The rigid application of rules in radiography is compounded in projection imaging where all examinations employ ionising radiation. Therefore staff are governed by IR(ME)R (2017) (Legislation.gov.uk, 2017). The participants in this study tempered the displacement of sensitive forms of care with the use of touch, smiling and silence.

Procedures can themselves become forms of social defence (Armstrong & Rustin, 2015); Participants in the study highlighted that IR(ME)R (2017) protocols were used to silence or enforce silencing of colleagues and patients in the face of difficult conversations i.e. to avoid conflict. At times of high workload practitioners also discussed the notion of retreat toward control; effectively it was a cultural norm to silence patients with IR(ME)R protocol, for example, by telling patients that the

practitioner had to adhere to ionising radiation rules and regulations. Alternatively, it appeared that when resources, especially time, allowed then practitioners took the initiative to autonomously advocate for patients. It has been suggested that health care institutions have processes that mean managers recruit staff who find defensive structures, cultures and control tolerable (Armstrong & Rustin, 2015). Institutionalization is played out in the socialization of staff (Stokes, 2015). Management then marginalize or expel those who resist (Armstrong & Rustin, 2015). Essentially, the staff that remain are silenced within the institution. Participants recognized silencing, for example, a participant provided the metaphor of closed lips:



Figure 69: Collage image participant seven

The silence associated with cultural censorship does not indicate acceptance of dominant views. The Organisational silences that presented in this study offer examples of silent refusal which challenge hegemony; the notion highlights that sometimes voice is enforced, for example with MECC, a duty of candour and freedom to speak up initiatives, but people may resist (Malhotra & Carillo Rowe, 2013). Instead silent discourse was present in conversations in clinical practice, not spoken about issues are silenced (Hart & Hazelgrove, 2001).

In cultures that do acquiesce to conventional hegemony dominant views are regarded to be common sense and are taken for granted. When that happens people lack the ideological means to give voice to dissent (Freshwater et al., 2014). The images, words and observations in this study demonstrate that practitioners did not lack ideological means or in the main subscribe to dominant medical or managerial hegemony. Instead

the participants perceived a situation in which their voices were suppressed in a hierarchical organisation, raising issues of power and domination.

Schlosser & Zolin (2012) contend that silence is a collective and contagious cultural construct. Cultural contagion is evident in instances where a culture of silence develops around taboo subjects, referred to as cultural denial (Drew, 2011). This idea reflects and supports the notion that there are authorized conversations in radiography, posited in theme five. Cultural narratives in this study therefore appeared to be both normative and prescriptive. Alongside issues of power, culture strongly dictates the way that a situation or experience is either spoken about or silenced (Fivush, 2009).

7.4 Objective Three: Identify challenges associated with silences in the context of current healthcare policy

The third objective of this study is to identify and summarize the challenges presented by cultural silences in the context of current healthcare policy. Two main drivers for change appear to be important factors for discussion in relation to cultural silences and clinical imaging. First, public health policies focus on a need to improve the health of the nation, to prevent illness and to provide screening services in this pursuit. Improvement of the health of the population is a goal constructed by public health policy in response to polity, economics and UK population needs, for example to hold healthy conversations with patients, MECC (Public Health England & Royal Society for Public Health, 2015). Second, alongside the requirements of a duty of candour in healthcare (CQC, 2015), policies that champion patient engagement, empowerment, use of voice, shared decision making and patient-centred practice (The Health Foundation, 2013; CQC, 2014; CQC, 2015; Jones, 2016; NHS England, 2016; NHS England, 2017a; Fagan et al., 2017) propel and bring to the fore requirements for transparency in partnership with patients.

Both drivers for change have consequences for diagnostic radiography; new tasks for staff have the potential to evoke new anxieties. To achieve public health and patient empowerment goals imaging staff will need to modify or develop new kinds of interactions with patients, families and carers. A move to initiating more in-depth and

open conversations with patients, about subjects arguably outside traditional scope, provide a challenge. The drivers defy the functions of a number of cultural silences. Especially controversial is the encounter in relation to the function of strategic silence, a cultural silence used in clinical imaging to speed up examination times when workload is high. There may be a perception that the policies are threats to waiting times. The opening up of in-depth conversations also disables emotional silences, used in clinical imaging when there is uncertainty about expression of emotion. Participants describe emotional silences in terms of coping mechanisms; the silences decrease emotional anxiety for practitioners but arguably not patients. Third, there may be apprehension about inability to use legal silences if the legal position is not known with regards to new tasks. More widely with regards to innovation and development of services provided by clinical imaging, organisational silences may be a hindrance if staff do not raise important issues. When tasks change then established coping mechanisms might no longer serve their original purpose. Practical defences, including silence, will need to evolve to protect practitioners and patients (Armstrong & Rustin, 2015).

Practical defences originated in part due to the nature of clinical imaging services. Care is often conducted before a patient's illness, pathology or trauma is diagnosed (Reeves & Decker, 2012). A result is that the patient will have often-anxious expectations about diagnosis, treatment, prevention or surveillance of pathology and trauma, dependent upon the context of the examination. Patients frequently project their worries onto hospital staff (Rees, 2000) and expect truthful and immediate responses to their anxiety. Contemporary policy supports truth and transparency (Francis, 2013; Francis, 2014; Department of Health, 2015a; SCoR, 2015; HCPC, 2016). Participants provided images and spoke of a perceived difference between practitioner role and patient expectation in this process, for example:



Figure 70: Collage image participant seven



Figure 71: Collage image participant seven

"They're just adjusting the exposure factors or you know just checking the image, recording the dose, but the patient thinks the radiographer's looking at their future behind the screen; predicting what's wrong with them."

(Participant seven)

The participants in this study provided evidence that compassionate silence functions to afford a social defence. It mediates against a dissonance that arises for practitioners around their ability to meet patient expectations. The drive for open and transparent conversations between patient and practitioner challenges this type of silence. Patient expectations vary in an increasingly diverse and multicultural society but there is generally consensus around patient requirements to avoid physical discomfort in healthcare, interact with staff and be genuinely involved in the care process (Bourke et al., 2017; Brook et al., 2017; Johannes et al., 2017).

Traditionally, the emotional labour involved in working with patients who have expectations about diagnosis and treatment has been tacitly understood by radiographers and mediated by silence. Healthcare policies that now call for the use of voice allow little room or regard for the use of silence in interactions. A result is that an established coping mechanism of diagnostic radiography is under threat; voice implies speaking up not silence (Van Dyne et al., 2003). To allow practitioners or patients to challenge services, to better meet patient expectations, then empowerment requires sufficient awareness, power, voice, confidence and ability to seek solutions and innovate.

An area where current policy causes a problem with respect to empowerment is related to the hierarchical organisation of healthcare and level of autonomy. A participant described being 'RIS watched' by managers with a perception that managers keep a silent governing eye on the system and workload. Another participant considered:



Figure 72: Collage image participant two

"No matter they are always watching. These eyes are just overlooking everything silently"

(Participant two)

Participants supported the notion of a blame culture (Strudwick et al., 2011a), which is linked to organisational silence. In such cases this thesis posits that the protective frame of silence can be conceived to be a metaphorical cultural quilt, which protects staff in the culture of radiography. It may, however, be limiting transparency and the development of services in respect to contemporary policy.

7.5 Limitations of the study

The limitations of this study will be discussed in relation to methods and analysis. Using the terms outlined in the seminal work of Lincoln & Guba (1985) and following the work of Twining et al. (2017) a consideration of trustworthiness, credibility and transferability leads towards the next chapter of the thesis, chapter eight: reflexivity.

7.5.1 Methods

Limitations of time and space can occur when producing collage (Raffaelli & Hartzell, 2016). Participants did report limitations: two participants noted that it was difficult to change part of their collages when they had already glued the images down; two participants ran out of time at the workshop and took their collage home to complete. It has also been argued that using ready-made images in collage can be a limitation (Raffaelli & Hartzell, 2016). Collage lacks fluidity once images are fixed (Mannay et al., 2017). However, other scholars take the view that the image has no obligation as regards being true or false; it represents what it represents (Vlăduțescu, 2014). A solution for future studies would be to use collage and ask participants to talk about what they are doing during the workshop session (Raffaelli & Hartzell, 2016). In that case participants would be able to explain and expand if they felt limited by the images available. A limitation of the study was that interaction and conversations between participants were not recorded during the collage workshops.

One participant did comment that she had not been able to find a particular picture but went on instead to describe the type of image that she had been looking for during her post-collage conversation. The participant enacted *auteur* theory, which refers to the notion that the most salient points in conversations about images are what the participant intends to show not what the images contain (Rose, 2016).

Prior to the workshops there was a recognized risk that the participants would flounder without a structure or a stimulus; participants with no experience of creating collages needed to be given guidance and support (Richards, 2011). Support was provided via a short power point presentation (see Appendix Ten), however participants asked for the information to be expanded upon – participants did seek

stimulus. The situation was remedied with a couple of extra slides that luckily the researcher had to hand – the effect is discussed further in chapter eight reflexivity.

7.5.2 Analysis

The use of collage images in this study mean that post-collage conversations provided opportunity for the participants to speak about knowledge, context and cultural assumptions (Mannay, 2010). There is debate about the subordination of images to text however the analysis drew upon auteur theory which gave primacy to the meaning that the participant intended to convey (Rose, 2016). The participants translated images to words which ensured that the interpretation followed the narrative that the participants wanted to communicate (Mannay, 2010). It was therefore necessary to subordinate the images for the purpose of analysis in this thesis.

By adopting an approach that used images as windows to aspects of silence (Pauwels, 2010) a somewhat realist approach could have resulted during analysis; assuming an un-problematized representation of the world and expressions of the participants (Pauwels, 2010). Pauwels advocates that in this circumstance the researcher can strive to make sense and situate analysis within the larger framework of their discipline.

The analysis of findings was managed by a single practitioner-researcher, with the rationale that the researcher had undertaken the initial literature review and was familiar with a range of theories of silence. The approach was taken to enable consistency in dealing with a focused and specialized area in which the supervisors were developing knowledge. There was limitation because of the current absence of a benchmark in radiography against which to compare findings and analysis about silence or methods of collage research. During the study the supervisors became more familiar with the topic via the literature reviews, discussion and related the knowledge to their own experiences and expertise. This enabled the researcher to discuss ideas, ambiguities and be guided by the supervisory team as the research progressed.

7.5.3 Trustworthiness

When using the term trustworthiness a researcher attempts to demonstrate that data are ethically and mindfully collected, analysed and reported (Carlson, 2010). The ethos is echoed here and, alongside the analytical approach taken in this study, called for a clear audit trail with transparency; to enable an informed judgment of research quality in respect to analysis (Hannes et al., 2015). In addition to the collage images in the findings chapter, a sample record of observation (appendix eight and nine), example transcript of conversation (appendix eleven) and an example analytical table (see table 8) are included in the thesis to aid transparency. The influence of the researcher and issues of power, particularly in ethnographic research, mean that the position of the practitioner-researcher needs to be made clear in a reflexive approach, to assure trustworthiness does not become a limitation of the study. Chapter eight provides more detailed discussion of the researcher position and reflexivity.

7.5.4 Credibility

Credibility is enhanced if the researcher offers participants the opportunity to see and approve their contributions once they have been placed into the research report (Creswell, 1998). Described as member-checking, the process provides a means to check that research is on the right track (Carlson, 2010). During observations participants were read and made comments about field notes. Participants in this study also responded to a link to the Microsoft Sway, Office 365, document in stage one analysis but the researcher considered that the responses were limited, offering encouragement and approval rather than any further discussion or critique. The situation mirrored that reported by Thomas (2016), who surmises that there is little evidence that participant validation improves research findings, rather they are useful for obtaining participant approval. Richards (2011) also found that while participants are keen to create images in research they are less interested in the management, coordination and dissemination of research, as long as their work is respected and their opinions heard (Richards, 2011). For future research it will be useful to encourage further involvement by asking the participants how they want to comment and be involved.

7.5.4.1 *Transferability*

The fields of radiography are complex. There are different branches of radiography, types of technology, also distinctive cultures and working practices at the different geographic locations in which imaging takes place. For example, imaging undertaken in a main imaging department, a theatre, a mortuary, or on a hospital ward involve different factors that inevitably influence the ways in which silences are used. For different subsections of the diagnostic profession, therefore, silences are nuanced according to background and functions. Issues of transferability limit the design of this study because the account of silences is restricted to a specific context. The findings may be transferred to different settings in radiography but direct comparison will be difficult if not impossible.

7.5.5 Conclusion to chapter

To conclude, the discussion in this chapter drew upon a conceptual framework of social defence (Jaques, 1953, Menzies-Lyth, 1960) and cultural censorship (Sheriff, 2000). To meet the objective to provide an exposition of silences in radiography, the findings were discussed in the order of five overarching themes that are grounded in the findings of this study (see figure 48). The discussion was based around each theme referring to specific silences that presented in clinical practice. To meet the objective to create knowledge of the types, functions and cultural uses of silence in diagnostic radiography, the discussion moved on to summarize and relate the silences to radiography culture and cultural censorship. Finally, to identify and discuss the challenges presented by cultural silences, the findings were reviewed in relation to current healthcare policy. In the ethos of ethnographic research, the following chapter will provide a discussion of the researcher position and reflexivity related to this study.

Chapter 8 Reflexivity

8.1 Introduction to chapter

Reflexivity may be performative, ethical and conceptual (Fox & Allan, 2013). I have used this description for guidance in the following chapter. After a short discussion about reflexivity I will list some demographic factors, describe my doctoral journey and the role of the study supervisors in terms of performative reflexion. The discussion is followed by ethical reflexion in terms of the influence of being an insider researcher and issues of power. A conceptual reflexion relates to the topic of silence and the chapter then concludes with what I regard to be an informed voice.

8.2 Reflexivity

The choice to use qualitative research methods is predicated on the ontological assumption that reality is subjective and multiple, not monolithic (Trefry & Watson, 2013). Because the researcher is relied upon to present their findings with integrity in qualitative research (Higginbottom et al., 2013), the process of reflexivity is a major strategy for quality control in this study (Berger, 2015). It is therefore important to discuss my development as a researcher and to make clear the political orientation driving my work (Fox & Allan, 2013). At the same time I identify with Fox & Allan's notion that reflexivity is ever partial, fragmented and dynamic. To strive for it to be otherwise would be too wieldy if at all achievable.

Reflexivity should include attention to the possibilities and limitations of knowledge (Boyer, 2015). Fox & Allan (2013) describe a process of enhanced reflexivity that requires critical engagement and understanding of practice and the environment in which research takes place. They conceive a resultant cognitive wrestling. One bout of cognitive wrestling with regards to this study is related to the limitation of knowledge and important disagreements among ethnographers about ontology, epistemology and axiology especially related to what it is that a study aims to produce (Hammersley, 2018). For example, an axiological issue raised by Hammersley questions whether it is my task, the ethnographer researcher, to evaluate the phenomena studied in practical or political terms or even if an ethnographic study

should make recommendations. Qualitative research, because of its ontological and epistemological stance, does not consider that participants will be representative of an entire complex culture (Twining et al., 2017). I do not expect to be able to generalize from the findings of this study. This is an important point and I have found that I had to rein myself in because I was tending to generalize. Instead, I remind myself of purpose, that qualitative research methods may be applied to study a group in order to hear their silenced voices (Creswell, 2013). That is one of the foundations that this study is built upon.

8.3 The researcher

The demographic factors of my life inevitably influence my approach to research for the work of a researcher cannot be completely separated from the beliefs, values and social relationships that demographics influence (Splichal, 2015). I am a white British working class female; my dad was a joiner and my mum was an administrator in a nursing home. I have one sister but no aunts, uncles or cousins. I am the only person to attend University in my family. I am a married forty-four year old. I have been married for twenty years. I have two children, aged twelve and thirteen, a dog and a cat to care for.

When I commenced doctoral candidature I worked full-time in clinical practice, in a post split between radiography clinical tutor and reporting radiographer – writing clinical reports about appendicular and axial images of trauma. In year four of my studies, after employment in NHS radiography departments for twenty-three years, I moved to work for the radiography professional body, the Society and College of Radiographers. My post is titled professional officer for clinical imaging, one of four officers who cover the UK. I still work full time and in addition I also work one session (four hours) each weekend interpreting images and writing reports in the post of bank radiographer, to maintain my clinical reporting skills. As such I have not fully withdrawn from the field in which I carried out my research.

8.4 The effects of doctoral candidature

Considering previous Masters level study, I was constricted within a technical-rational paradigm. MSc Advanced Practice Medical Imaging taught me the skills to write a clinical report for musculoskeletal trauma, how to facilitate teaching and learning in clinical practice and also introduced me to research methods. I won the school postgraduate research prize for a case study in 1998 but I was embarrassed because I knew that I was not a researcher. I think that I was ill prepared for doctoral level study because I was inhibited by my style of learning and lack of critical thinking. I stuck to what I knew with my Masters dissertation which explored soft tissue neck imaging and reporting. Humans are attached to many aspects of their environment such as jobs, Organisations, ideals, and beliefs (Albert, 2001). I add to this list the habits of learning. I have studied part-time on a doctoral programme for five years. During that time the cost of the cognitive wrestling that Fox & Allan (2013) refer to has been 1) my personal exhaustion, related to finding the time to think while being a part-time student and full time working mum and; 2) my increased capacity for critical analysis, which has increased my frustration with the limitations placed on my profession, fanned by the fact I am writing at a time when the Royal College of Radiologists has again challenged the abilities of radiographers to report. Radiographers struggle to shed the perception that they are little more than technical operatives (Baird, 2008). This is an important point for the dissemination and reception of the findings of this study.

Three conversations that I have had with people about my research have proven to be important reflexive learning points. First, a tutor on the doctoral foundation asked us to consider if people would 'think you are being selfish doing this programme'; I think people do see me as selfish. I have maintained resilience and self-esteem (rightly or wrongly) by believing that the people who make derogatory remarks feel threatened by their own lack of education. Instead of confronting their feelings they bounce some negativity back to me. Second, I remember my husband telling his friend that I was studying for a doctorate; the remark was met with what I conceived to be a puzzled silence, then their joint laughter. Third, I have been asked a number of times, what I will be able to do post study and what pay rise will I receive. These last two conversations reflect my working class background; it is incomprehensible to some

that a woman with a family should want to learn just for the challenge or joy of learning, with no recompense. Arguably there have been monetary gains in that I moved to a better-paid job. Whatever the outcome of the study or the thoughts of others, I have personally gained a confident voice. The use of voice can present tensions, because raising voice, or rather voicing an opinion, may upset someone or lead to disagreement. I know that there will be disagreement with the interpretation of this study depending upon the worldview of the audience but at some point the journey across the doctoral route has thickened my skin. I do care, I want to avoid conflict and the study to be well received, but at the same time I am contented that I have striven to do what I conceive to be the right thing. Reflection upon these learning points has resulted in the recognition that I have made personal gains from the study in the form of increased knowledge of a focused area of research; the inclusion of a reflexive chapter in this thesis reflects my concern to be considered 'right' (Fox & Allan, 2013).

Informed by my reflexive diary and the records of supervision meetings, the work for this chapter has been a form of a self-appraisal on my part in the study (Berger, 2015). Fox & Allan, (2013) refer to an imminent assault on multiple selves that results from the process of reflexivity. Embarking upon doctoral research returns you to the bottom rung of a ladder from which you are again a novice. An essay I wrote for one of the taught modules of this doctorate details how I entered a period of diaspora with tensions between being a practitioner and a researcher. At the end of my ponderings I did not return to my metaphorical homeland. Instead, I chose a new work life. I become an expatriate safe in the company of a new tribe. My new job introduced me to a community that share many common values, traits and qualities that are important to me: integrity; a sense of justice; the need to make a difference; caring; humour – ah, now I see – my strong cultural heritage prevailed. I may have loosened the restraints of a technical-rational paradigm but I am still a diagnostic radiographer content in the company of the radiographer professional body. Education can distance a person from their former self (Zhou, 2017), however, in my case doctoral candidature has reinvigorated and restored my exhausted former self; I am happy to be me.

The result of the doctoral journey to date is that I have achieved a greater level of criticality, voice and understanding of my sense of self. The importance of this is that as a researcher I have widened my thinking and ability to apply a methodology, methods and theories from fields of thought broader than the field of diagnostic imaging. Aspects of this study will appear novel to clinical imaging but they are in fact just ideas derived from other fields. I am a methodological and conceptual pilferer. This broader perspective has influenced my interpretation and representation of the data. There are aspects of radiography that are unique, but I now recognise that there are also many areas of healthcare and associated scholarly literature with which the culture can identify.

8.5 The role of doctoral study supervisors

It is one of the essential tasks of educators to contain the vulnerability of learners, so that they can tolerate not-knowing (Armstrong & Rustin, 2015). The research topic was also an area of not-knowing for my supervisors, who were open to vulnerability to some extent. The supervisors' reputations will also be linked to the quality of this research. My three supervisors brought fluid support to the implementation of the research: academic benefactors, critical friends, and cheerleaders. Serendipity provided me with a dream team who are patient, kind, challenging and wise. Their individual strengths complement each other.

The experience has reinforced my belief that research must be undertaken in teams to provide a rounded and balanced study. I considered it important to include this background in order for true assessment of the study. The supervision team was not hierarchical, critique was accepted in good spirit and everyone made cognitive contributions to the writing of this dissertation. These factors were all important because practising reflexively can be an uncomfortable or anxious experience, possibly even detrimental to the creativity of a study (Kara, 2015). I was lucky to have my scholastic sisters who nurtured creativity.

8.6 Making the familiar strange

It is significant when an insider researcher shares many of the same experiences as participants (Berger, 2015). The fact that I knew the participants may have introduced unintended bias and influenced the responses of the participants. To minimise the influence of my views a reflexive approach was undertaken which meant keeping a reflective diary during the study in an attempt to minimize bias. The diary demonstrates that shared aspects of culture facilitated my appreciation of the participant's responses and the language that they used (Howard, 2013). The design of this study meant that I shared the cultural experiences of participants to different degrees, for example I had worked for a long time and my experiences were different to those participants who had been qualified a couple of years. Mannay (2010) discusses how to make the familiar strange when a researcher's experience mirrors that of their participants. She concludes that it is a myth that researchers must be objective and emotionally distanced from a field to be able to conduct valid research. I mirror that belief and consider myself to be an insider researcher, familiar with the participants and their lives. The result was a degree of cultural competence (Mannay, 2010) because I understood the language and terms used, with shared understandings. I considered myself to be culturally competent but the visual elements of the research process brought different ways to comprehend and make the familiar strange; I was able to conceive new cultural aspects of silence and radiography (Mannay, 2010). I literally saw things differently through the medium of images and the participants' conversations.

My former post as clinical tutor meant that I was familiar with methods of teaching and to some extent of coaching people. I found that during all research phases; observations, workshops, conversations I was drawn to enact my old teaching role. In clinical practice participants asked my opinion of images. Reviewing the transcript of conversations I can see that at some points I either veered or was coaxed towards coaching staff around specific issues. I also adapted a power point presentation for participants during the first collage workshop. The original power point consisted of a spider diagram representing silence followed by examples of collage work. The participants wanted to know more about silence, how it related to theory in

radiography and what I'd observed. I was happy to improvise, reflecting the importance that I place on teaching. I think that it also reflected the participants' views of me – I had only recently left my post as clinical tutor but was still being treated as a teacher. I substituted a slide that I had presented at my internal evaluation examination a few months earlier; we discussed theories of power, subordination and dominance of images in the culture. We talked about silences around death of patients, use of the phrase 'hello my name is', and subordination. Afterwards I was worried that I may have influenced the ensuing collage production but the conversations with participants reassured me – the cultural picture that emerged was quite different, focused much more upon the emotional aspects of labour to which I'd been oblivious. It has been asserted that knowledge may purport to represent collective cultural knowledge but only partially represents the cultural labours of a group (Boyer, 2015). My role in analysis will therefore inevitably have influenced the account that is given of cultural labour by participants. A key reason for the choice to use a visual methodology was to reduce bias. The collage method also enabled a shift in focus informed by participants. Specifically, collage encourages unspoken and emotional aspects of knowledge to be revealed.

Also related to familiarity and strangeness, it is the job of reflexivity to help understand the influences that result in the interpretations of a study. Research conclusions are drawn from subtle interpretive judgements (Geertz, 1973). Effective data management, in this case enhanced by using NVivo software, can help to draw those threads together. Analytical software can be used to systematically draw out the frequency and the intensity of themes (Mackenzie, 2012). On reflection I think that I was influenced by frequency, intensity and also correlation with scholarly literature. Inclusion of the word 'systematically' in the preceding sentence stood out to me. Radiographers work in a systematic manner to ensure patient safety. I transferred this habit of management to my approach to research. An initial analysis of findings with a Sway document was not systematic enough. I was more comfortable performing analysis with NVivo and cross checking with analytical tables – much in the way that cross-checks (referred to as pause and check in radiography) are made before exposing a patient with radiation.

I found it difficult to commence writing the discussion chapter of this thesis because in my mind I had not paused and checked thoroughly enough. I had to repeat the process of checking through the thematic analysis before I could write; a time consuming approach that was necessary for me to proceed to discussion. There are automatic exposure prevention controls on imaging equipment that do not allow radiographers to proceed with examinations if certain criteria are not met. For example, sensors that function to prevent activation of radiation exposure if a door is open, equipment not set up correctly, or criteria not selected on control panels. I had to pause and check the findings before my cognitive automatic prevention would allow me to proceed.

8.7 Power

The identity of subordination can provide the impetus to pursue education (Zhou, 2017). My perception that I was working in an atmosphere of subordination in the NHS, perpetuated by radiologists and hierarchy, contributed toward my decision to study to a higher level. Doctoral research leads to the heart of power relations, the scrutiny of which is an important part of the ethical dimension of reflexivity (Fox & Allan, 2013). The author has the power to decide whose voices are heard and deemed authentic (Drake, 2010). For me, therefore, it was extremely important that I did not perpetuate hierarchy and subordinate the accounts of the participants. For that reason the main body of my research is not written in first person language. I attempted to focus upon the voices and images of the participants instead.

Ethnographic interviewing also allowed me to adopt an informal and conversational style to encourage participants to 'tell their own story' (Spradley, 1979). I regarded the use of post-collage conversations as a method to encourage the liberation of radiographers in the sense that their views of radiography culture were aired and taken seriously. The themes of analysis were directly influenced by analysis of the transcripts. It could be argued that to a certain extent the themes were determined by the question asked "How do you see silence in the culture of radiography". The question implies that both culture and silences exist. The participants did not challenge the question. This lack of questioning is likely related to issues of power, my

previous post as tutor, and new position working for the professional body. On reflection I think that it was wrong to ask the question framed in that way. An alternative would have been to ask if there are any silences and if there is a culture of radiography.

8.8 Silence

As a naturally shy person the paradox of having plenty to say but being more comfortable with silence is probably one of the reasons why I noticed the silences in my culture. At multidisciplinary meetings I observed that the silence of radiographers was amplified and highlighted by the noise of others. My premise was that silence persisted because of issues of power, control and subordination. As a result of this study I have changed my mind to some extent – power, control and subordination are strong reasons for silence and silencing but depending upon context, it appears that cultural censorship and social defences have supremacy.

Tangirala (2008) argues that silence is a non-behaviour and as such difficult to observe and interpret. Taking the advice of my supervisors I had collected examples of silent practice, conceived during the observation phase. The intention was to use examples if participants struggled to understand the concepts of silence during collage workshops. In practice the participants did not struggle to understand the concept of silence but were curious about examples. I believe that participants were easily able to comprehend a rather ethereal concept of silence perhaps related to the participants' use of radiation and production of images. Radiation is difficult (impossible) to observe – you cannot touch, see, or smell radiation. X-rays used to be referred to as 'silent rays' and more recently as the 'silent witness' (Golan, 2004). The images produced are often subjective and open to interpretation – for example a faint lucency on a bone may represent a fracture or a normal nutrient artery in a bone. The participants were able to transfer their experiences of the ethereal and ambiguity to apply them to a new concept of silence. I also believe that is the reason why I was able to consider the concept of silence as a matter for research in the first instance. I trusted that ephemeral silences would prove to be a matter for serious research.

During this final year of my studies I have experienced another side of healthcare, as a daughter and also a wife of patients diagnosed with cancer. The experiences of my dad and my husband were quite different, one with a head and neck cancer, the other with prostate cancer, but during our hospital visits I began to see the silences that existed in services external to radiography. Most notably I saw the emotional shields of the medical doctors, surgeons, and Macmillan nurses working in oncology clinics. The doctors passed emotional patients on to nurses, who silenced patient questions and emotions by invariably producing leaflets to answer questions that did not always require the prescribed facts or figures. Ramsay (2000) describes the difficulty of expressing warm human contact on the part of staff that face the silent reality of death. At the other end of the life course a study found that midwives use leaflets to block or pre-empt discussion too (Stapleton et al., 2002). Cultures of silence are not limited to radiography. An effect of this thesis is that I am left wondering where else are there silences in healthcare and why? It is inevitable that I will now forever be a silence seeker.

8.9 A more informed reflexive voice

I did not expect at the outset of this study to endorse silence, my premise was that there was silencing of diagnostic radiographers. During the study I was mindful not to imbue silence with properties that are imaginary. The participants led me to various paths, the majority of which wind towards the virtues of silence, but there are taciturn frictions. Silences are both help and hindrance within the departments that we probed. The conclusion that I have drawn is that radiographers have learned to use cultural silences, originally developed because of the way that hierarchical radiology services were engineered and the types of work undertaken. The contingent constitution of social and cultural knowledge is often historical (Boyer, 2015); traditional ways of working remain in the memory of the culture. Times have changed and although the world of X-ray has diversified, indeed the word X-ray is often replaced by the term projection imaging, the heady influence of past ways of working has not abated. Silence still serves to protect practitioners and patients.

Chapter 9 Conclusion and recommendations

9.1 Introduction to the chapter

This chapter will summarise key outcomes from the study, present the approach to dissemination of results and provide a conclusion. The conclusion is followed by recommendations for practice and future research.

9.2 Visual Ethnography

This study joins two previous visual ethnographies performed in the field of clinical imaging. Lammer (2007) and Burri (2012) each provide knowledge of how images shape clinical practice. The approach taken in this study was novel because rather than investigating how images shape clinical practice it instead used the potential of images to reflect unspoken aspects of clinical practice with a focus on silence. It pursued and confirmed an ability of images to reflect the unspoken and tacit aspects of an area of clinical practice that was not easily observed by traditional methods. Yet paradoxically, the analysis of observations made during this study did support Lammer and Burri's notions that images influence clinical practice, most notably images were silently used in place of voice in some situations.

Mitchell (2007) has used collage to provide information for patients in radiography but a literature search found no reports of collage for research purposes by radiography scholars. A result is that visual ethnographic methodology and also the topic of silence research will present a new and hopefully engaging challenge to conventional notions of what counts as knowledge and evidence in radiography research.

Prompted by the notion that silence is ethereal, methods of collage enabled the use of visual images to illuminate silence in clinical practice. The following quote is pertinent:

"Most people don't look ...that gaze that pierces—few have it. What does the gaze pierce? The question mark."

Cartier-Bresson (2004, p73)

The observations of clinical practice offered a focused scoping of the field (Nugent, 2007). The collage workshops and post-collage conversations offered a means for the researcher and participants to begin to probe the question mark. The resultant findings and discussion have pierced the question mark of silence, drawing attention to areas for future enquiry (see subsection 9.7). It is important to point out that the collage and interpretations represent the participants' images of culture at a specific point in time.

The use of collage was central to attaining an overview of silence in radiography culture with the visual depiction of a cultural quilt (figure 75). Collage supported and enlivened the analysis of silence with participants providing examples of real-world practice. This study was able to uniquely produce an account of cultural silences with participants providing vision as opposed to respondents producing data (Gerstenblatt, 2013).

9.3 Silence

The study has built upon the current body of knowledge about silence and silencing by providing an account of silences in a focused area of radiography clinical practice. Chapter three, exploration of silence literature, highlighted surrogate concepts that exist for silence in radiography narrative. Threads of silence theory run through radiography scholars' notions of invisibility, the use of discretion, subordination, disengagement and apathy. It was striking how closely the various silences in this study resonate with theories of organisational silence (Morrison & Milliken, 2000; Van Dyne et al., 2003; Henriksen & Dayton, 2006), spirals of silence (Noelle-Neumann, 1974; Pinder & Harlos, 2001; Splichal, 2005) and cultural censorship (Sheriff, 2000; Hart & Hazelgrove, 2001; Hart, 2006).

To reiterate, the purpose of the study was to produce an account of the silences in three general and A&E projection imaging (X-ray) departments. The design achieved three objectives. The first objective of the study was to provide an exposition of the silences that presented in projection imaging practice. It has been asserted that silence is unknowable to those without the means to conceptualize it (Freedon, 2015). This study has been a means by which to transform the previously un-conceptualized

silences in a specific area of radiography. Participants suggested a range of positive uses of silence in clinical imaging. Positive silences contribute towards the emotional wellbeing and compassionate prosocial care of staff and patients in an uncertain environment. Conversely silence is also detrimental to practice. In particular, silences that affect the constructive use of voice disrupt the development of radiography in relation to healthcare reform and the development of strategy, services and policy. It must also be acknowledged that silence is used in clinical practice for different effects by staff, patients, family and carers. This study has provided an account of a culture from the participants' practitioner outlook. It leaves a space for investigation from the vantage point of patients, families and carers.

Thematic analysis of silences, translated via participant produced collage images and conversations, suggest that silence can be related to the culture of the participants in the terms of five overarching themes: emotional labour and social defence; workload; conflict; hierarchy; and dilemma (see figure 73).



Figure 73: Diagram themes of silence

The second objective of this study was to create knowledge of the types, functions and cultural uses of silence in projection imaging practice. In this respect participants considered silence to be a method of communication in radiography culture.

Participants described a culture that socialises staff and students to use silent communication for different effects. Running throughout the themes of silence seven

overarching types of silence were portrayed: prosocial; legal; compassionate; emotional; organisational; reverential; and strategic (see figure 74).

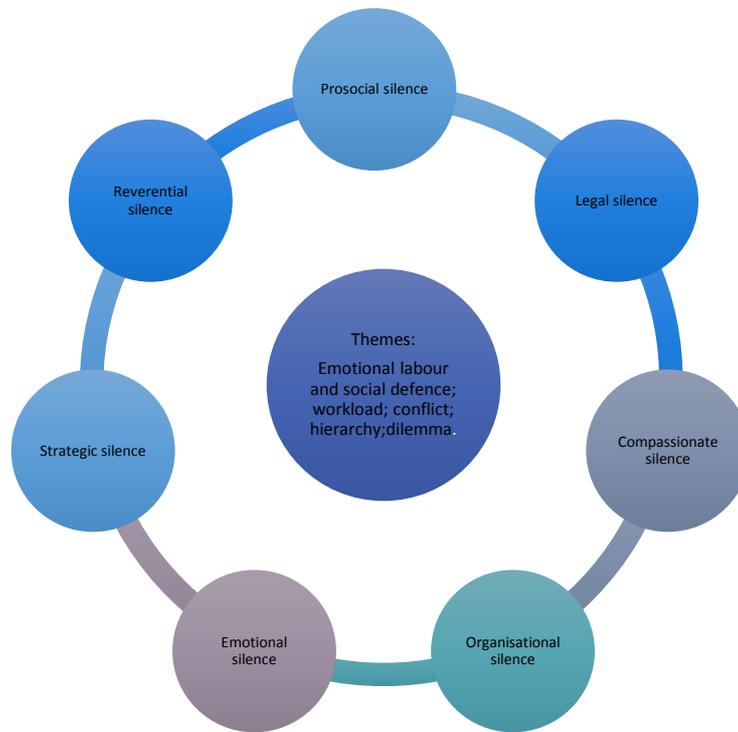


Figure 74: Diagram types of silence

Participants described functions of silence. Guided by the conceptual framework of this study, a key function of the silences is conceived to be the provision of coping mechanisms, tacitly shared by a culture and related to two key anxieties.

First, participants described anxiety related to the task of diagnosis. Participants conveyed the notion of a service that results in dilemma when images reveal trauma and pathology. Literature demonstrates that an individual patient may want disclosure but not all patients. The participants described the art of making decisions about disclosure or discretion from cues that are provided by verbal and non-verbal actions of patients. Accordingly silences functioned to enact discretion around certain conversations; the participants described a culture that has authorised conversations and legitimate silences.

Second, participants described anxiety related to treatment times and targets that converge in the diagnostic imaging department. Services are bombarded with a myriad of targets to ascribe to. Resulting anxieties about pace of work manifested in

the participants who were concerned about patient waiting times. Silences were used to speed up the duration of examination times when workload was high. It appeared that social defences were constructed to avoid any diversions that threaten targets in radiography. Participants reflected that conversations with patients, when workload was high, slowed down the practical task of imaging. Staff coped with high workloads using the medium of compassionate silence, which functioned to provide care, but there is a risk that patients do not recognise the silences as compassionate. It should be noted that the term compassionate silence is used here to cover a range of positions that participants describe in their culture, including sympathy and empathy depending upon the context of examination type and patient. Participants gave an account of the ways in which silence is used in clinical practice for different effects by staff, patients, family and carers.

To some extent emotional silences described by participants functioned to offer support for the effects of emotional labour with respect to the mental health of staff. The coping mechanism of silence in the presence of emotion paradoxically covers up associated issues with emotional labour and exhaustion of staff.

The third objective of this study was to identify and discuss the challenges presented by cultural silences set in the context of modern healthcare policy. The public health agenda and attempts to foster cultures that encourage discussion between patients and staff highlight the important influence of silence within healthcare philosophies. The position emphasises the potentially negative effects that can result from silence when it is perceived as absence or lack of opinion. Emphasis on reform in the NHS has been on structural solutions but there also needs to be a focus on human and relational aspects of care (The Kings Fund, 2015). The participants in this study guided a focus towards silences that provide silent relational care.

9.4 Study contribution

The participants contribute an account of silence and silencing strategies across three clinical imaging departments. The study contributes to clinical practice by presenting knowledge and raising awareness of cultural silences. It demonstrates positive and creative uses of silence in clinical practice. Positive silences contribute towards the

emotional wellbeing and compassionate prosocial care of staff and patients in an uncertain environment. Silences that affect the constructive use of voice, however, especially organisational silences, may affect the development of radiography in relation to innovation and service improvement. Silence is both help and hindrance to service. Following the conclusion to this chapter, six recommendations for practice and future research are provided.

9.5 Dissemination of findings

Two points guide the approach to dissemination of findings. First, dissemination of findings to practitioners is essential because silence is a potential barrier to progression for the profession in the future and also to effective care in some contexts. Second, the emotional labour that is tacitly understood and silently carried out by radiographers should be recognized, appreciated and supported rather than invisible. Therefore, thinking beyond this thesis, it is important that work is shared more widely than traditional dissemination routes to raise awareness.

Generally dissemination by UK diagnostic radiography scholars tends to include radiography journals and the annual UK Radiological Congress. There are challenges associated with the acceptance of qualitative research in radiography journals which have entrenched ideological beliefs about the nature of qualitative research (Kontos & Grigorovich, 2018). There is an associated challenge that journal reviewers may not appreciate the utility of a visual ethnographic approach.

To date a summary of the provisional findings of this study has been presented at the European Radiological Congress in Vienna (O'Regan et al., 2018). For future dissemination the researcher will seek sponsorship to provide study road shows for staff to view the findings. The feasibility of workshops for clinical staff, students, educators and patients to probe issues of silence, in partnership, will also be explored. Finally, it is important that the images produced in this study are given credence alongside text. An info-graphic has been produced for dissemination via social media (see Appendix Thirteen). Participants have also given permission for the collage images to be published and disseminated online via a research project web site and blog developed for this purpose.

9.6 Conclusion to study

To conclude, participants surmised that silence is method of communication and also a mechanism of coping with the anxieties that a service of diagnosis and treatment result in for many patients, families, carers and staff. However, the help of silence comes with a price. Our servant is intoxicating, it is powerful, and it draws the practitioner into a spiral of cultural censorship that is constituted of silence. It is necessary, therefore, to raise awareness of the restrictions of silence. As a group, radiography practitioners need to choose wisely and agree when to partake in positive silences or when to eschew silence and silencing. Practitioners and patients hold a latent power in choosing voice or silence that is currently not fully recognised or used for empowerment in clinical imaging.

There is a danger that this thesis will be subject to cultural denial, for example, “that doesn’t happen here in this department” backed up by the limitation of transferability. The cultural quilt that resulted from this study offers visual evidence of a study of silence (see figure 75), which has been translated to themes. It has been asserted that speaking intuitive truths can generate controversy (Boyer, 2015). Alternatively, the incommensurability of philosophical assumptions, particularly with the use of a visual and arts-based research method, is a possibility (Kontos & Grigorovich, 2018). Paradoxically silences need to be recognised and spoken about before any negative effects can be tempered. Otherwise, the sustainability of the radiography profession will remain under threat in today’s turbulent polity that rightly and wrongly calls for voice.

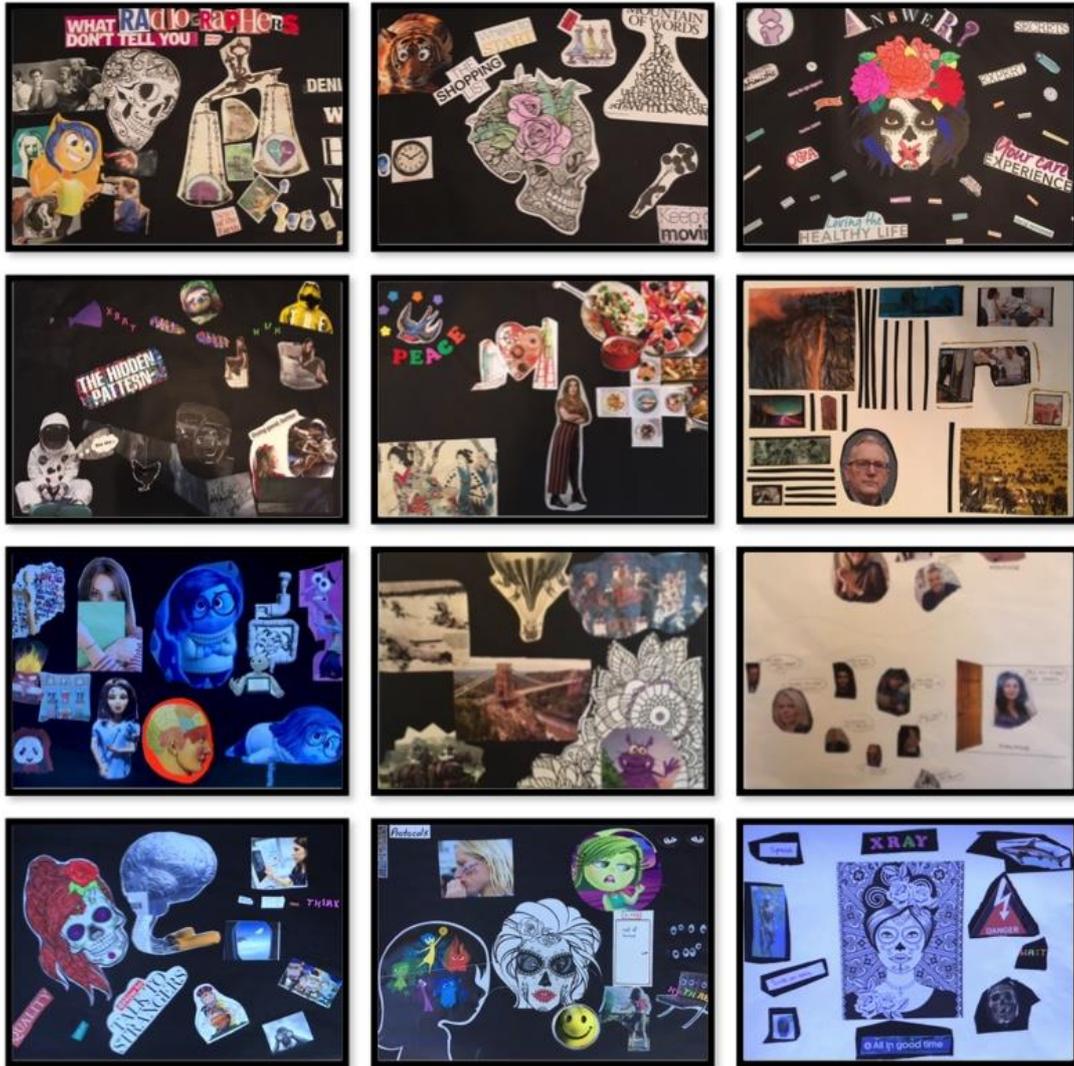


Figure 75: A cultural quilt

9.7 Recommendations

It is predicted that the substantive knowledge produced in this study will contribute to a (silent) gap in radiography literature. It is intended to offer recommendations that seek to influence practical outcomes through both policy and practice advice with key areas for service development. Recommendations from this study are:

1. Disseminate the findings of this thesis in partnership with practitioners using approaches wider than traditional methods of dissemination (see subsection 7.5). The intention is to raise knowledge of the concepts of silence and silencing in relation to radiography practice and share with wider healthcare professions.
2. Explore and compare the themes and types of silence conceived in this study in relation to further areas of radiography, for example, in Radiotherapy, CT, MR, Ultrasound, Paediatrics and Forensics.
3. Champion and campaign for training, support and supervision to be in place which overtly acknowledges the taken-for-granted and often silent emotional labour that imaging staff carry out each day. Notably this recommendation is supported by the work of a range of radiography scholars (Makanjee et al., 2006; Yelder, 2006; Booth, 2008; Yelder & Davis, 2009; Reeves & Decker, 2012; Bleiker et al., 2016).
4. In opposition to traditional methods of emotional management, investigate the feasibility of alternative methods of emotional and mental health support for clinical imaging staff. For example, Biron & Veldhoven (2012) propose the development of psychological flexibility to improve mental health and reduce exhaustion of staff in clinical practice. Future research should explore evolving approaches to emotional and mental health support in respect to emotional labour in clinical imaging.

5. Observations from this study have resulted in a perceived need to balance patient needs with service needs. Future research must explore what patient needs are in clinical imaging – from the point of view of patients not practitioners. Radiography scholars have begun to successfully highlight patient experience and perspectives of healthcare, which is analogous to a reactive approach. Now is the time to build upon the foundations of this work, to be proactive and seek out what patient wants and needs are.

6. Work must commence to further empower patients and imaging practitioners to improve services. There is a perceived need to challenge the ethos of ‘need for speed’ in clinical practice; especially in cases where practitioners and patients perceive that silence and increased speed are to the detriment of the quality of service, safety or patient care.

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Appendix One: Example extract synthesis table

Author /Source	Purpose	Methods	Sample	Findings	Key concepts	Critique	Theme
ABEL, M. & BAÜML, K.,H. 2015. Selective memory retrieval in social groups: When silence is golden and when it is not. <i>Cognition</i> , 40-48.	To explore the effects of selective remembering in social groups.	Experimental memory retrieval lists.	A sample of 128. <u>Begegnung (German). University students were recruited for the experiment (M = 22.7 years; range 18–30years).</u>	-Mnemonic silences on the part of a speaker can be “golden” for the memories of a listener under some circumstances, but not under others. The memorial consequences of listening to another person’s selective retelling of a common past can depend on context.	Retrieval induced forgetting. Socially shared retrieval-induced forgetting or facilitation.		Silence influencing social understanding (memory).
ADELMAN, K. 2012. Promoting employee voice and upward communication in healthcare: the CEO’s influence. <i>Journal of Healthcare Management</i> , 57.	To explore the role and influence of the CEO of an organisation in creating a culture of voice.	Phenomenological multiple case study approach. Document review and semi-structured telephone interviews. Frontline staff interviews.	Four cases where a CEO had won a leadership award in the past four years. No information about sampling of frontline staff.	Four themes-- establishing a culture of excellence, creating voice opportunity, reinforcing voice instrumentality, and the removal of risks and costs by leaders-- positively influenced employee voice in the study. Bidirectional information flow among different levels of the organization was facilitated through the hierarchy.	Lack of <u>voice</u> related to adverse effects on direct patient care and health outcomes. Psychological safety.	A study with non-award-winning hospitals could be conducted to compare CEO communication approaches found in this study and to determine if there is a positive correlation between the CEO’s encouragement of employee voice and organization performance.	The effects of organisational culture and leadership on employee silence.
RACHANA MANAPRAGADA, B. S. & BRUK-LEE, V. Safety Silence: The conceptualization and measurement of a new construct. University of Florida. Department of Psychology.	Description of research investigating motives behind safety silence <u>behavior</u> . Objectives listed: 1) <u>conceptualize</u> the construct of safety silence and investigate its motives, 2) develop a scale to measure safety	Phase 1 qualitative focus group and interviews. Phase 2 development of a safety silence measure.	Phase 1, 26 employees of specific organisations. Phase 2, 329 nurses.	Motives for safety silence in six themes: self-based, other-based, issue-based, relationship-based, job-based, and climate-based. <u>Safety silence is negatively related to safety climate, safety attitudes, safety</u>	Safety silence related to motivations of individuals.	Claims that safety silence is a new concept. Sample of nurses and healthcare employees but no details of recruitment.	Safety Silence in Healthcare.

Appendix Two: Notification of ethical approval



Research, Innovation and Academic
Engagement Ethical Approval Panel

Research Centres Support Team
G0.3 Joule House
University of Salford
M5 4WT

T +44(0)161 295 2280

www.salford.ac.uk/

12 July 2016

Dear Tracy,

RE: ETHICS APPLICATION HSCR16-40 – An account of cultural silence in diagnostic radiography using a visual ethnographic approach.

Based on the information you provided, I am pleased to inform you that application HSCR16-40 has been approved.

If there are any changes to the project and/ or its methodology, please inform the Panel as soon as possible by contacting Health-ResearchEthics@salford.ac.uk

Yours sincerely,



Sue McAndrew
Chair of the Research Ethics Panel

Appendix Three: Notice in department bulletins

Hospital Trust Logo

University of
Salford
MANCHESTER

Hello,

I am preparing to undertake a research project at this trust. The project aims to produce a picture of communication methods used in the culture of radiography practice. To do this I would like to observe in X-ray during October-December 2016. Following the observations I'd like to encourage the creativity of staff in Radiography by arranging collage workshops with volunteer Radiographers, Assistant Practitioners, and Student Radiographers.

In August 2016 I will be emailing a brief poster explaining the study and a participant information sheet. This will be sent out to staff who work in X-ray at the trust. If anyone would like more information before August or has any suggestions about the research you can email me at xxxxxxxxxx or phone me on extension xxxxxx.

Thanks, (Name)

Appendix Four: Email to imaging staff

Hospital Trust Logo

University of
Salford
MANCHESTER

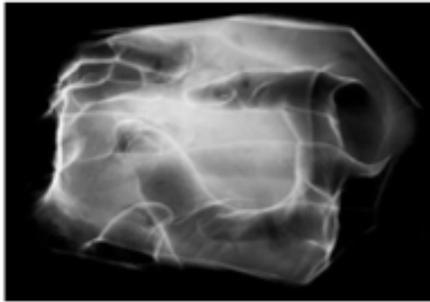
Hello,

I am preparing to undertake a research project at this trust. The project aims to produce a picture of communication methods used in the culture of radiography practice. To do this I would like to observe in X-ray during October-December 2016. Following the observations I'd like to encourage the creativity of staff in Radiography by arranging collage workshops with volunteer Radiographers, Assistant Practitioners, and Student Radiographers.

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Thanks, (Name)

Appendix Five: Research flyer for staff



Artist Marc Ferrante: Ergon 07, Prometheus Dream 01.
Copyright permission granted

University of
Salford
MANCHESTER

(XXXXXXXXXXXXX
NHS Trust Logo)

Background:

I am a University of Salford student currently in year three of a five year programme; Professional Doctorate in Health and Social Care.

What?

My project aims to produce a picture of how communication methods are used in the culture of radiography clinical practice

How?

I hope to capture the perceptions, the experiences of staff, and the creativity in Radiography by initially observing the communication methods used in clinical practice.

I will then run collage workshops with volunteer Radiographers, Assistant Practitioners, and Student Radiographers.

I will hold follow-up conversations to discuss ideas with staff who have produced collage.

When?

The study will take place at (xxxx trust) between October 2016 and July 2017.



Embroidery Artist Matthew Cox: Daisy Bracelet
Copyright permission granted

Appendix Six: Participant information sheet

Appendix_Six

PARTICIPANT INFORMATION SHEET

Title of study: An account of communication in radiography clinical practice using a visual ethnographic approach.

Name of Researcher: (.....)

Invitation:

As a member of staff working in the X-ray departments oftrust you are invited to take part in the following research project.

What is the purpose of the study?

The purpose of the study is to provide an account of the uses of communication in radiography clinical practice.

Why have I been invited to take part?

As a member of staff working in the X-ray departments at (.....participating trust) you are employed in a department where the study will be taking place. You may choose to be involved in one or all three stages of the study described in this information sheet.

Do I have to take part?

You are under no obligation to take part in the study.

What will happen to me if I take part?

Firstly, it is possible that you may be involved in observations in the X-ray departments. The intention is that I will make notes about the ways that communication methods are used in the culture of radiography practice. If you are working in the area where I am observing then I will need your permission to observe you. You are under no obligation to give me permission.

Secondly, I want to create a visual description of the cultural uses of communication. You can volunteer to be one of a number of radiographer participants at a collage workshop and also to attend a follow up conversation to discuss ideas. An ideal number of participants at the workshop would be 5-7 radiographers. The follow-up conversation would be between yourself and me, the researcher, at a later date and place convenient to you. It will last no longer than forty five minutes.

The Collage workshops will be held at either a trust education centre or a radiology seminar room for a half-day session. At the workshop there will be a brief introduction to the research topic and an introduction to collage. Materials will be provided for you to create a collage. If you decide that you do not want to produce a collage then you can stop at any point. If you start working and do not finish your collage at the workshop then materials will be available in your department seminar room, offering you an opportunity to complete collage in your free time. The collage will be your property and it will be returned to you at the end of the study.

A digital copy of the collage would be made only with your consent; this is with the intention to use the collage as a form of anonymous data in my doctoral thesis. As the creator of the collage you will hold copyright and I will have to approach you for each instance that I wanted to use it – for example if I produced a conference poster or a research article. The collage must remain anonymous in order to respect the anonymity of the trust and the other research participants.

Expenses and payments?

No expenses or extra payments will be paid.

What are the possible disadvantages and risks of taking part?

The study has a time commitment that will take radiographers away from clinical practice to attend a half-day workshop and up to forty five minutes follow-up conversation. If workload became excessive in the X-ray department then radiographers would need to be called back to the department to avoid excessive waiting times for patients. This could cause a minor delay to patient journeys and place extra pressure upon the radiographers who remain working in the department.

There is a small risk that participants who volunteer for the collage workshop and follow-up conversations could be upset or distressed by the topic of cultural communication methods.

What are the possible benefits of taking part?

The study is intended to benefit patients, the profession of radiography, and wider healthcare. The study will give an account of communication methods that could challenge abilities to contribute to modern healthcare policy while also appreciating and raising awareness of the positive and creative uses of communication in radiography clinical practice.

What if there is a problem?

If you are unhappy with any aspect of this research in the first instance you can contact my research supervisor for the study:

Name (unread)

Address (unread)

Telephone (....)

Email Address (unread)

If you prefer or remain unsatisfied you can contact Anish Kurien at:

Address: Anish Kurien, Research Centres Manager, G.08 Joule House Acton Square, University of Salford, M5 4WT

Telephone: 0161 295 5276

Email: a.kurient@salford.ac.uk

Will my taking part in the study be kept confidential?

The study participants will remain anonymous. Details of the participating NHS trust will not be published. It will not be possible for participants at the collage workshop to be anonymous since they will meet, however, ground rules reminding participants of confidentiality will be established at the beginning of the collage workshops.

If there are any issues identified during the observations or workshops that affect patient or staff safety then this will be reported in accordance with the local trust cause for concern policy. As a practitioner-researcher if I witnessed a patient at risk of harm or an instance of unprofessional behavior then I, the researcher, have a professional responsibility to intervene.

What will happen if I don't carry on with the study?

You can choose to stop your involvement with the study at any time. This may be prior to, during, or after any of the sessions. You do not have to give a reason, just let me know your decision.

What will happen to the results of the research study?

The results of the research study will be used in a thesis written as part of my professional doctoral candidature. To disseminate the results to a wider audience I intend to publish the results within a peer-reviewed journal, to use comic-strip art for trust dissemination, and to present findings to staff in the trust X-ray departments using animation.

Who is organising or sponsoring the research?

The research study is supported by the participating trust and by The University of Salford. The fees that I incur with respect to research supervision at University of Salford have been paid by Health Education England due to my position as a healthcare employee.

Appendix Seven: Consent sheet

Please complete and sign this form **after** you have read and understood the study information sheet. Read the statements below and yes or no, as applicable in the box on the right hand side.

1. I confirm that I have read and understand the study information sheet; Version one dated 6 May 2016, for the above study. I have had an ~~opportunity~~ to consider the information and ask questions which have ~~been~~ answered satisfactorily. Yes/No

2. I understand that my participation is voluntary and that I am free to ~~withdraw~~ at any time, without giving any reason, and without my ~~rights~~ being affected. Yes/No

3. If I do decide to withdraw I understand that the information I have given, up ~~to~~ the point of withdrawal, may be used in the research or I may choose to ~~withdraw~~ all information. Yes/No

4. I agree to participate by: Taking part in observations Yes/No

- I agree to participate by: Taking part in collage workshop and conversations Yes/No

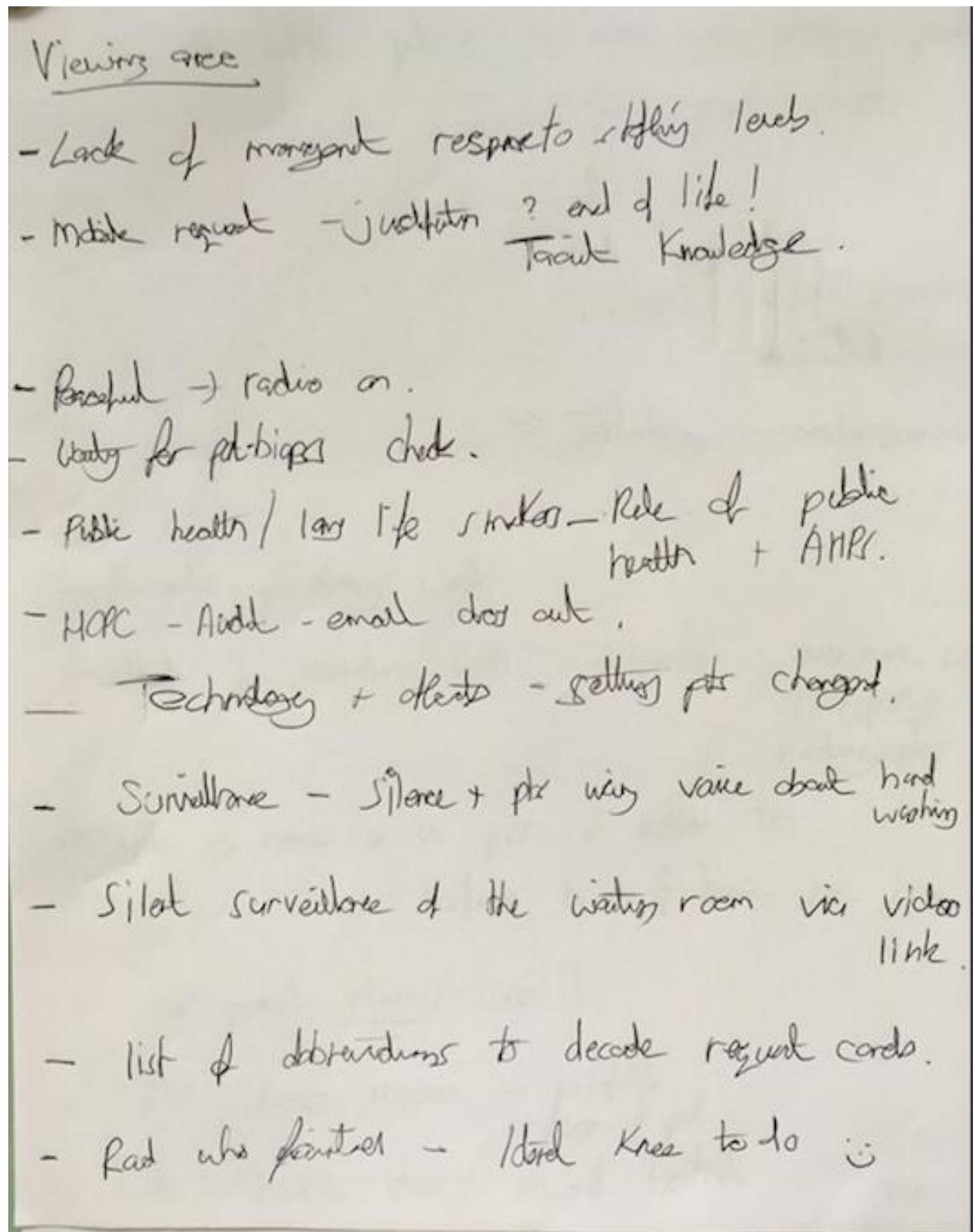
5. I understand that my personal details will be kept confidential and not ~~revealed~~ to people outside the research team. However, I am aware that if I reveal anything related to criminal activity and/or something that is ~~harmful~~ to self or other, the researcher will have to share that information ~~with~~ the appropriate authorities. Yes/No

6. I understand that my ~~anonymous~~ data will be used in the researcher's thesis/ ~~research~~ report other academic publications and conferences presentations. Yes/No

Any collage produced remains under my copyright and the researcher must ~~ask~~ for my permission to reproduce it. I do not have to ~~give~~ permission for ~~each~~ or any instance.

7. I agree to take part in the study: Yes/No

Appendix Eight: Example rough field notes



Appendix Nine: Example typed observation notes

Patients

One of the hospitals where I undertook observations had a television system to monitor the patient waiting room. The system provided images but not sound which I remarked upon, because it felt quite eerie to be silently surveying patients. The conversation moved onto the voice of patients and a member of staff recounted that her last patient had felt confident to ask if she had cleaned her hands in-between the previous patient and calling for the lady herself. She compared this to a corresponding surveillance of the radiographer by patients. I asked the staff their opinion; there was a consensus that patients often signalled to staff when they did not want to talk.

Management

At one observation session staffing levels were reduced with one member of staff off sick. The situation left a primary care X-ray department, averaging approximately 130-150 patients per day, with two imaging staff able to perform examinations. In response a member of staff phoned a line manager, situated at another site, described the situation and was told that they would receive a phone call if an extra member of staff could be arranged. The phone call was not returned and staff did not appear surprised – remarking that they hadn't expected the manager to be able to do anything.

At one observation of practice staff were chatting while waiting for an examination room; they discussed a lack of staff meetings. A radiographer felt that the perceived lack of meetings meant that managers did not have to deal with issues because they were not raised or comments actively

sought out. Another radiographer said that issues should be raised as they happen, rather than waiting for a staff meeting, but felt that if the same person kept raising issues then this could result in 'occupational suicide'.

Emotional labour

Staff had a discussion about reasons for examinations – demonstrating their implicit knowledge of ethical and legal requirements and implications of examinations. They discussed their experiences and feelings associated with care of terminally ill patients. The conversation led on to a discussion about the feelings associated with performing forensic examinations especially those performed in the mortuary. Imaging staff also discussed previous cases for the benefit of a student who was present, recalling particular situations where strong feelings can be evoked. They recalled instances of examinations on the intensive care unit, special care baby unit, emergency shock room, attending post-cardiac arrest patients on wards and also times when a patient had just been given bad news in clinic or when staff knew patients personally; all were described as sources of distress. Staff regarded visible signs of distress such as crying to be something that was acceptable but only away from the patient, public and work areas. A number of staff recounted the haven of the staff toilets or an empty staff room as a place to retreat and cry before returning to work.

Suppressed emotions

Observations provided evidence of several occasions where imaging staff suppressed tensions, which could otherwise have become disagreements or arguments, especially when patients were present. Tensions were generally differences of opinion about technique or acceptable images.

Some staff did however air opinions in spaces where patients were not present or in a position to overhear.

Workload

On one particular observation session a department was busy and staff talked about workload while waiting for an examination room to be free. They recounted days where they put off going to the toilet because the imaging department was too busy. They recalled one particular day when a radiographer had fainted in a non-patient area. On regaining consciousness the first thing that she said to colleagues was that she still had a lateral knee projection to perform for her patient. Staff had to escort her to the staff room for a rest before she was sent home. Otherwise, she was determined to carry on working.

I witnessed staff discussing the different levels of 'busyness' between departments with one department described to be particularly arduous. Despite the description the staff agreed that they all preferred to work in the department with the highest workload. They reported that it was a challenge and satisfying; to go home having completed all examinations with no patients left waiting for evening or night shift staff.

At periods of time when workload pressures eased relatively, typically when there were less than six or seven patients waiting for examinations, the vocal interaction of staff increased with notable chatter among staff.

Communication

I heard radiographers discuss strategies for gaining clinical information from patients when referrers had not completed request cards appropriately. For example, a referrer's handwriting was poor in a case

and the information did not appear to justify the use of radiation. The imaging staff discussed strategies to quiz patients while not alarming them about the possibility of a malignant pathological condition. A student radiographer listened to the conversation and made notes.

Appendix Ten: Power point slides for workshop

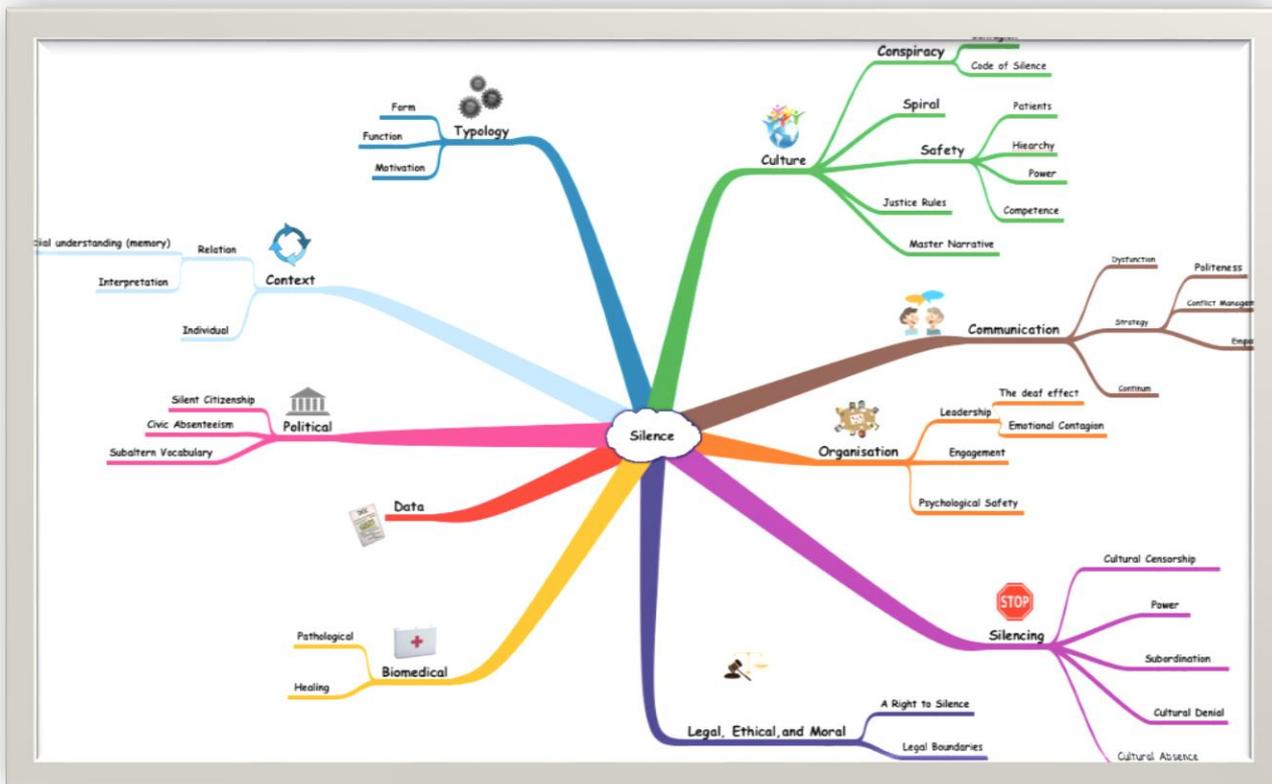


Image Science:

- Strudwick(2014): Image Creators, a parental or artistic relationship



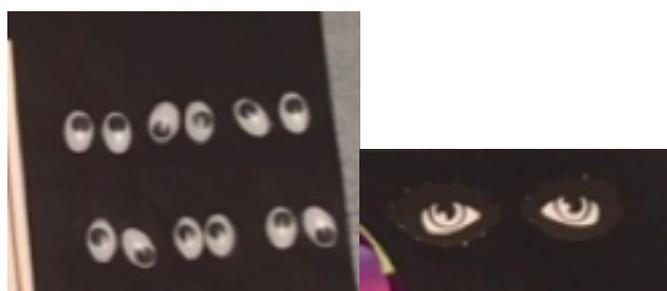
Appendix Eleven: Example transcript post-collage conversation



Researcher: So, there were a row of eyes here weren't there. They've come unstuck – the rest of the eyes are in the bottom of the bag! I'll stick them back on for you.

Participant x: Yes they've come out.

Researcher: We'll replace them



Participant x: Yes.

Researcher: Now we were thinking about this weren't we (individual discussion with participant after collage workshop). One of the approaches we could have taken was to come in and ask specific questions about the collage and I think that our subjects and the ways that we work are just too big for me to ask you something specific.

Participant x: yeah.

Researcher: If I asked you something specific I'm going to be putting my slant on it, I'm kind of guiding you towards what I want you to talk about then. Whereas because we've done it this way, you've all put things that stand out to you in the culture and mean something to you. That's why I've left it wider, to say tell me about the culture that you see here.

Participant x: Yes because everybody's got different ideas and different brains obviously.

Researcher: Plus the way you feel on the day might effect how you see things too.

Participant x: Yes..... I think I had a lot on my mind that day (laughs). Last time (during the workshop) we talked about everybody wearing the masks and putting all this – everything else that was going on in their head.

Researcher: Oh yes that was really interesting what you talked about. I went and re-read; Fred Murphy had done some work about backstage and frontstage and the act that can be put on with patients and it reminded me of that, you know how you were



saying so I re-read his work and it fitted it with that it was really interesting.

Participant x: Yes you put your mask on and come to work and this all this that is happening. And mask in the workplace as well so you've got all these so to follow I put someone managing who thinks that we're happy.

Tracy O'Regan 2/6/2018 17:28
Comment [1]: Emotional mask / suppression of emotion. Emotional labour and the use of the smile.

Researcher: I Like how you've got her looking at her nails actually.



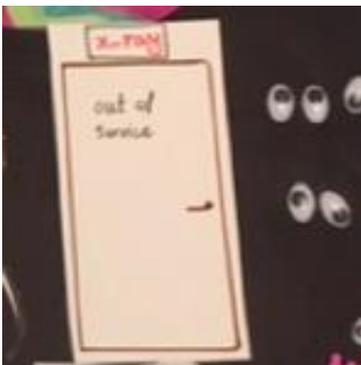
Participant x: Yes yes, the door is open but you're not really welcomed or even if you are welcomed erm then there is that again, eventually, closes their hands if you know what I mean. Can't really help you as much even if they want to – because of the way that the things are in the NHS possibly. Like this, because of the money and everything that goes with it.

Tracy O'Regan 2/6/2018 17:28
Comment [2]: Hierarchy and power dynamics

Researcher: Do you think that money plays a massive part of it?

Participant x: Yes even if she wants to help she can't really do anything so that puts you on one silence, that, even though you know that there are problems there's no point complaining because you know they're in an awkward place.

Tracy O'Regan 2/6/2018 17:28
Comment [3]: Organisational deafness / employee silencing





Researcher: yes.

Participant x: They can't really do much without it so you have to deal with it and it makes these problems (points to the mask):



Researcher: yes, that you're not showing to the patient.

Participant x: And not to your patients who are dealing with their own problems obviously.

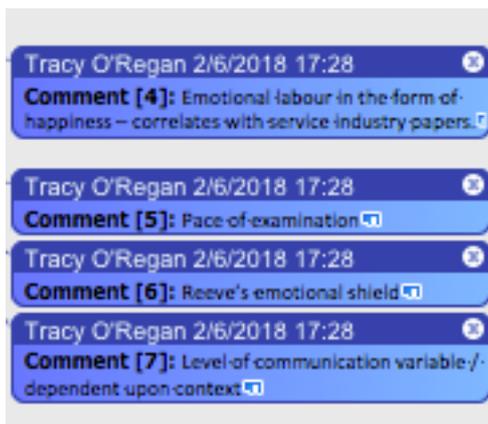


Researcher: yes, you don't want to add to it?



Participant x: No. So.... They're here they've got problems, they've come to the hospital, so they're dealing with stuff and you have to look happy and go to help them.

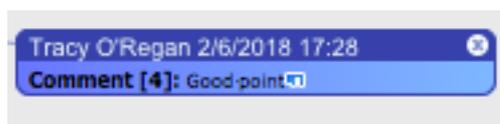
But then again we don't – the actual silence between patients and radiographers might just be, of the very short time that we get to spend with them, and we've got all this in our heads, we've got all these problems, and there's not much to tell the patients, inbetween, and also, as the time is very short and I mean even that the screen puts a barrier between you and the patient because you have to go behind the screen you can't keep chatting to them, although we do sometimes».



Researcher: Yes

Participant x: But that adds to the silence because you position them and then you go behind the screen and then that's it, it's done, so I don't know if that helps.

Participant x: And I mean you want to talk to them then you come out from behind the screen.



Participant x: Patients do use it with us yes you can tell if they don't want to talk

And you can tell when they don't want to stop talking (laughs).

Researcher: then that's a problem (laughs)

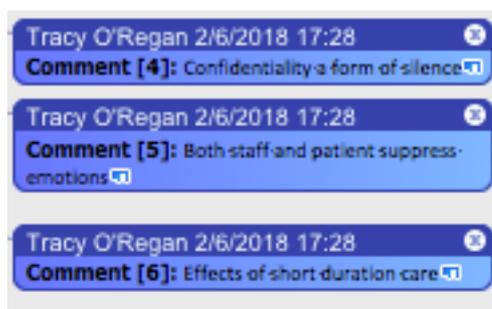
Participant x: Exactly.

Researcher: If you've got the time it's nice but it's getting rarer than it used to be. So you put these initials as well?

Participant: Yes I put the initials, they're not just eyes they're people as well.



Participant x: They are people but not only are they people but these are initials for confidentiality and confidential purposes. So it's all these little things. I mean I was thinking of something last night and I thought you are wearing this mask and you are thinking while this person who is dealing with all these problems, they are wearing a mask as well so you don't want to start like, you can't just randomly start a conversation with someone who you don't know what's happening in their own life behind the mask and everything. So, and that again is something because the time is so limited and we just get to see them for a very short time that's all.



Researcher: There is some literature about that that's saying, and they called it the tardis encounter, you know like from Dr.Who, where the tardis is you go in through this little door but then it's a massive room. It said it's the same kind of effect that you might think you're not having very much effect on someone because you've only been with them for a couple of minutes but actually you can have a huge effect on your patients. By the way that you act and the way that you interact with them. The things that you say.

Participant x: yes yes.

Researcher: I think that we do recognise that

Participant x: And sometimes we're trying to avoid having a bad effect on them if you know what I mean? Yes I suppose that's what I'm saying that I don't want to start a conversation to have a bad effect on them or someone who is; you know that they are dealing with something. Some of them are only small like a broken finger or something which is different to someone with like stage five cancer or something.

Tracy O'Regan 2/6/2018 17:28
Comment [4]: Context of trauma or malignancy

Researcher: Yes and sometimes they make inferences, from comments that you make, they infer something into it whereas you didn't actually mean anything by it.

Participant x: Yes yes exactly. Because we see the images.

Researcher: I suppose if we took the images and didn't see anything then we might be happy to have a conversation without them reading something into it.

Participant x: Yes, if you couldn't read them, if you didn't know at the time it would be less effective maybe.

Researcher: I think that's perhaps got something to do with it as well, we use it.

Participant x: But even when we are silent you communicate because I think I was doing something on communication in first year skills or something and I found something about communication that says no matter how much you think you don't communicate you still do communicate. So either by the way you look or your body language or whatever it is you still do communicate with other people even if you think you don't talk or communicate or anything. So if you're looking at your image and if you looked shocked, like when you see something on a chest X-ray. Yes radiographers would probably be good at poker after working in a DR room. (laughs) yes that face is not cracking.

Tracy O'Regan 2/6/2018 17:28
Comment [4]: Non-verbal communication



Researcher: That's probably why this was important to you then (image of a mask) and then you've put this huge smiley face on. It's probably because you're aware of that non-verbal communication with your patients and what they're seeing.



Participant x: Yes and the point about this mask I think it was about like despite having all these in mind you still have to look calm and pretty and professional and we try our best.

Tracy O'Regan 2/6/2018 17:28
Comment [4]: Emotional labour in the form of suppression and smiling mask

Researcher: We do and calm comes out as a big thing from the collage. You know the students talk about calm and if you ask the students what makes a good radiographer – even if it's one of the prospective students who have just looked around for a day – what kind of qualities do you think you need in a radiographer they always say about being calm.

Tracy O'Regan 2/6/2018 17:28
Comment [4]: Calm also noted by participant one as a positive trait

Participant x: Yes and it does really help because if ... I have seen examples of people who cannot keep calm and they can just trigger things to make it worse. Like if a patient comes and starts shouting and you start shouting back it just can trigger more problems.

Researcher: Yes it escalates it.

Participant x: so you have to be able to keep that smiley face and keep that mask on and keep calm even if the situation is escalating.

Tracy O'Regan 2/6/2018 17:28
Comment [4]: The mask beneath the smiley face?

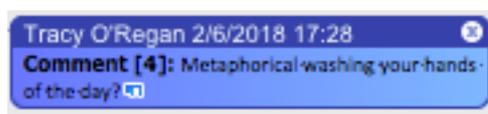
Researcher: I think it's Lisa Booth that did some work about transactional analysis in radiography and that's the same kind of thing because that was saying about the way

that you react to someone effects the kind of reaction that you get back. If you get two people who clash and it just escalates or if you've got someone who's top note meeting someone who remains calm then that can bring them right down again.

Participant x: yes I had that I had an experience of a patient, I don't know how much time we have, erm.

Researcher: I've got all day Participant X.

Participant x: Well I'm happy to see here all day but anyway, we had a patient from A&E, it was really really busy but anyway I was going home. I washed my hands and after I wash my hands I don't usually try to touch anything because I'm just going to my car (laughs) so I came out of the room and this student was talking to the patient and the student was obviously a first year student not knowing what to do; the patients angry, the husbands angry – so this patient was a lady who had broken her leg which we didn't know at the time, but her husband was just shouting and screaming why has she not been X-rayed and she is in pain, she is crying but obviously we have got more urgent patients that are prioritising as well so I came to take over from the student because the poor thing just didn't know what to do. So I started talking to these patients, the husband just shouting at me, why are you not X-raying my wife and she keeps asking him to calm down and be quiet and he's saying no if you keep quiet they're not going to X-ray you - you have to tell them and this is putting more stress on the patient obviously because she is trying to calm the husband.



Researcher: Yes.

Participant x: So I listened to him and I said listen, we are busy, you can see – he said we've been waiting four hours – I said some of these patients have been waiting longer than you and he said but she is in pain and I said well there are other patients as well that are more urgent than you. I said I'm sorry but we as you can see we are limited to four rooms so as I'm talking to him trying to keep him calm another colleague came out of the room and she started to get annoyed with the patients husband so, oh my god, then them two started arguing in a loud voice on the corridor. So now I have to

calm my colleague, calm the patients husband, and try to just sort it out and I've finished I'm supposed to be walking to my car.

Tracy O'Regan 2/6/2018 17:28
Comment [4]: Example of conflict

Researcher: You've washed your hands.

Participant x: (laughs) I've washed my hands of the day but I have to get involved again so I just said you sort your patient out I'll sort this out, keep calm, I'll sort it out don't worry. So I sent her away and I said to the patient what shall I do, have they given you any pain killers? She said no they have not. So I said okay I'll go and speak to the doctor and see if I they can give you any more pain killers because I don't know – even if I go and X-ray you now you will still have pain and that's not going to solve your problem. So I went to find, it was the nurse who was looking after them, went to find him and he said no, she has been given painkillers we can't give her any more, she has to wait until it works because we've only just given her them now.

Tracy O'Regan 2/6/2018 17:28
Comment [4]: Radiographer intervening on behalf of patient for pain relief. Also mentioned by participant xx.

Researcher: Right.

Participant x: There's nothing you can do about it. I cam back to the husband and I said this is what they said. By the time I came back he was much calmer and I said look I'd finished my work before I went to find the doctor, the nurse, I have finished work now but I'm going to speak to the doctor to help you. After that he was quiet and different behaviour, he apologised he wasn't shouting anymore so that keeping calm even when the situation is not like the best works, and keeps that professionalism my mask was there.

Tracy O'Regan 2/6/2018 17:28
Comment [4]: The mask represents professionalism

Researcher: Even though you'd taken it off and left it at the sink when you'd washed your hands.

Participant x: (Laughs) yes I had to take it off in the car, when I go to the car. And sometimes I go to my car and there is another silence in radiography when you've just had enough of the day, but I can't just start driving home straight away I go to my car,

sit down, quiet, and just calm down for a bit. Maybe think about things and I don't know, just sort your mind out before driving home.

Tracy O'Regan 2/6/2018 17:28
Comment [4]: Emotional exhaustion

Researcher: Yes that's a really good point that.

Participant x: yes so this silence

Researcher: Yes so that's a healing silence, a kind of debriefing for yourself I suppose isn't it really. I used to like, when I didn't have a car, erm, when I didn't have the kids I used to walk home and I found that really useful.

Participant x: yes because sometimes I don't even turn the radio on or anything I just keep it quiet And peaceful.

Tracy O'Regan 2/6/2018 17:28
Comment [4]: Restorative silence

Researcher: yes that's a healing one.

Participant x: Laughs.

Researcher: Perhaps that's why, you know when we say that, erm, you know when we're stood round and we'll be chatting but then sometimes when we're stood round and we could be having a conversation but we'll just sit Sit with your card and wait for a room. Perhaps that's what the use of that silence is.

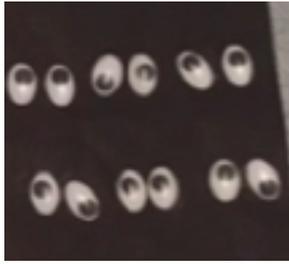
Tracy O'Regan 2/6/2018 17:28
Comment [4]: Silence facilitating reflection on action/ in action

Participant x: Yes.

Researcher: That having time to reflect I suppose. We don't call it that do we – we don't name it or anything but we do sit round.

Participant x: you just don't think of anything about it because when you talk about silence and you said we've not really thought about it before in radiography but there is so many kinds of silence in our work like this is another silence – points to collage section (eyes in waiting room) because they're sat there and they are watching you. They are silent but the way they are watching you is like we see you, we are waiting.

Tracy O'Regan 2/6/2018 17:28
Comment [4]: Silent surveillance



Researcher: Yes, yes (laughs) I like them eyes.

Participant x: No matter they are always watching, there are always more patients to go on that. These eyes are just overlooking everything silently:



Researcher: Yes, there's loads of things that could be, you know like there's governance – trust wide although I doubt the trust board understand the full extent of our role.

Participant x: Yes that's what is there partly, because even though these are there they don't always get followed you know they are there just as a guide, as a protocol.



Researcher: Yes understanding guidelines I think is part of moving from novice to expert and understanding because when you first start as a junior you follow more whereas as you develop that understanding you become more expert in your role you know when to apply them and when not to you know because you understand them more don't you think?

Participant x: Yes but then again I think it's to do with how much you want to help as well because sometimes you just want to do your job and go home. Or some people are like that and you just think that If I X-ray a wrist and I think that something's possibly going on in the forearm so then the patient journey, for them to speak to the orthopaedics and then them to ask for more X-rays, but I know that I will end up X-raying the whole forearm so I might as well do it now. It has happened before I X-rayed this patient and I did the forearm.

Tracy O'Regan 2/6/2018 17:28

Comment [4]: Emotional/physical exhaustion

Researcher: Well you're allowed to – that's autonomous practice isn't it as a qualified practitioner as long as you can justify why you've done something that's right for the patient and you document that, it's absolutely okay.

Participant x: But some people just want to stick to protocols. To do just the wrist – when I went back to tell the doctor about what I'd done she was on the phone to orthopaedics and they were asking for the whole forearm and she said oh will you and I said I've already X-rayed the whole forearm.

Researcher: Beat you (both laugh) you know what you said about sometimes you just want to X-ray the patient and go home, that reminded me I went to a conference the other week and they were talking about making every contact count, having healthy conversations with patients and they were telling us about a programme with physios where they give advice and things but I think they alluded to the same thing because they were saying about, that it depends upon the emotional state of the physio at the time, and whether you can, whether you've got the emotional energy to put into having that conversation with someone.

Participant x: yes.

Researcher: Sometimes you're just exhausted, you know, I think that they recognised that as well.

Participant x: No, it just fits again with this because sometimes you are exhausted and can't even be bothered talking.

Researcher: Yes and when you get home – for example my kids don't get very much sympathy (both laugh). If they've bumped their foot or something I know that some mums would be like 'oh darling are you okay' and I'll be like 'oh it's nothing', I've just been on ITU with ventilated patients, you know there's different levels and sometimes you're just too exhausted. I think we'd find that radiographers' children might not get much sympathy.

Participant x: No mine don't either it's just the same.

Researcher: I would think it's healthcare and probably anywhere that if you do something that's emotionally exhausting in the day time you'll get home and there's got to be some point where you recover you just can't carry on doing can you.

Participant x: yes exactly.

Researcher: That's interesting – at what point to do you burn out, you need to have that break.

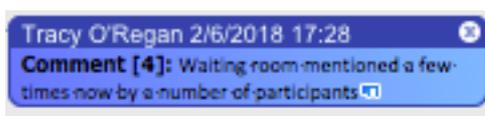
Participant x: - points to image of a person on fire inside her brain and laughs – Yes.



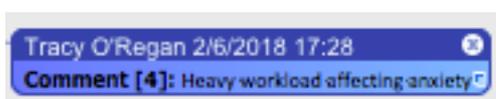
Researcher: I like that you've even taken the time to put string on there, was that to keep your mask on?

Participant x: Yes it was. Well I hope it's helped.

Researcher: Yes it has thanks very much. I can continue and look at themes that are developing across the collages. I quite like the fact that you told me that this is the waiting room , your eyes, and the people watching you and somebody else had wildebeest with a savannah and the wildebeest were all patients waiting but that felt more threatening. You've got the eyes watching you. Somebody else had treading water, and that was the waiting room again.



Participant x: Yes, I think the way you see it, the way everybody sees it differently is how they feel. I think I am more able to keep calm if they are watching yes but I think that maybe the other person had to deal with it more if she was working with less staff and more patients maybe – so maybe more threatening if she was on her own.



Researcher: yes the background factors that effect how you feel about it as well aren't there.

Participant x: yes so.

Researcher: Well thank you.

Participant x: No problem good luck.

Researcher: The collage is beautiful. I'll stick the eyes back down for you. If you do find your little person that you wanted to put on then you can do that if you want to. This collage comes back to you when we're finished. If you don't mind I'd like to keep it for now because I think when I'm looking for themes I think looking at it will remind me.

Participant x: Yes oh yes.

Researcher: When I come to present at the end in my thesis I have to ask your permission. I'm thinking that I'll somehow stitch all of the pictures together and present it as a big quilt that represents our culture.

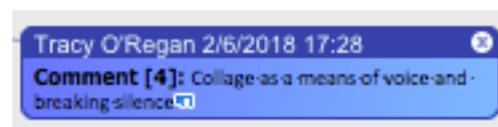
Participant x: yes.

Researcher: Erm, if you decide that on the quilt there are bits that you don't want on it or if you want me to just focus in on one part of it then that's absolutely up to you because this is your part of it and if you think of anything or if you want me to change anything then just let me know.

Participant x: Okay.

Researcher: If I ever use it for anything, for example if I went to present it or if I wanted to do a poster then whenever I use anything that's your images I have to check with you now.

Participant x: Yes that's fine yes thank you very much. I enjoyed doing that. It was interesting and very different, I think it's good because it lets you speak, it breaks the silence.



Researcher: yes good. We might be affected by not having staff meetings whereas some place are active like that and we used to have. Your feeling that it's good to talk might be affected by not currently having staff meetings. I know the boss listens if you go and talk to her but just maybe not collectively having a voice.

Participant x: But sometimes there's not even any point talking because you know things don't change.

Tracy O'Regan 2/6/2018 17:28
Comment [4]: Same as work related silence -
described by organisation study scholars

Researcher: I wonder what the differences would be if we did this in the private sector.

Participant x: Yes... well there would obviously be less eyes (laughs), less of this, and this.

Researcher: Well do you know, this surprises me because my niece went and worked in a private hospital and you think that they're really cutting edge and up to date but she was saying that with the equipment that they're not because they put the money into other things because of a need for profit. I was surprised about that and she said that no; in terms of equipment we're probably on a par but less patients definitely.

Participant x: Yes, well thank you very much I enjoyed this very much and I didn't think I would have. I thought it might have been pressured because I didn't know what I was doing but as soon as you said the question I just got this kind of brain activity and I was off.

Tracy O'Regan 2/6/2018 17:28
Comment [4]: Participant enjoyed the process /
methods of research

Researcher: Well thank you.

Participant x: I'm off to do some reflection about this now.

Researcher: laughs – good make a record and thank you I appreciate it.

Appendix Twelve: Study participants

The assistant practitioners and radiographers had a range of NHS service of between two years and twenty years. The student radiographers had all worked in paid employment or voluntarily in various sectors of the NHS and also undertaken work experience placements prior to their undergraduate placement. Three students had been employed in the NHS previously for between three years and fifteen years. The participants' ages ranged between twenty years and fifty-three years old. Five participants were male and twenty-three were female.

Participants involved in observation of clinical practice:

Role / NHS Band	Number	Male	Female
Student year one	1	0	1
Radiographer band 5	11	4	7
Radiographer band 6	2	1	1
Radiographer band 7	1	0	1
Assistant Practitioner	1	0	1

Participants taking part in collage workshops:

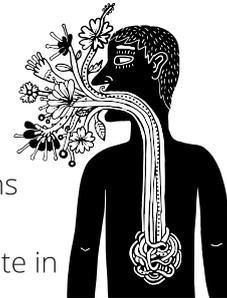
Role / NHS Band	Number	Male	Female
Student year two	3	1	2
Student year three	4	1	3
Radiographer band 5	2	0	2
Radiographer band 6	3	0	3
Assistant Practitioner	1	0	1

Appendix Thirteen: Flyer for dissemination



An account of silence in diagnostic radiography practice: A cultural quilt

Collage workshops, conversations and observations took place in three X-ray departments. The work informs the candidature of a professional doctorate in health & social care at University of Salford.



THEMES OF SILENCE

Silences were related to:

Emotional labour & Social Defence
Workload
Conflict
Hierarchy
Dilemma



TYPES OF SILENCE

Organisational

Strategic

Legal

Reverential



Emotional

Prosocial

Compassionate

IMAGES & CONVERSATIONS



They're just adjusting the exposure factors or you know just checking the image, recording the dose, but the patient thinks the radiographer's looking at their future behind the screen; predicting what's wrong with them



Essence in a glass: but the image is not what this person is boiled down to; they are a whole person

FURTHER FINDINGS:

www.thevisualradiographyproject.com QR:

