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The professional and organisational impact of the consultant therapeutic radiographer: a case study

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A thesis submitted in partial fulfilment of the requirements of City, University of London for the degree of Doctor of Philosophy

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TABLE OF CONTENTS

	Page
Abstract	xv
Dissemination of research	xvii
Acknowledgements	xviii
Glossary of Acronyms	xix
Chapter One: Background to research	
1.0 Introduction	1
1.1 The context of therapeutic radiography	3
1.2 Drivers for radiography role development	3
1.3 Role development radiography: a global perspective	5
1.4 Role development in therapeutic radiography: a UK perspective	10
1.5 The rationale for research	16
1.6 Impact in terms of professional and organisational significance	17
1.7 Theoretical framework	18
1.8 The importance of power and identity	19
1.9 Key stakeholders	20
1.10 Methodological considerations	20
1.11 Plan of the thesis	23
1.12 Summary to background of the research	24
Chapter Two: Review of literature	
2.1 Aim	26
2.2 Objectives	26
2.3 Search methods	26
2.3.1 Search terms	27
2.3.2 Search parameters	27

2.3.3	Search outcomes	28
2.3.4	Second search	29
2.3.5	Second search outcomes	30
2.3.6	Review and selecting the evidence	31
2.4	Data analysis: concept analysis of the consultant practitioner	31
2.4.1	Concept selection	32
2.4.2	Aim of the analysis	32
2.4.3	Identification of all uses of the concept	32
2.4.4	Determining the defining attributes	57
2.4.5	Identifying a model case to illustrate consultant practice	59
2.4.6	Identifying additional cases	61
2.4.7	Identifying antecedents and consequences	62
2.4.8	Defining empirical referents	63
2.5	Chapter summary	63

Chapter Three: Identification of the theoretical framework underpinning the research

3.0	Introduction – what is theory?	65
3.1	Identifying the key concepts underpinning the research	66
3.2	Dimensions of Impact	67
3.2.1	The evolution of the Dimensions of Impact	68
3.2.2	The domains and indicators within the Dimensions of impact	70
3.2.3	Testing the framework	73
3.2.4	Rationale for the use of Dimensions of Impact	74
3.3	Power	75
3.3.1	Theoretical approach to power – a Foucauldian perspective	79
3.3.2	Power in the context of the present research	82
3.3.3	Medicalisation & the Medical gaze - a Foucauldian perspective	86

3.3.4 Medical gaze in the context of this research	88
3.4 Identity	89
3.4.1 Theoretical approaches of identity	89
3.4.2 Application of identity theory in the context of this research	92
3.5 Theoretical framework used in this present study	95
3.6 Chapter summary	96

Chapter Four: Methods

4.0 Introduction	97
4.1 Research question	97
4.1.1 Aims	97
4.1.2 Supplementary issues	98
4.1.3 Theoretical Framework: a novel enhancement	98
4.2 A qualitative Inquiry	100
4.3 Methodological approach: case study research	100
4.3.1 Introduction – case study research	101
4.3.2 Theory of case study research	102
4.3.3 Selection of the case	104
4.3.4 Debate of case study research	106
4.3.5 Application of case study – in relation to this research	107
4.4 Resign study design	110
4.5 Ethical approval	111
4.6 Overview of Phase one	111
4.6.1 Sample selection	111
4.6.2 Ethics process – Phase one	112
4.7 Focus group topic guide	113
4.8 Data collection: Phase one - Focus groups	114
4.8.1 What are focus groups?	115
4.8.2 Rationale and uses of focus groups	116
4.8.3 Benefits of focus groups	117

4.8.4	Limitations of focus groups	118
4.9	Focus groups – a reflexive account	119
4.10	Overview of Phase two	119
4.10.1	Sample selection	120
4.10.2	Phase two ethics process	120
4.11	Phase two: Development of interview questions	121
4.12	Data collection: Phase two semi-structured interviews	122
4.12.1	What is interviewing?	123
4.12.2	Types of qualitative interviews	123
4.12.3	Rationale and benefits of using interviews	124
4.12.4	Limitations of using interviews	125
4.13	Interviews – a reflexive account	126
4.14	Phase two: Document analysis of CTR job descriptions	126
4.14.1	Rationale for document analysis	126
4.14.2	Advantages of document analysis	127
4.14.3	Limitations of document analysis	127
4.15	Overview of Phase three	127
4.15.1	Sample selection	127
4.15.2	Ethics process	128
4.15.3	Phase three semi – structured interviews	128
4.16	Data analysis – focus group and semi-structured interviews	129
4.17	Ethical considerations – a reflexive account	133
4.18	Ensuring rigour in the research	134
4.19	Chapter summary	137

Chapter Five: Results and analysis: Phase one Focus Group

5.1	Phase one focus group	138
5.1.1	Focus group guide	138
5.2	Data analysis	138

5.3	Focus group findings	138
5.3.1	Illustration of findings	140
5.4	Summary of phase one focus group findings	155
5.5	Conclusion	157

Chapter Six: Results and analysis Phase two Interview and Case Studies

6.1	Introduction	158
6.2	Thematic analysis	158
6.3	Construction of case studies	158
6.4	Case study site 1A	159
6.4.1	Setting the scene	159
6.4.2	Thematic framework	160
6.4.3	Presentation of key themes	162
6.4.4	Summary of case study site 1A	172
6.4.5	Mapping to the Dimensions of Impact	173
6.5	Case study site 1B	176
6.5.1	Setting the scene	176
6.5.2	Thematic framework	176
6.5.3	Presentation of key themes	178
6.5.4	Summary of case study site 1B	188
6.5.5	Mapping to the Dimensions of Impact	189
6.6	Case study site 2	192
6.6.1	Setting the scene	192
6.6.2	Thematic framework	193
6.6.3	Presentation of key themes	195
6.6.4	Summary of case study site 2	207
6.6.5	Mapping to the Dimensions of Impact	208
6.7	Case study site 3	210
6.7.1	Setting the scene	210
6.7.2	Thematic framework	211

6.7.3	Presentation of key themes	212
6.7.4	Summary of case study site 3	224
6.7.5	Mapping to the Dimensions of Impact	225
6.8	Case study site 4	227
6.8.1	Setting the scene	227
6.8.2	Thematic framework	228
6.8.3	Presentation of key themes	229
6.8.4	Summary of case study site 4	239
6.8.5	Mapping to the Dimensions of Impact	240
6.9	Case study site 5	242
6.9.1	Setting the scene	242
6.9.2	Thematic framework	243
6.9.3	Presentation of key themes	244
6.9.4	Summary of case study site 5	251
6.9.5	Mapping to the Dimensions of impact	252
6.10	Chapter summary	254
6.11	Conclusion	257

Chapter Seven: Cross case study analysis

7.1	Rationale for cross-case analysis	258
7.2	Introduction	258
7.3	Impact	258
7.4	Identity	260
7.5	Power	261
7.6	Challenges	261
7.7	Future	262
7.8	Summary	262

Chapter Eight: Phase two Document Analysis of CTR Job descriptions

8.0	Introduction	265
8.1	General characteristics of sample job descriptions	265
8.2	Comparison of the Advanced letter PAM and the CTR job descriptions	266
8.3	Comparison of the CTR job description: identifying similarities and differences	269
	8.3.1 Comparison of the four key pillars/domains of consultant practice	270
	8.3.2 Reviewing job headings	273
8.4	Evidencing professional and organisational impact through the CTR JDs	274
8.5	Discussion of professional and organisational impact in relation to CTR JDs	281
8.6	Chapter summary	283

Chapter Nine: Phase three stakeholder interviews

9.1	Introduction	284
9.2	PART ONE: Stakeholder views on the CTR role	284
	9.2.1 Interview process	284
	9.2.2 Thematic analysis	284
	9.2.3 Thematic Framework	285
	9.2.4 Presentation of key themes	286
9.3	Summary	293
9.4	PART TWO: Stakeholder feedback on themes developed from Phase two case studies	294
	9.4.1 Presentation of stakeholder feedback	294
	9.4.2 Any other thoughts	308
9.5	Summary of phase three interviews with stakeholders	309

Chapter Ten: Discussion

10.1	Introduction	311
10.2	Synopsis of main findings from phase 1 to 3	311
10.3	Outcomes of main findings	312
10.4	Discussion of main findings	313

10.4.1	Organisational impact	313
10.4.2	Professional impact	317
10.5	Further key themes for discussion	323
10.6	Discussion in relation to the theories underpinning this research	331
10.6.1	Dimensions of Impact	331
10.6.2	Power	332
10.6.3	Identity	334
10.7	Strengths and Limitations	335
10.8	A reflexive account of the research journey	338
10.9	Chapter summary	341

Chapter Eleven: Conclusion & Recommendations

11.1	Introduction	342
11.2	Main conclusion	342
11.3	Recommendations specific to clinical practice and policy	345
11.3.1	Recommendations to professional body	345
11.3.2	Recommendations to radiotherapy services managers	347
11.3.3	Recommendations to higher education institutes	348
11.3.4	Recommendations to consultant therapeutic radiographers	348
11.4	What the research can add to existing knowledge and theory	349
11.5	Final Summary	350

Index to Figures	Page
Fig 1.1	Proposed practitioner recognition model for Australia 10
Fig 1.2	Staffing models in the cancer reform strategy 14
Fig 1.3	Radiography Career Progression Framework 16
Fig 2.1	Flow diagram – initial search on consultant radiographers 28
Fig 2.2	Flow diagram - second search on nurse and AHP consultant practitioners 30
Fig 3.1	The Dimensions of Impact Framework 68
Fig 3.2	The development of interprofessional trust 84
Fig 3.3	The social identity approach 91
Fig 3.4	Proposed theoretical framework for this study 95
Fig 4.1	The collective case study embedded design 105
Fig 4.2	Schematic demonstration of the case study research design 108
Fig 5.1	Illustration of phase one informing development of phase two 157
Fig 6.1	Illustration of phase two development 257
Fig 7.1	Schematic diagram of the cross case analysis 264
Fig 9.1	Illustration of phase three development and outcomes 310
Fig 10.1	Schematic diagram of the resultant findings 314

Index to Tables	Page
Table 1.1 International survey of international advanced	6
Table 1.2 Radiation therapy roles AP4RT	8
Table 1.3 Proposed Advanced Practitioner Profile and generic elements of the Advanced Scope of Practice Framework	9
Table 2.1 Walker and Avant Concept analysis	31
Table 2.2 Current numbers of Consultant Radiographers in post	35
Table 2.3 Examples of Allied Health Professionals	43
Table 3.2 Power types by French and Raven (1959)	76
Table 4.1 Three types of cases studies by Stake (1995)	103
Table 4.2 Three categories of case study by Yin (2009)	103
Table 4.3 Three phased research design	110
Table 4.4 Focus group topic guide	113
Table 4.5 Example of thematic analysis of Phase two interview transcript	131
Table 5.1 Thematic Framework Phase One	139
Table 6.1 Thematic Framework for case study 1a	160
Table 6.2 Dimensions of Impact Framework Mapping case study 1a	172
Table 6.3 Thematic Framework for case study 1b	176
Table 6.4 Thematic Framework for case study 2	193
Table 6.5 Thematic Framework for case study 3	211
Table 6.6 Thematic Framework for case study 4	228
Table 6.7 Thematic Framework for case study 5	243
Table 8.1 Comparison of Advanced Letter and CTR jobs description	266
Table 8.2 Accountability and responsibility	269
Table 8.3 Competency groups for expert practice	270
Table 8.4 Comp groups for professional leadership and consultancy	271

Table 8.5	Comp groups for education and professional development	272
Table 8.6	Competency groups for practice and service development, research and evaluation	273
Table 8.7	Job headings	274
Table 8.8	Dimensions of impact framework evidencing professional impact from CTR job descriptions	276
Table 8.9	Dimensions of impact evidencing organisational impact from CTR job descriptions	279
Table 9.1	Thematic framework for key stakeholders	285
Table 10.1	Categorisation of key themes relating to both impact aspects	312

Index to Boxes		Page
Box 1.1	The four-tier service delivery model	12
Box 5.1	Focus group topic guide	138

List of Appendices	Page
APPENDIX A	Summary of reviewed included articles and source to support included articles – Radiography and Nursing / Allied Health Professionals 378
APPENDIX B	NHS R&D Ethics (one site example) 387
APPENDIX B	City University London Ethics approval for Phase one 388
APPENDIX B	City University London Ethics approval for Phase two and three 389
APPENDIX C	Example of research invite letter 390
APPENDIX D	Participant information sheet 391
APPENDIX E	Consent Form 393
APPENDIX F	Focus group topic guide 395
APPENDIX G	Reflexive account: focus groups 396
APPENDIX H	Interview guides CTR and other staff 401-402
APPENDIX I	Reflexive account: Interviews 403
APPENDIX J	Interview guide Key stakeholders 408
APPENDIX K	Dimensions of Impact framework for case study 1a 409
APPENDIX L	Dimensions of Impact framework for case study 1b 413
APPENDIX M	Dimensions of Impact framework for case study 2 417
APPENDIX N	Dimensions of Impact framework for case study 3 421
APPENDIX O	Dimensions of Impact framework for case study 4 425
APPENDIX P	Dimensions of Impact framework for case study 5 429
APPENDIX Q	Dimensions of Impact framework for stakeholders 432

ABSTRACT

Background

Changes in therapeutic radiography have promoted the development of a consultant practitioner role in clinical practice. Clinical duties that were once performed by the clinical oncologist are now being shared in some trusts by Consultant Therapeutic Radiographer (CTRs) who are experts in their scope of practice. The first CTR was appointed in 2003, yet an evaluation of the role has remained limited.

Aims

The thesis examines the CTR role, through the perspectives of medical, nursing, therapeutic staff and key stakeholders by means of a qualitative inquiry, with the intention to explore professional and organisational impact.

Methods

A collective case study approach was adopted to facilitate the examination of the CTR role, using the Dimensions of Impact Framework (Gerrish et al., 2011). A three-phased research design was employed. Phase one of the study utilised a focus group with CTRs (n=4) as a scoping exercise to understand the current state of the CTR role in clinical practice. Phase two consisted of six case studies and utilised individual semi-structured interviews with CTRs (n=6) and interviews with medical, nursing and therapeutic staff (n=18) to gain a thorough view of the CTR role from their perspectives. Document analysis was also conducted using the CTR job descriptions to discern similarities or differences and examine whether the job descriptions provided the opportunity to demonstrate professional and organisational impact. In the analysis of the Phase two, data were mapped against the Dimensions of Framework to identify the perceived professional and organisational impact of the CTR role. Finally, Phase three utilised semi-structured interviews with key stakeholders (Society and College of Radiographers, NHS England and Health Education England) (n=6), to explore their views on the CTR role and on the themes derived from the six case studies

Results

The themes identified under perceived professional impact were: professional outcomes, working relationships and identity. The themes identified under perceived organisational impact were: service targets, perceived patient experience and power.

In addition, two further themes were identified: challenges of the role and future prospects of the role were also indicated. The main challenges noted were: lack of medical knowledge; lack of time for research; increased workload; meeting the expectations of the role; medico-legal implications and financial implications. The future prospects for the role were: more engagement with the consultant practice domains (such as the research domain); increase the CTR numbers and specialities; and develop CTR's medical knowledge; further promote the CTR role, and have a responsibility for prescribing the radiotherapy treatment.

Conclusions and recommendations

This original piece of research has provided a detailed examination of the perceived organisational and professional impact of the CTR role. It has also identified a number of challenges and considerations for the future. Recommendations for clinical practice and policy include: conduct a national evaluation to capture the impact of the CTR role, further promote the role, develop a detailed job plan, undertake a review of educational and training of the CTR; and ensure adequate clinical support and mentoring. The addition of the concepts of power of and identity to the Gerrish et al., (2011) Dimensions of Impact Framework within this research needs testing in different professional and organisational contexts.

Overall the knowledge generated from the participants' perceptions of the CTR role presented in this thesis contributes to the literature on capturing perceived impact and provides new perspective on, and representations of, power and identity.

DISSEMINATION OF RESEARCH

Khine RNM (2016) *"The organisational and professional impact of the consultant therapeutic radiographer"* 9th -11th September, 2016, Leading the way - International Radiographer Advanced Practice Conference, Sheffield Hallam University, UK **(ePoster)**

Khine, RNM (2016) *Under the Spotlight: Exploring the role of the Consultant Therapy Radiographer through the Perspectives of Medical and Healthcare Practitioners - a Qualitative Inquiry*. 31st January 2016, Society and College of Radiographers Annual Radiotherapy Conference, Bristol, UK **(invited speaker)**

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Khine, RNM (2013) *Interprofessional perspectives and perceptions of the consultant therapy radiographer*. PhD Colloquium Presentation 8th May, 2013 City, University London, UK **(invited speaker)**

Khine, RNM (2013) *Under the Spotlight: Exploring the role of the Consultant Therapy Radiographer through the Perspectives of Medical and Healthcare Practitioners - a Qualitative Inquiry*. 1st February 2013, Society and College of Radiographers Annual Radiotherapy Conference, Brighton, UK **(invited speaker)**

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GLOSSARY OF ACRONYMS

AHP	Allied Health Professionals
AIR	Australian Institute of Radiography
APAP	Advanced Practice Advisory Panel
APN	Advanced Practice Nurses
CAMRT	Canadian Association of Medical Radiation Technologists
CAHP	Consultant Allied Health Practitioner
CSRT	Clinical Specialist Radiation Therapist
CTR	Consultant Therapeutic Radiographer
DoH	Department of Health
HEE	Health Education England
KSF	Knowledge Skills Framework
IPAT	Inter Professional Advisory Team
NC	Nurse Consultant
NMCP	Non-Medical Consultant Practitioner
NRAG	National Radiotherapy Advisory Group
NZIMRT	New Zealand Institute of Medical Radiation Technology
ORTAP	Ontario Radiation Therapy Advanced Practice Group
RA	Radiological Assistant
RCR	Royal College of Radiologist
SCoR	Society and College of Radiographers

CHAPTER ONE: BACKGROUND TO THE RESEARCH

1.0 Introduction:

The purpose of the qualitative inquiry presented in this thesis was to investigate the phenomenon of consultant practice through examination of the role of the consultant therapeutic radiographer (CTR) within the radiotherapy and oncology service, and its perceived impact in relation to professional and organisational significance. This introductory chapter provides an overview of important factors that have contributed towards topic selection, identification of the theoretical framework underpinning this research and overall research design.

The government's drive for change and improvement in service delivery and patient care led to a new NHS, committed to providing the best system of healthcare in the world (DoH, 1997:4). The focus was to develop a workforce encompassing nurses, midwives, health visitors and allied health professionals who would be influential in shaping the health services of the future. As a consequence the concept of consultant practice role was considered initially in the nursing profession paving the way for the very first Non-Medical Consultant Practitioner role.

A consultant practitioner according to the Department of Health (DoH):

".....provides clinical leadership within a specialism, bringing strategic direction, innovation and influence through practice, research and education."

(NHS executive, HSC1999/217)

Nurse Consultants (NCs) were introduced in the year 2000, as part of the government's health strategy (DoH, 2000). It was during the Prime Minister's speech at the Nurse '98 awards (DoH, HSC/161, 1998) that development of the NC roles as part of the modernisation strategy in the NHS was announced. This was further defined by Department of Health nursing strategy: *Making a Difference* (DoH, 1999) which highlighted that the post was to create a group of highly skilled, experienced and knowledgeable nurses who could use their expertise to influence patient care and provide leadership. Initial figures demonstrated around two hundred posts were in place around June 2000; by March 2001 this had increased to five hundred posts. It was envisaged by the NHS that they would employ one thousand NCs by 2004

(DoH, 2000). Over the last decade NCs have been appointed to every nursing specialism and use the four domains (expert advanced practice, leadership, education/training and strategic service/research) to develop their role according to the specific needs of patients and organisations. The creation of the NC post offers nurses, midwives and health visitors career pathways that would enable them to continue to develop their clinical skills and also advance their careers in direct patient care activity (Guest et al., 2001). The role is itself exciting and challenging for not only the individual but the health service and also the nursing profession (McSherry & Johnson, 2005).

Since the introduction of the NC, other health professions have capitalised on this by developing consultant roles in professions such as radiography, physiotherapy, occupational therapy and pharmacy (DoH, 2001). Although this research focuses on the practice of radiography (therapeutic and diagnostic), the author has also drawn upon literature concerning other healthcare disciplines to examine this phenomenon.

A reflexive approach was adopted in this research process, requiring the researcher to contemplate their own research as it progresses; hence the thesis is written in both the first and third person. The researcher has a professional background in the discipline of therapeutic radiography working within an academic setting whilst maintaining a direct link to a clinical practice. The research aims to contribute to theory (in terms of the theoretical framework and the theories used) and practice (through examples of impact). The issues introduced in this chapter provide the background to the research and offer an overview of how and why the research agenda developed.

Overall the chapter aims to:

- Present a rationale for the examination of consultant practice in therapeutic radiography.
- Set out the aims and objectives of the study.
- Portray the theoretical framework, associated theories underpinning this research and the overall research design.
- Demonstrate how this research can contribute to theory and practice.

1.1 The context of therapeutic radiography

Therapeutic radiography (or radiotherapy) is a branch of radiography that involves the medical use of ionising radiation as part of cancer treatment to control or kill malignant cells. Therapeutic radiographers (also known as therapy radiographers) are specialists, who work within the oncology team and are primarily involved in the planning and delivery of radiotherapy treatment for patients mainly with a diagnosis of cancer. The role comprises two functions; firstly operating a wide range of technical equipment to administer accurate doses of radiation to the tumour whilst minimising the amount of radiation to surrounding healthy tissue; secondly, providing a high level of patient care throughout their course of treatment; assisting patients to cope with the daily physical, emotional and psychological demands of having radiotherapy treatment (Lawrence, 2012). It is the skills in general oncology, knowledge and the care of patients with cancer that makes therapeutic radiographers uniquely placed to deliver integrated care across the radiotherapy pathway. Likewise, it is their significant contribution to cancer care delivery that makes therapeutic radiographers ideal contenders for role development through roles such as the CTR (Society and College of Radiographer, 2009).

1.2 Drivers for radiography role development

The 1997 White Paper was the labour government's vision for a new National Health Service (NHS). A specific recommendation was to propose changes to the way that staff worked (DoH, 2000) to provide greater opportunity to extend the roles of nursing and allied health professionals (such as in radiography) and push traditional boundaries with the intention of improving service delivery. The document also encouraged examples of role development amongst nursing and allied health professionals such as the consultant practitioner role (Buttress & Marangon, 2008).

It is important at this stage to define the following terms which are useful in relation to the research prior to examining this topic in detail. Eddy (2008:26) provides a comprehensive outline of the key terms used in this thesis:

“Role extension - This refers to the inclusion of a particular skill or an area of practice that was not previously within the remit of a typical therapeutic radiographer's role. These may be areas of practice that have been previously associated with another

professions domain.” An example of this within therapeutic radiography is radiographers moving into the practice area of radiotherapy treatment planning and dosimetry.

“Role expansion - This term builds on the core elements of radiotherapy practice and incorporates role extension but also includes additional skills and areas of practice that are now set within a specialist role. The role involves great accountability and responsibility.” A specialist radiographer leading image guidance and verification would be an example of this.

“Role Development - Essentially a completely new practice area and encompasses both role extension and role expansion. It requires higher levels of autonomy. Often the role is accompanied by a major change in provision and scope of practice for the radiographer.” The CTR role would hence fit in this concept.

“Skills Mix - This refers to the combination of skill levels of health service staff either within a particular discipline or the total staff within a health authority.”

The Radiography Skills Mix project (2003) reviewed issues within the workforce and considered the recommendations in the 2000 White Paper. This eventually led to the publication of the *Radiography Skills Mix: A report on the Four Tier Service delivery Model* (DoH, 2003) which addressed the following radiography workforce issues:

- Shortage of radiologists, oncologists and radiographers
- Expansion and improvement of cancer services
- Radiographer career development and pathways
- Staff retention and ageing workforce
- Demand for diagnostic services

The Society and College of Radiographers (SCoR) was instrumental in identifying recommendations to address and improve the workforce issues highlighted above. It was recognised that due to expansion of clinical services, opportunities for change arose to enhance patient care whilst providing a high quality and integrated approach. Their key recommendation was to:

“Develop new staffing models and promote the need for professional skills to be used effectively for the benefit of the patient and the service”

(SCoR, 2004:5)

Specifically within therapeutic radiography, apart from upgrading the technology with cutting edge equipment, developing and advancing the radiography workforce (the professional staff) was also considered to be imperative in enabling delivery of world class radiotherapy services. An example of the advancement in the radiography workforce was the evolution of the CTR. The aims of introducing the role were to:

- Address service needs
- Fill in the gaps in service provisions
- Integrate within a multidisciplinary team
- Improve outcomes for patients
- Provide career opportunities for staff

(SCoR, 2004:7)

In order to fulfil the above aims, the CTR would be required to engage in a range of activities known as the four domains or pillars:

- Professional leadership
- Expert clinical practice
- Strategic service and research development
- Education and training

The four domains / pillars of consultant practice were developed by the Department of Health (DoH, 1999) and now form the gold standard for any professions considering implementing this role.

1.3 Role development in radiography: a global perspective

Early evidence of the importance of role development in health on a global scale was provided in the report *Skills mix in the healthcare force: reviewing the evidence* (Buchan et al., 2002) which identified a number of factors that were affecting health services including: skill shortages, the need for quality improvement, technology innovation and health sector reforms. Possible interventions were recommended to

deal with such issues, for instance adjustment of staff roles, introduction of new skills and creation of new types of workers with extended roles.

Similarly, Martino & Odle (2007) comment that constant changes in health care systems necessitate the highest level of practice from professionals. For instance, the radiography profession both on a national and international level is continually pushing the traditional role boundaries; whereby radiographers (both diagnostic and therapeutic) are developing and extending their roles. A number of countries, led by the UK, are embedding role advancement into their scope of practice (Cowling, 2008). A survey of international advanced practice for radiography (Martino, 2008) identified the countries working towards role development and role extension and categorised these according to the four levels of development (see below, Table 1.1):

Level	Countries (examples)	Drive for advance practice
1	UK, USA	Governmental, research, university programmes have influenced the drive. Implementation actioned.
2	Canada, Australia, NZ, Japan, South Africa	As above. Implementation still in its infancy.
3	Jamaica, Malaysia, Hong Kong, Kenya	Role advancement next potential step
4	Nepal, India, Bangladesh and some Central American countries	No national standard for radiography education. No evidence of role advancement

Table 1.1 International survey of international advanced practice (Reproduced from Martino, 2008:3)

The survey recognised the extent to which the UK and USA were leading the development of roles and the findings were reinforced by Yelder & Davis (2009) acknowledging the UK being significantly further ahead of other parts of the Western world in terms of radiographer role development. The survey also highlights other

countries striving towards role development, yet also exposes those that are at the beginning of these developments. The following outlines some of the approaches and initiatives to role development within the international radiography community:

United States:

The earliest example of role development is the Radiologist Assistant (RA) in clinical imaging developed in 2005. Martino et al., (2007) report RA's leading patient management and assessment, carrying out designated radiological examinations and procedures under the supervision of the clinician allowing the radiologist to concentrate on the more difficult procedures and cases. In more recent years the role has transformed in a role that is very similar to the consultant radiographer role in the UK, now known as Radiology Physician Extender with additional duties such as image reporting/evaluation (Mazal, 2011). This role has been received very positively by medical colleagues and highlights the steps that the radiography profession in the US has made (Mazal, 2011).

Canada:

In 2004 the Ontario Radiation Therapy Advanced Practice Group (ORTAP) was set up specifically in the province of Ontario to examine the feasibility of developing advanced practice roles in radiation therapy (AP4RT, 2004). The group comprising radiation therapists¹, managers and educators, together with the Canadian Association of Medical Radiation Technologists (CAMRT) came together to pilot a programme for advanced practice known as AP4RT. The project group identified five key roles (Table 1.2) to pilot test over a period of one year in a number of radiation therapy hospital sites.

¹ Radiation Therapist – the title is equivalent to a Therapeutic Radiographer in the UK

Role	Function
Skin cancer advanced practice therapist	Coordination, triaging skin cancers for treatment
Planning image definition/contouring specialist	Involvement in contouring and complex RT planning
Patient assessment and system management review therapist	Management of RT treatment reactions
Mycosis Fungoides radiation therapist	Patient assessment, education and management of toxicities
Palliative Care advanced practice radiation therapist	Assessment, referral and treatment for patients

Table 1.2 Radiation therapy roles (AP4RT, 2004:8)

Following the success of the pilot, the project team were awarded funding to continue the next phase in which the Clinical Specialist Radiation Therapist (CSRT) role was conceived. An example of the CSRT role can be seen in breast radiotherapy side effect management. Lee et al., (2012) conducted a prospective evaluation of practice concordance between the breast CSRT and a radiation oncologist (clinician) by independently reviewing the accuracy of assessment of radiotherapy side effects experienced by breast cancer patients. The research concluded that a high concordance level (of comparable skills) was observed between the CSRT and the clinician in identifying the side effects, demonstrating the CSRT role in patient assessment and management.

New Zealand:

Role development is still in its infancy but with increasing interest. Between 2005 and 2008 the New Zealand Institute of Medical Radiation Technology (NZIMRT) conducted initial research investigating the need for advanced practice roles and to propose a model for career progression with the intention to increase job satisfaction, recruitment and retention (Yielder et al., 2014). The overall recommendation from the research was the creation of a three tier career progression model (similar to the UK model), comprising Assistant Practitioner, Practitioner and Advanced Practitioner, the latter being the focus of development. The proposed Advanced Practitioner role would be across nine clinical sites with specific elements for the role (Table 1.3) (Coleman et al., 2014).

Proposed Advanced Practitioner Profile	Elements of the role
Research Brachytherapy treatments Head & Neck cancers Prostate cancer Palliative Breast cancer Patient education Imaging & volumising Paediatric cancers	Clinical leadership Teaching and supervision Legal and ethical issues Quality assurance Ongoing supervision and moderation Clinical decision making skills Professional and current issues Research and evidenced based practice Clinical skills and theory to support Masters qualification

Table 1.3 Proposed Advanced Practitioner Profile and generic elements of the Advanced Scope of Practice Framework (Coleman et al., 2014:40-41)

Yielder et al., (2014) acknowledged that while overall there was a wide spread support for the advanced practice role, implementation was very much based on a departmental/service need. Further recommendations have arisen from the research and the NZIMRT are currently reviewing areas such as educational requirements, developing appropriate standards of practice and working with clinical departments to identify service needs for the new role.

Australia:

An Inter Professional Advisory Team (IPAT) (consisting of key stakeholders) published a report with a list of recommendations relating to Advanced Practice in radiation therapy. The key recommendation being:

“In order to enhance high quality service provisions to patients, assist workflow flexibility, recognise growing technological complexity with radiation imaging and therapy, improve practitioner satisfaction, provide further career advancement within the disciplines and promote practitioner retention within the workforce, a status of Advanced Practitioner on an Australian wide basis should be formally created for radiographers and radiation therapists”

(IPAT, 2012: 59)

The Australian Institute of Radiography (AIR) was approached to formalise advanced practice status in the workforce and an advisory panel was setup to lead this initiative. A proposed model for advanced practice was later developed (see Fig 1.1)

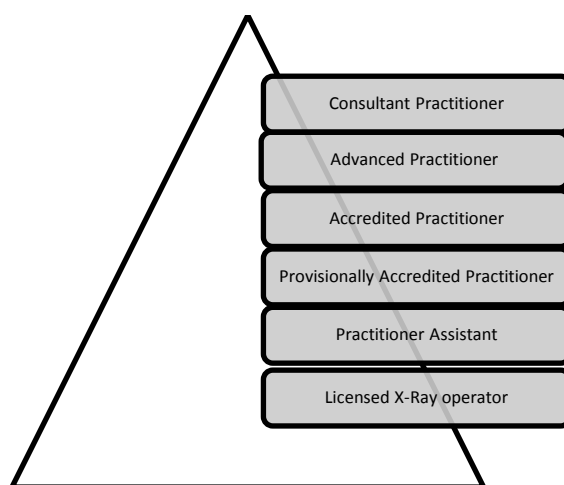


Figure 1.1 Proposed practitioner recognition model for Australia (AIR Advanced Practice Advisory Panel, 2013:12)

While the model reflects the UK career progression framework (AIR having used UK evidence in support of this proposal), the consultant practitioner role has not yet been implemented as AIR believe there is little evidence or need for it within the current Australian workforce (APAP, 2013) despite the fact that Field & Snaith (2013) acknowledged that the UK model is seen as the template internationally and Yelder et al., (2014) agree that the UK has made extraordinary headway in role development over other countries. In March 2014, the proposal was finalised by the AIR, and the document entitled: *The Advance Practice Policy*, was published allowing practitioners to achieve accreditation as an advanced practitioner.

1.4 Role development in therapeutic radiography: a UK perspective

Early evidence of the need for role development was identified in the discussion paper; *Staffing and Standards in Departments of Clinical Oncology and Clinical Radiology* (RCR, 1993) and the; *Calman Hine policy framework commissioning report* (DoH, 1995) actively encouraged the development of skills mix amongst doctors, nurses, radiographers and other healthcare professionals, again acknowledging the benefits for cancer services. In addition, the SCoR document: *Skills Mix in Clinical Oncology* (SCoR, 1999), which provided an overview of skills

mix working in both cancer nursing and therapeutic radiography and emphasised its value in relation to improving services. Given this policy direction, a working party was established by the Royal College of Radiologists to oversee the potential integration of skills mix working within clinical oncology departments, which later resulted in developing the document: *Skills Mix in Clinical Oncology* (SCoR, 1999). The document highlighted the issues to consider if departments were considering this process and how to best effectively use each member of the team.

In therapeutic radiography the earliest evidence of role extension began with “on treatment review,” whereby a suitably trained therapeutic radiographer reviewed some or all patients (from a selected group) during their course of treatment, a role traditionally undertaken by the clinical oncologist or medical staff. Colyer (2000) acknowledged that the role developed as a result of radiographers own personal drive to take advantage of an opportunity. These developments allowed the medical staff to hand over responsibility to the radiographer, thus releasing medical staff for other duties and tasks. The research by Colyer (2000) overall highlighted one such example on a scale of role development in therapeutic radiography.

The drive for role development then continued. In 2000, the Labour government’s attention was now focused on implementing health reform in the UK and launched “Agenda for Change” to the NHS plan. Agenda for Change highlighted a need for a change of pay and career structures, identified new ways of working to best deliver the range and quality of services required to meet the needs of the patients and defined the core skills and knowledge for staff through the Knowledge and Skills Framework (KSF). Sycamore (2008) acknowledged that the consequence of Agenda for Change saw the development of multidisciplinary teams to better manage patient care and provide an efficient and effective service. To support the change, a national skills mix project was initiated, to introduce and pilot a four tiered service delivery model (DoH, 2003). Clear roles and responsibilities were described demonstrating a level of escalation and expertise appropriate to each role (see Box 1.1). In response to this initiative, the Society and College of Radiographers recognised the benefits of such a model for patients and clients and how it would provide the opportunities for radiography services to create new roles, firmly placing radiographers as experts in their sphere of practice. Subsequently a working party was formed comprising the

Royal College of Radiologists and the Society and College of Radiographers to develop a four-tier service delivery model.

Consultant Practitioner (State registered): A consultant practitioner provides clinical leadership within a specialism, bringing strategic direction, innovation and influence through practice, research and education
Advanced Practitioner (State registered): An advanced practitioner, autonomous in clinical practice, defines the scope of practice of others and continuously develops clinical practice within a defined field
Practitioner (State registered): A practitioner autonomously performs a wide-ranging and complex clinical role; is accountable for his or her own actions and for the actions of those they direct
Assistant Practitioner: An assistant practitioner performs protocol limited clinical tasks under the direction and supervision of a State registered practitioner

Box 1.1 The four-tier service delivery model (DoH, 2003)

In practice, implementation of the model has created a shift in working practice with assistant practitioners undertaking simpler tasks, enabling practitioners and advanced practitioners to focus on more complex tasks fulfilling the requirements of role progression as stated by the DoH in its 2003 report:

“The model is designed to encourage clinical staff to delegate certain activities to others as they increasingly develop their own skill-set and in turn undertake clinical activities more typically done by other professions and disciplines” (DoH, 2003:12).

The implementation of the four tier model has been pivotal in radically changing the career structure of the therapeutic radiographer included within their scope of practice and service innovation. Since the implementation of the four-tier model, the Society and College of Radiographers has published a significant amount of guidance for service development and career progression further embedding the structure within clinical practice. In 2004 the Society and College of Radiographers, reflecting this shift in practice, moved away from the concept of “four-tier service delivery model”, and incorporated the model into the “Career Progression Framework” (SCoR, 2004). It was recognised by Sycamore (2008) that the Career

Progression Framework was strengthened and underpinned by the NHS Knowledge and Skills Framework (NHS KSF, 2004) which highlighted the knowledge and skills needed to provide quality services and is integral in a therapeutic radiographers career development. The framework offered a thorough structure on which to base review and development for staff; therapeutic radiographers are encouraged and supported to progress in their careers through annual identification of development needs and opportunities.

To reinforce the concept of career progression the Society and College of Radiographers published a position paper setting out various ways in which therapeutic radiographers could play a part in the delivery of patient centred care across the patient pathway. The document: *Positioning Therapeutic Radiographers within Cancer Services: Delivering Patient Centred Care* (SCoR, 2006) illustrates three expert practitioner roles at advanced and consultant levels of practice: the site specialist, the technical specialist and the community liaison practitioner co-ordinating care across multiple agencies of care.

The paper also acknowledged the current work that therapeutic radiographers were involved in providing support for patient centred cancer services *Radiotherapy Moving Forward: Delivering new radiography staffing models in response to the Cancer Reform Strategy* (SCoR, 2009) subsequently provided overall guidance on supporting the development of new staffing models. Skill mix was seen as vital to support efficient and effective service delivery. Figure1.2 depicts the differing roles and levels of radiotherapy practice.

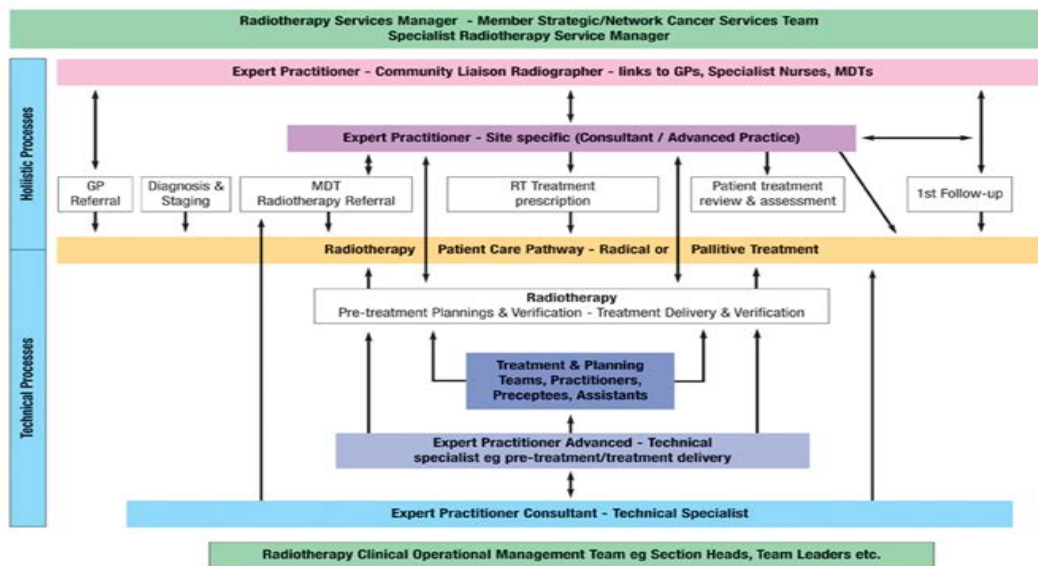


Figure 1.2 Staffing models in the cancer reform strategy (SCoR, 2009:5)

In relation to cancer services the National Radiotherapy Advisory Group (NRAG) was tasked in guiding departments to consider skills mix to improve patient and service outcomes. A comprehensive report published by NRAG emphasised the issues of staffing levels, technical advances and targets to reduce waiting times. One crucial area it acknowledged was the need for departments to capitalise on and make sure of the skills their staff currently possess to improve patient care. The NRAG report (DoH, 2007) reported that nearly 20% of the work in radiotherapy required the involvement of the clinical oncologist, whilst the remaining 80% potentially could be accomplished by an advanced or consultant practitioner.

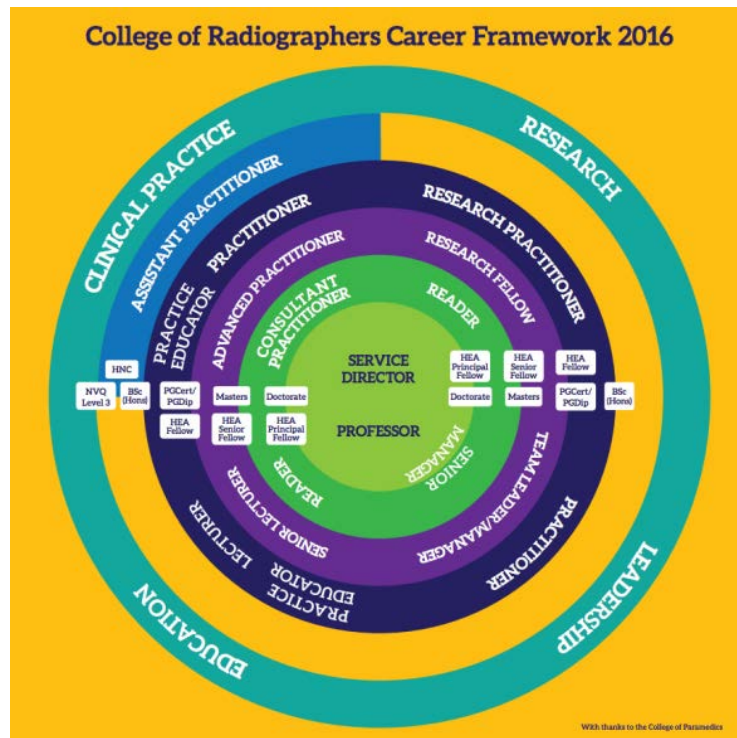
In 2012, the Society and College of Radiographers conducted a national survey entitled “*Scope of Radiographic Practice Survey*” to assess the prevalence of role development in clinical departments in both diagnostic and therapy radiography services (SCoR, 2012). Analysis of survey responses from 143 diagnostic imaging and 43 radiotherapy service managers concluded that radiographers had an increasingly prominent role in the inter-professional healthcare team by progressing and developing their roles. A substantial number of diagnostic departments had radiographer led examinations in modalities such as Computed Tomography (CT) and Magnetic Resonance Imaging (MRI) and additionally radiographers were carrying out a variety of interventional procedures. Other role developments

identified in the survey were an increased number of the research radiographers² in post (SCoR, 2012). Equally, in therapeutic radiography services, there too had been an increase in role development with radiographers leading in pre-treatment imaging (e.g. examinations in modalities such as Computed Tomography (CT)), and radiographer led treatment planning (e.g. tumour volume delineation). The report reiterated the vital importance of radiographers evolving their roles and embracing innovative ways of providing services with a new career structure with more opportunities for staff (SCoR, 2012).

The report: *Vision for Radiotherapy 2014-2024* (CRUK, 2014) recognised that therapeutic radiographers play a key role within the radiotherapy pathway. A conclusion also reinforced by the Society and College of Radiographers. Currently, the development of the radiotherapy workforce to enable effective skills mix is high on the agenda for the Society and College of Radiographers as acknowledged within the document entitled: *Achieving World Class Cancer Outcomes: The Vision for Therapeutic Radiography* (SCoR, 2016). As such, the 2016 Vision of Radiotherapy provides an updated career progression framework which shows the progression through to consultant practice (see Figure 1.3) implemented by the SCoR to be aligned with the original staffing models as indicated in the 2009 Cancer Reform Strategy.

Within a changing therapeutic radiography workforce, the aim is for role development to continue to expand across the entire radiotherapy pathway with roles such as the consultant practitioner created with the aim to provide benefit to service provisions and service users.

² Responsible for leading clinical trials /research



radiography (such as consultant practice) is appealing and the idea of pushing current boundaries through staff role development is equally fascinating. From a professional stance, during my time working in a clinical setting I embraced role development through my own role as an Advanced Practitioner in Education and Development. Also my experience of therapeutic radiography and nurse consultant roles in various NHS trusts, have made me aware of role development expansion across all healthcare services and specifically in radiography. Moreover, as therapeutic radiographers have always been at the forefront in delivering cancer care, developing personally and professionally to meet the ever evolving changes within the profession, there is a need to examine this topic and in particular the role of the CTR.

Having set the context and introduced some of the considerations that shaped the research, I will now address some of the wider issues relating to the perceived impact of consultant practice. This provides the theoretical underpinnings of the research and will set the scene for the methodological considerations later.

1.6 Impact in terms of professional and organisational significance

With the increase in radiography role development it is important to examine the effect of role development on team working and service delivery. In relation to the CTR role, investigation of these aspects of perceived impact could indicate whether the role provides value. Impact can be defined as:

“.....a marked effect or influence” (Oxford English dictionary, 2014)

“.....a powerful or major influence or effect” (Merriam – Webster, 2014)

“.....to have an effect” (Dictionary Reference, 2014)

In the context of this research the definition of impact I will be using is *“the influence or the effect”* the CTR role has on the two specific areas of interest within radiotherapy and oncology service; the professional and organisational aspects.

It is important to clearly acknowledge at this point that any attempts to collect measurable or objective data have not been considered. The intention of the research was to capture subjective accounts of professional and organisational impact in a radiotherapy setting from the participants through the use of qualitative

methods such as interviews and illustrative case studies. Where impact was considered, it was assessed in terms of perceived impact rather than actual measures.

The decision to examine both these aspects was guided by the following:

- The professional relationships formed between the CTR and other staff; such as doctors, nurses and other allied health professionals (***perceived organisational impact***)
- Whether creation of new roles can make a significant difference or contribution in terms of service provision (***perceived organisational impact***)
- The characteristics associated with consultant practice (***perceived professional impact***)
- The unique and distinctive features / characteristics of the role and the perceived impact it has for the post holder (***perceived professional impact***)

The case study approach used in this research to capture perceived professional and organisational impact, sought to gain the views, insights and perspectives of consultant practice from selected research participants, thus providing a potentially rich source of data; this will be elaborated in more detail later in the research design section (see section 1.10).

1.7 Theoretical framework

Examining impact is crucial if CTRs are to exhibit their clinical contribution in delivering a quality service within the radiotherapy and oncology department. A literature search was conducted and very few measures of impact were identified.

Nursing literature examining new roles such as nurse consultants, advanced practice nurses and their effects on delivering evidence based care, highlighted the difficulty in capturing the impact of these roles, mainly due to role diversity and complexity (Guest et al., 2004, Gerrish et al., 2007, 2011). For this research perceived impact was evidenced using the *Dimensions of Impact* framework developed by Gerrish et al., (2007, 2011). Gerrish et al., (2007, 2011) proposed the following framework and developed it in order to assess the potential impact of advanced practice nurse roles.

The framework comprises three components:

- **Clinical significance** – the impact of interventions and their effect on patients directly.
- **Professional significance** – the impact on professional outcomes such as competency, skill, knowledge, autonomy, confidence, raising the role profile.
- **Organisational significance** – the impact on service considerations such as service design, strategic / clinical leadership, cost savings.

(Gerrish et al., 2007, 2011:8)

Details of the framework will be further elaborated in Chapter Three. In light of the dearth of literature in relation to the CTR role, the principle aim of this research will be to assess the perceived impact of this role; therefore the Dimensions of Impact framework was selected to underpin this research as it acknowledges the professional and organisational significance (the two areas of interest) of the CTR role. In addition it is an ideal opportunity to test the framework from an allied health perspective. However in this present study clinical significance will be omitted and the focus is on both professional and organisational significance.

1.8 The importance of power and identity

The concepts of power and identity are also considered in this research and have a bearing on the perceived impact in terms of professional and organisational significance as described in the Dimensions of Impact framework.

Power – in particular disciplinary power, power relationships and medical gaze (Foucault, 1977, 1979) (discussed in chapter three) can be associated with *organisational significance*. Tensions and differences in roles and role boundaries together with a lack of shared decision making can imply that the issue of power is a significant factor in relationships between health professionals. With radiographers now undertaking work traditionally performed by medical practitioners, collaboration and working in partnership is important and needs to be investigated. In this research issues of power were examined in relation to:

- The types of relationships that exist between the CTR and other key staff (medical, nursing and therapeutic staff) they work alongside.
- The CTRs level of autonomy.

Identity – in particular professional identity and recognition of roles (Tajfel & Turner, 1979; Halsam et al., 2009; Hornsey, 2008) can be associated with *professional significance*. As radiographers are pushing beyond the current boundaries of their profession, new roles such as the CTR require a better understanding amongst other healthcare professionals. In this research, issues surrounding identity were examined in relation to:

- The title of “Consultant” and the professional identity attached to this term
- The understanding of key staff (medical, nursing and therapeutic staff) of the concept of consultant practice
- The acknowledgment by key staff (medical, nursing and therapeutic staff) whether or not the role of the CTR is fundamental and crucial within radiotherapy services.

1.9 Key stakeholders

The views of key stakeholders within the research were of paramount importance. Presentation of the final themes derived from the developed case studies permits the key stakeholders to consider whether the CTR role has met its original intentions since its inception and furthermore to capture the current state of evidence about the role.

Key stakeholders approached were representatives from the following organisations:

- Society and College of Radiographers (SCoR)
- NHS England
- Health Education England (HEE)

1.10 Methodological considerations

A qualitative approach was adopted for this research as its main focus was on capturing the views, attitudes and perspectives of the participants (the CTR, medical, nursing and therapeutic staff), on the perceived impact of the role. A secondary focus of the research was to obtain the views of key stakeholders (SCoR, NHS England, and HEE) of the themes derived from developed case studies and whether the role as described in the case study has met its original intentions.

Qualitative approaches in research seek to explore the participant's viewpoints, with the aim of examining the meaning, perception and experiences (Adams and Smith, 2003). This has significance to this research as the opinions and thoughts from the participants are being examined.

To capture perceived impact, a collective case study approach was adopted to explore the phenomenon of interest i.e. consultant practice in an organisational setting. The collective case study enabled exploration of differences within and between each of the cases (Yin, 2009). The collective "cases" comprise CTR, medical, nursing and therapeutic staff in each site as they embody the concept of consultant practice. The multiple views and opinions gained from the cases will aid in examining the perceived impact of consultant practice.

The research questions and aims are as follows:

What has been the perceived professional and organisational impact of the introduction of the CTR role?

Has the CTR role had an effect on structural/ organisational considerations in relation to service provisions, service design, clinical leadership and staffing?

Has the CTR role had an effect on professional practice considerations such as characteristics of the postholder in relation to their expertise, skill, knowledge and levels of autonomy?

The principal aim of the research was to explore the CTR role, through the perspectives of medical, nursing, therapeutic staff and key stakeholders by means of a qualitative inquiry.

The more specific aims are to:

- Analyse and assess the perceived professional and organisational impact of consultant practice in therapeutic radiography.
- Gain an insight into the issues related/relevant to the creation of the role.
- Assess experiences of the CTR in their role.
- Examine the experiences of the medical, nursing and therapeutic staff working alongside the CTR.

- Consider the views from the key stakeholders regarding the development of the role and the outcomes of the research.
- Ascertain the implications for clinical practice and future research

The research design comprised a three phase research plan:

- **Phase One:**

A focus group comprising four CTRs in order to gain views and opinions of their role and also the working relationship with respective medical, nursing and therapeutic staff.

- **Phase Two:**

a) Semi structured interviews with the individual CTR to further secure rich data. Face-to-face interviews permit CTRs to further acknowledge issues and opinions from a more personal, perhaps honest, perspective than is possible in a group setting.

b) Review CTR jobs descriptions. To compare with the Department of Health guidance set out in the advanced letter PAM (2/2001) with the CTR job descriptions to ascertain if the roles reflected the recommendations set out for these posts. To make comparisons between each of the CTR job descriptions provided to discern similarities or differences. To determine whether the job descriptions provide an opportunity for the postholder to demonstrate perceived professional and organisational impact by using the Dimensions of Impact framework.

c) Semi structured interviews with individual medical, nursing and therapeutic staff to gain their views of the CTR role to provide additional rich data.

- **Phase Three:**

Semi structured interviews with key stakeholder representatives from the Society and College of Radiographers (SCoR), NHS England and Health Education England (HEE). The intention of the interviews was to gain their views on whether or not the CTR has met its original vision and also to gain their opinions on the themes derived from the developed case studies.

To recap, the research involves a qualitative case study approach, analysing and examining the opinions and views from the CTRs themselves and the medical, nursing and therapeutic staff whom they work alongside to examine the phenomenon of consultant practice and whether or not it demonstrates perceived professional and organisational impact. In addition, examination of the associated issues surrounding power and identity.

The research will also feature considerations from key stakeholders regarding the role and its original intentions, coupled with their thoughts on the themes derived from the developed case studies.

The study therefore attempts to address the need to examine these roles, to contribute to filling the knowledge gap on this topic and to consider the implications this role has on practice.

1.11 Plan of the thesis

Chapter 2 provides details of the literature search and review. The literature review discusses the development of the consultant radiographer role and identifies some of the challenges related to the role. In addition it identifies a '*gap in knowledge*' in radiography on the topic of consultant practice and its impact. Literature relating to consultant practitioners in other health disciplines, such as nursing, pharmacy and other allied health professionals is also explored.

Chapter 3 provides details on the theoretical framework underpinning this research. Here the Dimensions of Impact (Gerrish et al., 2007, 2011) is reviewed and critiqued. Explanation of the dimensions is provided and applied to the CTR role. The additional theories relating to this research which are Power (Foucault, 1977, 1979) and Identity (Tajfel & Turner, 1979; Halsam et al, 2009; Hornsey, 2008) are also discussed and their importance to the research clarified.

Chapter 4 discusses the methods used in the study. Details are provided about the collective case study approach. The research study design is explored and details of the research sample, the three-phase process and the specific data collection methods (focus group, semi – structured interviews and document analysis) and justification for these are provided.

Chapter 5 discusses the results and data analysis outcomes from the Phase one focus group and explores the findings and contribution of these to the later parts of the study.

Chapter 6 presents the detailed development of the collective case studies from the Phase two semi-structured interviews

Chapter 7 presents the cross-case analysis of the collective case studies to demonstrate comparisons of any commonalities and differences across multiple case studies.

Chapter 8 presents the Phase two document analysis of the CTR job descriptions

Chapter 9 discusses the considerations from the key stakeholders regarding the CTR role and their views on the themes derived from the Phase two analysis of the research.

Chapter 10 provides the overall discussion exploring the outcomes of the research.

Chapter 11 provides a conclusion and reviews the aims and objectives and provides recommendations for practice, policy, education and further research illustrating issues of importance still needing to be addressed.

1.12 Summary to the background of the research

This chapter has highlighted some of the developments in health policy that have reported enhancement of the roles of nurses and allied health professionals through the creation of new posts such as consultant practitioners. Consultant practitioners are entrenched in clinical practice, aim to provide clinical leadership, bring strategic direction and influence through practice, research and education (DoH, 2000). The chapter has also reviewed the changes in therapeutic radiography with a focus on the role of the therapeutic radiographer, which has led to the evolution of CTRs.

The rationale for undertaking this research has been established and also the reasoning behind the research has been highlighted, in relation to the gap in knowledge and literature on the CTR. The research aims to examine the CTR role

and to capture perceived professional and organisational impact. An overview of the methodological considerations have been provided demonstrating the inclusion of a collective case study approach and the underpinning theoretical framework has also been presented, with reference to the Dimensions of Impact framework (Gerrish et al., 2007, 2011) in capturing professional and organisational impact and additional theories of Power (Foucault, 1977, 1979) and Identity (Tajfel & Turner, 1979; Halsam et al., 2009; Hornsey, 2008).

Finally in this chapter, key terms have been defined and the presentation of the thesis explained. The following chapter is a review of the literature regarding the CTR, but also provides a context of consultant practice as a whole and refers to examples in both nursing and allied health professions.

CHAPTER TWO: REVIEW OF THE LITERATURE

2.1 Aim

The aim of the literature review is to provide an overview of the perceived impact of the consultant therapeutic radiographer (CTR) in the context of, and using examples from other non-medical consultant practitioners (NMCP).

2.2 Objectives

The aim of the review of literature is:

- To review and critically appraise the evidence for the perceived impact of the CTR
- To conduct a concept analysis of the published literature reporting any impact of the CTR role
- To review published literature reporting consultant practice in other healthcare disciplines.

2.3 Search methods

Summary of the search and selection strategy

On line searches were carried out using OVID, CINAHL and MEDLINE platforms. Searches were carried out reflecting the year in which the CTR role was created up to the present time, but also including policy documentation and guidelines published by government and professional bodies prior to that date, relative to the development of CTR role.

An additional manual literature search, also known as a hand search (Chapman et al., 2009) of academic journals specifically in the discipline of radiography was conducted. The journals specifically used were *Radiography*, *Journal of Radiotherapy in Practice*, *Imaging & Oncology*, *Journal of Medical Radiation Science*, *the British Journal of Radiology*, *Radiotherapy & Oncology* and *Synergy: Imaging and Therapy Practice*. An ancestry approach also known as a foot note chasing (Polit & Tatano Beck, 2014) was also performed whereby the bibliography from included papers was used to find additional relevant studies which had not been generated by the online search.

2.3.1 Search terms

In order to search effectively for articles relevant to the title question, keywords were identified. The search terms used were:

1. consultant*
2. consultant radiographer*
3. consultant therap* radiographer*
4. diagnostic radiographer
5. impact or effect or influence
6. 1 or 2 or 3 or 4 AND 5

The words were searched using Boolean operators “AND” / “OR” to ensure inclusion of all keywords.

2.3.2 Search parameters

Inclusion criteria

The inclusion criteria encompassed studies based on consultant radiographers in the UK, studies focusing on consultant radiographers that report and / or make reference to perceived impact, effect or influence of the role, studies exploring the perspectives, perceptions, views and attitudes of the consultant radiographer role. In addition, only original articles written in the English language, published from January 2003 (this was to reflect the date of the first consultant radiographer in post) to July 2016.

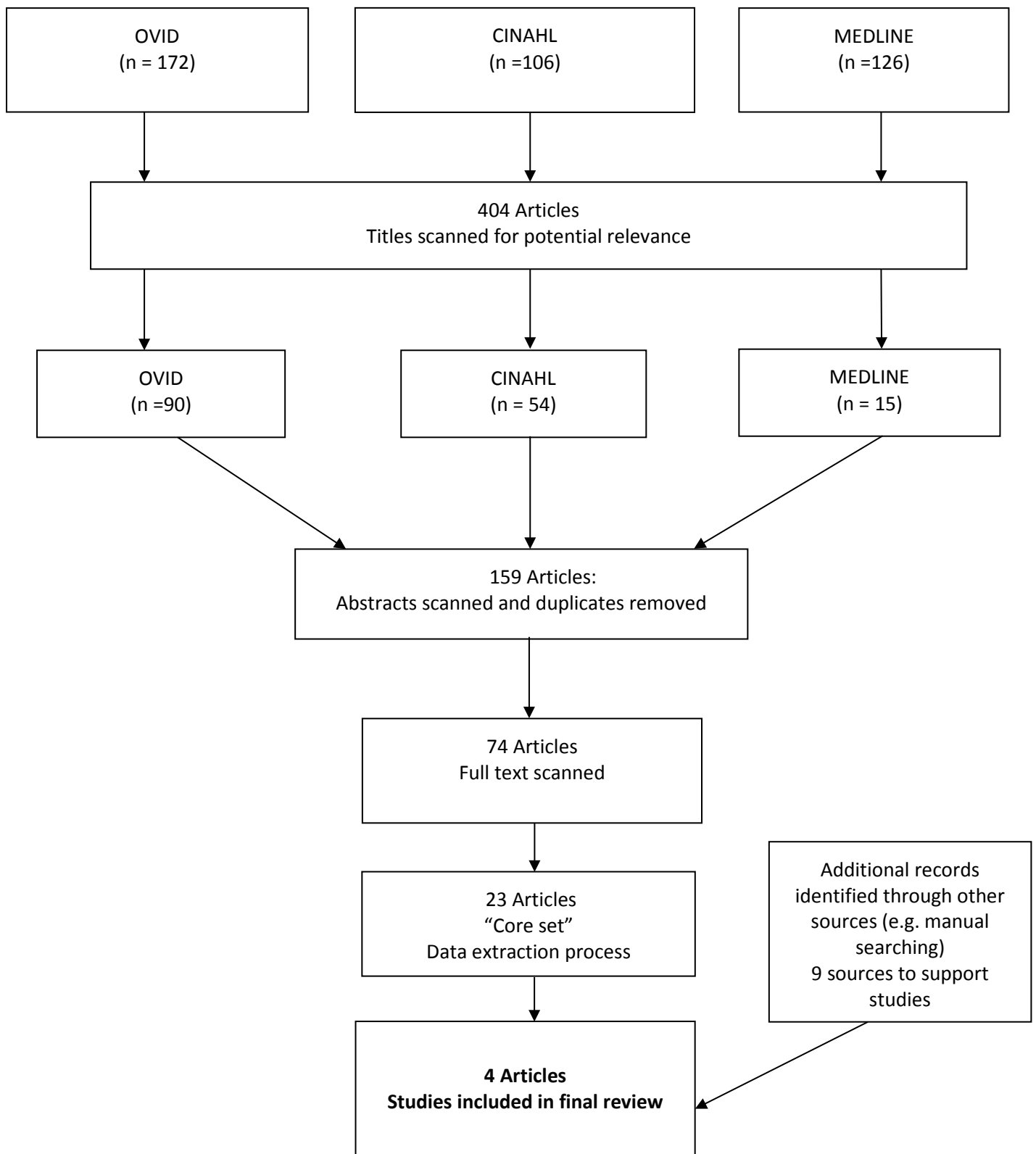
Exclusion criteria

The exclusion criteria encompassed studies that were Non English language studies and articles published prior to January 2003.

2.3.3 Search outcomes

Figure 2.1 Flow diagram – initial search on consultant radiographers

(Template adapted from Coker et al., 2013)



2.3.4 Second search

Owing to the poor results from the initial search on consultant radiographers and as the study was also considering an interprofessional perspective, a second search using the same platforms were conducted to include consultant practitioners in other health disciplines (specifically nursing and allied health professions). Keywords again were identified below:

1. nurse consultant
2. nurse adj5 consultant
3. allied health professional adj5 consultant
4. non-medical adj5 consultant
5. impact or effect or influence
6. 1 or 2 or 3 or 4 AND 5

As earlier, the words were searched using Boolean operators “AND” / “OR” to ensure inclusion of all keywords. Hand searches were also conducted; on journals such as *Journal of Nursing Research*, *Journal of Clinical Nursing*, *Journal of interprofessional care*. In addition, the inclusion and exclusion criteria used in the initial search, was also used again to filter the articles.

Inclusion criteria

The inclusion criteria encompassed studies based on nurse/AHP consultant practitioner in the UK; studies focusing on nurse /AHP consultant practitioner that report and / or make reference to perceived impact, effect or influence of the role; studies exploring the perspectives, perceptions, views and attitudes of the nurse/ AHP consultant practitioner role. In addition, only original articles written in the English language, published from 2000 (this was to reflect the date of the commencement of the nurse and AHP in post) to 2016 were included.

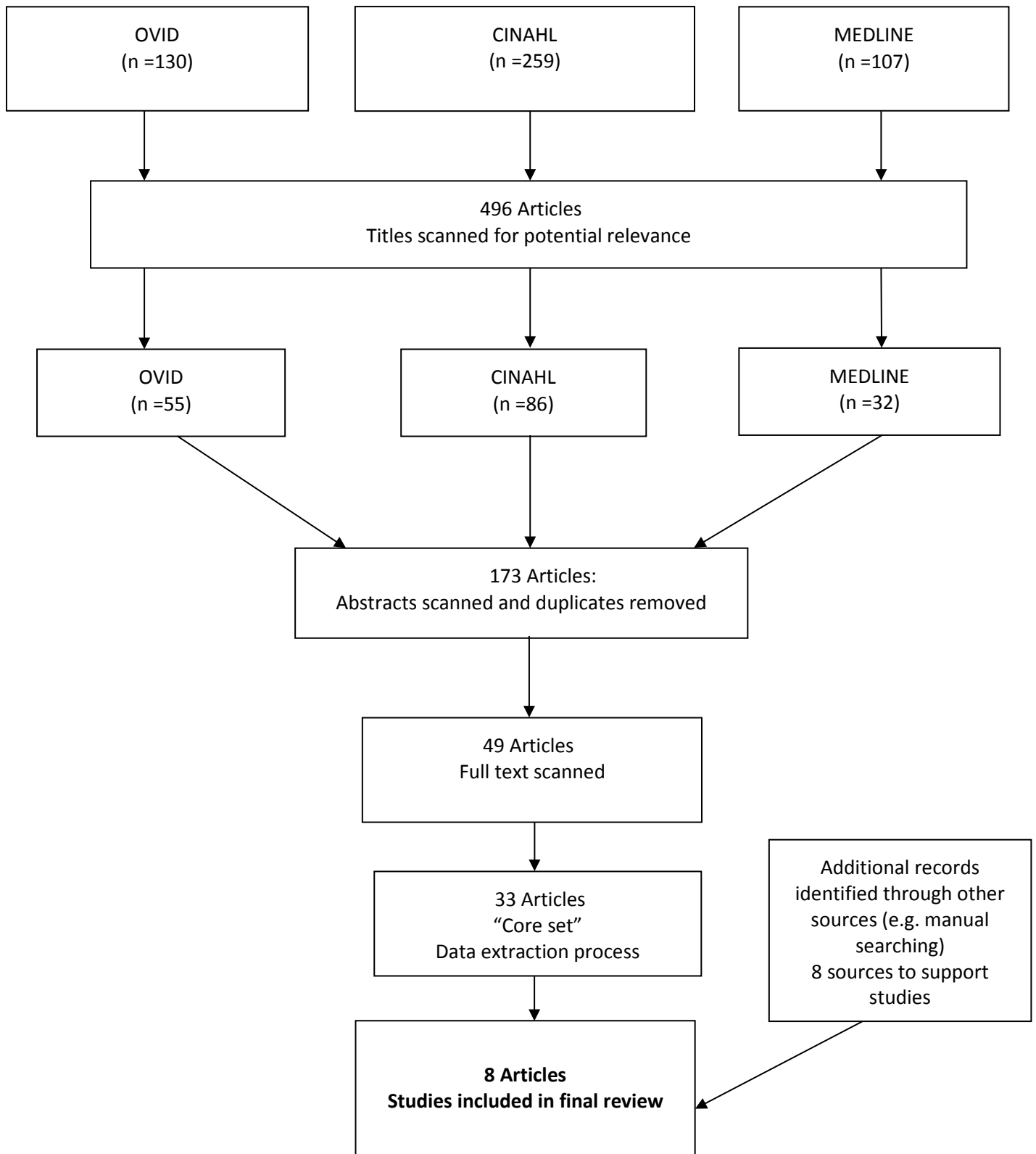
Exclusion criteria

The exclusion criteria encompassed studies that were Non English language studies and articles published prior to January 2000.

2.3.5 Second search outcomes

Figure 2.2 Flow diagram – second search on nurse and AHP consultant practitioners

(Template adapted from Coker et al., 2013)



2.3.6 Review and selecting the evidence

Both searches yielded 12 articles in total. All articles were reviewed using the CASP checklist (2013) to evaluate aims, objectives and methodological considerations and overall relevance to this research. Other sources (n=17) that were used to support online searches were reviews and publications that had reference to consultant practice and impact. Once the evidence had been appropriately assessed, themes were identified. These were evolution, perceived impact and challenges. A list of the included studies and supporting sources are presented in Appendix A.

2.4 Data Analysis: Concept analysis of the consultant practitioner

Concept analysis was used to clarify the concept of consultant practice through the role of the consultant practitioner – in this case the CTR. Rhodes (2012) acknowledged that concept analysis is a process used to explore and give meaning but, also useful in refining ambiguous concepts. In addition, it permits an examination of the attributes or key characteristics of the concept. Walker and Avant's (2011) eight step method of concept analysis was chosen (see Table 2.1) and each step in the analysis is discussed below:

Walker and Avant's (2011) Eight step method of concept analysis
1. Select a concept
2. Determine the aims or purpose of analysis
3. Identify all uses of the concept that can be discovered
4. Determine the defining attributes
5. Construct a model case
6. Construct borderline, related, contrary, invented and illegitimate cases
7. Identify antecedents and consequences
8. Define empirical referents

Table 2.1 Concept analysis (Walker & Avant, 2011)

2.4.1. Concept selection

The concept of consultant practice and its perceived impact in terms of the professional and organisational significance is of importance and is examined.

2.4.2 Aim of the analysis

The purpose of analysis is to clarify the meaning of consultant practice by providing a better understanding of it. Thus the goal of the analysis is to offer a clearer definition of the term consultant practice.

2.4.3 Identification of all the uses of the concept

Walker and Avant (2011) highlight that this step is to identify as many uses of the concept as possible. To do this a number of dictionaries, a thesaurus and a literature search (see section 2.3) were accessed. The purpose of the electronic database searches was to retrieve articles that would illustrate uses of the concept; in this case provide the different aspects of the role.

Dictionary definitions

The concept analysis commences with defining uses of the words “consultant” and “practice” independently. The term “consultant practice” is then explored as a whole concept.

Defining the word “consultant”

The dictionary search revealed a range of meanings such as:

“A person who provides expert advice professionally” (Oxford English dictionary, 2012).

“A person who gives professional advice or services” (Merriam-Webster dictionary, 2014)

“Someone who advises people on a particular subject” (Cambridge dictionary, 2014)

Overall the commonality amongst the aforementioned definitions highlight that a consultant is essentially an “expert” in their particular field of practice. A thesaurus

search included: advisor, guide, counsellor, and specialist.

Defining the word “practice”

The dictionary search also provided a number of meanings such as:

“The exercise of a profession” (Collins dictionary, 2014)

“Systematic exercise for the purpose of acquiring skill or proficiency”
(Cambridge dictionary, 2014)

“The work of a doctor, lawyer or other professional person” (Macmillan dictionary, 2014)

Defining the term “consultant practice”

Consultant practice can be defined as:

“An individual who is practising at the leading edge of their particular scope of practice and the profession, extending this where there are proven benefits to service users. They provide leadership in relation to clinical practice and the delivery of high quality, patient focused clinical services; they make evidenced, informed judgements on complex issues routinely and demonstrate innovation in solving clinical problems.” (SCoR, 2010:10)

In reviewing the literature, the concept of consultant practice was evidenced in the healthcare context through the role of the Non-Medical Consultant Practitioner (NMCP). The following demonstrates the uses of the concept and also the context which within the concept is used.

Non-Medical Consultant Practitioner (NMCP)

The National Health Services (NHS) has been experiencing significant changes in order to improve the service offered to patients. The NHS plan (DoH, 2000) addressed these changes and identified essential services that could benefit patients. One example was the introduction of the Non-Medical Consultant Practitioner (NMCP) a role that had been initiated by various Department of Health publications (DoH, 1999, 2000, 2001, 2005) providing guidance and support towards implementation of the role. The stated purpose of creating this role was not only to

improve outcomes for patients by enhancing services and quality, but also to strengthen leadership and present new career opportunities for clinical staff (DoH, 1999). The DoH defined the purpose of the NMCP to:

“.....provide clinical leadership within a specialism, bringing strategic direction, innovation and influence through practice, research and education.”

(DoH, 1999)

The NMCP may also be defined as a practitioner able to demonstrate considerable breadth and depth of experience and expertise; complemented with advanced level of knowledge, exceptional clinical skills and critical thinking (HIW, 2007). As an expert in clinical practice, they play a pivotal role in bringing innovation and influence to clinical leadership as well as strategic direction to benefit the service and patients (HIW, 2007). In addition, the NMCP should display professional autonomy and work above and beyond their field of clinical practice.

Guidance from the DoH (1999, 2000, 2001, 2005) acknowledges the scope and level of responsibility of the NMCP and highlights four core functions or domains:

- Expert advanced practice
- Professional leadership and consultancy
- Education, training and development
- Strategic service development and research and development

The identification of the four core functions/domains was to echo the same requirement of a medical qualified consultant. Ford (2010) comments that developing rigid guidelines on the definition, creation and appointments of such positions reduces the chance of it being just another professional title and should reflect the exceptional skills they demonstrate. The detailed components of the NMCP are explored in more depth later (see section 2.4.4).

NMCP's are at the very leading edge of practice and should be in a position to lead and be at the forefront of their speciality. In creating the NMCP role, three professional groups were initially identified: nursing, midwifery and health visiting;

allied health professionals and pharmacists, with the intention that the role could be developed and integrated effectively into each specialism.

The impact of the Non-Medical Consultant Practitioner (NMCP)

This next section provides examples of the role implementation and acknowledges studies that have attempted to examine impact in the following areas:

The Consultant Radiographer: radiotherapy and diagnostic imaging

The first consultant radiographer post established in 2003 was in radiotherapy, to lead the care for patients undergoing radiotherapy for gynaecological malignancies (Harris & Cornelius, 2012). Since then the number of consultant radiographers in post has been steadily increasing and covering a wide range of specialities (see Table 2.2 below)

Speciality	Number of posts	
	(2014)	(2016)
Breast Imaging	28	57
Ultrasound	11	15
Radiotherapy and Oncology	8	23
GI imaging	5	3
MRI	3	1
Emergency Care	3	2
Plain Film	3	4
Nuclear Medicine	1	0
Endovascular	1	1
Trainee Posts	7	1

Table 2.2 Current number of Consultant Radiographers in post (SCoR, 2016)

The consultant radiographer needs to have extensive clinical experience and expertise in their sphere of practice. They need to possess a high level of strategic thinking and as Field et al., (2012), describe the role should involve cross boundary working and collaboration with a focus on the provision of direct care. Forsyth and

Maelhe (2010) acknowledged that although national guidance was put in place in creating the role, the implementation of the role was guided more by specific local needs. This in itself could be a potential risk, as both Law (2006) and Paterson (2009) identified that the consultant posts were only local solutions to local problems and that the implementation of the role should in fact be on a larger scale. There is strength in this argument, however Howes (2009) considers that this is actually not an issue and the key message is that the development of a consultant radiographer post should respond to any identified service needs.

Paterson (2009) acknowledged the importance and need to increase the number of consultant radiographer posts:

“.....is to be able to see the further diversity in the nature of the post and for the consultant radiographers to remain in the forefront of integrating imaging and radiotherapy into each patient's individual care” (Paterson, 2009:2)

Although, consultant practice in radiography has evolved over the last decade (Field et al., 2012) the number of appointments however remained small. Harris and Cornelius (2012) examined the relation of the number of consultant radiographers in post in comparison to the overall size of the profession. Their findings showed that with the number of consultant radiographers in post (N=70) within a population of 21,000 SoR members equated to less than 0.5% of the professional mass, therefore a low role uptake. The result did not reflect the initial vision of the Society and College of Radiographers (SCoR). The SCoR (2009) highlighted the following reasons for the slow uptake:

- Lack of appropriately qualified and experienced candidates
- Absence in clear educational pathways to support the new roles
- Hesitancy directly from NHS Trusts and boards
- Apprehension of the role by colleagues
- Adopting a “wait and see” attitude by clinical departments.

Interestingly financial constraints were not identified; however, that may have contributed to Trust and board hesitancy. All these factors require some attention.

The main drive behind the present research is to examine and gain a better understanding of the perceived impact of these factors.

There is little published research regarding the consultant radiographer role. Henwood et al., (2016) comment that no empirical literature tasked with exploring consultant roles nationally or across specialities to date have been published. The majority of the literature examining the role has been through personal accounts, experiences and anecdotes of the individual in post/appointed, general information on role development and expansion and professional body guidance. Field and Snaith (2013) identify that a number of publications have reported radiographer roles, yet the literature on developing and maintaining the roles is scant.

Research by Forsyth and Robertson (2007) explored radiologist's perceptions of radiographer role development in general. Their focus was to identify the radiologist's perceptions of the advantages of radiographer development; to identify any anxieties radiologists may have in relation to radiographer development and to identify perceived barriers to further development. This was a larger scale study set in Scotland, where 211 postal questionnaires were distributed to radiologists and 132 responded. The responses demonstrated a range of issues; advantages were cited as increased flexibility of service improvement, best use of manpower services, increased ability to provide effective clinical service and increased professional standing of radiographers. Interestingly with regard to anxieties from the radiologists their main concerns were impact on junior doctor training, medico-legal issues, clinical governance issues and radiographers not recognising their own limitations. Forsyth and Roberston (2007) concluded that although there are some reservations, the radiologists are generally encouraging of role development, but mindful particularly of the medico-legal aspects.

Research conducted by Price and Miller (2010) for the SCoR, considered the impact of implementation of consultant practitioners in diagnostic imaging. The research comprised two exploratory case studies, undertaken at two NHS trusts. Each case study consisted of structured interviews with key staff members: consultant radiographers, radiologists and service/clinical managers. The main themes used to examine the role were workforce issues, service quality and patient pathways, sub

categories were also identified under each theme which formed the basis of the interview questions. Overall the investigation concluded that the consultant radiographer role had many positive aspects including:

“Improved use of medical staff time - evidence suggested that the introduction of the consultant practitioner posts led to radiologists’ time and effort being used to greater effect.

Inter-professional working had been improved, leading to service improvements

No increase in errors or complaints had been experienced since introduction of the consultant posts and their introduction had allowed service ‘gold standards’ for double reporting to be achieved.

Improved team working. Introduction of the consultant radiographer posts had had a beneficial impact on team working, both within the imaging service and across departments/professions.”

(Price and Miller 2010:5)

Although promising, the research had some limitations, for instance it was only conducted in two NHS trusts, therefore making it difficult to ascertain if the results were similar in other trusts. The sample size was small ($n = 7$) raising questions around representativeness and generalisability. The choice of interviewees was not consistent across both sites; one site involved a speciality manager, directorate manager and consultant radiographer, whilst the other site had an extra staff member who was interviewed, two consultant radiographers and two radiologists. Therefore disparity across sites raises questions around credibility. While a number of issues and improvements concerning service delivery were identified, no obvious limitations of the role were highlighted. However the researchers acknowledged that further case studies needed to be evidenced.

Williams and Widdison (2013) explored the perceived impact of the consultant radiographer role specifically in breast imaging. Their study was designed to give a brief insight into perceptions colleagues had of the consultant radiographer role. Their strategy was to circulate a questionnaire to all members of breast imaging teams in the UK with a consultant radiographer in post. A total of 29 responses were

received from different professional groups within the multidisciplinary breast imaging team, including clinicians, nurses, radiologists, radiographers. Four respondents did not specify their profession. The short questionnaire contained a mixture of open and attitudinal questions, such as:

“What is your perception of the consultant radiographer’s role within your multidisciplinary team?”

“What are the advantages to the service in having a consultant radiographer?”

“What essential qualities do you think are important in a consultant radiographer?”

(Williams and Widdison 2013:4)

The study elicited a variety of interesting responses. When asked the advantages of the consultant radiographer role, respondents acknowledged that it benefitted service delivery and the patients by increasing the availability of the radiologist and reducing waiting time. In addition, the respondents reported that the consultant radiographers support of radiologists and radiographers eased their workloads. When asked the disadvantages of the consultant radiographer role, there were mixed views. Some respondents expressed concern at the limitations of the role in comparison to a medically qualified consultant, identified elements of risk if protocols were ignored and the potential repercussions. One respondent specifically highlighted the need for the consultant radiographer to adhere to their own boundaries of practice and not to be pulled in different directions. Although a small study, the findings are valuable and they indicate some similarities with the previous research by Price and Miller (2010). The answers demonstrate support of the consultant radiographer role, yet with some reservation. Williams and Widdison (2013) recognise that clinical departments need to work towards reducing any doubt and to be transparent in the role. In addition, they acknowledge that this was a small scale study that may not entirely reflect the whole population but does provide some scope for future study reinforcing the need for a national evaluation of the consultant radiographer role.

Most recently, Henwood et al., (2016) examined the role of the consultant radiographer and development of the role in clinical practice. The longitudinal study (across two years) used semi-structured interviews to explore the nature of the role,

assessing perceived impact and ascertaining factors that may support or hinder the role. A total of eight consultant radiographers took part to share their experiences and provide a reflective account. The study provides a range of findings regarding the role. All the consultant radiographers perceived that the role had a positive impact on clinical practice, in developing new services and supporting patients. Responses also highlighted that the role provided a platform for the post holder in terms of developing their self-belief and their inner-confidence. Conversely, respondents also reported a number of concerns including the lack of support and issues with hierarchy (medical barriers) within the organisation. Although a small scale reflective study, it offers an understanding of the role of the consultant radiographer from the perspective of the post holders and gives insight into the issues faced by the consultant radiographer in clinical practice.

The Nurse Consultant

Evaluation of the role has been an ongoing process since its inception. The earliest evaluation of the NC role in critical care was Manley's influential action research study in 1997. In this study, Manley identified expert clinician, researcher, educator and consultant as being the core functions of this role as described in the role outline. However, a noteworthy addition was also identified by Manley, in that NCs need to be leaders influencing both organisational and educational development (Manley 2000a, 2000b). Manley developed a conceptual framework, which influenced UK policy in the creation of the NC role. The key features of the framework included transformational leadership, creating and sustaining a transformational culture within the work area and a nurturing culture that enables growth and change. Each feature could be expected from the NC when delivering a patient care service (Manley 2000a, 2000b).

The largest evaluation of the NC role was conducted in 2001 by the research group at Kings College London and commissioned by the Department of Health. The remit of the research was to explore the perceived impact of nurse and midwife consultants on performance and practice (Guest et al., 2004). To explore the perceived impact a mixed method approach was utilised consisting of questionnaire surveys, interviews, focus groups and telephone interviews. A total of 528 NCs were

identified; questionnaires were then sent and 419 NCs responded. The research provided a range of considerations and the following are a few key examples:

“Nurse Consultants identified that the majority did make a significant impact, such as more focus on patient care, developing new services, improving current services and involvement in procedures, processes and protocols.

Nurse consultants were set a target of 50% by the DoH of their time in direct patient contact; in practice the average time was actually 43%.

Problems identified with the role included lack of support, lack of resources and lack of authority.

73% of the NCs reported a high level of satisfaction with the role.

Overwhelming support for the initiative with 90% of NCs believing to be good for patient care and service delivery.”

(Guest et al., 2004:10)

Overall the research highlighted that most NC's perceived they were making a positive impact on service delivery and patient/client outcomes. Describing their jobs as busy and demanding but also exciting the majority felt satisfied and highly committed to their work. Strong support of the initiative was evident and it was recommended that the implementation of the role should be continued with stronger local support and resources. The report identified a range of areas for future research, notably analysis of impact among other stakeholders, and recommendations for policy-makers.

A project by Redwood et al., (2005) explored local impact of the NC role. Using a 360 degree feedback process, the project involved key informants in the evaluation of the consultant nurse roles in mental health and pain management at two healthcare trusts in the Dorset and Somerset region. Six consultant nurses participated in the study and each were asked to select six key informants (this comprised one manager, one clinical colleague, one colleague from the university, one student and one senior academic from the university). A three phased approach was used: firstly face to face semi-structured interviews with key informants, the second phase involved meeting individual consultant nurses and the third phase occurred when all the individual feedback was considered and analysed. The findings revealed:

*“Lack of support or infrastructures within the trusts for the consultant nurses
Attributes of the consultant nurses were observed in their work
Consultant nurses were seen as pioneering and took their work to “another
level”
Challenges of the role such as managing time, expectations and gaining
clinical credibility.
Importance of “National Work” – consultant nurses should move and think
beyond the boundaries of their organisation.” (Redwood et al., 2005)*

The authors concluded that some evidence of perceived impact was apparent, and that supporting the postholders in developing their skills and potential was important if NCs were to achieve their goals. Likewise, Redwood et al., (2005) acknowledge that since the role has been developed, anecdotal literature has been published but there is little in the way of research evidence and more research is required to assess the impact. However, Guest et al., (2004) support the need for descriptive accounts as they can too influence recommendations and provide guidance.

Ryan et al., (2006) conducted a study investigating the perceived role and impact of an NC in rheumatology. In this study participants consisted of seven peers (two clinicians, one manager, two nurses, one ward sister and one physiotherapist) and five patients cared for by the NC. A qualitative approach using semi structured interviews was adopted to allow participants to voice their experiences of working with, and being cared for by, the NC. Thematic analysis of the interviews revealed two themes from the peer and patient groups. The peers recognised the implications and impact of the NC role on patients and healthcare as a result of the newly developed model of care offered by the NC. In addition the peers acknowledged the involvement the NC had in leadership and education and its importance for the role. The patients viewed the role as valuable, particularly how the NC provided a holistic person centred care approach. In addition, the patients expressed the positive feeling of being cared for during the consultation with the NC. The study demonstrated a perceived positive impact of the NC role on the rheumatology service and on patient care. The authors acknowledged that further research was required to demonstrate the impact of such roles.

McSherry & Campbell (2007) evaluated the perceived impact of the NC through the lived experience of the healthcare professionals working with a NC postholder. Again 360 degree semi-structured interviews were undertaken with executive, senior managers, medical, nursing and allied healthcare professional colleagues. The study took place at one University Hospital and was based on three NCs working there. Overall 30 interviews took place and a thematic analysis revealed nine categories that related to impact of the role. The categories included issues surrounding involvement and inclusivity, role expectations/clarifications, role attributes, consultant and consultancy. The study concluded that NCs made a significant contribution yet recognised that continuing success of any NC role needs further refinement in terms of a more structured approach in implementation and evaluation within organisations to further assess impact. Moreover, engaging and involving staff through the process was essential. The authors highlighted that to improve the study, sample size could be increased to include other hospital sites that employ an NC to make comparisons, and consideration should be given to inclusion of the patient's perspectives.

The Consultant Allied Health Professional

The term Allied Health Professional (AHP), is defined as health care practitioners with formal education and clinical training who are credentialed through certification, registration and/or licensure. AHPs collaborate with clinicians and other members of the health care team to deliver high quality patient care services for the identification, prevention, and treatment of diseases, disabilities and disorders (NHS England, 2015). These staff, are often referred to as therapists, include those listed in Table 2.3

Art therapist	Chiropodist/Podiatrist	Diagnostic Radiographer
Drama therapist	Orthoptist	Therapeutic Radiographer
Music therapist	Orthotists	Speech & Language Therapist
Dietician	Prosthetists	Physiotherapist
Occupational therapist	Paramedics	

Table 2.3 Examples of Allied Health Professionals (Petchey et al., 2012)

Two years after the creation of the nurse consultant, the Consultant Allied Health Professional (CAHP) post was outlined within the Department of Health Advance

Letter (DoH, 2001) stating arrangements to provide new career opportunities for experienced and expert staff within the Allied Health Professions. Prior to the advance letter, the NHS document, *Meeting the challenge: A strategy for allied health professions* (DoH, 2000) set out to promote the role of the allied health professions, by acknowledging their crucial role in the modernisation of the NHS. The document highlighted that too often AHPs have been undervalued and neglected; there needed to be a commitment to increasing the number of AHP staff and also expanding the roles, to include the non-medical consultant role. As with the NCs, it was stated that the creation of this role was introduced to enhance service delivery and hence improve patient outcomes and was not about replacing a medical consultant and cutting costs.

In physiotherapy, the implementation of a consultant role in 2002 was considered to be appropriate, as physiotherapists are uniquely placed to influence care throughout the patient experience (Keilty, 2010). The evolution of such a role has extended the clinical career pathway further for physiotherapists, from the initial development of clinical specialist roles and the recent extended scope practitioners. Likewise similar advancements are also happening in occupational therapy. Craik and McKay (2003) acknowledge that the consultant posts are welcomed in occupational therapy; as it recognises the specialist input of occupational therapists and acknowledges and rewards the expertise of particular individuals. By 2013 there were over 30 consultant occupational therapists (McDermott, 2013) in varying areas of clinical practice such as chronic fatigue, elderly care, mental health, learning disabilities, forensics and rehabilitation. The College of Occupational Therapists has been integral to supporting the consultant therapist position and actively welcomes the development, agreeing that consultant occupational therapists have a wider influence, driving strategic and service changes to improve outcomes for service users (COT,2007) but the impact of the role remains absent in the evidence base. Equally in dietetics, posts have been established since 2003 in the UK and specialities include diabetes, obesity, oncology and gastroenterology; the post holders, being experts in their clinical speciality, providing leadership and strategic direction (Lomer, 2009).

In light of the experience of the nursing profession and the need to provide post holders with skills to be successful and cope within their new roles, the NHS Leadership Centre developed a Consultant AHP Leadership Development Programme which commenced in spring 2003 (Turnpenney, 2005). The aims of the programme were two-fold; firstly to help the consultants develop their leadership skills to help them maximise their contribution as professional leaders and secondly to facilitate the development of a supportive peer network alongside the programme that would help to minimise the attrition rate of consultant post holders. The programme provided a way of sharing of best practice, providing a responsive communication system and supporting a peer network amongst AHP consultants. Examples of the programme's content include:

- Providing leadership and direction
- Thinking strategically / political awareness
- Conflict management
- Time management
- Negotiation and influencing

(Turnpenney,2005:9)

An attempt at evaluating AHP consultants was undertaken by Humphreys et al., (2010), to assess the contribution of both AHPCs and NCs. The research design was an exploratory study utilising an activity diary designed to measure the impact, yet also to explore the types of activities and the work patterns of the consultant practitioners. The sample comprised of six consultant practitioners, made up of one physiotherapy consultant and five nurse consultants. The sample selection itself may attract some criticism with the inclusion of only one AHPC and five NCs. The method permitted the consultants to record items of activity (in relation to the four pillars of consultant practice – expert practice, leadership, education and research) over a one week period. Analysis of the results revealed that there was a wide variation in the total number of hours the consultants worked, ranging from 39 hours to 66 hours, with the mean numbers of hours calculated at 54 hours. Humphreys et al., (2010) highlighted that the six consultants worked nearly a quarter more hours than an average healthcare practitioner. With regards to the time spent on the four pillars over a week, expert practice predominated with 148 hours (45.7%) whilst research had the lowest time spent on it with only 18 hours (5.8%).

The results suggest there were differences in the way the consultant practitioners worked and in how they interpreted their roles. The authors highlighted that this was to be expected, as the intention of the consultant role was to be autonomous and to act independently within the terms of their job descriptions. In measuring the impact the findings suggest the consultants spent a greater proportion of their time maintaining their clinical responsibilities and involvement in expert practice; thus indicating an overall agreement that this was definitely a priority of the role. A potential limitation of this study was the time period over which the study was conducted of one week and whether or not this week provided a true representation of the consultant's roles. Nevertheless the research did provide valuable data on consultant led developments.

Stevenson et al., (2011) had similar aims in their research. Their intention was to explore the experiences of AHPCs and NCs and also the key stakeholders who work with them. Through a phenomenological approach using focus groups, the authors were interested in evaluating whether or not there was an understanding of the role. The sample comprised seven consultant practitioners, made up of five nurses, one physiotherapist and a pharmacist and eight stakeholders including a lecturer, manager, chief nurse, and deputy director. As with the sample selection noted in Humphreys et al., (2010), in this case it too could come under criticism, as the ratio of nurse to allied health professional was not representative. It could be suggested that classifying the pharmacist consultant practitioner as an allied health professional is inaccurate, as according to the Department of Health (DoH) pharmacists are a separate professional group. Two focus groups were conducted, one group with the consultant practitioners and the other with the stakeholders. The focus groups were audio recorded and, using thematic analysis, the responses were analysed to identify themes.

The authors identified four themes which were role interpretation, role implementation, role impact and challenges. Role interpretation highlighted that both groups were cognisant with the four domains/functions of consultant practice and the importance of being involved in these different areas. With role implementation, again both groups were in agreement that in addition to clinical skills, they should have skills in negotiation, emotional intelligence and lateral thinking. Both groups

acknowledged the role in relation to assessing role impact: impact on governance, standards of practice, developing particular pathways were some of the key examples that highlighted the positive impact made. In relation to the challenges of the role, responses clearly highlighted the issues from medical colleagues' lack of acceptance and also negative organisational culture.

Overall the research explored the experiences and perceptions of the consultant practitioner role and exposed a range of positive aspects, such as value of the role and emerging impact on the role. Conversely it also highlighted some challenges of this role. The authors highlighted that further evaluation was required and suggested strategies such as case studies and patient testimonials to demonstrate the impact. Although the research is based on perceptions and experiences, it adds weight to some of the issues acknowledged in existing literature surrounding consultant practitioners.

A project set up by the North West NHS aimed to evaluate the non-medical consultant (NMC) role to identify the current position of such roles, their numbers in post, function and impact of the role (Mullen & Gavin-Daley, 2010). The project combined both a qualitative and quantitative design. A total of 130 NMC were invited to participate, with a final sample size of 95. The evaluation findings demonstrated:

*“NMCs in the north west are fulfilling the defined core functions of the role
NMC does have a significant impact on the NHS agenda with evidence of
their contribution to Quality, Innovation, Productivity and Prevention (QIPP)
NMC is making a huge impact and contribution on the development of the
current and future workforce.
NMC can play a key role in leading and supporting collaborative working
NMC can play a key strategic role in actively leading and developing
services.”*
(Mullen & Gavin-Daley, 2010:828)

Overall the project highlights the NMC's direct/indirect influence and perceived impact on service delivery. The report puts forward evidence that could be useful as a platform for a national evaluation.

There are numerous published anecdotal examples of implementation of the consultant allied health professional in clinical practice. However, there is still a lack of substantive research regarding the impact on health care delivery and no evidence of impact on patient outcomes/experiences.

The Consultant Pharmacist

The consultant pharmacist role was identified in the DoH document, *“A Vision for Pharmacy in the new NHS”* (2005). As with the aforementioned examples, the idea behind the creation of the role was to offer an opportunity to make a greater difference to patient care and to build on the success of pharmacists in developing clinical and other specialist roles. As with both nurse and allied health professional consultants, the establishment of a consultant pharmacist role aims to provide benefits such as ensuring the highest level of expertise is available to patients, to make use of high level pharmacy skills in patient care, strengthen professional leadership and provide a new career opportunity to help retain experienced pharmacists in practice. In 2010, there were between thirty and forty consultant pharmacists in the UK (Kirk, 2010) with consultant pharmacists practising in a wide variety of settings including sub-acute care, nursing homes, hospices and community based care (ASCP, 2012). Stevenson et al., (2011) acknowledge that literature examining the impact of consultant pharmacists is scant; hence as with the AHP consultants, the need to evaluate impact is imperative.

Summary of impact

Overall the literature demonstrates that a number of professions have adopted the consultant practitioner role with varying results on assessing impact. Within the radiography profession the number remains small and a number of reasons were highlighted. In addition no national evaluation or research has been undertaken and there is little published research. The research that has taken place is small scale with limited research examining impact, indicating the need for more evidence. With the nursing profession evaluation of the role has been an on-going process with various studies examining impact. The outcomes of the studies reveal that nurse consultants make a positive impact on service delivery. However more up to date literature is required to further demonstrate impact. The allied health professionals and pharmacy literature again provides numerous examples of role implementation

and various studies that have attempted to examine the impact and add weight to their implementation. However substantive research regarding impact and a national evaluation is still required.

Challenges facing the consultant practitioner role

A number of themes surrounding the consultant practitioner role also emerged from the literature. These were: medico-legal responsibilities, role impingement, resistance to change, impact on training, medical dominance and issues on professional identity. Each of the themes is discussed in detail below:

Medico-legal responsibilities

Undertaking tasks that have been traditionally carried out by medical clinicians requires scrutiny with respect to issues such as accountability, competency and risk assessment. Cowan (2005) highlighted that individuals and organisations need to consider safe and lawful practice and by developing and implementing high quality evidence based protocols can encourage staff to review methods of practice which will in turn improve their skills and maintain their standards. Forsyth and Robertson, (2007) acknowledge that potential medico-legal implications of radiographers taking over the responsibilities from the doctor could be a cause for concern from the clinician's perspective. Their research into this aspect of the role highlighted that for radiographers, clear and established guidelines regarding accountability and responsibility are imperative.

Legal implications were also prevalent in nursing, with the development of nurse consultant roles. The "Scope of Professional Practice" first published by the UKCC (1992) stressed that the onus was on individual nurses to exercise their own professional judgment on role expansion, but that they still needed to follow the guidelines stipulated by the code of professional conduct. The code of professional conduct as outlined by the Nursing and Midwifery Councils (NMC, 2015) highlight that practitioners are accountable and bound to a duty of care to patients and clients. This is also reflected in the NHS constitution, citing that staff have a duty to maintain the highest standards of care and service (NHS, 2013).

The General Medical Council (2006) recognised this, outlining that when the care of a patient is undertaken by e.g. a NMCP, the medical practitioner (in this case the clinical oncologist) still maintains overall responsibility; however, it also further states that they cannot maintain responsibility for the competent execution of the procedure for which the patient was referred. Medical practitioners therefore need to ensure that the delegate in the role is competent to carry out the task and that the person be legally and professionally accountable.

Carver (1998) acknowledged that accountability also goes hand in hand with the required competency, in the event of pursuing role expansion. Competency is a fundamental component of consultant practice. White and McKay (2004) highlighted that the nature of extended roles requires practitioners to be multi-competent; whereby they should possess an expanded range of competencies. Being versed in a variety of competencies can be seen as an asset by meeting the ever changing needs of the healthcare service. Whilst from a practitioner's perspective, demonstrating multi-competency is advantageous and sought-after. Competence itself is clearly embedded and reinforced in the 6C's¹ of the NHS (2012):

“Competence means all those in caring roles must have the ability to understand an individual's health and social need. It is also about having the expertise, clinical and technical knowledge to deliver effective care and treatments based on research and evidence”

(NHS, 2012:4)

Likewise, the Health and Care Professions Council (HCPC) provides profession specific standards that radiographers need to meet in order to practice lawfully, safely and effectively. Within the standards of proficiency for radiography, the HCPC acknowledges some of the key values which are relevant in role development, for instance:

“4. be able to practise as an autonomous professional, exercising their own professional judgement”

“4.2 be able to make reasoned decisions to initiate, continue, modify or cease treatments or examinations”

¹ The 6 C's = Care, Compassion, Competence, Communication, Courage and Commitment

“4.4 recognise they are personally responsible for and must be able to justify their decision.”

(HCPC, 2013:8)

Overall, it is of paramount importance that patients be the priority within a healthcare service. There is an obligation from staff to keep patients safe and ensure they receive effective care from caring and committed staff (Francis, 2013). In addition, it is important that healthcare staff are provided with opportunities to grow and develop to improve the process within which they work (Berwick, 2013).

Role impingement

One of the biggest challenges that consultant practitioners face is the issue surrounding *territories*. Role extension in one profession can encroach on the boundaries of another profession, often referred to as *blurring of role boundaries*. Ball and Cox (2004) reported this issue; when researching into advanced nurse practice, they identified that the push for new roles can often lead to *turf and territory* battles. Apparent demarcation of professional boundaries to some is important; they do not like to feel that their toes are being stepped on. This is also reflected in the findings by Day (2006), recognising that some professionals fear that traditional boundaries will disappear with developing new roles. A natural reaction is then to become protective of the boundary and territory and defend it at all costs (Day, 2006). Forsyth and Robertson (2007) in their research on radiographer role development highlight radiologists concern due to the loss of control of professional boundaries. Shi et al., (2009) acknowledge that to prevent any friction and role impingement, role delineation from the onset would ensure no overlap is apparent in job scope. Day (2013) agrees, and adds that inter-professional working is vital; different professionals should be sharing tasks and common skills yet still retaining their individual skills set. In addition, articulating your professional identity before engaging with inter-professional working is important, by considering your own qualities and uniqueness to the benefit of the patient (Day, 2013). A key message as declared by Hynd & Sikora (2008:28) towards a greater partnership is:

“Collaboration not competition”

Resistance

This can also be a barrier. Sadly, there are indications of professional jealousy and rivalry which can contribute to resistance to change and even lead to bitterness towards individuals who choose to embrace these new roles. Kletztenbauer (1996) reported an overall negative attitude to skills mix by radiologists who felt that they were forced to surrender their skills to radiographers. Williams (1996) states that trainee radiologists were against any role development because they felt the training would be affected as exposure to techniques/procedures would start to become limited to them. Graham (2007) in his research revealed that the NCs often have to cope with professional jealousy and antagonism of various individuals (nurses and doctors).

Impact on training - specialist registrars

In nursing, Dowling et al., (1995) asserted that the perceptions from the doctors they interviewed in their study highlighted the anxieties towards new roles, which they thought might reduce the training opportunities for junior doctors. Equally, research by Forsyth and Robertson (2007) identified that a few radiologists were apprehensive about consultant practitioners, as it potentially could impact negatively on the training of specialist registrars. Welgmoed (2008) when analysing radiographer role development in breast planning, highlighted that initially medical consultants were concerned about the effect this new role would have on the registrar training; however, Welgmoed (2008) indicated that the medical consultants became less concerned when they noted the benefits such as workload being shared efficiently and improved collaborative working between medical consultants and radiographers. Likewise, Datta (2010) a medical doctor herself, appreciates the importance of multidisciplinary team working and the many roles that are evolving, but also points out:

“Equally, it is essential that (doctor’s) training opportunities are preserved so that we are able to maintain high standards of care” (Datta 2010:10)

Medical dominance

The medical profession wields a great deal of power in any healthcare setting. Hence another theme for consideration is the notion of *medical dominance*. Historically, the issue of medical dominance is most acute between nursing and medicine, dating back to the 19th Century (Day, 2006). Sweet and Norman (1995) in their literature review, highlight the assumption that doctors were in a dominant power position, whilst nurses were subordinate. They also identify another issue being the *doctor-nurse game*; originally the term was coined by Stein et al., (1990) acknowledging that nurses have become adept at suggesting actions in a way which allows doctors to think it was their own idea. This issue of power difference creates a fraught doctor-nurse relationship and is overall not conducive in a working environment. Bowler and Mallik (1998) highlight that this game needs to cease before nurses are recognised as autonomous independent practitioners. Interestingly, Colyer (2000) in her study highlighted that the participants felt power differences did not exist and there was mutual respect and trust between the radiographer and doctor. However, the study by Colyer (2000) did demonstrate the varied levels of trust being from one extreme (total trust by the doctor) to constant scrutiny and criticism over tiny issues. This apparent power imbalance issue needs to be laid to rest; with radical changes occurring through new roles such as consultant practitioners, it is important to consider all professions as equal partners and establish collaborative working. Wong (cited in White and McKay, 2004) claims that radiographers are subjected to medical dominance, often because physicians are portrayed as having the superior medical knowledge, professional authority and natural dominance over other professions.

Professional identity: titles and stereotypes

Historically the term “consultant” within the health care setting has been used almost exclusively by the medical profession. However, with the evolution of new roles and responsibilities a growing number of healthcare practitioners within the allied health profession are now assuming the title.

The title “consultant” is used widely in other disciplines away from medicine and nursing, such as consultants in engineering, advertising and even in agriculture. In addition, Guest et al., (2004) highlight that as many nurses have elements of

consultancy within their roles it seems almost unwarranted for one discipline such as the medical profession to obtain exclusive possession of a title, that it should in fact be universally used across all professions if they are indeed carrying out a consultant role.

Jaques (2011) reported a minority of doctors that take offence at other healthcare professionals using medical terms in their job title. She comments that the doctor's main concern was that the use of such a title could potentially cause confusion amongst patients; particularly when it involves consent and confidentiality, as patients have little knowledge of the level of qualification of the person treating them. Jaques (2011) further reports that doctors largely fear that any issues surrounding misconduct by someone using the "consultant" title may discredit doctors and thus impact on their status and position of trust within the public eye.

In 2011 an online poll of its readers was conducted by the British Medical Journal (BMJ), regarding the topic of non-medically trained healthcare staff using medical titles. From a total of 500 participants in the poll 83% agreed that the use of the title "consultant" would mislead patients, whilst the remaining 17% disagreed. The online poll also identified a much deeper frustration from doctors who claim that the use of medical titles by non-doctors (coined as Noctors) amounted to "disproportional self-promotion" and "wonderful ways of self-elevation without enduring the trials and tribulations of medical school and subsequent training" and even as far as suggesting that it is a "misleading, dangerous and illegal to make up names and titles" (BMJ, 2011:99).

In radiography the issue of an appropriate title is based on whether one has earned the right to use it, usually by means of exact and precise assessments or competencies. A study conducted by White and McKay (2004) on the specialist radiographer role in Hong Kong, highlighted that regardless of a title, it was in fact the capabilities of the title holder that was important. Furthermore if such a title is to be conferred upon the post holder, then an on-going performance monitoring process would need to be initiated to ensure that they were maintaining the role. Hardy (2010) highlights that not only is blurring of role boundaries a barrier to the introduction of consultant radiographers but perhaps it is the term "consultant" that

causes concern amongst a few radiologists. The title of consultant is the greatest accolade associated with role development; and should not be associated with self-glorification. Consultant practitioners have responsibilities and duties that go far beyond the title, they are expected to challenge boundaries and prove their worth and value of being in the role (Hawes, 2009).

Literature surrounding professional identity has also emerged. As the numbers of professional groups are becoming more extensive and with these new professional groups comes new names and titles, this may potentially create a loss of professional identity within the healthcare workforce. Gardiner and Wagstaff (2001) acknowledge this issue with an example that took place within a physiotherapy setting where the development of a consultant physiotherapist role created conflict and discussion amongst the therapists regarding an appropriate title to reflect and encapsulate the new role, yet not lose their professional identity.

In nursing, there are concerns that they are going through an identity crisis. Research by Dowling et al., (1995) illustrates the issue from the perceptions of nurse practitioners who spoke of uncertainties in their own professional identity, which left them feeling isolated and not belonging. Likewise, they felt that the job of the nurse practitioner was portrayed as a “watered down doctor” especially by junior doctors. Furthermore, their findings also indicated that the ward sisters were apprehensive that the nurses in the new roles would become deskilled owing to their underuse of their traditional nursing skills and they would become even more professionally isolated. Edwards (1995) concurs, stating that some nurses were anxious regarding the loss of the profession’s intrinsic value whilst becoming more medically orientated. Nelson and Gordon (2004) acknowledge that as nursing is trying to reinvent itself through developing new roles, its professional identity is in jeopardy and there is a danger that the traditional professional identity will be lost. Harmer (2010) highlights that with role development and extension within nursing blurring of boundaries between health care professions may have occurred and the resultant outcome is thus a blurring of the professional identity of the nurse. Further to this, Harmer acknowledges that as nurses take on changing and expanded roles, it may potentially divorce them from the traditional core roles and also from their identity.

Closely linked with identity is the notion of stereotypes. The existence of stereotyping has been evident in nursing with often a negative portrayal. Dowling et al., (1996) reported that some doctors, still regarded in the 1990's that the relationship between doctor and nurse was one of professional and handmaiden, thus portraying the doctor as giving the orders whilst the nurse carries out the instructions. Day (2006) defines the notion of stereotypes as a set of shared beliefs about other people, generating judgements. In a healthcare setting stereotyping may lead to negative outcomes (Day, 2006). Gouch and Masterson (2010) state that nurses were often labelled as the “*doctor’s handmaiden.*” Harmer (2010) recognises that as the professional identity of the nurse is changing, it is crucial that they find their voice by developing new roles, enhance the effectiveness of the nursing workforce and move away from being the doctor’s handmaiden. Echoing the comments from Harmer (2010), in October 2016, the All-Party Parliamentary Group on Global Health (APPG) published a report entitled *Triple Impact: How developing the nurse will improve health, promote gender equality and support economic growth* in view of recognising the importance of strengthening nursing globally. The report highlights the need for raising the profile of the nursing profession and enabling nurses to work to their full potential in achieving universal health coverage. The report adds that increasing the number of nurses, and developing nursing, will also have the wider triple impact of improving health, promoting gender equality and supporting economic growth.

In radiography, there is little literature on the topic of professional stereotyping; in the researcher’s experience this topic is purely based on anecdotes and opinions from radiography peers. However, radiographers are often stereotyped as “button pushers” and face the same issues that face nurses. From a historical perspective, radiographers have been involved in disputes over their role. For instance, in diagnostic radiography, Furby (1944) stated that the primary function of a radiographer was the production of the radiograph and to be of the utmost service to the radiologist, whilst the function of the radiologist was interpretation of the radiograph.

Day (2006) highlights that tensions can rise amongst health professionals holding stereotypical beliefs and this as a result can impact negatively in any organisation. A potential solution is to embrace inter-professional working and education. By

embracing the diversity of new roles, it is possible to become aware of the identity of each profession and respect their individual view and beliefs.

2.4.4 Determining the defining attributes

The next step in the concept analysis involves recognising characteristics associated with the concept consultant practice that appear repeatedly in the literature review. A number of themes and defining attributes were identified throughout the literature. The defining attributes signify qualities that are often associated with the concept within the literature. Such attributes also allow for clearer identification of consultant practice and assist in providing a better understanding of the concept. The attributes pertaining to the consultant practitioner role are:

Strengthen expert clinical practice

Woodward et al., (2005) state that it is vital the NMCP spends a minimum of 50% of their time devoted to clinical practice and focus on provision of direct care. In the research conducted by Guest et al., (2001) on nurse consultants, they found that on average the NC spent 44% on clinical practice. Conversely in radiography, this was not the case as a higher percentage weighting was evident for the clinical practice domain to the detriment of the other functions/domains with consultant radiographers acknowledging that this was owing to local service driven needs, to meet target waiting lists and a shortage of staff to cover workloads (Hardy and Snaith, 2006, Kelly et al., 2008). Features of expert clinical practice identified by the Department of Health include:

“Responsibility for management of a complex caseload that includes providing and managing an expert clinical advisory service.

Responsibility for delivering a whole system patient/client focused approach.

Depth and breadth of knowledge, skills and expertise within their sphere of practice.

Promoting and demonstrating best practice.

Facilitating integration of research evidence into practice.

An advanced level of clinical reasoning and decision making across a spectrum of practice”

(DoH, 1999)

Provide professional and clinical leadership and consultancy widely

Professional leadership is inherent in the healthcare culture; the NHS itself places considerable emphasis upon developing leadership abilities in its entire staff with the intention that by empowering staff with good leadership skills often results in change being implemented more effectively (NHS Institute for innovation and improvement, 2007). Hogg et al., (2008) report that consultant radiographers are expected to demonstrate effective leadership in all aspects of their work, highlighting that leadership plays a large role in improving services offered to patients. The authors identify the following characteristics of leadership:

- Leading people through change
- Empowering others
- Effective strategic influencing
- Facilitate collaborative working

Lead in education, training and development

The DoH (1999) guidelines suggest that to fulfil this educational aspect consultant practitioners in any profession should:

- Contribute to the development, delivery and evaluation of educational programmes
- Use innovative ways to gather, consolidate and share information, acting as a resource across the organisation
- Promote and facilitate an active and positive learning environment

For consultant practitioners themselves, there is a general consensus in the literature that they should be educated to a Masters level, or are actively working towards this goal (Harris and Cornelius, 2012). An earlier evaluation undertaken by Guest et al., (2001) found that 65% of nurse consultants surveyed had either a PhD or Masters and 25% had a Bachelor's degree. Manning and Bentley (2003), argue that a doctoral qualification should be essential for the consultant radiographer if they are to be working independently and at a level similar to that of a medical consultant.

Lead strategic service development and promote a culture that encourages research and practice development

Manley (2000a) suggests that service development is itself linked to research and evaluation and needs to be established and developed through engaging in a research culture. Da Costa (2003) concurs with Manley, acknowledging that consultant practitioners should be involved in organisational and profession specific strategic development. Hogg et al., (2008) highlight that this aspect sits hand in hand with professional leadership and consultancy. They mention examples of this which include:

- Implementing evidenced based practice
- Influencing new local and national guidelines for clinical practice
- Initiating clinical audit and research and integrate findings into practice.

2.4.5 Identifying a model case to illustrate the concept of consultant practice as evidenced in the role of the CTR

This stage of the concept analysis is the development of a model case and the additional cases by incorporating the defining attributes. This helps to clarify and reinforce the concept by presenting examples of what does and what does not fall under the concept (Walker and Avant, 2011). The following exemplar demonstrates in detail how the concept of consultant practice is evident in the role of the CTR.

A model case

Jemma (a pseudonym) is a Consultant Therapeutic Radiographer (CTR). Her role was developed in response to service needs. Jemma's speciality is in gynaecological oncology specifically for patients with cervical cancer and she is responsible for the care and management of patients during pelvic radiotherapy treatment, one area of her expertise is monitoring and minimising the side effects on sexual function.

Strengthen expert clinical practice

Jemma's role as a CTR is patient focused, she often takes on complex clinical caseloads, which require her to work autonomously, make advanced assessments on patients, demonstrate clinical reasoning, knowledge and clinical decisions on the management of gynaecological tumours. To maintain her expert knowledge Jemma

has worked towards obtaining her master's degree and completed an in-house competency training programme, in addition Jemma often meets with her mentor (a clinical oncologist) to review her practice and discuss her patient cases.

Provide professional and clinical leadership and consultancy widely

Jemma updates the department/trust policies and protocols in line with current best practice on managing gynaecological tumours. She also participates and makes a contribution to clinical governance amongst relevant working parties. She also maintains a national and international profile in radiotherapy by attending conferences, presenting at conferences/study days and is currently co-authoring a journal publication with a clinical oncologist.

Lead in education, training and development

Jemma is a guest lecturer at a University and lectures on the topic of oncology and radiotherapy treatment of gynaecological tumours to the undergraduate radiotherapy students. Jemma also has the responsibility of being involved in the training of junior doctors and specialist oncology registrars who rotate through the department. She supports the education in her department by implementing a journal club and CPD programme. She also is a mentor for junior therapeutic radiographers and is involved in departmental appraisals.

Lead strategic service development and promote a culture that encourages research and practice development

Jemma has an involvement in service redesign and improvement. Her main remit is to reduce the patient pathway (such as shortening the waiting times) and to enhance the patients experience during the radiotherapy journey by adopting a multi-disciplinary working approach. She has a presence in the MDT meetings and provides information on radiotherapy treatment. She contributes to research by taking an active role in research projects and clinical audits and disseminating the outcomes. As part of her role as consultant therapeutic radiographer, she has also developed and maintained strong links with Macmillan cancer network in providing material on gynaecological cancers and treatment.

2.4.6 Identifying additional cases

Walker and Avant (2011) acknowledge that identifying additional cases will aid in further understanding the concept, by identifying examples that are borderline (similar) or contrary to it and thus demonstrating its uniqueness.

A contrary case

A contrary case provides an example of the opposite of the concept being analysed. In this following brief example none of defining attributes for consultant practice are evident:

David (a pseudonym) is a radiotherapy “on-treatment review” specialist radiographer. His role is to support the responsible clinical oncologist in the clinic to review routine patients on radiotherapy treatment such as observing their side effects. David is able to provide basic information and support to patients but any complex or problematic cases that require intervention or management he is required to refer back to the clinical oncologist or seek advice from the nurses in the clinic. David occasionally has to work on the radiotherapy treatment unit particularly when they are busy, which impacts on his time to concentrate on practice development.

Although the example portrays a specialist role, it does not however demonstrate the defining attributes of a CTR. There is no evidence of autonomous practice, any involvement in consultancy or any strategic service development. This is not consultant practice.

A borderline case

A borderline case on the other hand, is whereby some, but not all of the defining attributes are present. This is demonstrated in the following brief example below:

Laura (a pseudonym) is an advanced practitioner radiographer, specialising in education and training. At this level Laura has developed the expert knowledge and skills in relation to lead the education and training needs in the clinical department. A key feature of Laura’s role is to support / work with staff by implementing educational resources (e.g. CPD, mentoring), developing training/competency packages and overseeing the training for radiotherapy students. Laura is also an integral member

of the radiotherapy team and there is an expectation that she maintains her clinical responsibilities by working on the treatment units as a clinical practitioner,

The above example demonstrates that Laura has some elements of consultant practice such as expert knowledge, leading education and development. However, the differences when compared to model case highlight the lack of involvement in strategic development, clinical leadership or consultancy, which is not the remit of the advanced practitioner role.

2.4.7 Identifying antecedents and consequences

This stage, as outlined by Walker and Avant (2011) involves the identification of antecedents and consequences. Antecedents are events or incidents that must happen or be in place prior to the occurrence of the consultant practice, whilst consequences are events or incidents that occur as a result of consultant practice.

Antecedents

The antecedents of consultant practice in radiography, emerging from the literature were; Department of Health (DoH) actively encouraging the development of skills mix amongst healthcare professionals, the radiography profession recognising the potential for role development, the drive for radiography development, the inception of the first specialist radiographer role, acknowledgement of multidisciplinary team approach to patient care leading to new staff models (four tier structure) and more roles developed to improve services and efficiency.

Consequences

The consequences of consultant practice that arose from the literature were based on the potential advantages of implementing a consultant practitioner in radiotherapy examples such as better patient outcomes, new career opportunities, development of the radiography workforce, recognition of extended role, strengthened professional leadership, retention of clinical maturity in the radiography workforce, improved staff recruitment and retention.

2.4.8 Defining empirical referents

The last stage of the concept analysis is to define the empirical referents. Walker and Avant (2011:168) describe empirical referents as:

“Categories of actual phenomena that demonstrate the occurrence of the concept itself...the means by which you can recognise or measure the defining concepts or attributes.”

In radiotherapy, the concept of consultant practice has yet to be objectively measured. This research attempts to examine these roles by assessing the impact, to contribute the knowledge gap on this topic and also to consider the implications the role has on clinical practice. In nursing, some efforts in examining the roles by assessing impact of the nurse consultant have been made (Guest et al., 2001, 2004) but with noted limitations. However, the most recent assessment of impact of the nurse consultant role has been using the Dimensions of Impact framework by Gerrish et al., (2007, 2011). The framework considers impact in terms of professional, organisational and clinical significance. Gerrish et al., (2007, 2011) have acknowledged the framework needs further refinement and testing, hence this is an ideal opportunity for this research to use the framework for the CTR role.

2.5 Chapter summary

The aim of this concept analysis was to explore the meaning of consultant practice in the context of the consultant practitioner role in radiography and also drawing on examples from other professional groups in a variety of healthcare settings. The concept analysis has identified defining attributes, antecedents and consequences which have led to a greater clarification of the term “consultant practice”. Evidence has suggested that the roles can indeed make a difference to service delivery. Yet the studies have also demonstrated the challenges that the role has faced since its inception. The review has also acknowledged the lack of data particularly in radiography and the need to assess the impact of the role in this discipline.

The consultant practitioner role is complex and diverse. Such roles have been developed to strengthen leadership whilst maintaining clinical duties. The role

potentially provides an opportunity for practitioners to extend their scope of practice while also improving patient and service outcomes.

By capturing the evidence from this literature review, pertinent themes have been identified for use in discussion with the CTR and the medical, nursing and therapeutic staff in the context of examining the consultant practitioner role. These have been reflected in the construction of the topic and interview guides discussed in the methodology chapter four.

CHAPTER THREE: IDENTIFICATION OF THE THEORETICAL FRAMEWORK UNDERPINNING THIS RESEARCH

Identification of the theoretical framework is imperative and this chapter aims to discuss the suitability of theories to underpin the research and to acknowledge the rationale behind use of theory (s) being used.

3.0 Introduction: What is theory? How does it contribute to research?

Waddington (2012) acknowledged that theory is an abstract generalisation that explains relationships among phenomena. The role of theory in research is to effectively recognise the starting point of the research problem and then offer a theoretical explanation and a sense of direction. Waddington (2012) noted that the basic components of a theory are the concepts. D'Amour et al., (2005) reported that the various concepts that exist form a theoretical framework:

"A theoretical framework is a set of relationships that are understood to exist between various concepts and must rely on a proven body of knowledge"

D'Amour et al., (2005:118)

Sinclair (2007:39) suggested that to aid the development of a theoretical framework; the researcher should be guided by a number of key questions such as:

1. What do I know about the phenomenon I am studying?
2. What types of knowledge are available? (e.g. empirical, tacit, practical)
3. What theory might best guide my practice
4. Is theory based on empirical research?
5. What other theories are relevant to this aspect of practice?
6. How can theories and findings be applied to practice?

Waddington (2012) highlights that a theoretical framework can provide an approach to understanding data that stems from the research question. Moreover, it is a useful tool for choosing the appropriate research question and the associated data collection methods.

In summary, the development of a theoretical framework provides a structure that focuses on the research question, creating links between the literature, methodology and results.

3.1 Identifying the key concepts underpinning the research

Upon identifying the aims and objectives, a case study approach was used to aid this qualitative inquiry as it provides a credible way to examine the consultant therapeutic radiographer (CTR) role by gaining the views from the CTR themselves and the medical, nursing and therapeutic staff.

Guided by both the research question, the aims/objectives and by the literature, the theoretical underpinning concepts important for this research are:

Dimensions of Impact:

On reviewing the literature pertaining to the consultant practitioner role in radiography it became clear that there was a deficit in the evidence regarding the impact of the role in clinical practice. In diagnostic radiography, research conducted by Price and Miller (2010) evaluated the consultant practitioner role in clinical imaging (diagnostic radiography) yet there was little evidence of capturing and addressing the impact of such a role. Likewise in therapeutic radiography, there has been no formal evaluation of the role since its inception. This research is therefore important to examine the role established in therapeutic radiography by gaining an understanding of the role. It is from the perspectives of the CTR the medical, nursing, therapeutic staff and the stakeholders, through the use of interviews to capture any evidence of perceived impact. Obtaining the perspectives from these key participants will enable the role be explored and understood. This will be discussed further in section 3.2.

Power:

Tensions and differences over roles and role boundaries and a lack of shared decision making can suggest that issues of power are significant factors in relationships between health professionals. With radiographers now undertaking work that traditionally medical practitioners performed, collaboration and working in partnership is therefore important to explore this concept. Trust and respect are

important enablers of collaboration (McDonald et al., 2012) and are features of interprofessional relationships. This research aims to examine what type of relationship exists between the CTR and key staff (medical, nursing and therapeutic staff). This will be discussed further in section 3.3.

Identity:

As radiographers are pushing beyond their current boundaries of their profession, roles such as consultant radiographers need to be recognised within the profession and likewise amongst other healthcare professionals. The role of the consultant radiographer needs to be visible, be understood and there also needs to be recognition of its contribution to clinical practice. A better understanding and clarity of the role brings with it a sense of professional identity. Lack of identity can cause low self-esteem, under appreciation and a misunderstanding of the role. By pushing the boundaries, respect and recognition of the role will follow. This therefore needs to be investigated. This will be discussed further in section 3.4.

The following section provides both the overview and rationale for the underpinning concepts that form the basis of this research.

3.2 Dimensions of Impact

Gerrish et al., (2007) conducted research examining the role of advanced practice nurses and nurse consultants to investigate whether such roles could empower front line staff to deliver evidence based care. Their findings were similar to those of Guest et al., (2004) who had earlier examined the nurse consultant role; both teams acknowledged the difficulties in assessing impact, due to the diversity and complexity of the roles. As an outcome of their study, Gerrish et al., (2007) proposed a framework to assess the impact of these specialist nurse roles based on the work of Schultz et al., (2002). Schultz et al., (2002) proposed viewing outcomes in terms of significance – in this case *clinical significance* – the value of an intervention and whether it can affect patients directly. Gerrish et al., (2007, 2011) broadened this framework to include *professional* and *organisational significance* – see Figure 3.1 on the next page:

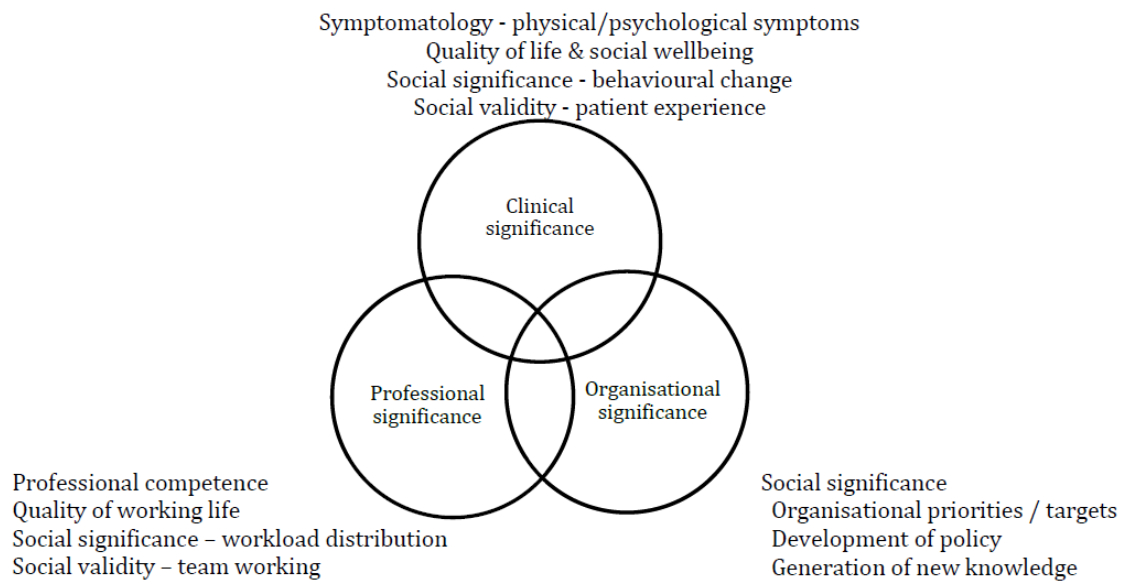


Figure 3.1 The Dimensions of Impact (Gerrish et al., 2011:28)

3.2.1 The evolution of the Dimensions of Impact

Research by Schulz et al., (2002) into dementia caregiver intervention acknowledged the notion of impact. Schulz et al., (2002) wanted to understand intervention in dementia by examining the practical importance of the effects of intervention. Having reviewed a broad range of interventional studies focusing on improving the lives of caregivers of persons with dementia, the term *clinical significance* was adopted as a basis of their inquiry. The discussion surrounding clinical significance is mainly evident in the speciality of clinical psychology and is often cited as:

“The extent to which an intervention makes a real difference in the everyday life of an individual”

(Kazdin 1999, cited in Schulz et al., 2002:590)

Clinical significance had relevance to the research conducted by Schulz et al., (2002) who wanted to examine treatment effectiveness and worth, as well as the practical importance of treatment outcomes. In reviewing the literature, they were able to develop multiple concepts of which included: Symptomology, Quality of life, Social significance and Social validity to measure Clinical Significance. Overall their research concluded that there was evidence of clinically significant outcomes in the dementia caregiver intervention literature. The studies that Schulz et al., (2002) reviewed provided valuable insights about different methods for achieving caregiver

impact, for example highlighting the array of methods in delivering interventions to caregivers, enhancing knowledge, training and managing care behaviours. The authors were hampered somewhat by methodological problems such as small sample sizes, incomplete implementation of study designs and the small number of studies.

Gerrish et al., (2007) using the work of Schulz et al.,(2002) reported that changes in healthcare have contributed to the development and implementation of specialist roles or APNs (Advanced Practice Nurses) such as Clinical Nurse Specialists, Nurse Consultants and Nurse Practitioners. Their study recognised that the APN roles did have a positive impact on a range of aspects such as front-line staff, patients and family members and the wider care environment. They acknowledged that impact could be modelled in three dimensions:

Direct or Indirect - where APNs had a direct impact on developing the knowledge of front-line staff but an indirect impact on the care received by patients through the developed knowledge of front-line staff.

Immediate or Delay - where the APNs had an immediate effect on front-line staff's knowledge when providing a training session but a time delay may exist before the front-line staff could put their learning into practice.

Intentional or Unintentional - where the APNs intentionally take on responsibility from front line staff for an aspect of patient care themselves, with the intention to help reduce the workload. However, could be unintentionally relinquishing the front-line staffs responsibility for the patient and disempower them.

With the growing numbers of specialist roles it is important to provide evidence on whether the roles are sustainable and add any benefit to the delivery of healthcare services. Gerrish et al., (2007) acknowledged that illustrating the added value of such roles can be difficult. This was also demonstrated by Begley et al., (2010) who evaluated a range of specialist nursing roles in Ireland, providing a comparison of both nursing and clinician intervention but the evaluation overlooked capturing the actual value of the specialist nurses roles. Earlier work by Behrenbeck et al., (2005) focussed their research on the impact on patient outcomes, patient satisfaction, yet

discounted the wider aspects of the role such as education and leadership which are equally important.

A number of earlier studies that identify associated indicators of impact include research by Niess et al., (1999) and Cunningham (2004) both discussing financial outcome measures. However, these studies failed to capture the outcomes surrounding leadership, education and research. The work of Ingersoll et al., (2000) highlighted indicators such as satisfaction with care delivery, perception of being cared for and compliance/adherence. Gerrish et al., (2007) state that some headway had been made particularly in nursing, in terms of assessing the quality of the advanced / specialist nurse practice. Identifying the impact of such roles is important if health professionals (in this case the consultant radiographers) are to be able to demonstrate clinically effective and cost effective contributions to healthcare provisions.

It was the work of Schulz et al., (2002) that was of interest to Gerrish in outlining a framework to capture the totality of the impact of specialist nurse roles. Schulz et al., (2002) acknowledged that clinical significance could be captured in terms of treatment effectiveness. Recounting Gerrish et al., (2007) study of APNs, impact on clinical practice was also affected by other factors, such as impact of the role on the healthcare workforce and not just delivery of clinical care. Gerrish et al., (2007) coined this as *professional significance*. In addition to clinical and professional significance, further empirical research by Gerrish et al., in 2011 refined the framework by identifying benefits to the overall healthcare organisation and therefore considered it an another important area to explore; hence extending the framework to include *organisational significance*.

3.2.2 The domains and indicators within the Dimensions of Impact

This section provides a discussion of the domains and indicators within the Dimensions of Impact framework (refer to Fig.3.1). It is discussed in relation to the CTR role supported with illustrative exemplars.

Domain: Professional significance

Under this domain, there are four indicators that focus on how the role can impact on other healthcare professionals. The indicators are as follows:

Professional competence

This indicator is concerned with the impact on the confidence and competence of the healthcare workforce and how the role can affect knowledge, skills, behaviours and attitudes. In relation to the CTR role, a number of illustrative exemplars can demonstrate this indicator, for instance: enhancing the competence of therapeutic radiographers through the development of a competency framework, developing therapeutic radiographers or junior doctor's knowledge and skill in a specialist technique/equipment through educational training, or improving radiotherapy practice through the development of departmental guidelines, work instructions and protocols.

Quality of working life

This indicator acknowledges the impact the role has working alongside other healthcare staff and considers aspects such as morale, motivation and job satisfaction. In reference to the CTR role, the illustrative exemplars for instance could include: providing clinical leadership within the department, having a positive influence on the team working through involvement in MDT's, increasing job satisfaction by involving the therapeutic radiographers in service developments / projects or motivating them in developing their own ideas or positively supporting advance practitioners through clinical supervision.

Professional social significance

This indicator describes how the activities undertaken in the role can significantly impact on the overall workforce in terms of workload and work distribution. In the context of the CTR, the illustrative exemplars to demonstrate this could include taking over on-treatment review clinics previously led by the clinical oncologist, a reduction in the doctor's workload through running the follow-up patient clinics or improving the relationship with clinical nurse specialists for instance setting up a late effects clinic for gynaecological malignancies.

Professional social validity

This indicator refers to the social importance and acceptability of the role within the workforce. Illustrative exemplars of the CTR role could include effective team working through co-ordination of the MDT, problem solving or trouble shooting patient treatment / planning issues, or improved team working across departments e.g. radiotherapy and palliative care for oncological emergencies.

Domain: Organisational significance

Under this domain, there are three indicators that relate to the organisational issues within the department. The indicators are as follows:

Organisational competence

This indicator refers to impact on the effectiveness and efficiency of the organisation and considers aspects such as service provisions, resources and finance. In relation to the CTR role, the illustrative exemplars for instance could include reduced length of stay in wards and admissions costs for palliative patients, redesign of services to ensure more robust patient pathways or income generation through initiatives such as new patient clinics.

Organisational social significance

This indicator relates to how the role impacts on the organisations objectives in terms of policy development, achieving targets and knowledge generation. Illustrative exemplars for the CTR role under this indicator could include, reducing the 31 day target from receiving diagnosis to first definitive treatment, contribution to local and regional guidelines for cancer networks, advancing knowledge in own speciality through research/publications or demonstrating “ownership” through leading a service to meet organisation requirements e.g. developing a late effects clinical for gynaecology and urology patients.

Organisational social validity

This indicator again refers to the social importance and acceptability of the role within the organisation and how the role can aid in achieving the organisations core values. In relation to the CTR role, the illustrative exemplar for instance could

include, raising the CTR profile and the organisation in national and international conferences, working and networking with cancer charities e.g. prostate cancer UK and Macmillan cancer charity, influencing the national radiotherapy agenda through involvement in consultant radiographer network group and being part of the professional body advisory groups.

Domain: Clinical significance

Although the research is not considering this domain, a brief overview is useful supported with examples from Gerrish et al., (2011). Under this domain, there are four indicators that relate to the clinical impact on patients. The indicators are as follows:

Symptomology

This acknowledges whether the role impacts on the patients' physical and psychological well-being; for instance, help in relieving pain or reducing anxiety.

Quality of life and social well being

This indicator describes the impact on the well-being of the patient and family; an example could be provision of holistic care and support to both the patient and the family.

Clinical social significance

This indicator considers the impact the role has to influence outcomes important to society, for example promoting the use of contraception to reduce teenage pregnancy.

Clinical social validity

The final indicator considers the importance and acceptability of the role to the patient and family, for instance capturing the patients experience and satisfaction.

3.2.3 Testing the framework

The final framework was used as a tool to evaluate the impact of nurse consultants on patient, professional and organisational outcomes, Gerrish et al., (2013) conducted a multiple instrumental case study design, comprising six case studies

(six individual nurse consultants covering a range of specialities) across a number of NHS organizations in one region in the UK.

In each case study, in depth interviews were conducted with each nurse consultant followed by semi structured interviews with a range of stakeholders (e.g. clinicians, nurses, patients, family carers, managers) who could provide their opinions on impact of the nurse consultant's role, in relation to patient, professional and organisational outcomes. In analysing the data, major themes were identified from the responses given by the participants and mapping the relationship of themes permitted indication of similarities and differences across the cases. A thematic framework developed and helped to refine the framework to enable further capturing of impact. The responses provided the examples of impact (either directly or indirectly) under each domain – clinical significance, professional significance and organisational significance.

Gerrish et al., (2013) concluded that the data collected from each case study substantiated the provisional framework. Although it is important to mention that they state that although the potential to capture impact is evident, the framework still required refinement and further testing. However, their research does have major implications for practice and policy in terms of enabling service providers to evaluate the impact of new roles and likewise practitioners in the new roles evaluate their own impact.

3.2.4 Rationale for the use of Dimensions of Impact

As acknowledged earlier, little data exists on the CTR role. So it is appropriate to review other literature evaluating the role and potentially exploring approaches that demonstrate impact. As the principle research aim of this study is to evaluate the CTRs insight into the role through assessing and examining experiences, perceptions and the perceived impact; the framework developed by Gerrish et al., (2011) is applicable to this research as it can evidence whether the role is of value. In addition, as Gerrish et al., (2011, 2013) point out further testing and refinement is required, therefore making this research an ideal opportunity to test the framework from an allied health professional perspective.

A decision was taken early on in the study not to consider the clinical significance domain (impact directly on patients) within the Dimensions of Impact framework, hence not to collect information from patients. This decision was based on the researchers' greater interest in the opinions and perspectives of other health professionals toward the CTR role. This was reflected in the research aims with the intention to examine the relationship of the CTR role with other health professionals by gaining and communicating an understanding of diverse perspectives and experiences from only the medical, nursing and therapeutic staff working alongside the CTR. Yet it was also envisaged that responses from the participants would provide some feedback concerning the respondents' perceptions of the impact of the CTR role on the overall patient experience.

3.3 Power

As discussed in section 3.1 the second concept underpinning this research is power.

Power is described as a complex concept and often perceived in a negative light due to its potential to exert force and even intimidate (Waddington, 2012). Kouokkanen and Leino – Kilpi (2000) state, that the word power has a negative connotation, often associated with imposing leadership and restricting an individual's freedom of action. Synonyms for power include control, influence, rule, command; supremacy and dominance, which only echo this negative perception. Earlier attempts to define the term power have been thought provoking due to its abstract nature. Hokanson Hawks (1991) concept analysis of power, acknowledged that power has multiple meanings yet indicates that it can be defined in terms of effectiveness (*"power to"*) or in terms of forcefulness (*"power over"*). Whilst social theory highlights that power is understood in terms of influence and coercion. This capacity to influence can be illustrated in French and Raven's (1959) seminal work on the theory of social power, whereby five types of power are identified (see table 3.2):

Type	Characteristics
Reward	Ability to provide positive sanctions to another (e.g. recognition)
Coercive	Ability to apply negative sanctions to another (e.g. firing)
Legitimate	Right to influence another based on the perception by both parties that the influence has an obligation to accept that influence
Referent	Based on the psychological process of identification such as admiration
Expert	Based on having superior skills and knowledge

Table 3.2: Power Types French J, Raven B (1959) cited in Cox et al., (2012):178

A sixth type was added much later on, known as *informational power* (Raven, 1965) which is based upon access to and control over information. This theory overall acknowledges that any influence usually involves a relationship between at least two individuals.

Power can be separated into *situational* (e.g. position in the team/organisation) and *personal* (e.g. attributes such as integrity and interpersonal skills). This was derived from the work of Hofstede (1980) citing that power differences are ever present within institutions and organisations and also that power relationships exist between supervisors and subordinates where there is often an unequal distribution of power.

A different perspective on power can be demonstrated by Clegg (1989) with his model on “circuits of power.” The model defines power as flowing through the social relations of daily interactions and organizational practices of social structures. Clegg relates power to an electric circuit board comprising of three interacting circuits: episodic, dispositional, and facilitative. The *episodic circuit* pertains to power in terms of feelings, communication, conflict, and resistance in day-to-day interrelations which can be both positive and negative. The *dispositional circuit* acknowledges rules of practice and socially constructed meanings that inform member relations and legitimate authority. Whilst the *facilitative circuit*, focuses on technology,

environmental contingencies, job design, and networks, which empower or disempower and thus punish or reward. All three circuits interact at “*obligatory passage points*” which are channels for empowerment or disempowerment. Essentially, Clegg’s model overall provides an alternative understanding of the operation of power within an organisation and how it flows through different circuits of social relations, with different effects.

Discussions of power also include the concepts of medical dominance and autonomy, which are closely related. Eliot Freidson (1970) described the concept of medical dominance as being the authority that the medical profession can exercise over others, for example members of other occupations within the healthcare division of labour. Freidson (1970) stated that professions (unlike other occupations) were intentionally granted autonomy and the right to determine who can do the work undertaken by the profession and how the work should be done. Medicine was a prime example of a profession, and at that time, was viewed as having a significant amount of authority to determine what would and what would not constitute illegal and unjustified harm caused by medical treatment. Freidson (1970) claimed that the medical profession’s path to achieving autonomy (although not complete autonomy) was through a process of professionalisation by convincing the public and socially powerful groups that the role of the doctor was paramount and warranted the autonomy. Gabe et al., (2004) acknowledged three aspects of medical power: medical dominance within society, medical dominance over patients and medical dominance over the occupations, this aspect in particular echoing Freidson’s work.

Turner (1995) highlighted three forms of medical dominance: exclusion, limitation and subordination, acknowledging the way which medicine wielded power (constrain and control) over the non-medical health professions. Professions such as nursing and, in particular, radiography have documented examples of subordination to medical control. Accounts of subordination in nursing were reported by Freidson (1970) stating that nurses lacked professional status as the nurses’ role was seen to serve the doctor (carry out the doctor’s orders) and the medical profession would also attempt to prohibit the nursing profession from achieving independence.

Within radiography, Witz (1992) acknowledged the early work of Gerald Larkin (1978), who documented the social organisation and division of labour in

radiography by referencing the emergent role of the radiologist (a specialist in the medical profession) and the radiographer (acting at the request of the radiologist as the non-medical technical assistant). Witz (1992) highlighted that boundary disputes had developed over the issue of “reporting” on x-ray films by radiographers, whereby the doctors considered this would result in loss of control and an encroachment on their role.

Larkin (1978) recognised how the medical professionals viewed their role as “interpretation” (requiring full medical training to perform this function) not “production” (implying the role of the radiographer) and most significantly the notion that radiographers could not possibly develop such skills and should not be trained to do so. Larkin (1978) added that the medical radiologists were insistent that non-medically trained radiographers were only responsible for producing the “radiograph” and not the interpretive or clinical skills required for medical diagnosis. Witz (1992) commented that this example captures the radiologist’s perceived entitlement and rights over image interpretation, yet also their attempts at gaining status within the medical profession at the cost of de-skilling the radiographer. This example also highlights the subordinate position, reduced status and restricted professional autonomy of radiographers.

Elston (1991) viewed the distinction between the authority that professions were able to exercise over other professions (dominance), and over their own (autonomy). Hence the concept of professional autonomy as explored by Elston identified three main categories: technical or clinical (the power to determine standards and professional behaviour), economic (the power to influence remuneration) and political (power to make policy decisions). In addition, Elston (1991) identified the differences in autonomy as exercised by the individual professional or by the profession itself. Equally a compelling view of autonomy was offered by Ovretveit (1994), who suggested two types of autonomy: case and practice, as observed in physiotherapy. Both types place emphasis on the freedom of the physiotherapist to make decisions in their role. Case autonomy is concerned with the patients’ management and intervention, whilst practice autonomy centres on the management of the department or speciality. Thus, acknowledging the clinical and non-clinical aspects of the physiotherapist’s role.

McIntyre et al., (2015) recognised the relevance of both types within podiatry and proposed two key elements: a professional and clinical dimension (as reflected in Ovretveit's model) of the podiatrist's role. The professional dimension relates to external factors such as work environment and work related non-clinical tasks, whilst the clinical dimension reflects the freedom to make clinical decisions. Similarly, as with podiatry, both dimensions of autonomy would also be fitting and applicable to the radiography profession, as these dimensions capture the essence of the CTR role.

3.3.1 Theoretical approach to power – a Foucauldian perspective

Any discussion of power would be incomplete without reference to the French philosopher Michel Foucault. Foucault's (1977) postmodern view on the concept acknowledges that power is ever-present and yet difficult to characterise because it is immersed in all human interaction. Likewise Foucault also acknowledges that both power and knowledge are closely related; where power exists there is also knowledge and the effects of power increase through knowledge. In addition, Foucault also states that power is viewed in relation to a resistance with both parties participating in a power relationship. Wherever there is power exerted by the dominant discourse, there will always be resistance. This particular notion of power itself has significance to the present research.

Foucault considered there to be two versions of power – *Sovereign* and *Disciplinary*. The notion of sovereign power is acknowledged in terms of repression, dominance and exclusion, portraying a very negative picture, whilst disciplinary power was seen more as liberating and linked to the construction of knowledge – what Foucault referred to as power/knowledge. The theory of disciplinary power as recognised by Foucault can be portrayed through some of his seminal work. *In Discipline and Punish: The Birth of the Prison* (1977) Foucault introduces this particular concept. Foucault describes beautifully the nature of disciplinary power through the operation of the "Panopticon". The Panopticon was a 19th century prison cleverly designed by Jeremy Bentham, in which the prisoners rather than being hidden from view in the dungeons were constantly monitored and exposed to the view of the prison warden. Bentham's design consisted of a central tower where the warden could constantly observe the prisoners and unique individual cells that were constructed with one side

being made of glass, whereby the prisoners could be viewed at all times. The key to the Panopticon is that the prisoners do not see the warden, who is hidden in the central tower, out of their view. Knowing that the warden can see them, the prisoners effectively “behave” even when there is no one there to see it, interpreted as a form of *self-policing*. Hence, Foucault recognises that the effect of the Panopticon quoting:

“...to induce in the inmate a state of conscious and permanent visibility that assures the automatic functioning of power” (Foucault, 1977:201)

Therefore the effect of surveillance by the wardens is permanent, even though the physical action is discontinuous; in short the prisoners are caught up in a power situation; whereby the principle of power is visible and unconfirmed, visible because the inmates could see the central tower from which they were watched upon, a constant reminder and unconfirmed because the inmates were unaware if they were actually being watched yet the thought of being continuously monitored was instilled in them:

“...the Panopticon is a machine for dissociating the see/being seen dyad....one is totally seen, without ever seeing; in the central tower, one sees everything without ever being seen” (Foucault, 1977:202)

In view of this, the Panopticon is the structural figure, whereby it deprives the individual of any power. Foucault also considered how the operations of the Panopticon could be applied in an organisational culture for instance, the idea of the central tower in which the manager/director resides and may scrutinise all the employees whether it be teachers, nurses, doctors and thus being able to judge, monitor and impose on them. The Panopticon is likened to a “laboratory” of power – observing, assessing and discovering knowledge; this ability is of course now further enabled through the use of computer surveillance. In a nursing context, Udod (2008) adds that nurses subject to the observational tower (as described in the Panopticon) of the nursing station are very aware that their actions may be subject to a senior nurse’s gaze without knowing that they are being observed. The observational tower has the power to keep the individual on alert that they are being watched at any given time – an invisible power (Udod, 2008).

Turner (1997) acknowledges that Foucault's view of disciplinary power is embedded in social structures and daily practices and that the principles of the Panopticon exist through everyday routines and ordinary arrangements. Foucault also discusses the notion of "*institutions of normative coercion*" in which Turner (1997) explains that institutions such as law, religion and medicine portray a coercive nature, in that they discipline individuals and exert surveillance in day to day practice. However, Turner points out, that institutions such as hospitals are not coercive in a negative sense or have an authoritarian manner - they are deemed as the norm, rightful and accepted every day; this is because they exercise a moral authority over the individual through explanation and finding solutions. Interestingly Turner (1997) points out that medicine has a predominant influence, yet its coercive nature is concealed through its involvement in troubles and problems of the individuals.

Foucault's work has influenced others, for instance in Nettleton's (1992) early research entitled *Power, Pain and Dentistry* her focus on the dental profession delivers a useful illustration of Foucault's ideas on power and knowledge, specifically the notion of disciplinary power. In pursuing this approach on power, Nettleton explores dental practice as a whole and raises some interesting points. For instance the role of the dentist being in control, how they were more than just a competent practitioner but rather like "guardians" of the mouth and teeth or even identified as "tooth judges" responsible for monitoring and regulating, thus creating an image of authority and command. Nettleton's exploration further leads her to the belief of *surveillance* on how dentistry (using the mouth as a medium) could indirectly scrutinise a community and oversee the everyday lives and the way we engage in *self-policing* in brushing our teeth; we do not have the dentist standing over our shoulder ensuring we brush our teeth, yet we do it, a depiction reminiscent of Foucault's disciplinary power and Bentham's Panopticon. Likewise a central part of the research also considers the aspects of the actual dental examination process; Nettleton's description of the "visit to the dentist" echoes the notion of surveillance, she notes that the examination demonstrates dental discipline whereby it involves observation, extraction of information, classifying and comparing; in addition individuals are classified and judged. Likewise Foucault (1977) likens the examination to a ceremony of power. Moreover, Nettleton concludes that the dental examination is the embodiment of power that has a number of meanings, such as it

forms a site for exercising power on individuals through unavoidable scrutiny; it serves as a mechanism of evaluation through documentation, record keeping and results analysis to monitor the progress from an individual and collective level and also makes each individual/patient into a “case” i.e. the object of interest who is continually observed. Furthermore, Nettleton points out that the patient is often exposed to the dental pedagogy, where they are urged to embrace a dental routine and consider ways to maintain clean teeth and gums, in particular advice to parents about how they should help their children maintain a good dental regime, again echoing Foucault’s disciplinary power.

In a radiography context Moller (2016) acknowledges disciplinary power and how power relations play during an MRI scan. Patients attending the procedure follow the “ideal” MRI scan; there is a regulation on how they should act (being positioned on the MRI couch) and talk (stating their name and stating date of birth). The radiographer is the person of power and has control of the patient and the MRI scanner. The radiographer follows the regulations and protocols and takes on a role involving discipline. However, the radiographer cannot act freely as they are controlled by the radiologists’ requests for the scan and the limits of the machine. Moreover, the scenario highlights that power is not exercised directly by the radiographer but used as a way to affect and change the patient as a means to conform to the “ideal MRI scan.”

3.3.2. Power in the context of the present research

Power relationships

McDonald et al., (2012) acknowledge that within the healthcare organisation a hierarchy of health professions exist; where doctors have preserved their professional autonomy, independence and professional status in their relationships over other health care practitioners; yet this can bring about an imbalance of power.

Within the realms of radiography, the issue of power is evident through the undercurrent of medical resistance/dominance. Field and Snaith (2013) mention that medical resistance has been often cited as a potential barrier to radiographer role development, whether it is through issues of hierarchies or lack of underpinning clinical knowledge. Equally research by Lewis et al., (2008) of diagnostic

radiographers in Australia concluded that they often experienced feelings of subordination and a crisis of inferiority from the medical practitioners (radiologists) which then discouraged them from acting autonomously. Similarly Sim and Radloff (2009) highlighted that medical dominance had restrained radiographers autonomy resulting in practitioners who may have been clinically competent but were not reflective, could not explore or question clinical practice and hence reticent to change and developing themselves further. Yelder and Davis (2009) noted that as a profession, radiography struggled to gain professional autonomy as it is still dominated by medicine and a dependence on knowledge from other disciplines.

Price and Edwards (2008) also acknowledge that emphasis should be placed on forging partnerships. A consultant radiographer is not bounded to a medical clinician (e.g. radiologist or oncologist) but should be creating relationships with a whole of range of practitioners including medical and non-medical consultants.

In nursing literature, power is often referenced frequently in terms of the “*doctor-nurse relationship*,” a phrase acknowledging the close working association between nursing and medicine. Although their common ground is for the health and well-being of patients, the relationship has been strained by power and status differentials (Sweet et al., 1995). The earliest reports of this was as early as the 1960’s as evident from the works by Stein (1967) and Hofling et al., (1966) acknowledging the “*doctor-nurse game*” whereby the nurses showed initiative and offered advice while appearing to be passive to the doctor’s orders. The nurses then used a combination of non-verbal and verbal cues to communicate recommendations which allowed it to appear as if the doctor had initiated the actions (Sweet at al., 1995). Krogstad et al (2004) acknowledge that the relationship between doctors and nurses has never been a symmetrical one due to differences in perspectives of patient care, status hierarchy and gender gap. Equally Fagin and Garelick (2004) highlight the differences in perspectives, where nurses view the relationship with the doctors as ego building, while the doctors see it as ego-maintaining. The authors also state that irrespective of the disparity nurse and doctors are required to work together and they do.

Pullon (2008) acknowledged that effective interprofessional relationships between doctors and nurses can exist. Her research into “*interprofessional trust*” consisting of

mutual respect and trust between both parties showed how this trust could improve the situation. The research concluded that through understanding by nurses and doctors of their own roles and likewise each other's role enabled demonstration of competence, the gaining of mutual respect and ultimately the development of interprofessional trust (see Fig.3.2). Interprofessional relationships are central in the attempt to allow collaborative practice in any health care setting and forge a better bond with all health care professionals. Foucault acknowledges that power is not located with individuals – no one owns it, rather it is a relationship.

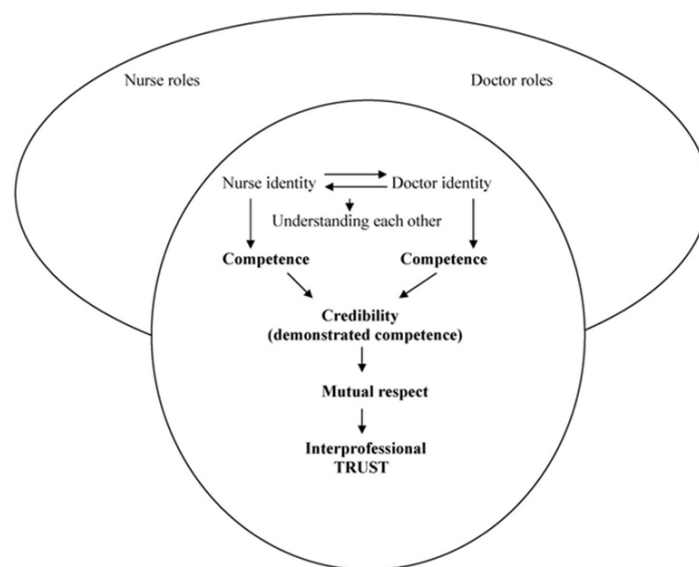


Figure 1. The development of interprofessional trust.

Fig 3.2 The development of interprofessional trust (Pullon, 2008:143)

Disciplinary Power

The creation of new roles in healthcare is rapidly developing. Radiographers given the appropriate training and education are now carrying out tasks that traditionally a medical practitioner would perform. In this case, the heart of consultant practice is providing innovation, driving developments, making changes and working at high levels of autonomy (Hawes 2009, Harris & Cornelius 2012). Consultant radiographers strive for autonomous practice, wanting to achieve a great deal of freedom to act and plan their clinical work, choosing what to do and how to do it (Ford, 2010).

However, if medical practitioners are to relinquish and entrust some of their roles to consultant radiographers and likewise, if consultant radiographers accept the

responsibilities and seek independence, it is accompanied with important matters surrounding medico-legal issues and accountability. This was evident in the study by Forysth and Robertson (2007) of radiologists' views of radiographer role development, concluding that radiologists had anxieties due to a growing culture of healthcare litigation and the potential medico-legal implications of radiographers accepting responsibilities previously the domain of the radiologist. Equally, Shi et al., (2009) acknowledge that role development is often attached with sensitivities and apprehension, especially when the role was previously performed medical practitioners. Price and Miller (2010) add that medico-legal and ethical issues need to be explored. There should be mutual benefits and agreement between the medical practitioner and the consultant radiographer if role change is to be implemented.

The relevance of disciplinary power can be viewed when medical practitioners sanction delegation to non-medical practitioners (e.g. radiographers, nurses). The General Medical Council (2006) acknowledged that when the care of a patient was undertaken by a consultant radiographer (as the prime example), the medical practitioner (the clinical oncologist in this case) still maintained and retained overall responsibility; however, it also further stated that they cannot maintain responsibility for the competent execution of the procedure for which the patient was referred. Medical practitioners therefore need to ensure that the delegate in the role is competent to carry out the task and be legally and professionally accountable. Chapman (1997) states that, any radiographer who decides to work independently is responsible for their actions and a legal relationship is thus formed when work is delegated to them. Medical practitioners are governed by the GMC, if they are supervising radiographers they can still be held liable if they are negligent in that supervision. Moreover, radiographers also need to be mindful that if consent to a procedure is invalid because the patient believed the radiographer was a doctor, they too can be held liable (Chapman, 1997). Interestingly in terms of consultant radiographers making decisions, Radovanovic and Armfield (2005) acknowledge that emphasis is placed in the fact that the final decision is made by the doctor and they can choose to ignore the opinions if they decide to.

Woodford (2006) highlights that radiographers need to be aware of the rules, regulations and policies of practice to recognise their limitations and the duties

related to role development. Practitioners who develop their role need to do so to the same degree as a proficient medical practitioner. Whilst Kelly et al., (2008) acknowledge that there are caveats to any extension of clinical responsibilities; working with greater autonomy brings great pressure and accountability.

3.3.3. Medicalisation & the Medical gaze - a Foucauldian perspective

In *The Birth of the Clinic* (1975) Foucault shares his thoughts on the medical profession, and specifically the hospital environment – *the clinique*. Central to this was his views on *medicalisation* particularly focusing on the aspect of power and medical knowledge. Foucault acknowledged that power within the medical setting was disciplinary power providing guidelines on how patients should understand, regulate and experience their bodies (Lupton, 1997). Lupton (1997) acknowledged that Foucault's examples of disciplinary power were observation, examination, measurement and comparison of patients against the norm, through which patients were persuaded that certain ways of behaving and thinking were appropriate for them. In addition the power doctors have and as a result create a power relation with the patient was also of interest. This doctor-patient relationship is fundamental in comprehending medical power. Lupton's (1997) research explored the ways patients may present themselves for instance following the "doctor's orders," whereby the patients go along with the medical advice and give themselves to the doctor or on the other hand patients who actually challenged and wanted to dominate the doctor. The research concluded that this relationship involves a continual negotiation of power in which the patients interact with the doctor.

Another facet of understanding Foucault's disciplinary power in the medical context is the notion of *le regard* or translated as *medical gaze* regularly appears as a focal theme in Foucault's text and thus has significance to this research.

Foucault's notion of the medical gaze came about as a result of changes in medicine at the end of the 18th Century, whereby the structure of public health dramatically changed; the ill were considered not to be accountable for their own health but instead the responsibility was now placed in the hand of medical experts (Peterson 1997). This was seen as deskilling the public of such knowledge / expertise yet strengthening the medical profession. Bleakley and Bligh (2009) acknowledged that this shift in health enabled the emergence of a structured way of thinking i.e. the

clinical examination, treating patients in the clinic/teaching hospital and the development of diagnosing based on the knowledge gained from the clinician's medical gaze.

Armstrong (1997) acknowledged that this term essentially is a "way of seeing" and being able to identify diseases in the body. Lupton (1997) adds that the medical gaze is wielded by medical practitioners, whereby the body and its parts are understood through developed medical discourse and practice. This is reinforced by Siebold (2002) who acknowledged that the medical gaze is a method by which medical knowledge, through the exercise of power is produced and disseminated. Siebold (2002) also states that it is reflected in the medical examination permitting the clinician to acquire knowledge about the patient through observing their signs and symptoms. The medical gaze hence exposes the subject to scrutiny and objectification, which again reflects the very essence of disciplinary power. Borthwick (1999) was able to identify this within the field of podiatry, where the medical gaze could be evidenced through the knowledge and expertise of the podiatry practitioner. The in depth examination of the patient, use of specialist technologies to aid diagnosis and practitioners pushing professional boundaries, could be considered as an additional evidence of expansion in disciplinary power. Borthwick (1999) acknowledged that the Foucauldian disciplinary perspective within podiatry has value and provides a sound way of understanding of the profession with regards to the knowledge, and technologies that have arisen from understanding the foot. In the context of radiography, Roberts (2012) acknowledges that medical imaging is an important part of the medical gaze. Technology defines the body as a medical object looking for signs of disease and gathering information to aid in the diagnosis; clinicians can now examine an image and come to a diagnosis alone. James and Hockey (2010) add that medical technology extends the medical gaze and medical surveillance. Whilst Prasad (2005) adds that the sets of images of the internal body offer unlimited extension of the medical gaze. Overall the technology has further strengthened the clinicians' medical power.

Medical gaze is also further reinforced through the aforementioned research by Nettleton (1992) with her Foucauldian stance on the dental profession whereby she makes reference to the disciplinary power and her examination of the dental gaze (see previous section 3.3.1).

3.3.4 Medical gaze in the context of this research

The process of radiological diagnosis or even general clinical diagnosis shares similarities with Foucault's "*Medical Gaze*" a special skill adopted by medical practitioners and an aspect that they will unlikely want to relinquish. Porter (1991) acknowledged that one of the major factors in the preservation of medical dominance is its control over diagnosis. For any health issue, a plan of action is instigated from a diagnosis; therefore the diagnostician will assume an authoritative position in the relationship with the patient and other health care professionals. The importance of diagnosis as a factor in professional power has been recognised by the nursing profession and other allied health professions such as radiography who have attempted to gain a degree of diagnostic autonomy within the creation of consultant practice roles. However as Porter (1991) cites, medical diagnosis (by medical practitioners) will always be regarded as paramount. Likewise as Snelgrove and Hughes (2000) add that doctors draw a sharp distinction between medical and nursing roles, which is evident in their control over diagnosis, treatment and prescribing. The clinician's control of diagnosis is evident in the research by Donovan and Manning (2006) on reviewing the reporting radiographer role in diagnostic radiography. The authors in particular were interested in whether trained radiographers could match the accuracy of the medical practitioners (radiologists) in reporting radiological images. Their research concluded that although radiographers can provide a descriptive report on the images, they lack the training and flexibility in providing a medical report and making judgments regarding radiological findings and diagnosis. The authors state that as radiographers do not have the medical training they have a knowledge gap and this can limit their scope of practice.

More recently Borgen et al., (2013) acknowledge that with role extension in the form of consultant practitioners, changes with respect to making a diagnosis is occurring. They use an example of breast imaging where trained radiographers are engaged in breast image interpretation, evaluation and have acquired skills such as information regarding diagnosis, decision making and instigating investigations which were traditionally performed by the medical practitioner (e.g. radiologist, surgeon or specialist registrar). The authors state that due to increasing demands on services (in this case breast services) driving role extension forward was key in enhancing the

patient experience, as such suitably qualified staff like radiographers can perform clinical examinations and make clinical assessments.

Hence the creation of new roles and role extension (such as consultant practitioners) should empower individuals and push boundaries that aim to improve patient care and diversify practice, rather than as a means of gaining power or status.

3.4 Identity

As discussed in section 3.1 the third concept underpinning this research is identity.

Identity refers to an aspect of who we are. From a sociological perspective, identity is a sense of self, what kind of person one is. At its very core, identity provides one with a sense of individuality, personal location, what is common with some people and differentiates from others. Identities are usually constructed from a range of social categories such as, social class, gender, sexuality, race, religion and ethnicity creating both individual and group identities.

Identity is linked with the idea of *social integration* – a sense of belonging and the need to belong to various groups. The need to feel we belong is poignant as it draws out a sense of identity which allows us to define ourselves in a social context.

The notion of identity is significant to this research, with the development of new roles within radiography; there is the potential for loss of identity, whereby radiographers are moving away from their traditional roles and values.

3.4.1 Theoretical approaches to identity

The issue of identity can be explored through a number of theoretical perspectives. Social identity theory and self-categorisation theory are key theories in addressing identity. Both acknowledge that individuals can develop two identities – a Personal Self (themselves) and a Collective Self (specific group). Below is an outline of the theoretical perspectives of relevance to this research:

Social identity theory (SIT)

Developed by Tajfel and Turner (1979), Weaver et al., (2011) acknowledged that the central focus of the social identity theory assumes people have multiple social identities as they move through different social groups; in essence who a person is

based on their group membership. Tajfel and Turner (1979) effectively proposed that groups (for example social class, family) that people belonged to, provided them with a sense of identity and hence a sense of belonging to the social world; and in order to increase their self-image people enhance the status of the group to which they belong. McLeod (2008) also stated that the theory permits group members to develop a sense of pride, worth and self-esteem; however it also gives rise to an “out-group (them)” and “in-group (us)” division, which in turn can cause the in-group to discriminate the out-group to enhance their self-image – a central aspect of the theory.

The theory focuses on three structural components: *categorisation* where individuals categorise one another into natural groupings, *identification* where people identify members of the same group as similar to themselves and members of the other groups as dissimilar and finally *comparison* whereby individuals compare themselves with others and see themselves as members of a group that is positively perceived.

Self-categorisation theory (SCT)

An extension and modification of the social identity theory by Tajfel and Turner (1979), is the self-categorisation theory developed by Turner et al., (1987). Haslam et al., (2009) cite that, as the social identity theory relates to group members, the self-categorisation theory extends further by defining the dynamics of the “self.” The theory discusses how people shift from identifying themselves as individuals to seeing themselves as members of a group with a shared identity (Weaver et al., 2011).

Where the social identity theory seeks to explore inter-group discrimination to enhance positive self-image; the self-categorisation theory seeks to explore identity in terms of levels of inclusiveness. Hornsey (2008) highlights three key levels of self-categorisation: *human identity* – category of self, *social identity* – a member of the group and *personal identity* – personal self-categorisation.

Social identity approach (SIA)

The similarities drawn from Social Identity Theory have led to the concept of the *social identity approach*, an umbrella term encompassing both the social identity theory and self-categorisation theory (Hornsey, 2008). The term demonstrates the

overlapping characteristics of both theories (see Fig 3.3). Although the theories are intertwined, they are also distinct in nature. Kreindler et al., (2012) state that this combined theory came into fruition by recognising that belonging to a group is of equal importance as it is to the individual (self). In knowing the relationship between the individual and group, the social identity approach assesses how seeing ourselves and others in terms of social categories impacts upon perceptions, attitudes and behaviours. Kreindler et al., (2012) acknowledge the five core dimensions of the social identity approach: *Social identity* - the categorisation in terms of “us” and “them” this perception can generate a positive behaviour (enhance self-esteem, worth and pride), yet also negative (discriminate). *Social structure* – differences in power and status can potentially generate conflict. *Identity content* – pertains to identities that are valued, in terms of particular norms and attributes which can influence behaviour. *Strength of identification* – individuals may identify strongly with one group and have a weak affiliation with another. This can too have an effect on behaviour, those who identify strongly for a particular group tend to be protective and defensive. Finally, *Context* – as the social setting changes, this too can have a direct relationship on the behaviour.

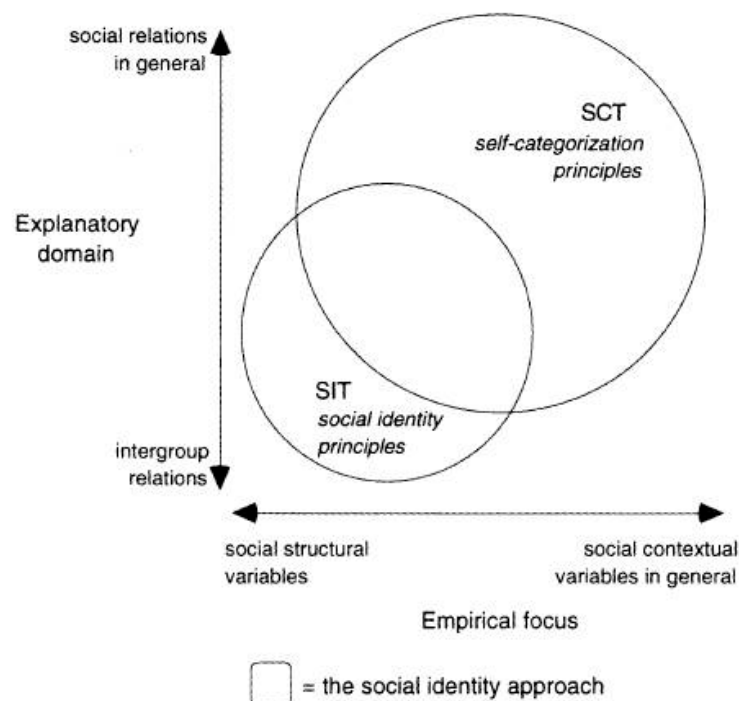


Figure 3.3 The social identity approach. (Haslam, 2001)

3.4.2 Application of identity theory in the context of this research

Professional identity

The application of the social identity approach can be demonstrated in a healthcare setting. Burford (2012) acknowledged the social identity approach may inform the development and construction of *professional identity*, a term which is central to this research. Weaver et al., (2011) define professional identity as

“The perception of oneself as a professional”

(Weaver et al., 2011:1221)

Within the radiography profession and in terms of the consultant radiographer role; there is also much debate surrounding role expansion and its impact on professional identity. As with the nursing profession, in the face of change, some radiographers may exhibit uncertainty about their professional identity. The additional clinical responsibilities of being a consultant radiographer may represent a shift in, rather than extension of their professional identity; the new role may actually move them away from the technical role for a more patient and holistic care role. For some radiographers being removed from the core professional duties by expanding their roles may actually not be appealing (Currie et al., 2010). Hence the unwillingness of radiographers to develop their role may in fact have a detrimental effect on their professional identity.

A study by Lewis et al., (2008) on diagnostic radiographers reporting images concluded that some radiographers considered the ability to formally report and interpret radiographs (traditionally carried out by the clinician) would indeed improve self-confidence, self-esteem, showcase their imaging expertise and increase their professional status. Conversely there were also other radiographers who were reticent in developing their roles and responsibilities. The authors reported that radiographers felt inferior to medical practitioners, which led to feelings of subservience (potentially as a result of medical dominance); thus impacting on their decision making skills, causing an unforthcoming attitude to taking on more responsibility and therefore leading to issues with their professional identity and lack of recognition of skills. Interestingly, Sim and Radloff (2009) cite that radiography's link to the medical profession is problematic, causing radiographers to have low self-

esteem and apathy which may prevent radiographers from advancing their skills. Moreover, Price and Edwards (2008) note that comparisons between medical practitioners and in this case consultant radiographers need to be avoided as the roles are not the same. Consultant radiographers have their own profile and agenda and must shape their own identity.

An ethnographic study by Petchey et al., (2012) in a diagnostic radiography department reinforces the issues surrounding identity, a phenomenon that was being investigated. Interviewing clinical radiographers regarding identities provided a mixed view on this issue. Radiographers highlighted that working with state of the art equipment portrayed them as technical experts and gave them a sense of increasing professional status:

“Radiographers’ relationship to technology is important in constructing their professional and self-identity”
(Petchey et al., 2012:51)

However they also acknowledged the technical attribute of the radiographer role can weaken their identities. This is in reference to the stereotypical view of the profession as “*button pushers*” that simply follow instructions. Petchey et al., (2012) also comment on the radiologists’ view of radiographers as “*technicians*” and how this perception can strain the doctor-radiographer working relationship in terms of imbalance of autonomy and status:

“It invokes a stereotype that diminishes them to unthinking machine operators”
(Petchey et al., 2012:51)

Similarly, the study also revealed the complexities surrounding identity; for instance the radiographer managers’ identity which acknowledges the clinical and managerial remit of their role. Petchey et al., (2012) highlighted that the combination of both identities “clinical” and “managerial” was proving to be challenging. The authors provided examples of how clinical service managers saw themselves as managers but also wanted to be seen on the clinical floor. Likewise, how some of the senior radiographers identified themselves as clinical radiographers and were loathed to be labelled as managers with the fear of what it conveys.

Petchey et al., (2012:21) introduce a key process in identity construction or “*discursive positioning*” a process of setting apart oneself or one’s group from other individuals or groups and to represent them as inferior and less powerful. This shares some similarity with the social identity theory in reference to out-groups (them) and in- groups (us).

Recognition

The perception of radiographers held by other healthcare professionals has created an identity crisis. Earlier literature from Nixon (2001) indicated that radiography struggled to gain credibility and professional status as it is often regarded as a “semi-profession” with much of its knowledge base built on research by the medical profession and physicists further compounding to the problem. Nixon (2001) believed that to gain professional status and credibility, role development and advancement was central to remedying this situation and contested the preconceptions that exist in the profession. With appropriate support and opportunities radiographers can achieve this. Similarly, Whitaker (2013) acknowledged that as radiographers become autonomous, push career boundaries, and advance in new roles, respect and recognition will follow.

From a nursing perspective, issues surrounding professional identity have provided some confusion and conflicting opinions. Nelson and Gordon (2004) reported that as the nursing profession is trying to reinvent itself by changing the role and boundaries, the nurse’s professional identity becomes jeopardised. However, the literature also highlights that current changes in nursing, with nurses advancing into new roles may suggest that the profession is attempting to move away from its reliance upon doctors and likewise the stereotypical stigma of being the “*doctor’s handmaiden*.” Harmer (2010) acknowledged that historically nursing had a clear identity but was going through an identity crisis. With the development of extended roles for nurses this has caused blurring of boundaries between healthcare professionals and likewise impacted on the identity of the nurse. Harmer (2010) added that with changes to the nurse role it was equally important to be aware of the fundamental values and roles of nursing and not to overlook the unique professional identity whilst trying to go move forward the profession.

3.5 Theoretical framework used in this present study

The Dimensions of Impact framework as described by Gerrish et al., (2007, 2011) is the overarching theoretical framework and has been adapted to reflect this study. It is an appropriate framework to underpin this study, which aims to examine the perceived professional and organisational impact of the CTR. The additional theories which also help guide the study are the theories surrounding power and identity. The relationships between the Dimensions of Impact and the two additional concepts are shown in Figure 3.4 below:

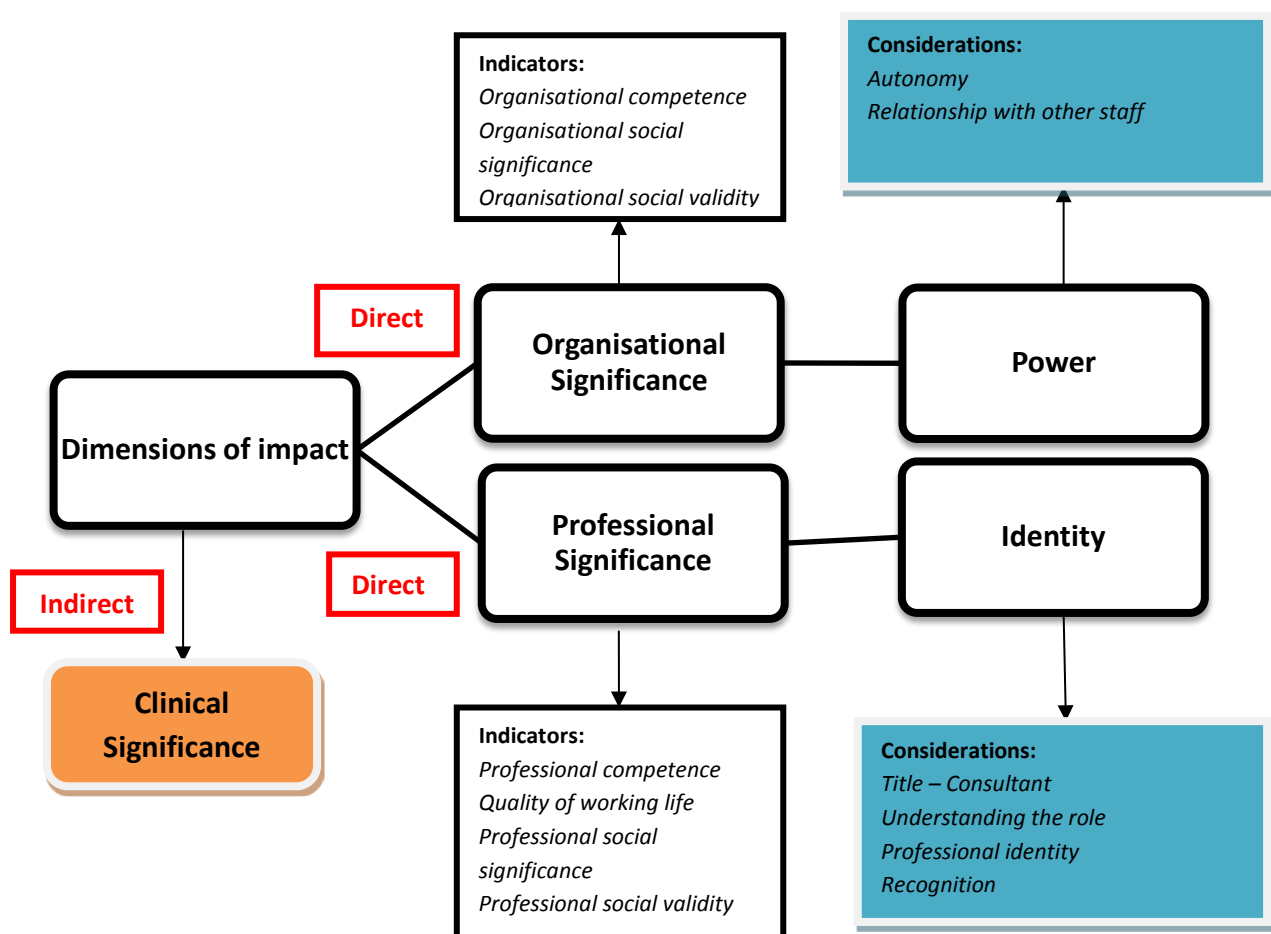


Figure 3.4 Proposed theoretical framework for this study adapted from Gerrish et al., (2007, 2011). (Khine, 2016)

The Dimensions of Impact has been extended to include power and identity as these are closely associated with both organisational power and professional identity and are important to this research. The considerations for examining power include

discussing the types of relationships the CTR has with the other the medical, nursing and therapeutic staff and the issues surrounding autonomy. In addition potential discussions in relation to identity include understanding of the role, the use of title consultant, professional identity and recognition.

3.6 Summary

This chapter has demonstrated the importance of identifying the theories used to underpin this research. The role of theory is to offer a theoretical explanation of the research problem.

Within this research a theoretical framework has been developed to examine the perceived impact of the CTR. The overarching framework to capture perceived impact is using the Dimensions of Impact as designed by Gerrish et al., (2007, 2011). The Dimensions of Impact considers three domains clinical significance (impact on the patient), professional significance (impact on other professionals) and organisational significance (impact on the organisation). For the purpose of the research it will be specifically examining the perceived organisational and professional impact of the CTR role.

The framework has also been adapted with the inclusion of two associated aspects Power (Foucault, 1977, 1979) and Identity (Tajfel and Turner, 1979, Hornsey, 2008, Halsam et al., 2009). These aspects are closely associated with both perceived organisational (power) and professional (identity) impact. Power is examined through the issues surrounding autonomy and the relationships the CTR has with other staff. Identity is examined through areas such as understanding of the role, the use of the title “consultant,” professional identity and recognition.

The adapted Dimensions of Impact framework has been used to aid the examination of consultant practice and its perceived impact on a radiotherapy and oncology service.

CHAPTER FOUR: METHODS

4.0 Introduction

This chapter addresses the research methodological approach, the study design, the data collection methods chosen and the qualitative criteria for trustworthiness for this research. The chapter commences with the review of the research question, aims and the core issues discussed.

4.1 Research questions

As discussed in Chapter one section 1.10, this study sets out to provide answers to the following questions informed by the theoretical framework discussed in Chapter three. The research questions are as follows:

What has been the perceived professional and organisational impact of the introduction of the CTR role?

Has the CTR role had an effect on structural/ organisational considerations in relation to service provisions, service design, clinical leadership and staffing?

Has the CTR role had an effect on professional practice considerations such as characteristics of the postholder in terms of their expertise, skill, knowledge and levels of autonomy?

4.1.1 Aims

The principal aim of the research was, by means of a qualitative inquiry to explore the concept of consultant practice through the perspectives of the CTRs themselves and the medical, nursing and therapeutic staff with whom they work,

The more specific aims were to:

- Analyse and evaluate the perceived impact of consultant practice in therapeutic radiography.
- Gain an insight into the issues related/relevant to the creation of the role.
- Assess the experiences of the CTRs in their current role.
- Examine the experiences of the medical, nursing and therapeutic staff working alongside the CTRs.

- Consider the views from the key stakeholders regarding the development of the role and the outcomes of the research.
- Consider the implications for clinical practice, workforce development, organisations and future research studies.

4.1.2 Supplementary issues

The research will also address the following:

- The title of “Consultant” and the professional identity attached to this term
- Whether key staff (medical, nursing and therapeutic staff) understand the notion of consultant practice
- Levels of recognition of the role by key staff (medical, nursing and therapeutic staff) and acknowledging whether the role of the CTR to be fundamental and crucial within radiotherapy services.
- The relationships that exist between the CTR and other key staff (medical, nursing and therapeutic staff) they work alongside.
- The level of autonomy the CTR all work at.

4.1.3 Theoretical Framework: a novel enhancement

As discussed in Chapter three section 3.2, central to the theoretical framework for this thesis is the “Dimensions of Impact” framework (Gerrish et al., 2007, 2011) that comprises three main domains of impact: clinical (impact on patients), professional (impact on professionals) and organisational (impact on the organisation). For the purpose of the research it will specifically examine the perceived organisational and professional impact of the CTR role as linked to the aims and objectives of the study.

A novel enhancement to the Dimensions of Impact framework was the inclusion of the concepts of power and identity to further examine the CTR role. The justification for including power and identity were informed by the following:

- 1) The review of literature

The review of literature captured evidence of pertinent themes related to examination of the CTR role, in particular the challenges the role has faced since its inception.

The studies, acknowledged issues surrounding the concept of power (mentioned under medical dominance) and recognised power differences between professions and authority over other professions. In addition, literature also highlighted the concept of identity (mentioned under professional identity) and acknowledged aspects on the use of titles with new roles, the loss of professional identity and increased awareness of new roles (see Chapter two). These aspects have relevance to the research.

2) The phase one focus group (scoping exercise)

The findings from the phase one focus group further strengthened inclusion of concepts surrounding power and identity, which provided a clear and early independent validation of their use in underpinning the research. The interactive nature of the phase one focus group succeeded in obtaining a broader understanding of the experiences of the CTRs working in clinical practice and also highlighted current issues of the CTR role. The CTRs provided a diverse set of views of their roles, yet there was a strong sense of congruence amongst the group particularly on the views associated with perception of the CTR role (acknowledging identity) and the challenges of the role (alluding to power) (see Chapter five page section 5.3)

As seen earlier in Chapter three section 3.5, Fig 3 illustrates the integration of both concepts to the Dimensions of Impact framework. The framework depicts the close association power has with organisational impact. The considerations for examining the concept of power include discussions based on the types of relationships the CTRs have with other medical, nursing and therapeutic staff and issues surrounding autonomy. In addition, the framework depicts the close association identity has with professional impact. The considerations for examining the concept of identity include discussions related to understanding of the role, the use of title consultant, professional identity and recognition.

In this way, the theoretical framework has helped underpin key aspects of the research. The inclusion of the two concepts power and identity to the Dimensions Impact framework as informed by the review of literature and the phase one focus group, adds value to the research by enabling further examination and

understanding of the CTR role. In addition, the components of the framework collectively consider the organisational and professional impact of the CTR role.

4.2 A qualitative inquiry

Jones (1995) states that qualitative research is often concerned with discovery of meanings usually by those who are being researched and accepting that there are a range of different ways of making sense of the subject matter. Rice and Ezzy (2000) emphasise that qualitative research is in fact interpretative and naturalistic, as the research takes place in the real world or in environments that are familiar to the participants. A particular strength of qualitative research is how it informs the audience of everyday situations and considers in detail when people describe their experiences, feelings, attitudes and behaviours (Pope et al., 2002). Creswell (2013) acknowledges that a qualitative approach seeks to explore the view point, with the aim of examining meaning, perceptions, experiences and understanding of those involved in research or study. This is important as the opinions, and thoughts of the participants (in this case the CTRs and medical and healthcare professionals) are being examined. In addition, the approach can be utilised to identify key issues such as role development, changes in work practice highlighting any concerns or ways for improvement, through gaining the perspectives of the participants. Hence the strength of qualitative research is providing an insight into the phenomena of interest, in this case examining the role of the consultant therapeutic radiographer.

Hanson et al., (2011) outline the philosophical frameworks that inform qualitative research, these include ethnography (studying a culture), phenomenology (seeking to understand the phenomenon) grounded theory (creating or building theory) and in this instance case studies (see below section 4.3). In qualitative research methods a range of methods of data collection are used such as interviews, focus groups, narratives, observations, and review of documents. The methods employed in this present study are discussed in section 4.4.

4.3 Methodological approach: case study research

A case study approach was adopted for this study. In this section, the theory of case study methodology will be discussed by considering the different aspects of this approach.

4.3.1 Introduction – case study research

Hammond and Wellington (2012) acknowledge that a case study consists of a “case” – a unit of analysis which is of particular interest in order to explain the “how” and “why” of the phenomenon.

There are two significant approaches that guide case study methodology; one approach by Robert Stake (1995) and the other by Robert Yin (2009). Both acknowledge that a case study requires a “case,” this being the focus of the study. The case itself should be a complex functioning unit and be investigated in its natural context with a variety of methods (Stake 1995, Yin 2009,). Both authors have different understandings of features of a case study, as Stake (1995) cites that a case study is defined by the individual case in question; yet Yin (2009) places more emphasis on the actual methods and techniques that make up the process of collecting data in the case study. Baxter and Jack (2008) acknowledge that the case is “in effect” the unit of analysis. Bryar (2000) states that case study research may involve a description of individual or multiple cases; whether it is an individual person, or a group of cases such as a hospital ward, or community centre.

There is often a misunderstanding as to the definition of case study research. Bryar (2000) highlights that the definition is fraught with confusion as to whether it is portrayed as a research design or method. The view is supported by Jones and Lyons (2001) who comment that many use the term interchangeably adding to the confusion. DeVaus (2001) clarifies the distinction and sees the research design as a plan whilst the methods are the procedures for data collection. In relation to the case study design the multiple data collection techniques contribute to developing the case study. Nevertheless, there is agreement that case study research is a comprehensive research strategy; and overall can be seen to satisfy the three principles / doctrines of qualitative research: describing, understanding and explaining (Tellis, 1997). Sangster-Gormley (2013) illustrates these three principles using case study research to examine the nurse practitioner role in terms of implementation within a Canadian Province. Utilising a single case study three primary healthcare settings (units of analysis) in a single health authority were chosen, in which three nurse practitioners had been employed. The aim of the research was to determine if there was a need for the role, examining the functions

of the role and reviewing the implementation process. Key stakeholders (clinicians, managers) from each healthcare setting were interviewed to gain their opinions on the role and to provide views on implementation. Data from each primary health care setting was confined to be able to understand implementation of the role and hence was able to look at the case as whole.

In 2005, McCartney, Boyle et al., examined the role of the Speech and Language Therapy (SALT) Assistant through the opinions and views of qualified SALT staff, in a specific case study context. The small scale case study involved five SALTs (also the research participants) working with the assistants over one year at a primary school. The aim of the study was to consider the accounts from the qualified SALT, upon their experiences and professional opinions of the assistant role, whether it is of value and effective. Data collection methods consisted of a questionnaire and semi-structured interviews used to elicit the opinions on the assistant role with thematic analysis used to draw out themes. The authors acknowledge that using case study research focuses on a particular context and helped uncover some relevant issues; whilst gaining “insider” views of the issue was equally invaluable.

Both examples have demonstrated that case study research is useful in exploring and explaining phenomenon of interest or processes through methods such as interviews and questionnaires.

4.3.2 Theory of case study research

Regardless of the debate between design and method, case study research is valuable and has its strengths particularly when a holistic, in-depth investigation is required (Feagin, Orum, & Sjoberg, 1991). Case studies are effectively designed to bring out the viewpoints of the participants by using multiple sources of data. Stake (1995) acknowledges that case studies are rooted in experience and create a process of truth seeking and exploration. McNamara (1999) adds that they are particularly useful in depicting a holistic portrayal of experiences, for example, to evaluate effectiveness including strengths, weaknesses and even as far as successes and failures. This has relevance to the research issue, as the opinions and views from the participants will serve to guide and potentially answer the research question.

Sorin-Peters (2004) highlights that appropriate selection of the qualitative case study design depends on the consideration of the following two factors:

1. Nature of the research question “how” and “why” questions are appropriate to the case study.
2. The desired end product being linked to the nature of the questions asked. If the desired end product is a holistic, intensive description and interpretation of a contemporary phenomenon a case study is thus appropriate.

Stake (1995) identified three types of case studies: intrinsic, instrumental, and collective, as summarised in Table 4.1:

Case Study Type	Summary
Intrinsic	To gain an deeper understanding of the case
Instrumental	To provide an insight into an issue
Collective	To study and collect data of a number of cases to understand a particular phenomenon

Table 4.1 Three types of case studies (Stake, 1995)

Yin (2009) provides a similar categorisation of case studies: descriptive, explanatory and exploratory, as shown below:

Case Study Type	Summary
Descriptive	Describes a specific phenomena
Explanatory	Answers “how” and “why” questions
Exploratory	Answers “what” questions

Table 4.2 Three categories of case study (Yin, 2009)

A key feature of case study research which is also important to address is the issue of the *bounded system*. A case is a bounded system within which issues are uncovered and examined pertaining to the case so that it can be understood (Stake 1995). The bounded system must be specific and not general. Norris (2002) discussed six kinds of boundaries that need to be considered in a case study. These being, spatial (where?), social or psychological (what?), personal (who?), temporal (when?), purposeful (why do the case study) and methodological (how?). In this research a number of boundaries exist, the radiotherapy and oncology service is a bounded system, the five NHS Trusts are a bounded system and CTRs are members of a bounded system. In addition, CTRs function within a bounded system of “consultant practice.” These boundaries need to be considered when deciding what is and what is not relevant in the case study

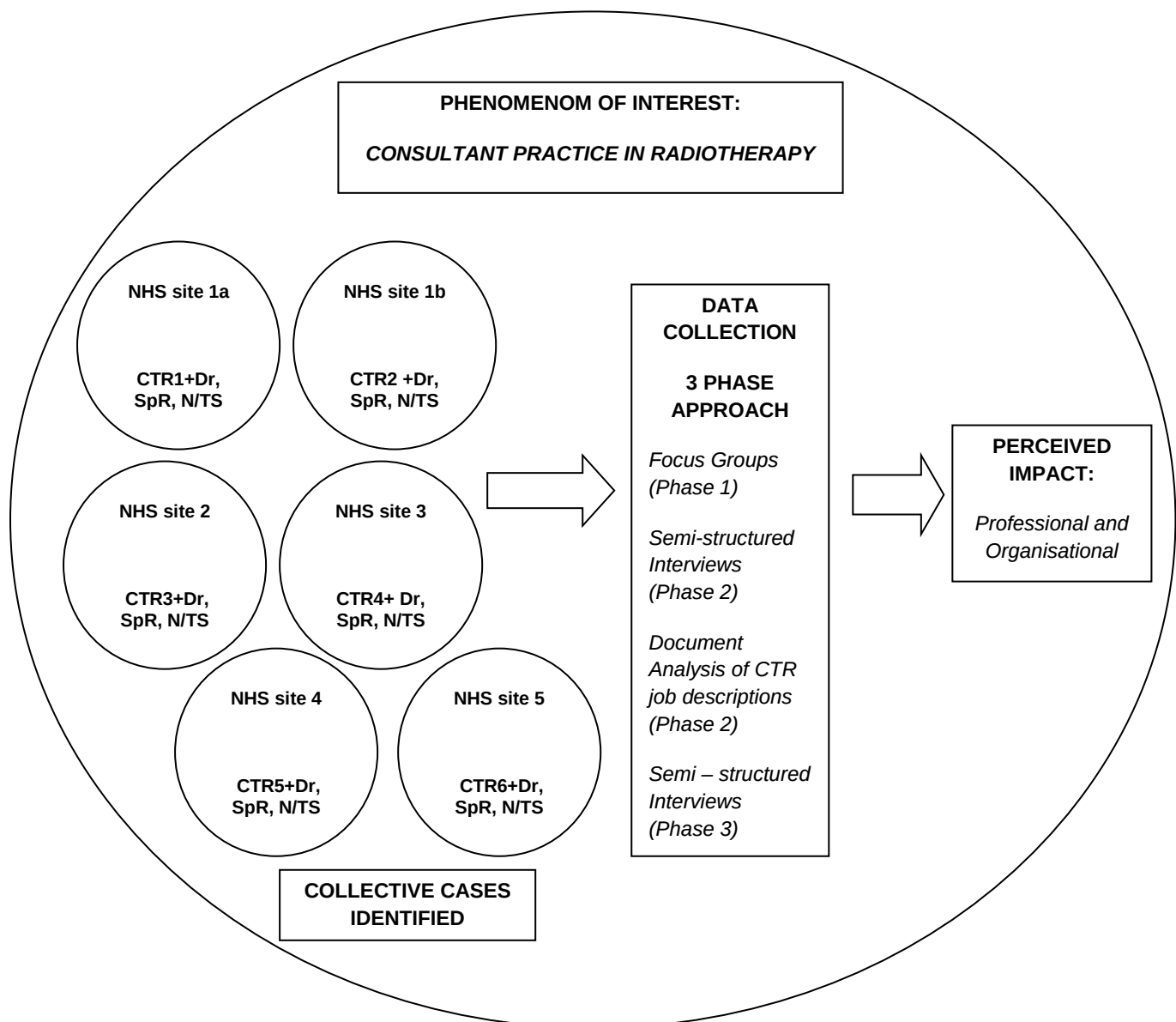
4.3.3 Selection of the case

Hammond and Wellington (2012) highlight that case studies can be single cases taking place in one site or multiple cases across sites (this is determined by the phenomenon of interest). An example can be a study of a hospital. From one viewpoint the entire hospital may present the case – how it works, the organisation and management. Another viewpoint would also be departments or wards within the hospital may also be separate cases.

In this instance a collective case study (Stake, 1995) (or as Yin terms it – a multiple case study) was chosen, this was deemed relevant because of its potential to explore differences within and between each of the cases. In addition, it allows the researcher to assess the findings and draw any comparisons across the cases. With respect to this research, the collective “cases” are the six CTRs and medical, nursing and therapeutic staff at their respective hospital sites (five NHS trusts) as they embody the particular issue to be examined - in this instance the concept of consultant practice. Hence the prospect of gaining multiple views, opinions and thoughts from those with first-hand knowledge of the consultant practice will aid in examining the perceived impact of the role. Figure 4.1 depicts the process as it identifies the phenomenon of interest, the cases and the data collections methods in order to answer the research questions.

Yin (2009) proposes that within a multiple case study, each case either predicts similar results or contrasting results. In addition, Yin argues that multiple or double case studies are superior in regards to research validity and rigour, enabling comparisons to be made between cases (Yin, 2009). Embracing a multiple case study design in the present study will enable the research to examine the issue of consultant practice across the five hospital sites where the consultant therapeutic radiographers work. The perspectives and views from all the participants in the research at each site will provide an insight to this issue. Likewise, this approach can identify common and differentiating factors between sites which will become useful for the analysis.

Figure 4.1 The collective case study embedded design (Khine, 2016)



Key:

CTR – Consultant Therapeutic Radiographer

Dr – Clinical Oncologist

SpR – Specialist Registrar

NITS – Nursing and Therapeutic staff

4.3.4 Debate of case study research

Case studies have had their share of criticism; often being accused as the “weak sibling” among social science methods (Soy, 1997); or dismissed as descriptive (Hammond and Wellington, 2012), or too subjective. However, the subjective richness of individuals recounting their experience through such an approach is seen as advantageous (Day, 2006) and as Key (1997) reports that meanings embedded within case studies help guide decisions. Other advantages of case study research including promoting a deeper understanding of a phenomenon ideal when exploring complex social situations and its ability to derive new hypothesis as it can uncover unknown variables not previously identified (Day, 2006),

The issue of generalisation is usually quoted as the main limitation and a concern (Bryar, 2000), case study research is often criticised for not being widely applicable to large populations. Although the data collected is in depth, it is argued that case study research is context specific and therefore not possible to generalise the findings (Gray, 1998). Schwandt (as cited in Tsang, 2013) defines generalisation as a general statement or proposition made by drawing an inference from observation of the particular. An example of generalisation is theoretical generalisation which considers relationships observed within variables (Tsang, 2013) and this type was of interest to Yin (2009). Yin (2009) acknowledged that theoretical generalisation was applicable to his work surrounding case study research, in particular evident when using multiple case study design. Multiple case studies consider similarities and differences across cases providing a stronger basis of theoretical generalisation than a single case. Moreover, findings across multiple cases can also enhance generalisation. However, Thomas (2011) acknowledges that a case study is about the particular rather than the general and hence you cannot generalise from a case study; the findings in a case study are specific to the situation and therefore its purpose is not to generalise. The essence of case study research is in fact not a

formal generalisation but the aim is particularisation, whereby taking a particular case and understanding its uniqueness (Stake, 1995, Simons, 2009).

The strength of this research is by utilising a multi-case study design, allows comparisons to occur across the case studies and draw generalisable conclusions. In addition the cases taken together do represent the population of interest.

Case study generalisation is an on-going debate and this section has attempted to demonstrate the perspectives of generalisation which should be considered.

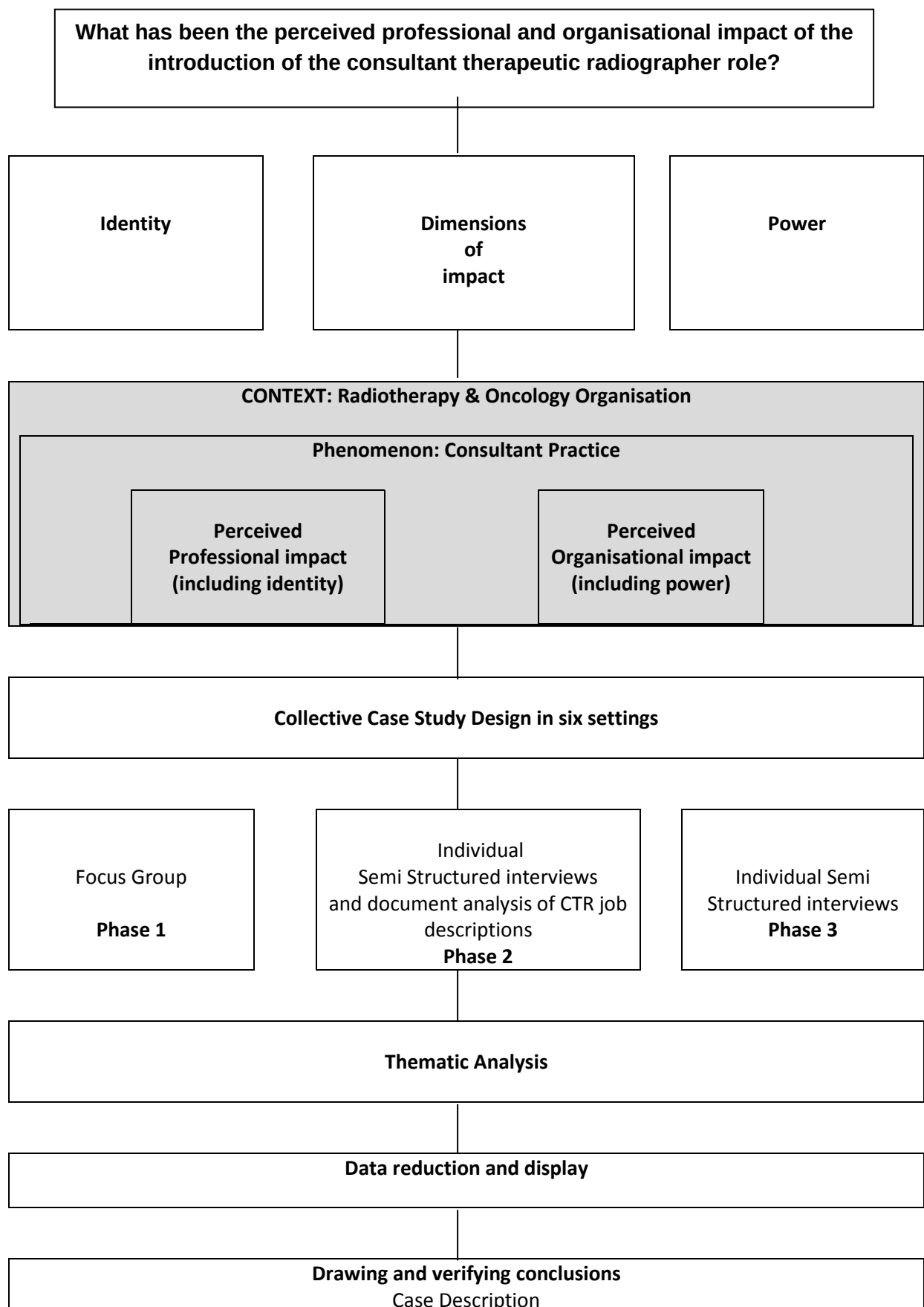
4.3.5 Application of case study methodology – in relation to this research

The rationale for applying a case study methodology to this research is as follows:

1. It provides a credible way to study the constructs associated with consultant practice. These constructs as discussed in Chapter three section 3.1 include perceived impact, identity, and power.
2. It focuses on perspectives and experiences, thus allowing the study to examine and explore the concept of consultant practice.
3. The approach will provide information about the concept of consultant practice and its perceived impact (professional and organisational impact) on current clinical practice.

Figure 4.2 provides a schematic representation of the case study research design, which has been adapted from Rosenberg & Yates (2007) who used this method when researching the impact of change on a palliative care organisation. The authors highlight that the use of schematics demonstrate the important concepts and procedural stages of case study design to provide clarity and promote methodological rigour. In relation to this research, the schematic representation has been developed to illustrate the logical components of the overall research design. The seven stages of case study research, from clarification of the research question, through data collection and analysis as outlined by Rosenberg & Yates (2007) have been incorporated into the present study as discussed below.

Figure 4.2 Schematic demonstration of the case study research design



Presenting the research question:

Identifying the phenomena of interest is the key step to this case study research. In this case the perceived professional and organisational impact of the CTR was the research question to explore.

Identification of themes and theories:

Establishing the context of the research is equally important, therefore identifying themes and underpinning theories sets the foundations to the case study research design. In this research, perceived organisational and professional impact was appropriately identified to examine the role of the CTR. Yin (2009) acknowledges that theoretical principles are integral in case study research.

Establishing the case, its context and phenomena of interest:

Defining the case from the onset is paramount and needs to be focussed. In this study the cases are the six CTRs working within the radiotherapy and oncology organisation (the five NHS trusts). The phenomenon of interest is the concept of consultant practice and its perceived impact on professional and organisational aspects, yet also to examine identity and power under the aspects as well.

Ascertaining the specific case study approach:

As mentioned earlier, Stake (1995) highlighted the three types of case study research: intrinsic, instrumental and collective. In this study a collective case study has been chosen as multiple cases are being examined to understand the phenomena.

Determining the data collection methods:

Yin (2009) cites that using multiple methods is crucial when upholding rigour. Hence in this study qualitative methods (focus group, semi-structured interviews and document analysis) have been chosen in order to answer the research question.

Choosing the appropriate data analysis method:

In this research, as the data collection methods were of a qualitative nature, thematic analysis was deemed appropriate.

Data reduction and display:

With the large volume of data, it is important to reduce and group them to manageable sizes for further analysis. Miles, Huberman & Saldana (2014) suggest using descriptive and interpretive matrices to assist in this. In this case a thematic framework was developed to organise the data and identify the themes.

Drawing up the conclusion:

The final stage is the conclusion, drawn up to formulate the case description from the data analysis and discussion.

This study makes use of a case study approach and the remainder of this chapter will be dedicated to discussing the study design and data collection methods that were selected for this research.

4.4 Research study design

The study was conducted over three phases. The table below outlines the phased approach:

Phase 1	Focus group: Comprising Consultant Therapeutic Radiographers (CTR). This was organised after a planned Society of Radiographers Consultant Network Meeting. The focus group provided valuable feedback on the CTRs views and opinions of their role and also the working relationship with the respective medical, nursing and therapeutic staff.
Phase 2	Face to face semi-structured interviews: With individual CTRs. The aim of interviewing the CTR's individually was to further secure rich data. The Phase one Focus Group was very much a group representation of opinions; whilst the face to face interviews permitted each CTR to fully acknowledge further issues and opinions from a more personal, honest and private perspective. CTR Job description document analysis: Job descriptions from the CTR were compared with the Department of Health guidance to ascertain if the roles echoed the recommendations set for these posts. Comparisons were also made between each CTR to discern similarities or differences of the role and whether the job descriptions provided the opportunity to demonstrate professional and organisational impact as outlined in the Dimensions of Impact framework. Face to face semi-structured interviews: With individual medical, nursing and therapeutic staff. One consultant clinical oncologist, one oncology specialist registrar and one nurse or

	therapeutic staff, from each of the CTR's respective departments were invited. The aim of interviewing the medical, nursing and therapeutic staff was to gain a thorough view of the CTR role from their perspectives to obtain additional rich data which is valuable and inform the case study development.
Phase 3	Face to face Semi structured interviews: With key stakeholders (representatives from the Society and College of Radiographers (SCoR), NHS England and Health Education England (HEE)). The aim of the interviews were to gain their views surrounding their thoughts on whether the CTR role had met its original vision since its inception and also to gain their thoughts on the themes derived from the developed case studies.

Table 4.3 Three phased research study design

4.5 Ethical approval for the research

Ethical approval was obtained from the School of Health Research Ethics Committee at City University London (see Appendix B). The ethics application occurred in two stages to reflect the three phase data collection. Details of the ethics procedure has been discussed under each of the phases.

4.6 Overview of Phase one

4.6.1 Sample selection

The research sample selected for phase one comprised CTRs across the five NHS Trusts (the case study sites). At initial stages of the research, there were only eight CTRs employed by their respective Trusts; hence the sample was already known. This process is *Purposeful or Purposive Sampling*. Pope et al., (2002) and Russell and Gregory (2003) acknowledge purposive sampling as a predetermined selection of participants. Collingridge & Gantt (2008) highlight that that this form of sample selection fulfils a specific purpose which, overall is consistent with the research aims and objectives. In this case the strength of purposive sampling lies in the selecting information rich cases, related to the central issues of this study hence it was appropriate to select the CTRs. In addition, a specific sub case of purposive sampling which is equally relevant to the research was *Expert Sampling*. This involves assembling a sample of persons with known experience and expertise. In this case the CTRs are experts in their field and can provide the necessary rich data to assist in the research. This is reinforced by Day (2006) acknowledging that cases

are selected as it is believed they will lead to a better understanding and provide the in-depth contextual data concerning the case under investigation.

The CTRs were identified from the Society of Radiographers website. In order to contact them directly permission had to be sought from the Society of Radiographers, as the gate keepers to this information. A formal request was sent to the Director of Professional Policy who not only granted permission, but also provided details of the Professional Officer involved with the Consultant Radiographer Group who became the initial link person for contacting the participants on the researchers' behalf.

Although eight CTRs were identified as the potential sample, the sample size consisted of six CTRs ($n=6$). One of the two who elected not to participate could not commit to the research having just been involved in another research study, whilst the final one never responded after multiple attempts of trying to make contact.

The number of CTRs relative to the total radiotherapy population is small; however since the research uses a case study approach, with the aim to investigate a group or other social units thoroughly (in this case the CTRs) and as there are only eight posts in the UK at that time this was appropriate. The six CTRs were invited to participate in the focus group; however two of the CTR's, although happy to be part of the overall research were unable to make the actual network meeting due to work commitments on the actual day and could not partake in the focus group. Final sample for the phase one focus group was four ($n=4$).

Specific inclusion and exclusion criteria were established when selecting the samples. For inclusion in the study the participants had to be employed and practising as consultant therapeutic radiographers. Whilst the exclusion criterion was created to omit any trainee CTRs and generalist therapeutic radiographers.

4.6.2 Ethics process – Phase one focus group

Permission was also required from the Society of Radiographers to allow the focus group to be organised after the Consultant Radiographer Network Meeting. The

researcher formally wrote to the Society of Radiographers (Director of Professional Policy) to gain permission and included a copy of the research proposal outlining the details.

Prior to the focus group, the CTRs were contacted via a letter (see Appendix C) inviting them to take part in the focus group. The letter included:

- A Participant Information Sheet
- A Consent Form

(See Appendix D and E)

The written material outlined the nature of the research and any risks and benefits. Participants were informed of the voluntary nature of their involvement and were free to withdraw at any time without giving a reason. In addition, withdrawal from the research would not compromise their standing amongst the Consultant Radiographer Network Group.

4.7 Focus group topic guide

In order to seek the perspectives, views and attitudes from the CTRs, the topic guide was fundamental in extracting this rich data. The construction of the topic guide was informed by the evidence captured from the literature review (chapter two) and the underpinning theory (chapter three). Below is an example of part of the topic guide used for the focus group (see Appendix F).

Key areas for discussion

Purpose / components of role

Role interpretation / perceptions from other healthcare professionals

Challenges / Concerns

Memorable Incidents / experiences

Table 4.4 Focus group topic guide

It was important that the content was comprehensive to gain the necessary data, yet still basic and uncomplicated. Webb and Doman (2008) acknowledge that a topic guide should be liberal and not like a detailed interview schedule. This was pertinent in this research as it was developed and constructed purely as a guide. The HSE

document (2012) highlights that four – five keys areas for discussion is ideal. In addition, the purpose of the topic guide was to also serve as a platform to introduce questions in a conversational manner. This was important to encourage open exchange and discussions with the participants. The structure therefore included:

Introductory questions: consisted of open questions designed to permit all the participants to have an opportunity to talk at the initial, early stages.

Probing questions: these questions were important for the facilitator to seek more detail and information from the responses. Essentially they were useful to assist with the flow of the discussion and home in on any important issues raised.

Summary questions: were useful at the end of the focus group session and to finish the overall session

The focus group was recorded and then eventually transcribed. Participants were given the opportunity to read through the interview transcription and that a copy would be made available upon request. All the data was stored and secured at the University. The participants also had the option to request a copy of the audio interview when the research is completed, none had asked for a copy; otherwise all audio interviews would be erased once transcribed. It was emphasised during the focus group that all information was confidential and that names omitted or alternatively replaced with pseudonyms and in addition each organisation would remain anonymous.

4.8 Data collection: Phase one focus group

The aims of the phase one focus group were:

- Gain an appreciation of the CTR role.
- Gain an understanding of the role in terms of its creation and purpose.
- Gain an understanding of the issues attached to the role such as challenges, concerns and experiences.

4.8.1 Phase One - Focus groups – theoretical overview

Introduction: What are focus groups?

There are many definitions pertaining to focus groups, for example Merton and Kendall's (1946) noteworthy article on focus groups development recognized them as a way of exploring participant's specific experiences or opinions about a topic under investigation. Powell et al., (1996) acknowledge focus groups as individuals assembled to discuss their personal experience on the chosen subject of research. Weerakkodys (2002) definition concerns assessing the participant's oral expressions of opinions on a specific discussion. A later definition by Webb and Doman (2008) define this method as a form of interviews consisting of a small number of people brought together by the researcher to discuss a particular topic. It is the researcher, who usually takes on the role as the moderator that "focuses" the group discussion. Overall it is noted that all definitions are in agreement on the role of focus groups, highlighting the gathering of individuals to gain information about their views and also experiences.

Earlier works by Kitzinger (1995) explained that focus groups capitalise on the communication of the research participants to acquire the required data. Likewise group interactions are also another key factor, which focus groups capture as part of the method. This permits participants to talk to each other, to ask questions, share their experiences and point of views. Gibbs (1997) recognised the unique characteristic of focus groups, in the interaction between participants in producing the insight and data. This is reinforced by Redmond and Curtis (2009) who acknowledged the essence of focus groups is to understand the social dynamic and interaction between the participants through the assortment of verbal and observational data. Focus groups should not be confused with group interviewing, hence it is important to differentiate between the two. Group interviewing is self-explanatory as it involves interviewing a number of people at the same time, the emphasis being the questions and responses between the researcher and participants. Webb and Doman (2008) point out that a group interview is to obtain the individual views of each participant in a cost effective manner, whilst the focus group involves discussion amongst the participants, facilitated by a moderator.

4.8.2 Rationale and uses of focus groups

The main purpose of using focus groups is their ability to discover participants' attitudes, draw out their feelings, beliefs, experience, reactions and motivations. Kitzinger (1995) acknowledged that this is useful, not only can the participant's knowledge and experiences be explored; it can also be valuable when examining what people think, how they think and why they think that way. Likewise they offer participants the opportunity to hear and respond to a variety of viewpoints; this in turn is useful as it can promote discussions, whereby one participant's opinions may generate a chain of other views and responses (Beyea and Nicholl, 2000). The group interaction is crucial to any organised focus group, as it allows participants to respond to and build upon the responses of other members in the group, therefore, allowing researchers to immerse themselves in other people's lives (Redmond and Curtis, 2009). Krueger and Casey (2014) see focus groups as fundamental for any researcher, as it allows them to help understand, explain and interpret the rich detail from the participant's perception and feedback.

Focus groups may be used in a range of different situations, Stewart et al., (2014) draw attention to seven distinct common uses for focus groups, as outlined below:

- Collecting general background information on a topic of interest
- Generating research hypotheses
- For purpose of stimulating new ideas and concepts
- For identifying potential problems
- Generating impressions of service, programmes or products
- For learning how participants talk about the topic of interest which can assist in the design and construction of other research tools
- For assisting with interpretation

Within a healthcare setting, Kitzinger (1995) identified that focus groups have a place when examining peoples experience of disease and of health services and effective for exploring the attitudes and needs of healthcare staff. In addition, Pope et al., (2002) comment that focus groups are especially helpful in assessing user views of services and healthcare provisions whilst, also revealing useful information on quality

of care; they are also valuable for finding out about shared experiences and have been successfully used with users and staff. Webb and Doman (2008) explain that within a healthcare setting, focus groups have been favourable particularly when exploring a range of issues from clinical practice, to educational, managerial or professional perspectives. Similarly, they can also be used to ascertain views of patients, carers and general public / lay people.

4.8.3 Benefits of focus groups

There are a number of benefits to the use of focus groups in research. Focus groups are designed to elicit a range of experiences, attitudes and ideas by interviewing people in a short time. Kitzinger (1995) acknowledged that if the group works cohesively, trust begins to develop and as a result the group may explore findings to a particular issue. Gibbs (1997) highlights that the benefits of focus groups should not be underestimated, as they are able to afford the opportunity to be involved in the decision making process, provide collaborative working and can be empowering for some of the participants. Whilst Webb and Doman (2008) acknowledge focus groups have the possibility of providing a greater breadth of coverage of topics with additional benefits of developing a sense of camaraderie amongst the group. In addition, any issues offered by the participants may have not been anticipated by the researcher which can effectively add a different stance to the research topic (Crossman, 2016).

From a practical perspective, Woodring et al., (2006) comment that focus groups are remarkably versatile, flexible and that their ability to provide exploration is fitting for qualitative research. In relation to this research, a particular benefit is it can be used to develop potential questionnaires or in this case interview questions. This will ensure that the questions are appropriate, pitched at the right level, unbiased and relevant; also ensuring that the language and experiences are represented of the participants and not just those of the researcher (Webb and Doman, 2008). Fleming and Parker (2015) further address several advantages such as they are fast and easy, can be promptly organised, inexpensive, generate ideas in a short time in length and the data retrieved can be easily and swiftly analysed.

4.8.4 Limitations of focus groups

Although focus groups have many benefits, a number of limitations do exist. Notably a phenomenon known as the *groupthink syndrome*. The groupthink syndrome is effectively when group members have the inclination to restrain their disagreement in favour of maintaining consensus within the group. It was Irving Janis that introduced the theory of groupthink in his landmark study *Victims of Groupthink* in 1972. His theory concluded that groups often experienced groupthink and as a result groups that displayed groupthink symptoms were more likely to produce poor decision outcomes. Hassan (2013) adds that to preserve harmony or conformity in a group often results in incorrect decisions; group members also curtail any conflict to reach a consensus.

Similarly, another phenomenon known as the *spiral of silence* theory a phrase coined by Noelle – Neumann (1974) has often been reported when using focus groups. The occurrence of the spiral of silence theory stems from the idea that individuals are less inclined to speak out, due to fear of isolation, if they feel their opinions differ from the majority opinion (Lee & Chun, 2016). Weerakkody (2002) acknowledges that where participants feel afraid to express any views maybe due to their terror of losing face, being embarrassed or shown up in front of others in the group. The facilitator has a crucial role in ensuring parity of views throughout the group is heard.

Participants may also provide opinions and feedback which they propose as *socially desirable*, a term which acknowledges that they would rather be in agreement with the group than actually say what they truly feel or think, essentially putting them in a positive light with the researcher. Gibbs (1997) acknowledged that researchers should not assume that participants in a focus group are expressing their own individual view; therefore it becomes difficult to recognise an individual message.

Conversely there may be some participants who may get over confident and too sure of themselves during the discussions or articulate overstated views and opinions. Wimmer and Dominick (2014) define this as the *group leader effect*, which essentially emphasises the issue of a so-called group leader who is more vocal and dominates the focus group. The main concern from a researcher's perspective is

they may monopolise the discussions taking place and potentially persuade or hinder the opinions expressed by other participants in the group. The outcome of such an incident can be negative, not only can it create anger amongst the group it could overall impact on the discussion taking place and may pollute the data collected by the researcher. One method to remedy such a situation can be through a skilled facilitator who can defuse such individuals and their negativity on the group, by encouraging opportunities for other members to provide their views and feedback or discreetly keeping an eye on the difficult individual (Stewart et al., 2014). Characteristics of certain participants in the group may also have a bearing on the success of a focus group; characteristics such as personalities, culture, status, skills and even life experiences. Participant with low status in the group may become more engrossed in being accepted by a more powerful higher status participant than actually concentrate on the topic in hand. (Fern 2001, Hanafin 2016).

On a more practical level, organising a focus group can sometimes be difficult to bring together, there may be issues regarding assembling a typical or true sample for the particular research because of the small sample (Crossman, 2016). Likewise focus groups may inhibit certain groups of people for example those who are not confident, shy and those with communication problems and possibly even special needs. Krueger and Casey (2014) report any discussions taking place during a focus group may also discourage some people from participating, as the sensitivity of the topics discussed may create trust issues with other participants.

4.9 Focus groups – a reflexive account

Having looked into focus groups as a data collection tool and discussed the theoretical issues surrounding them, a consideration of their use from a more personal perspective and the decision to utilise a focus group in the present research is discussed in more detail through a reflexive account which has been described in Appendix G.

4.10 Overview of Phase two

This phase comprised semi - structured interviews and document analysis of the CTR job description

4.10.1 Sample selection – semi-structured interviews

The doctors, nurses or therapeutic staffs, working alongside the CTRs were recruited in order to gain their perspectives and perceptions of their role.

Recruitment for this phase required the assistance of the CTRs in Phase one. A list of the medical and nursing/therapeutic staff the CTRs worked in conjunction with was requested from each CTR. The list comprised names and contact details (phone and email addresses) of the nurses/therapeutic staff, oncology registrars and consultant clinical oncologists. The CTRs made the medical, nursing and therapeutic staff aware of the research and asked permission on the researcher's behalf to release their contact details. This assistance from them made the process easier. Once this information was acquired, three staff members were selected (1 x nurse/therapeutic staff, 1 x oncology specialist registrar and 1 x consultant clinical oncologist) from each of the departments/trusts where the consultant therapeutic radiographer worked. Contact was initiated with each staff member and each was provided with the relevant information surrounding the research. The final sample consisted of 18 participants (n=18) comprising six nurse/therapeutic staff, six oncology specialist registrars and six consultant clinical oncologists; therefore three participants in total were interviewed for each of the six CTRs.

Specific inclusion and exclusion criteria were also stipulated. For inclusion in the study the participants were employed and practising in their respective departments and working alongside the CTR. Have prior experience and knowledge working alongside the CTR. Have a minimum working time / level of six to 12 months with the CTR. This would account for practicalities such as the oncology specialist registrar rotation and possibly any changes in nursing work patterns. Likewise the exclusion criteria was designed to omit staff who had not worked with the CTR and those having a minimum working time / level of less than six months.

4.10.2 Phase two ethics process

Permission was required from each of the trusts in order for the face to face interviews to occur on each site. Hence the researcher formally wrote to the R&D Lead for each trust, with a summary of the research and a copy of the interview questions (NRES, 2011), to be allowed access on to the site and interview the staff

(see Appendix B). In addition the researcher also had to gain permission from the Radiotherapy Service Manager, Director of Nursing for the Oncology Services and Clinical Director for the Oncology Services.

Prior to any interviews taking place and following permissions as above being obtained, the CTR Radiotherapy Nurse, Oncology Specialist Registrar Consultant Clinical Oncologist were contacted via an email inviting them to participate for an individual interview. The email also included an attachment with:

- A Participant Information Sheet
- A Consent Form

(See Appendix D and E)

The written material outlined the nature of the research, any risks and benefits. The participants were informed of the voluntary nature of their involvement and that they were free to withdraw at any time without giving a reason. In addition, it highlighted that withdrawal from the research would not compromise their standing amongst their own professional group.

4.11 Phase two: Development of interview questions

The questions used in the interview were informed initially from the literature and also as a direct result of the outcomes of the Phase one focus group.

The key themes in the Phase two interview schedule with the CTR included identity, intentions of the role, expectations, objectives, support of the role, concerns, challenges, and suggestions for improvements and future / succession planning (See Appendix H).

The key themes in the Phase two interview schedule with the medical, nursing and therapeutic staff included the concept of consultant practice, remit of the role, concerns, engagement of the role and also suggestions for improvements (See Appendix H).

4.12 Data collection: Phase two semi-structured interviews

The aims of the phase two semi – structured interviews were:

- To validate or verify the themes and issues raised in Phase one focus group
- To secure further rich data from the participants in a private and personal setting
- To further gain an understanding of the role and secure further examples
- Gain an understanding of the role from different points of views
- Gain an understanding of the issues attached to the role again from different points of views

The duration of the interviews lasted approximately 45 mins long. Interviews followed a semi-structured format following an interview schedule, whilst still having the looseness to interject other questions during the interview. This was advantageous as it permitted further clarification and more elaboration from the responses. There was no strict sequence of questions; the interview began with the generic questions, followed by questions pertaining to the role, whilst the latter questions were surrounding issues on the future. As the intent of the interview was gaining views, opinions, feedback and attitudes, open questions where possible were used to encourage discussions, allow the participants the freedom to disclose as much information and to be open, honest and frank as much as they could be. In the concluding section of the interview, the participants' were provided with the opportunity to add or mention anything that may be useful to the research or if they wanted to clarify an earlier point. In this case all the participants were content with their responses.

The interviews were recorded and then eventually transcribed. Participants were given the opportunity to read through the interview transcription and a copy was made available upon request. All the data was stored and secured at the University. The participants were also given the option to request a copy of the audio interview after the research was complete, none had asked for a copy; all audio interviews were erased once transcribed. It was emphasised at the interviews that all

information was confidential and that names omitted or alternatively replaced with pseudonyms and in addition each organisation would remain anonymous.

4.12.1 Introduction: What is interviewing?

Interviews are used at length in qualitative research as a method of data collection and hence are well established research technique. Adams & Smith (2003) acknowledge that interviews are loosely guided by a list of questions or themes for exploration; they try to be interactive, yet are sensitive to responses from the participants. Hanson et al., (2011) highlight that interviews are conversations developed under the guidance of the researcher with the intention to learn about people's feelings, thoughts and experiences. They also afford a personal exchange of information between the researcher and the respondent. Overall, an interview is a face to face discussion with one or more participants, usually for a specific purpose (Thomas, 2011) they are a basic mode of inquiry, central to interviews is making sense of someone's experience through narratives (Seidman, 2012).

4.12.2 Types of qualitative interviews

Interviews can be tightly structured and timed or relatively unstructured and open; as a result this gives rise to the most common interview types: structured, semi-structured and unstructured. Hence the differences are between each type are largely surrounding how the interviews are structured. In addition, the structures vary as this depends on research aims and objectives.

Structured interviews

Britten (1995) cites that this type of interview consists of providing structured and fixed choice questions. Likewise, Ryan et al., (2009) report that structured interviews, are also known as standardized interviews and employ the use of an interview schedule with explicit questions that prevent veering of the topic in question. As a result the interviewers generally pose the same exactly worded questions in the same order to the participants. Berg (2009) suggests that due to the standardisation of questions they are similar in nature to a questionnaire survey as there is no movement from the order of questions.

Semi – structured interviews

These are seen as the most widely used interviewing format for qualitative research. Britten (1995) acknowledges that semi-structured interviews are conducted on the basis of a loose structure of open ended questions that permits the area to be explored in more detail. The interviews are organised around a set of pre-determined but open ended questions and due to the open-ended questions, other questions become apparent from the discussion between the interviewer and the respondent (DiCicco-Bloom & Crabtree, 2006). Whiting (2008) adds that semi-structured interviews are organised around a set of pre-determined questions and then other questions emerge from the responses. This makes semi-structure interviews appealing as it leaves a lot of room for manoeuvrability.

Unstructured interviews

As the name suggests, unstructured interviews involve a broad area to explore and the researcher follows the direction of the respondent (Petty et al., 2012). Equally they are based around a discussion topic or a set of themes so as acknowledged above; the interviewee responses determine the direction of the interview.

4.12.3 Rationale and benefits of using interviews

Pope et al., (2002) consider that interviews provide an opportunity to gain detail on issues or experiences; in addition the authors highlight that the method is particularly useful as it elicits peoples' views and accounts; likewise it can have additional benefit of revealing issues or concerns that were not anticipated. DiCicco-Bloom et al., (2006) acknowledge that face to face interviews seek to promote learning surrounding individual's experiences and perspectives on a given issue. In addition, Collingridge and Gantt (2008) comment that interviews are suited for examining people's experiences and perspectives. Individual interviews are useful when the researcher wants to explore in depth the experiences or views of individuals (Petty et al., 2012). Overall there is an agreement that interviews effectively provide a holistic understanding of a particular issue of interest through the perspectives of participants.

The face to face nature of an interview itself is beneficial. It provides the interviewer with a way to read and observe non-verbal cues (such as facial expression, body language and eye contact) from the respondent, which can assist the interviewer in understanding the point raised. Ryan et al., (2009) acknowledge that this in turn can allow the interviewer to delve into any hidden meanings or issues.

In relation to this research, a semi structured interview type has been chosen as they are suited to case studies (Drever, 2003) permitting the interviewer to adapt the main questions to suit the respondent's role and explore different perspectives in depth. Semi structured interviews should flow like a conversation rather than a structured question and answer situation, therefore are guided conversations with a purpose (Pitchforth & Teojilingen, 2005). This viewpoint has added value to the research, as a conversation like nature of an interview can build a trusting relationship between the interviewer and respondent, allowing the respondent to be more open and honest on the particular issue in question.

4.12.4 Limitations of using interviews

A number of limitations potentially exist when using interviews. The relationship between the interviewer and the interviewee can itself sometimes create an issue. The literature highlights the notion asymmetries of power that become apparent in an interview situation. This is an indication that there are perceived status differences between the interviewer and the interviewee which can impact on the interview overall. Kvale (2006) acknowledges the asymmetrical power relations of an interview and provides an overview of some of the issues including; the interviewer ruling the interview, in which the interviewer defines the interview situation, decides on the time and topic, instigates the interview, presents the questions; follows up on the responses and closes the interview. In this case it is my research that sets the agenda and governs the interview. The interview may also be seen as an instrumental dialogue in which the interviewee provides responses, which in turn the researcher will analyse and translate. Finally, the interview maybe a manipulative dialogue in which the interviewer may have a hidden agenda wanting to acquire information, without the interviewee knowing. Oakley (1981) cited in Whiting (2008) acknowledges that attempting to control the interview process is not conducive and does not show consideration for the participants and hence treats them as though

they are just waiting to produce data. DiCicco-Bloom and Crabtree (2006) comment that attempting to control an interview, the research process becomes unjustly, invasive and respondents are portrayed as just data or a source of information for the researcher.

4.13 Interviews – a reflexive account

As with focus groups, having looked into interviews as a data collection tool and discussed the theoretical issues surrounding them, a consideration of their use from a more personal perspective and the decision to utilise interviews in the present research is discussed in more detail through a reflexive account which has been described in Appendix I.

4.14 Phase two: Document analysis of Job Descriptions

In addition to the phase two semi-structured interviews the CTR job descriptions were also reviewed. Each of the six CTRs were asked to provide their job descriptions to undertake the document analysis as part of this phase.

The aims were:

- To compare with the Department of Health guidance to ascertain if the roles reflected the recommendations set for these posts.
- Make comparisons between each CTR to discern any similarities or differences of the role.
- To determine whether the CTR job descriptions provide an opportunity to demonstrate professional and organisational impact as outlined in the Dimensions of Impact framework.

4.14.1 Rationale for document analysis

Bowen (2009) defines documentary analysis as a systematic procedure for reviewing and evaluating documents and by examining and interpreting the data the analysis draws meaning, provides an understanding and develops knowledge. It is often used in combination with other qualitative research methods as a means of triangulation (Denzin & Lincoln, 2011). The types of documents for analysis include, minutes of meetings, newspaper clippings, diaries, journals and policy

documentation. In this present study, the CTR job descriptions were analysed to provide the context of consultant practice, yet also to indicate whether they provide the opportunity to demonstrate professional and organisational impact. The document analysis served as a means of supplementary research data, in this instance to support the semi-structured interviews.

4.14.2 Advantages of document analysis

Bowen (2009:5) highlights a number of advantages; document analysis is less time consuming and is more concerned with data selection, than data collection, access to documents are readily available in the public domain and obtainable so it makes document analysis a desirable option and documents are unobtrusive and are unaffected by the research process. Yin (2004) adds that documents provide exactness with inclusion of exact names, details and provide a broad coverage, covering events and settings, making it advantageous in the research process.

4.14.3 Limitations of document analysis

Yin (2004:80) highlights a number of limitations such issues with retrievability and access to documents; also biased selectivity where documents are written for a specific singular purpose. Bowen (2009) adds that documents may also have insufficient detail to answer a research question.

The detailed document analysis in this present study using the CTR job descriptions can be found in Chapter eight.

4.15 Overview of Phase three

4.15.1 Sample selection: semi structured interviews

The key stakeholders interviewed were representatives from the Society and College of Radiographers (SCoR), NHS England and Health Education England (HEE). All three organisations have a national and political influence on the CTR role. As with phase one and two, purposive sampling was used.

4.15.2 Phase three ethics process

With the key stakeholders, direct permission was sought from the representatives.

Six participants from the above organisations (n=6) were invited, consisting of the following:

- Four representatives from the Society and College of Radiographers (SCoR)
- One representative from NHS England
- One representative from Health Education England (HEE)

(Their specific titles have not been shown to ensure anonymity.)

Contact was made via email to each representative and each was provided with the relevant information:

- A Participant Information Sheet
- A Consent Form

(See Appendix D and E)

4.15.3 Phase three semi-structured interviews

The aims of the phase three semi – structured interviews were:

- To gain key stakeholder feedback on the themes derived from developed case studies.
- To capture the thoughts from key stakeholders regarding whether the role has met its original intentions since its inception.
- To identify recommendations for future policy, clinical practice and workforce development.

The duration of the interviews lasted approximately 45 mins long. Four interviews were face to face, whilst the two others were initially organised as face to face but changed to a telephone interview due to difficulties in scheduling a meeting. The locations of the interviews were also different, two of the stakeholders were happy to come to the researcher's workplace and two other interviews were organised at the stakeholder's workplace.

Each interview was recorded and then eventually transcribed. Stakeholders were given the opportunity to read through the interview transcription and a copy was made available upon request. All the data was stored and secured at the University. The participants had the option to request a copy of the audio interview when the research was complete, none had asked for a copy; all audio interviews were erased once transcribed.

The development of questions for the phase three interview schedule was based on themes identified in phase one and two, including intentions of the role, evolution, and expectations. The schedule also provided an opportunity for the stakeholders to offer their thoughts on the outcomes derived from the developed phase two case studies (see Appendix J).

A consideration of the rationale, benefits, limitations and the reflexive account for semi-structured interviewing was reflective of Phase two interviews (please see section 4.12, 4.13 and Appendix I).

4.16 Data Analysis for focus group and semi-structured interviews

Thematic analysis was used across all phases. This was fitting for qualitative research and in this case appropriate as it offered the most complete and accurate understanding of the research. Thematic analysis was very much an iterative process (Russell & Gregory 2003, Petty et al., 2012). In this case the transcripts were repeatedly read to gain familiarity with the text as a whole. Coding was then applied; where labels were assigned to sentences, phrases and paragraphs. The codes were assessed for general themes or patterns. The identified themes themselves were scrutinized to explore further relationships until data saturation had been reached and then possible conclusions and explanations were made. Both Ryan et al., (2009) and Petty et al., (2012) consider that such a process is not linear, but somewhat a circuitous route. It should be noted that a number of methods for performing data analysis exist. The utilisation of the researchers' supervisors in reviewing the codes was also useful, as it provided the necessary confirmation, verification and further direction. A number of thematic analyses were reviewed, for instance Burnard (1991) and Ritchie and Spencer (1994). In this present research,

Braun and Clarke's (2006:87) six staged method of thematic analysis was chosen due to its logical method of identifying, analysing and reporting themes within data. An example of the process of thematic analysis can be viewed (Table. 4.5). Below is a description of the process:

i) Familiarising with data

The transcripts were read and reread a number of times to immerse in the data and become familiar with it. Braun and Clarke (2006:16) state that immersion involves "repeated reading" of the data and reading the data in an "active way" to search for meanings and patterns. In addition initial ideas and thoughts regarding the responses in the transcripts were noted down.

ii) Generating initial codes

At this stage any interesting features of the transcribed data are identified. Initial codes from the data are produced. Coding was performed manually by the researcher and conducted systematically across the entire data set. Data was coded by writing notes on the text and highlighting them to indicate potential patterns (Braun and Clarke, 2006).

iii) Searching for themes

This stage involves sorting the codes into potential themes and collating relevant coded data extracts within the identified themes. Visual representation is useful when sorting different codes (Braun and Clarke, 2006:19) and a thematic framework was developed to organise the codes.

iv) Reviewing themes

Themes were reviewed and refined at this point. Braun and Clarke (2006) comment that there are two levels of reviewing and refining. Initially the researcher read all the collated extracts for each theme to conclude if they formed a coherent pattern. Once this was done a review of the entire data set was performed to ensure validity of themes (Braun and Clarke, 2006:21). At the end of this process the researcher had a better understanding of the themes, how they fitted together and the overall story that was being told by the themes.

v) Defining and naming themes

Continual defining and refining of each theme as described by Braun and Clarke (2006) took place. Themes were considered individually and compared with each other. Clear definitions and names for each theme were also developed.

vi) Producing the report

This was the final stage for analysis and examples of vivid and compelling extracts were selected and further analysed to reflect the research question and literature. A report of the analysis was then produced for each phase.

Table 4.5 Example of thematic analysis of Phase two interview transcript

Codes	Question and response from participant	Potential themes	Sub themes	Theme
	I would like to know what do you understand by the title a Consultant Therapeutic Radiographer?			
Autonomy in decisions Not a doctor Radiographer	Someone who has a degree of autonomy in their decisions but doesn't have a medical background. So, see from <i>(name)</i> point of view, <i>(name)</i> has a radiographer background	Developed skill Identity Identity	Role Aspect Identity	Identity
	What do you see as the main role of the consultant therapy radiographer from your perspective?			
Radiographer Treatment role Assess patients Own work load	Being from a radiographer background, obviously it's to help with the actual radiotherapy treatments. And having also the ability to assess patients. So <i>(name)</i> can see patients of <i>(name)</i>	Identity Practical role Clinical Duties Clinical Duties Responsibility	Identity Role aspects	Identity

Independent decision making	own accord, make <i>(name)</i> own medical judgments, in terms of appropriateness to treat and picking up relapses potentially and actually following patients up in the clinic. So, <i>(name)</i> will see new patients in own clinic and assess their appropriateness for treatments, so adjuvant radiotherapy generally, in terms of clinical indications from our protocols, and whether the patients actually fit in that, and whether they consent to having treatments. <i>(Name)</i> then, also carries out the treatments and reviews the patients during treatments with the team as well.	Clinical Duties	Role Aspects	Identity
Follow up role		Responsibility		
Independent practice		Clinical Duties		
Assess		Responsibility		
Protocol working		Practical role		
Consent		Clinical Duties		
Treatment role				
Review patients				
	I am interested to know relationship with the consultant therapeutic radiographer, what is it like working with <i>(name)</i>?			
Close relation	We work very closely, so you know, there's only five, six members on our team and <i>(name)</i> is an integral part of that. So, there's daily e-mails firing off for various patients, organising certain things, and obviously she knows some patients very well. <i>(Name)</i> had a very long period of time of following them up so, sometimes <i>(name)</i> the best person to ring a certain patient with	Team working	Working relationships	Impact
Integral to the team				
Patient Rapport		Supporting patient	Perceived patient experience	
Point of contact for patients				
Central to team		Team working	Working relationships	

	certain results or appointment changes or whatever. So yeah, she's a central part of the team			
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14.17 Ethical considerations – a reflexive account

In this section, I wanted to acknowledge a few of the ethical issues related to the focus group and interviews, including informing the participants, protecting the information and participants and reducing the risk of harm.

1. Informing the participants

I felt that this was a really important aspect of the research. I was mindful at all times that I had to make every attempt to inform all the participants about the intention of my research, how they were involved, why they were chosen, and information regarding the data collection and also maintaining confidentiality. This was demonstrated in examples such where it was embedded within the participant information sheet, in my initial introductions during the focus group and face to face interviews and the introductory contacts. Communication was key and ensuring it was adequate and maintained throughout the research.

2. Protecting the information and participants

Confidentiality and anonymity were two key words of which I was conscious. I made every attempt to maintain this. In any information regarding the participants I ensured their identity was protected, examples of this included the use of pseudonyms, all documents and audio files relating to the participants and their organisation were password protected and hardcopies were securely stored. As the gate keeper to the information, the only people I discussed my research with were my supervisors and the participants in relation to their own material. It also crossed my mind that as there were eight CTRs in the UK at commencement of this research it was important to keep their identities private. Additionally, the CTRs are well known within the radiotherapy community and are often showcased in various professional materials. However, difficult as it may be, I made sure that their identity was never revealed and that participant anonymity was a constant priority.

3. Reducing the risk of unintended harm

DiCicco-Bloom and Crabtree (2006) acknowledged that as the interviewer's role is to actively listen and engage with the participants, one of the concerns surrounding this setting is unforeseen responses that may be brought about during the interview. Certain sensitive topics could "trigger" a reaction that the researcher had not anticipated which therefore can create or raise undue stress. I was particularly mindful of this; as my research involved recalling incidents, experiences, and also seeking attitudes and opinions, there was a strong possibility that the responses were both positive and negative. Likewise, as highlighted earlier, interviews may result in opportunities for participants to vent their emotions. This was highlighted in my ethics panel feedback on how I would deal with this situation during my interviews. My response to the ethics panel was as a researcher was fully aware of any potential workplace stress and its impact on the staff member and the interview. Hence in any event of this taking place, I would stop the interview and recommend a short break. I would also enquire whether the staff member would like to re-schedule or would be happy to resume with the interview. Finally I would also recommend that the staff member seek any support mechanisms provided by the Trust.

4.18 Ensuring rigour in the research

To establish trustworthiness in my research, I utilised the Qualitative Research Criteria for Trustworthiness (Lincoln & Guba 1985, Kuper, Lingard & Levinson 2008). The criterion acknowledged four different descriptors that aim to establish trustworthiness of any qualitative research. These descriptors were credibility, transferability, dependability and confirmability. I will provide an overview of each descriptor with examples of the types of approaches used to ensure rigour in my research:

1. Credibility

This aspect highlights the measure to which the findings in the research can be trusted or as Lincoln and Guba (1985) describe it as *truth value*. In my research I used triangulation and member checking as strategies to establish credibility. Triangulation is collecting a variety of data from different perspectives to effectively cross check the findings (Petty et al 2012). Hanson et al (2011) cite that triangulation is collecting data from more than one source and using more than one data method.

In relation to my research I had more than one source (CTRs, clinical oncologists, registrars, nursing staff and key stakeholders) and more than one data collection (focus group, document analysis and semi-structured interviews). Inclusion of more than one source was essential; in order to really understand the concept of consultant practice it made sense to secure the perspectives from the CTRs themselves and the medical and healthcare professionals they worked alongside with added views from the key stakeholders. Likewise with the data collection, the phase one the focus group provided me with the opportunity to gain an insight into the CTRs role and to understand some of the issue they highlighted being in this role. The phase two semi-structured interviews afforded me the opportunity to explore in depth, the issues which were raised during the focus group but in a one to one setting with the CTRs, yet it also served as a platform to guide me when developing the questions for the interviews with the medical, nursing and therapeutic staff which gave me a chance to gain a different viewpoint but also to verify some of the issues raised in the earlier data collection phases. With the phase three semi-structured interview it was to gain the key stakeholders views on the current evidence regarding the CTR role through the themes derived from the developed case studies.

With regard to member checking, this strategy involves verifying the data with the participants. In this research the accuracy of the data secured during the focus group and all interviews were verified by the participants. A copy of the interview transcripts were returned to all participants to allow them to confirm, adapt or omit their responses, none of the participants made any changes. A negative aspect of member checking I had to consider was that the participants may not fully remember what they said in the interview; however this was not the case in this instance. In addition, I also acknowledged that I would provide drafts of work to participants again to gain any useful feedback. Equally copies of interview transcripts were also made available to my supervisors for any comments. The use of a focus group and then followed by a semi-structured interview for the CTRs, I believe essentially represented member checking of the topics acknowledged in both phases.

2. Transferability

This is acknowledged as the degree to which the findings can be related in other contexts or with other participants (Lincoln and Guba, 1985). In qualitative research it is often thought that the findings are specific to the situation and therefore its purpose is not to generalise findings. However, as discussed in section 4.3.4 case studies can demonstrate both particularisation and theoretical generalisation. As I have taken a case study approach, to explore consultant practice and used multi-case study design, generalisations can be made. In addition, given the scope of material discussing consultant practice (see chapter two literature review) I believe transferability was likely. For instance, topics raised in the literature review have contributed to my data collection methods. In addition, purposive sampling was used to provide a range of perspectives and therefore the data secured was important.

3. Dependability

This aspect was measured in my research through a clear audit trail. The documentation of my data, notes and materials are available for inspection. Interview guides, questions, transcripts are all present and available. In addition, all processes and procedures are documented and a log folder to reflect supervisor meetings highlighting the discussion points and outcomes. Likewise dependability was increased by triangulation methods as discussed earlier, to ensure consistency and auditability (Lincoln and Guba, 1985).

4. Confirmability

The last aspect, acknowledges the extent to which the findings echo the phenomena being investigated. In my research, triangulation of methods (focus group, document analysis and interviews) has reinforced this. As discussed earlier member checking by providing the participants with transcripts to confirm accuracy and ensure a true reflection. In addition, I believe that having my supervisors involved in the process, such as reviewing transcripts and drafts of my work reduces researcher bias (Lincoln and Guba, 1985).

4.19 Chapter summary

This chapter has reviewed in detail the research methodological approach used in this present study.

As this research focused on the views and opinions for a number of participants a qualitative exploratory approach was adopted to examine the meanings, perceptions and experiences of the CTR role.

A collective case study methodology was used, whereby six CTRS across five NHS sites agreed to be the case studies. The chapter has also provided a discussion on the theory, application and debates – in particular the issues surrounding generalisation of using a case study approach.

The aim of the research design was to facilitate the examination of consultant practice in therapeutic radiography, with the intention to explore the perceived impact of the role in clinical practice by using a three-phased approach. As a case study approach required the use of different methods for data collection, the study utilised a focus group with the CTRs - (phase one), individual semi-structured interviews with the CTRs, medical, nursing and therapeutic staff (phase two), a document analysis of the CTR job description (phase two). In addition although not part of the case study design further semi-structured interviews with key stakeholders (SCoR, NHS England and HEE) were conducted – (phase three). Discussions on sample selection and a justification of each data collection with both theoretical and reflexive perspectives were also provided. The final section of the chapter discussed the process of data analysis and the importance of ethical considerations and ensuring rigour in the research.

CHAPTER FIVE: RESULTS AND ANALYSIS: PHASE ONE FOCUS GROUP

5.1 Phase one focus group

As acknowledged in the methodology chapter (see chapter four section 4.4), the intention of the focus group was a scoping exercise, in which interactions of the group would identify the current issues with the CTR role. In addition, the focus group allowed the researcher to witness the interactions of the group by providing a forum to convey their views and experiences of the role on various relevant issues.

5.1.1 Focus group topic guide

An initial topic guide was developed was used for the discussion during the focus group (see Box 5.1). As the focus group was taped, the responses were then transcribed and a copy of the transcript was sent to each of the participants to check for overall accuracy. Upon acknowledgement from the participants, analysis of the focus group was then performed.

Key areas for discussion

Purpose / components of role
Role interpretation/perceptions from other healthcare professionals
Challenges / Concerns
Memorable Incidents / experiences

Box 5.1 Focus Group Topic Guide

5.2 Data analysis

The transcripts were analysed using thematic analysis to report the current issues of the consultant therapeutic radiographer role and the concept of consultant practice. Braun & Clarke (2006:79) acknowledge that thematic analysis is a qualitative descriptive approach that provides a method for identifying, analysing and reporting patterns (themes) within data. The detail of data analysis followed throughout the three phases identified in chapter four, section 4.16.

5.3 Focus group findings

The data analysis revealed seven sub themes which were reduced into three final themes relating to the CTRs thoughts and views on the role. The three themes were *inception*, *perception* and *challenges* as shown in Table 5.1:

Codes	Sub themes	Final themes
Service needs – a gap Patient care needs Opportunities for radiographers	Role development	INCEPTION
Autonomy Clinical expert Specialist knowledge Leadership Advisor	Self - perception of the role	PERCEPTION
Lack of understanding of the role Lack of awareness of the role Support and acceptance	External perception of the role	
Status and credibility Recognition of the role Showcase/promote the role	Identity	
Personal expectations of the role Fears and worries	Experiences	CHALLENGES
Working with other staff Professional jealousy Segregation Fulfilment of the role	Hurdles	
Issues relating research domain of consultant practice Role inconsistencies Sustaining the role Small number of consultant therapeutic radiographers Financial constraints	Concerns	

Table 5.1 Thematic Framework

5.3.1 Illustration of findings

To demonstrate the identified themes, extracts from the transcript have been used. To ensure and maintain confidentiality the extracts have been designated a number acknowledging each different CTR, for instance CTR1.

Theme 1: Inception

The main category within this theme related to role development. It is apparent that the role was created for different reasons, and, more so, different across the sites:

“It was born out of clinical need, really, a service need.... there was a lack of registrars at that time supporting the consultants. So, there was kind of a bit of a gap for the patients who had to be seen on a regular basis. It kind of evolved from there and then taking over a practice normally done by the consultant, led to the consultant post.” (CTR3)

“It came out of a need to improve the service because they were failing with breach dates, getting patients treated because there was not a very good pathway in place. And also there was a cost implication because lots of patients were being admitted on to the ward. They were there for days waiting for treatment. So, the Trust saw an opportunity to save money by getting patients treated sooner, therefore, getting them discharged and meeting the targets.” (CTR4)

These extracts identify issues of service needs, meeting particular targets, shortage of registrars and the financial implication. They highlight the importance of ensuring an efficient patient service and improvement of the patient experience. Woodford (2006) acknowledged that departments and patients can benefit from radiographer role development, which can lead to improved cost effectiveness, reduced patient waiting time and increased patient satisfaction. In addition, Hardy and Snaith (2006) commented that role development is usually driven by the requirements of the service and other instances such as shortage of doctors (an issue that was also recognised by the Radiography Skills Mix project (DoH, 2003) citing shortage of radiologists and oncologists impacting on the workforce.

One CTR stated that the decision was more financially driven and due to a need for cost saving and it was seen that developing this role would benefit the service overall:

“It was put before the health authority, by the manager and a good case was made and the cost saving was seen to be attractive and it was cheaper to have a radiographer doing that than an oncologist” (CTR4)

Chapman (1997) reported that while there are cost savings to be made by using a radiographer rather than using a radiologist, the savings would not be realised immediately. This opinion was reflected in a study by Williams and Widdison (2013) in which respondents suggested that a consultant radiographer could be a replacement for the radiologist as a cheaper alternative. However the authors suggested that the role was designed to bridge gaps in service delivery and provide a more holistic provision, rather than to cover up the cracks by replacing a radiologist on the cheap. In addition, the CTRs highlight that as a result of knowing their own capabilities as experts in their practice, this fuelled the creation of the role as demonstrate in the example below:

“Why are oncologists doing this you know, radiographers are well placed to do this. they have got the knowledge, you’ve got the skills. So, we actually set up the post.... it wasn’t necessary out of a gap in the service but it was case of this is something we can do, take ownership of and is ours and can easily put it in practice.” (CTR1)

This quote is in keeping with the sentiments of the Society and College of Radiographers (SCoR) (2009) in acknowledging that therapeutic radiographers are at the forefront of delivering cancer care. It is the skills in general oncology knowledge and the care of patients with cancer that makes therapeutic radiographers uniquely placed to deliver integrated care across the radiotherapy pathway. Their contribution to cancer care delivery that makes them ideal candidates for role development.

Theme 2: Perception

In this theme, three sub themes emerged: self- perception, external perception and identity.

The following extracts recognise the CTRs own perspectives towards the term consultant practice i.e. their self-perception. They acknowledge that it involves being autonomous in the role and making decisions. They agree that is it about working at a higher level, gaining the knowledge and as a result becoming experts and leaders in their speciality or sphere of practice

“For me, it means that autonomy and having the knowledge to work at that level and to work with your own judgement and your own skills” (CTR1)

“I think you’re also seen as a leader. A leader, I mean people come to you for.....advice.....people come to you for the answers to questions” (CTR2)

“I think becoming the expert in the field, not necessarily always asking the oncologist for knowledge or information. You become the one that’s actually more experienced than them in dealing with a particular group of patients”

(CTR2)

“It’s definitely got its benefits.....you then develop more knowledge and expertise than them”

(CTR4)

Consultant practitioners should be knowledge brokers and conduits for sharing and involving work with others (McCaughan et al., 2002, Milner et al., 2005). It is also recognised that they are individuals that possess highly specialised knowledge and work at the forefront of their field working with high levels of autonomy (Skills for Health, 2011). Harris and Cornelius (2012) highlight that a consultant therapeutic radiographer should be in a position to lead the profession forward.

The CTRs also noted a lack of understanding about their role from other health care professionals i.e. their external perception. One of the groups of health professionals unaware of the role were the surgeons:

“A little bit of conflict in the multidisciplinary team with the surgeons not understanding my role at all and asking me if I could go and help out in the

clinic as if I was a nurse specialist and I had to point out that I wouldn't go and support an oncologist if I went to clinic, it would be to see the patient for myself. So, they have no concept of a consultant role" (CTR2)

"But they don't work with therapy radiographers. So, they don't see us as being able to be autonomous they see me as a nurse specialist." (CTR2)

The surgeons don't have any experience with this sort of radiotherapy. It's another world." (CTR2)

The Society and College of Radiographers (SCoR) identified potential barriers to consultant practice including a poor understanding of the role and how it would fit into clinical departments (SCoR, 2009). In the nursing profession, Dean (2011) highlighted that there were some nurse consultants themselves who struggled to find a specific role and delineate distinct areas of work and as a result other staff were unable to recognise the nurse consultant role. Mullen et al., (2011) concur, citing that the lack of understanding of the role was also an issue affecting nurse consultants; it was a negative aspect and hindered them.

Surprisingly, some nurses initially were also unaware of the role. This was surprising as the nurses were the first to pioneer the nurse consultant role and develop other specialist roles.

"The Nurse Specialists don't, I think it's only now, 2 – 2 and half years that they're starting to see what my role might be." (CTR2)

"Where I am, the treatment reviews are separate, radiographers do the treatment reviews and the nurse specialists don't come into radiotherapy so there is that division." (CTR2)

"When it was just advanced practitioners around we started doing review clinics....we did them with a clinical nurse specialist. So, we've always worked alongside them, they've always known exactly what we do and vice versa to be fair. it worked really well and now that I'm a consultant, the, well they just know that it's another step up" (CTR3)

Equally, other radiographers had little knowledge of the role until they were exposed to it as part of their rotation, again indicating little awareness of the role.

"When the radiographer comes to work with me, yes they see what I do and they see the other side of things but that's only a really small number and the others don't see this." (CTR2)

"It's so different from what our role would standardly be otherwise. They very much know what everyone else does, you know, they have the floor superintendent and the pre-treatment superintendent they know what they're doing they know what their job entails." (CTR1)

"There's a mixed response really..... some people you see walking around in your civvies and they don't also see working in the clinic.... they thinking that I'm not doing anything? But it's because they don't realise what your day entails" (CTR4)

"There's never been a consultant in the department anyway; I don't think anybody else really knows what's our specialty" (CTR3)

"I was already doing a job within the Trust. And it was kind of a step up from that.....so there was still a kind of a perception that I was still doing the old job. But because I already had a lot of skills in that kind of area, they didn't particularly see it" (CTR1)

Similarly this lack of awareness was also reported by the Society and College of Radiographers (SCoR), noting the lack of professional drive for consultant practitioners in diagnostic and therapeutic radiography included a misunderstanding of consultant radiographer roles by colleagues (SCoR, 2009)

However, once staff had a better understanding of the role and recognising the purpose of it, they were supportive and accepting of the role. In some instances as demonstrated below, mutual trust and respect for the role developed.

"I've had the backing of the consultants and my colleagues..... I mean I was actually pleasantly surprised the amount of how pleased people were when I actually got the position..... they've all been very, very supportive" (CTR3)

"They've all been very, very supportive, but I definitely get a feeling that they don't actually know what I do.....they know that I am busy and working but I don't think they actually know what I'm doing" (CTR2)

"I think as time goes on and you gain their trust and respect. You're good at your job and the people do appreciate your role definitely" (CTR4)

"It is about respect and getting their respect, isn't it? I think it's so fundamental. I mean I was already in the job. But I think if I'd come in fresh, it would have been a case of needing to know them, know that they knew that they respected you and they had to build that respect of you before they could actually, you know, let you have their patients" (CTR1)

"I've had lots of support from the oncologists, basically because I'm doing a lot of their donkey work" (CTR2)

"But in the main, it's been well received and often they're quite proud of the fact that there's a consultant radiographer there..." (CTR4)

Price and Miller's (2010) evaluation of consultant practitioners in one clinical imaging department concluded that staff were highly supportive of the role and were convinced that it brought benefits and improvements in service delivery. Whilst Williams and Widdison (2013) noted in their research that staff were supportive of the consultant radiographers and confirmed they had a role to play as part of the multidisciplinary team.

The CTRs felt that being in the role gave them a sense of identity, it was also clear that they felt very proud of their status and professional standing as result of the work.

"It gives you the credibility when you're talking to other health professionals especially doctors, registrars and GPs; they definitely take you more seriously" (CTR4)

"It's also recognition of our abilities to do things differently to oncologists and possibly better are there things that you can do that a doctor can't do YES...And actually there are some things we do better than doctors." (CTR2)

“There are several surgeons that actually email me or phone me about the patient rather than the oncologist because I’m more accessible....they feel more comfortable talking to me.....I can fast track the patient.....have got more power to do that than the oncologist... its quite refreshing that they can approach you and respect.” (CTR4)

Kudos of the post has been cited as a defining feature. Research by Woodward et al., (2005) acknowledged that not only were nurse consultants proud of themselves but also their colleagues, who were equally content to have the nurse consultant in post hence supportive of the role. Kelly et al., (2008) noted that self-worth; self-belief and satisfaction are also an important feature for consultant radiographers.

There was also some discussion in relation to wearing of a uniform. One of the consultants radiographers suggested that wearing a uniform would portray a more clinical role and identify them as still being hands - on in the department. Another reported using clothing to make a statement about their role activities on particular days of the week.

“I think not coming out of uniform has made quite, has made things easier. People do perceive me as clinical and I would deliberately wear it....” (CTR3)

“I don’t wear uniform on the day that I’m not clinical; I deliberately don’t wear a uniform because I’m trying to say to people I’m not clinical today... I’m trying to protect myself from being dragged to see patients all the time...” (CTR2)

The topic of wearing a uniform is interesting in itself. Holland (1993) states that putting on a uniform symbolises taking on the identity. In wearing a uniform, people’s expectation of you and responses to you change (Rudge, 1995) and can be seen as a portrayal of professional demeanour or a cloak of professionalism (Allot and Robb, 1998). Strudwick (2014) highlights that wearing a uniform shows the person belongs to the organisation and is therefore part of the culture of that organisation. In relation to the above extracts, CTR3 wore a uniform as a way to demonstrate their clinical involvement and to maintain their identity within the culture of the radiotherapy department. Whilst with CTR2, not wearing a uniform had dual purpose – a mechanism of avoidance (“I am not clinical today”) and defence (“protect myself from being dragged to see patients”).

Finally, the CTRs highlighted the importance of promoting the role. This ensures that staff would continue to be aware of the role, inform them of the work, but also overall to have an appreciation of what the job entails with the intention that some staff could potentially be interested in such a role.

"I think you have to sort of be pioneers, don't you really. And open up the opportunity for others..." (CTR4)

"Make a real change in clinical practice as well as being able to say, well this is what we can do, this is how we're going to showcase what radiographers can do" (CTR1)

"I actually set our department CPD meetings... So, I quite often get the chance to talk about (a particular procedure) or nice work I've been doing and something like that... I'll probably do maybe 4 or 5 a year but it's always about some element of my role... because I'm doing that and letting them know what I do, then, hopefully they'll see a wider remit than just being in a simulator, simulating patient..." (CTR1)

Dias (2014) noted that radiographer role development may help to create a higher profile of radiographers who not only have good technical skills but also an in depth knowledge of treatment processes. In addition, Dias (2014) acknowledged that the change of roles within the profession may also assist with staff retention and a choice of career paths such as consultant practice.

Theme 3: Challenges

The three sub themes were experiences, hurdles and concerns. The CTRs described their experiences of being in this role. Discussion regarding initial expectations coming in to role was prominent as demonstrated in the examples below

"I think the expectations for myself. I think, yeah. I'm pleased with the way it's gone and the way that it's going. I think it has more scope to change things as well. I think the expectations been pretty good actually" (CTR1)

"My expectations were slightly different because I expected...I was sort of cushioned a little bit because I wasn't fully fledged. So, I think I would have struggled if I'd gone in as a consultant because you've been expected to hit the floor running really" (CTR4)

"I can remember feeling very confused about what was being expected of me. And from one point of view thinking well, it's just what I'm already doing, but a bit more..... other people sort of bigging everything up and saying it's going to be completely different and sort of being completely torn between is it what I was doing before or is it a completely new job? So, had lots of fears and worries." (CTR2)

"My expectation was that it was pretty black and white. My area was clearly defined, but in reality that was completely different because there were a lot of things that were not sort of taken into consideration... also the expectation was there was going to be a lot of resistance from the oncologist but also radiographers with regards to professional jealousy." (CTR4)

The CTRs also reflected on some of their fears and worries surrounding the role and commented on adjusting to the changes.

"You get the post, the euphoria dies down, you're doing the clinical job anyway, and it's the other bits. I worry that I'm doing things that perhaps I shouldn't be or if I'm researching something, or not doing literature search and should I be doing that or should I be going and doing something clinical" (CTR3)

"I did have concerns because of these expectations that people were saying you will be doing research. You will be doing education. You are banded at this level. Look at what the other people are doing in the Trust at this level... it was quite a big jump in other people's expectations of me" (CTR2)

"It was a total sea of change going from the way radiographers work to the way medics and nurses work...Just a small example, hospital notes. We very rarely, I don't know about you, but we very rarely would see hospital notes and write in them or go on to the ward. I think if I had training in knowing how

the system works, knowing what you should in the ways of writing notes, dictating letters to GPs which is fundamental to your post and the unwritten laws that you should follow, that would have been very useful.” (CTR4)

Goodman et al., (2006) suggest that the changes and transitions of roles can bring unwelcome feelings such as anxiety and distress for some individuals. Brykczynski (2009) acknowledged that role development can, apart from generating anxiety, also lead to loss of confidence and feelings of incompetence.

The consultant therapeutic radiographers also reported issues with working with other staff groups and the difficulties associated with trying to ensure that there was interprofessional working.

“I think that’s probably one of my biggest challenges is the management of the (area stated) completely changing and I’ve ended up being the sort of (area stated) manager. And being in charge of procedures that aren’t (speciality stated).” (CTR2)

“You’re bringing so many staff groups together you could have your urologists with oncologists with theatre staff with radiographers. That’s one little group. Then you’ve got another group…… And actually getting everybody in the same place at the same time, at the right time is the biggest challenge I think for (speciality stated) and speaking to each other” (CTR3)

“Sort of conflicts with the anaesthetists saying what do you know about line insertions? And having to say no, you know, all patients are equal. This is the service we’re providing. So, it’s sort of a management and leadership of the (area stated) team is an ongoing battle. Basically it has been challenging” (CTR2)

“Tend not to think of them (worries) in that way really...I think managing the workload is important so that you know everybody’s aware of what everybody has to do because it’s a very specialised area. Yeah, it’s been okay.” (CTR1)

Hawes (2009) noted that team working is important and that healthcare professionals must collaborate, integrate, share knowledge, practice and experience to provide an efficient service. Powell (2010) stated that as roles develop further and

the involvement in teaching and clinical development of staff will showcase the value of the radiographer. This in turn will enhance interprofessional understanding amongst all staff and will facilitate collaborative learning.

All CTRs provided examples of professional jealousy from other radiographers, possibly as a result of their lack of awareness of the CTR role. Interestingly they also commented that some radiotherapy managers were discouraging, moreover citing being threatened by the role. This is disconcerting, as the radiotherapy managers are normally involved in the identification of need for, and development of the role in the initial stages.

“So, there’s one side of it where you sort of have preconceived ideas about what they may, might be thinking about you which is often not the case, you get the few who do make the odd comments in jest. But then you think well, do they really think I do nothing. I always think, well, you know everyone’s got equal opportunity to do what we’re doing and if they have not strived for it, it’s them that’s got the problem.”

(CTR4)

“Your manager might put some limitations on it.... I remember the Society asking me to get involved in something and I politely said I’ll ask my manager but I want to do it. And (the manager) said that, well, I don’t think you’ve got time. So, I said, well, I think it’s really important to do it. And (the manager) said, fine. You decide your own time. So, there are conflicts.....at the end of the day it is my decision”

(CTR2)

“The problem is the consultant radiographers are often banded the same as the service manager....service manager’s role, and the consultant’s role are complete, two completely different things. But I don’t think some service managers see that. I think they see it as a threat to their job and so that’s why they’re not keen to implement. Because who is the boss? If you are both the same grade. It can produce conflict. But they are two completely different roles.”

(CTR3)

“I feel there’s probably direct correlation between where the consultant radiographers are and the service manager because the service managers are not inventive enough or maybe there’s a hint of professional

jealousy....I've been in departments before where the service manager just doesn't allow anyone to progress...they often feel threatened for whatever reason. So, I think that's probably the key, you know." (CTR4)

The feelings echo Society and College of Radiographers (SCoR) report of barriers that contribute to poor acceptance of the CTR posts, including low levels of enthusiasm by clinical and general managers (SCoR, 2009). Hardy (2010) suggests that part of the problem could be managers unsure of how the consultant radiographer role transposes to a clinical role and hence how it would contribute to service delivery. Snaith (2011) reported that some managers find the consultant radiographer challenged in understanding the potential; highlighting that the large gap in the scope and remit of the role can add to the managers reluctance. Logsdail (2011) however suggests that the relationship between the consultant radiographer and the service manager should be symbiotic leading to raising the profile of the department by providing a quality patient centred service.

The existence of professional jealousy is much based on anecdotal reports and needs to be investigated. However, Hawes (2009) highlights that in any professional prejudice, individual preferences should be cast aside, as consultant radiographers are not created to threaten existing roles but to complement and enhance services.

The CTRs felt that working independently has its downside too; they expressed feelings of isolation (working on their own and not in a team setting) and segregation (a feeling of them versus us).

"Sometimes it's the companionship of that whole team.....I never get to the coffee lounge where they all sit" (CTR2)

"That kind of camaraderie you know..." (CTR1)

"I think it was a realisation just a while ago... I don't know. But it used to be us and them, management I mean. But now it's us and them (radiographers). I don't think I now have become one of them (management)." (CTR3)

"I miss the teamwork and you do feel like them and us when you go round there. But I think to myself, well, you know, I did that for x amount of years and you know, you can inspire them to do the same, if they choose to work on

a machine for the rest of their lives, then, so be it.....there's nothing to stop them is there?"
(CTR4)

"I don't know if management notices that it is strange. But I think because you're still clinical, you're seen as still one of us. But you're also one of them as well."
(CTR2)

This issue has been reported previously in relation to nursing. Dowling et al., (1995) noted that practitioners reported uncertainties surrounding their professional identities and in feelings of isolation and a sense of not belonging.

In the focus group there was a lot of dialogue with respect to the four domains of consultant practice and the difficulties in meeting all four domains. The focus group highlighted the role inconsistencies and variations across the sites in terms of the allocation of work in each domain. However, there was a general agreement that the research domain was difficult to achieve.

"I think, going back to the four, four dimensions, you do worry that...I've often stood back and say, oh, I've been working at advanced level only. You know, because I'm quite heavily clinical....maybe you are lacking in one aspect of it... but then when you look and see that, actually you're making a lot of decisions that are above advance practice does sort of bring it home to you that you are at consultant level"
(CTR4)

"I think similarly in the role, worrying whether you're covering all the four tiers and could somebody come and downgrade you, particularly in this financial climate...I meet regularly with other non-medical consultants in our trust, consultant and they have exactly the same fears and worries and we work together to try and make sure we're all doing the same things to prove that we are covering the same area."
(CTR2)

"I don't have any time to worry yet. No, not at the moment. It's all still so new the worries have not set in."
(CTR3)

"The same kind of thing.... covering all the breadth of the role to the same extent really."
(CTR1)

"I think it's quite cyclic. So, at any one given time, you're probably not doing all four (domains) but across a period of time, I think you'll find that all four were probably pretty well covered although there still quite a slight emphasis towards the clinical." (CTR1)

"You don't tend to think of them as four separate entities...because an activity could cover two or more of those pillars. It blends a lot." (CTR3)

"I think the one I struggle with the most is the research. Because to me, it always seems to come bottom of the pile...which I know it shouldn't be but it's the reality of the job and that's what I struggle with more....your patients are in the front and they will always come first" (CTR2)

"And I agree with that..." (CTR3)

"I think it's also to do with the individual. If you've got a flare for a certain aspect of the core then you tend to be drawn to that. Personally for me it's the clinical... but I'm aware of the other issues. But it's hard to pull yourself back from certain aspects particularly if you're in work all the time. You set that aside, that day aside to do your research or your leadership. And there's a knock at the door and you turn patients away. It's difficult sometimes to plan your day." (CTR4)

"I suppose it's easy to compare yourself to oncologists. And we've got some oncologists who are set in their ways, they never do any research. They never do any leadership. They're just purely clinical. And, you know, should you be like them? If you're using them as your role models, then it's easy to go down that road, isn't it?" (CTR4)

"I think things have evolved...I think it's more structured now. When I took it, it was very much, this is your job description and off you go..." (CTR1)

"There are variations in there because when my job was set up, I had a job plan which included my manager, was very aware that there needed to be education, research, leadership time within that.... But it's probably 60, 70% clinical. And then I was hearing another radiographer in my Trust getting a post and she's a 100% clinical..." (CTR4)

The difficulties have been recognised by Williams and Widdison (2013) who reported that consultant radiographers recognise the challenges faced when trying to balance the core elements of their role while appreciating the importance of integrating all four domains to their practice. Previously an audit conducted by Turnpenny (2003) in relation to AHP consultant practitioners concluded that consultant radiographers focused more time on the clinical domain of the role and neglected the other core domains.

Sustainability was also cited as a concern. The CTRs acknowledged on the NHS climate with respect to the financial constraints could have an impact on the role surviving.

"It's very easy as somebody quoted to me the other day. It's very easy to become a consultant... But it's not so easy to remain a consultant because you're supposed to be advanced... Yes, its advanced practice plus you've got to the top, but you've got to keep pushing.... So I suppose, a small worry I have is will we eventually run out of things that we can move on to in consultant practice..." (CTR3)

"I can see that some departments would say, we'll now, it's much cheaper to have somebody clinical ten sessions per week, than somebody that's actually micromanaging... So, I think it does come down to money..." (CTR2)

"I think there some service managers where they do see... it is a thing they're genuinely are strapped for money and there is no way forward with that..." (CTR1)

"I think in our department I think they've saved... without the consultant practice then they would have had to find money for another oncologist..." (CTR4)

The Society and College of Radiographers believes that the role can succeed long term, however it requires robust succession planning, business plans, evaluation strategies and evidence in terms of cost and quality effectiveness (SCoR, 2009). Field et al., (2012) recognise that the future of the NHS is shrouded in financial difficulties and emphasises on the importance of value of money. This notion can

therefore instil further fear into the consultant radiographer's current anxieties of their role.

In relation to the uncertainty in the NHS, there was also some discussion in relation to the small number of CTRs. The CTRs while unsure as to why there were not many other posts in the UK provided some reasons on why they felt this was the case. Financial constraints and the attitudes of radiotherapy service managers as barriers to developing the role which was mentioned earlier.

"Why aren't there more therapy consultants? I mean, I've got my theories, but there's a lot of diagnostic consultant radiographers..." (CTR3)

"I feel that there is a bit more take up in therapy; I mean how many are we now? (8 apparently compared to 30 – 40 diagnostics). Even that isn't a great number within radiography as a profession. Rather than splitting it between diagnostics and therapy. I think probably there are a great number of physios and maybe the role lends itself better to them..." (CTR1)

(Speaker - Reason for not enough consultant therapy radiographers)

"The service managers" (CTR4)

"I think it has to do with the service managers" (CTR3)

"And money" (CTR2)

"Sometimes it's difficult to see whether the service managers are hiding behind the money thing. Because you know, they quote money..." (CTR1)

5.4 Summary of phase one focus group findings

The findings fulfilled the intentions of the phase one focus group. The data collected indicated a partial assessment of the consultant therapeutic radiographer's role by highlighting some of the current issues they faced.

In relation to themes, inception of the role, it was evident that this was very specific and tailored to their individual clinical site. Development of the role was very much service led / driven, by addressing the gaps to ensure a better-quality pathway for the patient and also a cost saving approach as demonstrated earlier. Realising the

capabilities of radiographers in performing such a role was also acknowledged as another drive for development.

With respect to the theme of perceptions of the role; the CTRs were very clear on what they perceived the role entailed. There was a general consensus that the role had a strong element of autonomy and making clinical decisions. They also recognised that it involved being a clinical expert, an advisor and possessing the appropriate knowledge and skills. This was beneficial to them as it would permit them to become leaders in their speciality.

There were issues raised regarding lack of understanding of the role from clinicians (specifically the surgeons) who often compared them to nurses. It was also a surprise that nurses too had little awareness of the role, particularly as they paved the way for consultant practice. It was rather disheartening that even other therapeutic radiographers had limited knowledge of the CTR role. This does suggest that more role clarity and understanding is required. On a positive note, upon understanding the role, the staff actually appreciated the role and became more accepting and supportive of it.

Professional identity featured in the focus group discussion, whereby the CTRs felt the role provided them with status and credibility which they were very content with. When the issue of wearing a uniform was mentioned, it was interesting how they felt it gave them a sense of identity which determined whether they were involved in clinical duties. Moreover, the CTRs felt that it was essential to spotlight the role and publicise the work they do to increase overall awareness and understanding of the role.

Within the final theme (challenges of the role); a number of issues were raised. The CTRs discussed their initial expectations of the role which extended to some fears and worries. Their comments also had a subtle reference to adapting to change. They also acknowledge a few challenging situations such as building a working relationship with other staff and attempting to adopt interprofessional working which was proving difficult. Discussions surrounding professional jealousy from other radiographers and radiotherapy service managers was rather worrying. The CTRs felt that lack of understanding of the role may have contributed to this; however with the radiotherapy services manager feeling potentially threatened there needs to be

an appreciation that the roles of manager and consultant are very different and they are experts in their own right.

Aside from the benefits of being an independent practitioner, the CTRs had experienced feelings of isolation and felt excluded from the department. Issues surrounding whether the CTRs were meeting all domains and fulfilling the role was also mentioned; this led to identifying variations of the domains amongst the focus group. In particular the research domain which was often neglected. Equally, the CTRs highlighted that the then current financial climate would indeed have a bearing on the role, in terms of sustainability and they were in agreement that as a result this potentially influenced the very small number of CTRs in post.

5.5 Conclusion

Overall, the intention of the organised focus group was a scoping exercise, whereby the interactions of the group would help identify issues and views and experiences on various relevant issues surrounding the CTR role. The outcome of the focus group has indeed highlighted a number of issues CTR are experiencing which have been identified under the themes of inception, perception and challenges.

The overall viewpoints from the CTRs have informed the development of the questions for the phase two semi-structured interviews. Phase two will enable more data to be collected to inform or not the themes identified, but will also provide the CTRs the opportunity to discuss the issues further and provide more examples on some of the points raised in the focus group. In addition, phase two will also provide the viewpoints regarding the CTR role from the staff members (medical, nursing and therapeutic staff) whom they work alongside.

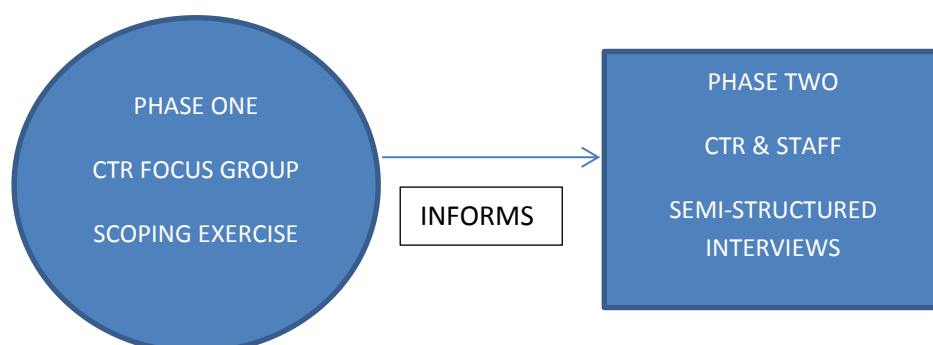


Fig 5.1 Illustration of phase one informing the development of phase two

CHAPTER SIX: RESULTS AND ANALYSIS: PHASE TWO SEMI-STRUCTURED INTERVIEWS & CONSTRUCTION OF CASE STUDIES

6.1 Introduction

This chapter addresses the findings from the phase two interviews that took place at each of the five NHS Trusts. Within this phase, the CTR's were individually interviewed to further secure rich data and acknowledge any further issues and opinions from a more personal, honest and private perspective. At a later date, individual interviews were also conducted with medical, nursing and therapeutic staff who the CTR worked with in the department in order to gain a thorough view of the CTR role from their perspectives and obtaining additional rich data (see chapter four, section 4.10).

The findings from the interviews were used to construct the individual in depth case studies (section 6.4). For the purpose of organisation, each site was allocated with a number, for instance case study site 1, 2, 3, however an exception was made for one site, where two CTR's were employed, hence a letter has been added to separate the case e.g. Site 1a and 1b

6.2 Thematic analysis

As with the phase one focus groups, the interview transcripts were analysed using thematic analysis as described by Braun and Clark (2006:87). The details of the data analysis process are identified in chapter four section 4.16

6.3 Construction of the case studies

Each of the case studies were individually discussed beginning with an introduction about the site to set the scene. The findings from the combined interviews at each site have been presented using a tabulated thematic framework demonstrating key themes. Each theme was discussed and supported by interview extracts. Finally the findings from the interviews were related back to the Dimensions of Impact Framework to examine evidence of professional and organisational impact.

6.4 **CASE STUDY SITE 1A**

6.4.1 **Setting the scene**

This Foundation NHS trust is a world renowned teaching hospital which has strong affiliations with the local university. The Trust treats nearly 900,000 patients a year and has approximately 12,000 staff. It is also a designated academic health science centre.

The cancer services in this Trust sees more than 4,000 patients each year. Specifically, the radiotherapy department sees over 200 patients a day and is a specialist referral centre for many of the rarer cancer types. The department has been able to invest in the state-of-the-art equipment which delivers the highly accurate radiotherapy treatment. The radiotherapy workforce involves a wide variety of highly skilled professionals including therapeutic radiographers, medical physicists, specialist nurses and clinical oncologists.

The radiotherapy department actively supports radiographer role development, which comprises of two CTRs and ten advanced practitioners who are all site specific.

The interview participants at this site included: the CTR, Specialist Registrar (SpR), Clinical Oncologist (Clin.Onc) and Advanced Practitioner (Adv.Prac)

NB: *This case study site has two CTRs and hence the results will be discussed as **Case study site 1a and 1b** respectively.*

6.4.2 Thematic Framework

Codes	Sub themes	Theme
Integral in service delivery Reduces waiting times Reduces pressure of the service Increases throughput of the number of patients that can be seen Aids the clinicians workload Enhances service	Service targets	Impact
Patients seen earlier and quickly Improves the patient pathway Continuity of patients care Improves the patients journey Point of contact for patients Help shape the patient pathway To look after patients and make them happier	Perceived patient experience	
Motivate staff Influence change Permits valuable partnership working Harmonious working Potential career progression for radiographers Informs practice Collaboration	Professional outcomes	
Part of the team Integral part of team Central to team Established in team Element of competition Strained relationship Close relationship Support from oncologists Support from Surgeons Pivotal	Working Relationships	

Autonomy in decisions Assist/helps the patient Assesses patients Makes own medical judgement Consenting patients Coordinating patient care Expert clinical practice Service delivery Independent practice Reviews own patients Discusses treatment options Follow up patients	Role aspects	Identity
Huge respect Very well respected Have a presence Wealth of expertise Leads from the front Pushing boundaries Appreciation Acceptance Confidence Flawed concept Reservations Any added value	Presence	
Wrong perception to patients Wrong impression Warranted title Appropriate title Reflects the role Separates the role from others Provides a difference Recognition	Status	
Gap in service Service need Needs for patients Evolving service Cancer services changing globally Implementation of 4-tier structure Adopts a multidisciplinary team approach to service	Development	Purpose

Lack of medical knowledge Medico-legal Indemnity Funding Financial pressures Blurring of boundaries Encroachment	Concern	Challenges
Medical prescribing Dose prescribing Site expansion More consultant radiographers	Recommendations	Future
Accountability Hierarchy Control Maintain Preserve Uphold Battles	Medical Dominance	Power

Table 6.1 Thematic framework for case study site 1a

6.4.3 Presentation of key themes

Theme 1: Impact

This was a dominant theme that was apparent throughout the interviews at this case study site. The overall views of the participants during the interviews perceived that the consultant therapeutic radiographer had made considerable impact within the department. Four areas of perceived impact were identified and grouped as ***service targets, perceived patient experience, professional outcomes*** and ***working relationships***.

Service targets as perceived by the participants related to examples of how the CTR influenced the service provisions for instance:

“(CTR) was integral in terms of delivering the treatments...the actual (speciality site).” (SpR1a)

In addition,

“The oncologists don’t have time to look at where the gaps are but (CTR) has really evolved the service.” (Adv.Prac1a)

Although the patient’s viewpoints were not directly captured, the interview participants at this case study site all perceived that the role of the CTR played a very important part towards the patient’s journey. The participant’s offered a range of examples pertaining to the **perceived patient experience**; for instance:

“So the impact for the patient is huge and hugely beneficial as it means they have a point of contact with an expert and specialist knowledge.”

(Adv.Prac1a)

Moreover,

“(CTR) gives some kind of continuity of care, it’s nice for them in some ways as they are more contactable than the Oncologist and if they have a problem they will get back to them quite quickly, so they probably get a better care from sort of personable perspective.” (SpR1a)

To reinforce this, feedback from patients on their behalf were also afforded by the participants, for example:

“The patient’s views about (CTR) are always positive” (SpR1a)

In addition,

“Always positive feedback only from the patient, and they feel (CTR) spends time with them.” (SpR1a)

The participants highlighted that the role does have a reasonable bearing on the **professional outcomes** in terms on how influential the CTR can be. Participants perceived that the CTR had made an impact at a local level (within the department):

“(CTR) has the ability to motivate research, the staff and influence the decision making process within the department” (Adv.Prac1a)

Also on the wider radiotherapy agenda:

"You're looking at uhm having a good career progression; it attracts people into the profession if they know there is a route to go." (CTR1a)

Discussion on the **working relationships** with the CTR was also a prevalent topic as conveyed by the participants. Participants expressed mixed views on their working relationship with the CTR. Some of the participants acknowledged the positive relationship they felt they had:

"We work very closely with (CTR) an integral part of the team, so yeah; (CTR) is a central part of the team." (SpR1a)

In addition,

"Huge amounts of support from the oncologist and the surgeons – the doctors are very keen for someone to come aboard and look after the patient."

(CTR1a)

Conversely, there were some discouraging comments for instance

"(CTR) was a very good advanced practitioner but in some ways (CTR) lost their integral role in the team when they became a consultant therapeutic radiographer." (Clin.Onc1a)

Moreover,

"There was some competition, we had to just get our heads around it....I think it was hard...but we learned to kind of work with one another."

(Adv.Prac1a)

The extracts acknowledge that impact was a central theme within this case study site. The participants overall perceived there were indeed examples of impact as demonstrated by the CTR.

Theme 2: Identity

The notion of identity as a theme throughout this case study site brought about varied views from the participants. The initial viewpoints were very much surrounding the CTRs presence within the case study site, for example:

“(CTR) is very respected by the surgeons and the team.” (Adv.Prac1a)

“(CTR) is fairly well known in our hospital and with the department” and we have every confidence in them and is perfectly capable of doing this role.”

(SpR1a)

Furthermore the views were also based around how the positioning and the presence of such a role was a favoured example of being a leader and progressing onwards and upwards, for instance:

“(CTR) has a wealth of knowledge and lead from the front and has pushed the boundaries every time and at every point.” (Adv.Prac1a)

Conversely, some thoughts on the value of the role whether in fact it added any benefit was raised, such as:

“so the question is how much extra benefit there is....it is nice to have but it’s difficult to know what the benefit is within the department...it’s probably a big benefit to them.” (Clin.Onc1a)

This was an interesting response as the views were very much alluding to the fact that there was no benefit or presence within the actual department, but more so the role was seen as a benefit to the person assuming the identity and the profession.

Equally, the issue of the title *Consultant* provided a mixed response in terms of its appropriateness. Some of the views were very much supportive of the title as it reflected the role for instance:

“I think the title is warranted, I think that actually it is a huge responsibility and (CTR) is an expert in their field, it’s definitely very respected the title.”

(Adv.Prac1a)

In addition, acknowledging the recognition of the role:

“It separates their role from the other radiographers in that (CTR) can see patients on their own and sort of make medical decisions.” (SpR1a)

On the other hand, views were also made in terms of how the title could potentially confuse the patients for example:

“Will the patients understand it is a radiographer as opposed to a doctor?”

(Clin.Onc1a)

In addition,

“I think there is a bit of confusion at times the patients assume that they are seeing a consultant doctor – but actually it wasn’t, so it just implies different things.”

(SpR1a)

Overall the participants felt that regardless of the title the patient care should not be impacted on:

“It’s fine as long as the patients’ treatment isn’t compromised.”

(SpR1a)

Using an alternative title was considered but not offered:

“It’s difficult to know whether that’s the best way of labelling them or whether there’s something else that they should use, don’t know what though.”

(Clin.Onc1a)

Interestingly reference to a nurse role was also cited as a comparison to the CTR role, yet to a Clinical Nurse Specialist (CNS) rather than a Nurse Consultant which is more comparable to the CTR:

“(CTR) is good as any CNS and it takes the role of the CNS in a lot of ways, so it is being able to be the radiographer and also be the CNS at the same time.”

(SpR1a)

This comparison does potentially imply that perhaps the SpR may not see the postholder as having a level of consultant skill.

There was also much discussion throughout all the interviews regarding the role of the CTR. Participants were able to demonstrate an awareness of what they perceived the aspects of the role entailed. The perceptions from the participants focused their understanding on two specific areas, which were the practice component of the role and qualities of the role. The practice component of the role

was in reference to the duties that CTR performed. Running a clinic and seeing / reviewing patients were the popular examples of the role, with participants citing:

“(CTR) has a clinic um....that (CTR) runs with their own patients”

(Clin.Onc1a)

In addition,

“(CTR) will see patients in the new clinic and assess their appropriateness for treatments.”

(Clin.Onc1a)

Moreover, the physical act of providing the radiotherapy treatment was also an aspect of the role that the participants cited on numerous occasions, for instance:

“(CTR) will also carry out the treatments and review the patient during treatment.”

(Adv.Prac1a)

“The role involves delivering treatment..... (CTR) also has a follow up clinic, undertaking examination.”

(Clin.Onc1a)

Furthermore,

“(CTR) is one that presses the buttons in terms of switching all the machines.”

(SpR1a)

In terms of the qualities of the role, this aspect focussed on the abilities the CTR would need to demonstrate. The responses made reference to some of the four domains/pillars of consultant practice. For instance the domain of expert practice was highlighted as being a key attribute:

“I perceive the consultant radiographer to be an expert practitioner within a specialised area, developing an expert clinical practice.”

(Adv.Prac1a)

Moreover,

“Has expert knowledge within whichever area they are practising in and also have advanced communications skills.”

(Clin.Onc1a)

The domain of leadership was also highlighted with reference to autonomy and independent working for example:

“Someone who has a degree of autonomy in their decisions.” (CTR1a)

“(CTR) can see patients on their own accord and make their own medical judgments,” (SpR1a)

In addition,

“Somebody who is authorised to have independent practice, that’s what I think.” (SpR1a)

The extracts illustrate that the participants within this case study site had awareness and some familiarity with the CTR role in terms of the attributes and were able to provide an overview of the role from their own perspectives.

Theme 3: Purpose

The participants were very confident in being able to identify why the role was created. The majority of the discussions were focussed on the service requirements and how such a role was specifically created to support the service, for instance:

“(CTR) identified a gap in the service and therefore service developed to address this.” (Adv. Prac1a)

In addition,

“The role really grew from a service need and so we identified that there were gaps in the service and there were quite a few.” (CTR1a)

Moreover, the wider perspective of cancer services was also considered particularly in terms of where the participants felt it was moving towards, for instance:

“Cancer service delivery was changing globally and we were at that point of evolving and growing the service.” (CTR1a)

Patient needs were also another factor in the development, with participants citing:

“It fitted well for the service as a whole, providing patients with information and support.” (Adv.Prac1a)

“I think the patients need this if we are going to have a patient centred care with a multi-disciplinary approach.” (SpR1a)

Aside from service, developing the radiotherapy profession and providing opportunities for staff was also acknowledged as a contributory factor with participants stating:

“There was recognition of the four tier structure by the college...it’s multifaceted, you’re looking at having a good career progression and it attracts people into the profession.” (CTR1a)

Overall the participants’ were very convinced as to why the role had been developed.

Theme 4: Challenges

A number of issues were raised by the participants that they felt the role could be deemed as a challenging aspect of the role itself. The lack of medical knowledge was seen as area of concern, for instance:

“The consultant radiographer can probably say whether the patient has had a stroke or not but whether they would be able to pick up all other things that are not directly related.” (Clin.Onc1a)

In addition, a reference to non-medical training and knowledge was also provided for example:

“Doctors train for seven to 10 years...but does (CTR) you know see evidence of other medical conditions that are not related.” (Clin.Onc1a)

Similarly, medico-legal / indemnity were also a discussion point by some of the participants stating it could be an issue, for example:

“It’s about the license issue....so it’s having to get the license to be able to prescribe (speciality) it’s the issue around that, I think”. (SpR1a)

Financial constraints / funding to support the role were a primary source of concern expressed by all participants at this case study site, for instance:

“With the current financial climate there may not be any more consultant posts.” (CTR1a)

In addition,

“Budgets are in a poor way and to fund someone at a consultant level is a big hit on the budget you know.” (CTR1a)

The views allude to the possible challenges of sustaining the role and its future.

Potential for role impingement was also raised with a suggestion that:

“They encroach a bit on what the doctors do” (Clin.Onc1a)

In addition, the considerations for ensuring boundaries were not obscured for instance:

“If the boundaries are blurred, then I think there could be a huge concern with the role.” (SpR1a)

However, the participants agreed that this could be avoided through:

“Understanding the boundaries and making the boundaries very clear, then there shouldn’t be any concerns” (Adv.Prac1a)

Theme 5: Future

The participants were all very positive in terms of how the role could progress further. Prescribing rights for the CTR was very much a popular topic of discussion; this was pertaining to medical prescribing and radiotherapy treatment dose prescribing, for instance:

“I want to look at actually prescribing the radiotherapy, the patients never see the oncologist anymore to discuss radiotherapy and so take that step out and to actually prescribe it.” (CTR1a)

In addition,

“(CTR) has been trying to do it getting on the prescription course; I think it will give them a little bit more autonomy in some ways.” (Adv.Prac1a)

Increasing the number of posts and expanding to other sites were also voiced:

"It's been identified that we would benefit from a consultant radiographer in lung; people would be very keen to have more consultant practitioners very definitely" (SpR1a)

In addition,

"They are talking about appointing consultant radiographers in high volume sites such as breast and prostate." (Clin.Onc1a)

Interestingly though, any progress in these ideas had been impacted by financial pressures as mentioned in the previous theme, for example:

"Can't imagine at this time the Trust would agree in paying someone at this level, but we are hoping eventually." (Adv.Prac1a)

Theme 6: Power

The final theme at this case study site was surrounding examples of potential power issues that existed. The views were very much divided amongst the participants. One view shared was regarding the control of radiotherapy treatment dose prescribing should still remain with the clinician, for instance:

"I think in terms of prescribing the radiotherapy it should still be doctor-prescribed." (SpR1a)

When asked to provide a reason this was based on:

"It's really the accountability issues." (SpR1a)

Similarly, control in terms of:

"We need to keep hold of this" (Clin.Onc1a)

Indicating protectionism, which the doctor is still responsible for the patient, yet the reason was seen as providing a "safety net" for the CTR.

Another view that was shared was based on hierarchal relationships between the doctor and the CTR citing:

“You might be better than a doctor, you might be cleverer than a doctor but in the end there is a hierarchy and the doctor is the leader of the team and so you cannot buck the hierarchy.”
(Clin.Onc1a)

A further view that was also shared acknowledged both the hierarchy and the shortcomings of the actual role:

“You need to work around the system and if you really want to be the top hierarchy then you better train as a doctor, that’s life you know, the concept is flawed.”
(Clin.Onc1a)

This comment was of particular interest, as the role of the CTR is not to replace the doctor but to work in a synergistic partnership, this can be demonstrated by one participant citing that:

“(CTR) is actually undertaking tasks that were traditionally undertaken by the medical consultant.”
(Adv.Prac1a)

Another view offered regarding the power relations observed, likened it to a tireless battle, which suggests that there is a potential power asymmetry within this case study site, for instance:

“I stood back and on reflection and thought you know this is not a battle worth fighting,”
(CTR1a)

6.4.4 Summary of case study site 1a

The theme of impact was a dominant feature throughout this site. Participants perceived that the CTR role did make an impact by highlighting four areas of perceived impact: service targets (influencing service provisions), perceived patient experience (benefitting the patient journey), professional outcomes (an influence within the department) and working relationships (integral to the team).

Initial thoughts by interview participants highlighted that the CTR role did have a presence and status in the department particularly being seen as a leader. Conversely, thoughts on the value of the role was raised by one participant suggesting the role only benefitted the postholder, but difficult to know the value to the department. The title of consultant was also discussed and met with mixed views; some participants felt it was appropriate, others felt it could confuse patients. However, all agreed that regardless of the title, patient care should not be compromised. Discussion on the role and purpose of the CTR was also provided. Participants were able to demonstrate an awareness of the role with responses largely reflecting two of the four domains of consultant practice (expert practice and leadership), yet were cognisant of why the role was developed with specific reference to service needs.

“Challenges” was highlighted as a theme, with a number of concerns voiced, such as lack of medical knowledge, medico-legal issues, financial constraints and the potential for role impingement.

In relation to the theme of future, participants were supportive of role being developed further with prescribing radiotherapy treatments as an example. Increasing the number of posts was also raised, yet all were aware that financial constraints would hinder this.

Potential power issues were identified, particularly alluding to how doctors’ were protective towards CTR prescribing radiotherapy treatment, evidence of inherent hierarchical attitudes and potential power asymmetry.

6.4.5 Mapping to the Dimensions of Impact Framework.

The findings from case study 1a were mapped for evidence of professional and organisational impact using the Dimension of Impact framework (chapter 3, section 3.5). An example of the framework mapped for case study 1a is included (see Table 6.2).

Professional impact

This domain has four indicators that focus on CTR impact on other healthcare professionals:

Professional competence

Within this case study site, the CTR was perceived to impact on the competence and confidence of other healthcare professionals. Perceived impact was evident through examples such as providing encouragement and support to the Advanced Practitioner (AP) in developing their practice. The CTR's wealth of knowledge also impacted on staff, specifically the SpR's who perceived that the CTR's depth of knowledge aided their learning. Furthermore, the wealth of knowledge was important for the CTR to push boundaries and be influential with others. The CTR also recognised the importance of their role in educating others.

Quality of working life

Participants perceived the CTR role could potentially impact on aspects such as, morale, motivation and job satisfaction. For example the AP perceived that the CTR role had the ability to motivate staff, drive research forward and input in decision making processes. Also, interviews with participants perceived that the CTR role has the opportunity to provide good career progression that can enhance staff morale and aid in recruitment and retention.

Professional social significance

Perceived impact on the workload by the CTR was evident in this case study site. Participants perceived the role helped ease the work pressures of the Clinical Oncologist. Furthermore, the CTR was seen to aid the overall workload by organising their own patient lists and devoting time to consider service improvements.

Professional social validity

The CTR role had a positive impact on team working; for instance participants viewed the CTR was part of the team and integral within it. In addition being established within a team setting such as a MDT, the CTR role was useful in developing key networks and relationships, for instance with the surgeons.

Organisational impact

This domain comprises of three indicators which relate to CTR impact on organisational issues.

Organisational competence

Within this case study site, the CTR role was appointed with the responsibility to identify gaps in service. Perceived impact was seen in improving services on rehabilitation and post-treatment within the department. Furthermore interview participants perceived the CTR role made a positive impact on reducing patient waiting times and increasing the number of patient consultations therefore enhancing the service. The CTR also perceived that their role was cost effective for the service.

Organisational social significance

The CTR reported perceived impact through involvement at a Cancer Network level. For example collaborating with external staff in publishing national recommendations, for the management of late effects, therefore informing practice. Furthermore, by attending conferences the CTR was perceived to impact knowledge generation by updating and informing staff through organising study days and CPD sessions on new developments in practice in other departments.

Organisational social validity

Perceived impact was evident in the CTR's engagement in various external activities. For instance, the CTR was appointed as Chair for the local Cancer Network and was involved in collaborations with the Department of Health and local cancer charities. Overall involvement in the activities was perceived as positively raising the profile of the department.

Table 6.2 Dimensions of Impact Framework Mapping for Case Study Site 1a

Professional impact:

Domains	Indicators	Examples of impact
<i>Professional Competence</i>	Impact on confidence and competence of healthcare workforce (e.g. effecting knowledge, skills, behaviour, attitudes)	<i>“(CTR) has a wealth of knowledge and leads from the front and has pushed the boundaries every time and at every point.” (Adv.Prac1a)</i> <i>“I was very dependent on (CTR) to help, encourage and support me whilst I was advancing my practice and (CTR) supported me in developing my practice.” (Adv.Prac1a)</i> <i>“The registrars they find it quite useful to have someone that they can go to for training that’s not their consultant, their medical consultant because they know we have quite a depth of knowledge and we know how the medical oncologists function. Uhm so, they sort of utilise, they tap into us, a lot I think” (CTR1a)</i> <i>“You know, I think that is very integral to our role is looking at the education of others around us” (CTR1a)</i>
<i>Quality of working life</i>	Healthcare workforce on the perspective on the impact on the quality of their working life arising from the practitioner intervention (e.g. job satisfaction, morale and motivation).	<i>“(CTR) has the ability to motivate research, the staff and influence the decision making process within the department” (Adv.Prac1a)</i> <i>“You’re looking at uhm having a good career progression; it attracts people into the profession if they know there is a route to go.” (CTR1a)</i> <i>“I am very supportive obviously but I think it’s more supportive of the people who are good and because there’s a career progression.” (Clin.Onc1a)</i>

<i>Professional social significance</i>	Extent to which the practitioners interventions are important to professional outcomes e.g. workload, work distribution, turnover across the workforce.	<i>"The role has taken a lot of pressures off the Oncologists and made their workload more manageable. And, certainly, for the service as a whole information and support, treatment, providing support for patients with problems was a gap in the service, identified by (CTR) and service developed to address this"</i> (Adv.Prac1a) <i>"At the new patient clinic (CTR) sees them consents them, discusses the adjuvant treatment with them and then, you know consents them so basically does it without a seeing a doctor. The patients don't see a doctor at all. Um... and (CTR) has own list of patients"</i> (Clin.Onc1a) <i>"The oncologists don't have time to look at where the gaps are but (CTR) has really evolved the service."</i> (Adv.Prac1a)
<i>Professional social validity</i>	Social importance and acceptability of the intervention for the healthcare workforce and whether the interventions address important problems that healthcare staff encounter e.g. teamwork	<i>"We work very closely with (CTR) an integral part of the team, so yeah; (CTR) is a central part of the team."</i> (SpR1a) <i>"(CTR) has got a very close relationship with the surgeons as in the (speciality) surgeons. (CTR) comes to the MDT, is fairly well-known in our hospital and our department with the (site) special interest"</i> (SpR1a)

Organisational impact:

Domains	Indicators	Examples of impact
<i>Organisational competence</i>	Extent to which practitioners contribute to an efficient and effective organisation in terms of business concerns of finance, governance and legal requirements	<i>"Uhm for me it was very clear that our (speciality) patients had a very poor service. There was more and more evidence coming out that patients did better, from a survivorship point of view, if they had information on rehabilitation, post-treatment and that wasn't happening. So, uhm, I sort of identified this. I did a report. Sent it to the Trust and as a result of that, they allowed me to focus on the (speciality) patients. Uh, so my role really grew from a service need. So we'd identify that there was a gap in the service"</i> (CTR1a) <i>"New patients probably don't have to wait as long as if (CTR) wasn't here. Because otherwise, they would have had to just come into our new patient slots. So actually, (CTR) often has a few more free slots to see them quicker"</i> (SpR1a) <i>"I think from a financial costing point of view, we are actually quite cost effective in the, you know some of the roles that I do would have to be done by uhm the very least a registrar. So, if you're looking at the balance of-of costing per session, then we do work out cheaper but it doesn't always work like that"</i> (CTR1a)
<i>Organisational social significance</i>	This concerns policy objectives relating to organisation e.g. national and local priorities, contributing and developing policies and generating new knowledge	<i>"The vision of the CTR role being uhm network-wide responsibility. So I take on the (speciality) support, throughout the (location) Cancer Network. So it was – their vision was that the role can be rolled out if you like across all of the whole of the Cancer Network."</i> (CTR1a) <i>"I'm working with the uhm, National (speciality) nurse for their consequences of treatment group and by the end of next– end of this year, we want to have published national recommendations on management of late effects."</i>

		(CTR1a) <i>"In some ways (CTR) has got strong interests, and going to these conferences not only to talk but to absorb what other people are doing, it does keep us up-to-date in some ways, like the late effects. So, (CTR) arranging a one-day talk on the late effects of GI, late effects from radiotherapy. So, we then benefit from knowing what (CTR) learnt from other centres"</i> (CTR1a)
Organisational social validity	Social importance and acceptability of practitioner intervention for the organisation and whether the interventions address important issues for the organisation and whether the outcomes are meaningful to the organisation in terms of achieving its core values.	<i>"As the CTR I am also the chair of the (location) Cancer Network (speciality) Group. Uhm we look at policies and procedures across the whole of the network, information delivery, and we're really, obviously, we're a cancer centre so I get patients referred in from all across the region for specific information"</i> (CTR1a) <i>I'm working with Department of Health and (Cancer Charity) I'm looking at survivorship and late effects. I ideally like to establish is a very recognised pathway. Uhm, again, across the networks, I want to identify (speciality) within the cancer network and es-establish a multi-disciplinary team and to manage late effects. And as I say, uhm, uh, the Department of Health and (Cancer Charity) have identified this is one of their top three uhm, projects to put money into as well so, I'm working quite closely with the"</i> (CTR1a)

6.5 **CASE STUDY SITE 1B**

6.5.1 Setting the scene

Please refer to SITE 1A for the introduction of the case study site

The interview participants at this site included: the CTR, Specialist Registrar (SpR), Clinical Oncologist (Clin.Onc) and Nurse.

6.5.2 Thematic framework

Codes	Sub themes	Theme
Optimisation of man power Fulfil service needs Advantageous to service Reduces pressure on clinicians Modernises the workforce	Service targets	Impact
Point of contact Continuity Involved in patient pathway Intermediary between patients and clinicians Instrumental in patient pathway Reassurance Beneficial	Perceived patient experience	
Aids career structure Career development Career opportunity Mentoring & guidance Support skills mix	Professional outcomes	
Cohesive member of the team Dependence Reliance Valued team member Supportive Admiration Invaluable Fundamental within team Support from doctors Mutual understanding Synergy	Working relationships	

Specialist Expert Manages patients Independent practice Service development Technical aspects Decision making Runs own clinic Reviews patients Coordinates Provides guidance Triaging patients Higher level Autonomy Leadership Education & training	Role aspects	Identity
Visible Showcase role Established Clear boundaries Reputation Presence felt Respect Appreciation Positive acknowledgement	Presence	
Titles Not a medical consultant Similarity to nurse specialist Hugely competent Highly efficient A voice in MDT Plinth for site specific area Working as a second oncologist Defined role	Status	
Professional jealousy Perceived threat Financial considerations Increased workload Pressures Fear of failure	Concerns	Challenges

Lead in planning National representation Management Teaching	Recommendations	Future
Control issues Hierarchy & pecking order Exclusion Respect & worth Protectionism Limited autonomy	Medical dominance	Power

Table 6.3 Thematic framework for case study site 1b

6.5.3 Presentation of key themes

Theme 1: Impact

The theme of impact again was a very prominent issue as acknowledged by the participants. Yet again, as indicated in case study site 1A, the responses in this instance highlighted that perceived impact was indeed evident amongst four areas including **service targets**, **perceived patient experience**, **professional outcomes** and **working relationships**.

With **service targets**, the participants perceived that the role did have a bearing on the overall service and workforce for instance:

“Having a person consistently in post can be extremely valuable, having an individual trained specifically for that role meant that it makes best use of all the available manpower within the department” (Clin.Onc1b)

“The CTR’s role is obviously there to develop the service and helped be part of that service and for service provision and um for service evaluation and service improvement” (SpR1b)

With regard to **perceived patient experience** the participants all highlighted that the role did have a considerable involvement along the patient’s journey. Participants cited that the role provided a range of perceived benefits to the patient’s, for instance:

“The CTR is their point of contact, their key worker and provides a piece of care on part of the journey; the patients have got someone who’s very experienced in their field” (Nurse1b)

“Instrumental in terms of the patient pathway and is a very important intermediary between the patients and clinicians” (Clin.Onc1b)

Moreover, although patients were not interviewed, the participants alluded to the fact that the patients under the CTR’s care had provided positive feedback, for example:

“The patients are very happy – (CTR) will get all the chocolates and the flowers and everything. The patients are fully appreciative of (CTR)”

(Nurse1b)

“Well (CTR) quite often gets thank you letter and presents, it was so evident when I was working with (CTR) that the patients very much enjoyed the care”

(SpR1b)

“The patients think (CTR) is fabulous, they love the contact and the expertise”

(Clin.Onc1b)

In terms of **professional outcomes**, participants perceived the role could potentially be beneficial in terms of career progression and opportunities for radiographers overall:

“It is very useful not only for medical staff, but also helpful for the department and the radiographers within it to see that there is a career structure”

(Clin.Onc1b)

“There was always support for role advancement; the department sees the benefit of it. It was recognising the skills and expertise and rewarding those with such a position. The Society also recognised they needed consultant radiographers” (CTR1b)

The final area of impact pertains to the **working relationships**. The participants were all very positive regarding the relationship they had with the CTR and it was

evident within the interviews that they perceived such a role was invaluable. Participants cited for example:

"I think we do work very well together... we bounce of each other's ideas. We will tend to have good handover of what's going on and keep each other well informed" (Nurse1b)

"A very healthy working relationship mutually, (CTR) knowledge base and experience were invaluable. We complemented each other and I think the team as well" (SpR1b)

"(CTR) is one of the most cohesive members of the team and pulls everything and everyone together" (Clin.Onc1b)

"We are coming from the clinical side whilst (CTR) is coming from the more technical side and at the end we're are going to be working together so I think it can only be helpful and our skill set complement each other" (SpR1b)

Theme 2: Identity

The issue of identity appeared in this case study site and was discussed by each of the participants. Participants identified the role as a specialist in their field through training and were aware it was not a medical consultant, for example:

"(CTR) has formal training but is not a medical doctor consultant" (Nurse1b)

"They don't have a medical qualification, (CTR) is not medically trained but have a specialism that has got to that role" (SpR1b)

In addition,

"It's a bit like (CTR) to a point is like a specialist nurse really, but working as a radiographer." (Nurse1b)

Moreover, the Nurse during the interview made it very clear that the CTR role existed in its own right and how the role was positively portrayed citing:

“Our consultants listen to (CTR) and they will use (CTR), it’s not that (CTR) is a handmaiden to the doctors you know (CTR) comes in with ideas”

(Nurse1b)

Continuing on, visibility and status of the role was also a viewpoint that was acknowledged by participants, for instance:

“The consultant therapy radiographer has just as much an important role as the consultants in (speciality) oncology”

(Clin.Onc1b)

“I wear a uniform so it really highlights me as not being an oncologist. I have been always been adamant I ‘m a radiographer and I think that that’s one way that the patient knows”

(CTR1b)

“CTR is still in a uniform – I think that’s helpful for the patients and it makes her visible to other people and they know who she is”

(Nurse1b)

The issue of the title consultant was yet again a feature amongst the participants. The participants overall positively favoured the title and felt it was appropriate for such a role:

“They’re not saying that they’re clinical consultants, they’re specialists in their field of expertise and I think it is a title that is fitting”

(SpR1b)

“I think it’s perfectly appropriate, it is important because it marks (CTR) as being different and established in a very unique and sort of bespoke role”

(Clin.Onc1b)

“For me it doesn’t make any difference because actually (CTR) is (CTR), I understand the difference in a medical consultant and a consultant therapeutic radiographer, in the radiotherapy department it stamps what level where (CTR) is at”

(Nurse1b)

Interestingly the SpR during the interview, although very supportive of the role was cautiously mindful of such a title and the impact it may have on patients:

“I don’t know whether or not the lay public would be a bit confused, but then there are nurse consultants, maybe it’s just a lack of knowledge”

(SpR1b)

The presence of the role within the department was also addressed; the opinion of the participants was positive and felt that the role had a notable presence within the department:

“(CTR) is a very valued member of the team, in the department (CTR) does a lot and we are quite dependent on (CTR) as one individual; we would be hugely at risk if (CTR) left as there aren’t many people like (CTR)”

(Clin.Onc1b)

“(CTR) is a hell of a lot more than other people; the whole department is fully aware of (CTR) role and quite happy with the commitment (CTR) provides”

(Nurse1b)

“(CTR) is so very knowledgeable about the whole treatment process; (CTR) is a very instrumental part of the team and very thorough than me as a medical person.”

(SpR1b)

In addition, within this case study site, the participants were able to provide an understanding of what they identified as the main components of the role. As with case study 1A, the perceptions were very similar to each other, with references to the *clinical remit* and the *traits* of the role. The *clinical remit* of the role was very much identifying the tasks and duties carried out by the CTR, for instance triaging patients, reviewing patients and running a clinic.

“The CTR has their own review clinic, so on-treatment patients would be seen by the CTR. The CTR organises and runs a weekly clinic”

(Clin.Onc1b)

“The CTR is instrumental in terms of booking, coordinating the planning process and then reviewing the patients on treatment and post treatment”

(SpR1b)

With regard to the *traits* of the role; this was surrounding the CTR’s abilities to perform such a role. It was noted that the participant’s responses echoed the person specifications outlined in the job description. For instance:

“The CTR needs to have an expert knowledge and have a lot of experience the field that they are practising in and also practice at a higher level”

(Nurse1b)

In addition,

“It is acting as an expert, supporting and um recommending and managing treatments...you are also looking to have a degree of autonomous practice”

(CTR1b)

“I see that person as an independent practitioner, providing a workforce that sits alongside me providing specialist expertise in my experience for (speciality) tumours”

(Clin.Onc1b)

The interviews acknowledged overall that the participants had a comprehensive understanding of the consultant therapeutic radiographer role and were able to provide a good overview of the actual role and its characteristics.

Theme 3: Challenges

Increased workload was cited as a concern and the potential impact that it may have. For instance, the feedback from the SpR highlighted that the CTR potentially took on more work than required and was personally concerned in terms of the implications this could pose:

“If anything (CTR) took on more of the role that she might have needed to, so (CTR) may have felt stressed out because actually took on quite significant role”

(SpR1b)

Similarly this sentiment was also shared by the Nurse, who alluded to burnout as a result of increased workload but also the high expectations from patients being another factor:

“(CTR) does manage her workload, but I think sometimes patients become very needy and certain patients have unrealistic expectations and its driven (CTR) a bit mad, but it’s hard to pull that in”

(Nurse1b)

Again this was also supported by the SpR, who highlighted that the area of specialism could also be a contributory factor:

“Also in (CTR) specialism it is quite an emotive speciality, it’s very tricky sometimes and (CTR) maybe can get the raw end of it because (CTR) would be the first point of call” (SpR1b)

Financial pressures within the department were also an issue of concern; in particular the impact on developing more consultant therapeutic radiographers. The CTR in particular highlighted the barriers that finances can create:

“There are no immediate plans to have any further consultants; it’s clearly a monetary fight. Um I think that will be a fight we have to have, we are expensive to own and have” (CTR1b)

But regardless of the finances, it was evident that the participants were supportive of the role and the huge amount that they felt the department gains from it for instance:

“I see the role evolving and becoming more prevalent if there is enough funding for it because I think they can bring so much to the patients experience” (SpR1b)

Conversely, although support of the role was evident throughout the interviews, the CTR acknowledged that the main challenge was the perceived threat and professional jealousy incurred as a result of being in the role:

“I think there’s a threat. I think the threat comes from our own profession. You’ll see somebody in the department who is ambitious and um I suppose it’s uh jealousy, professional jealousy it’s terrible” (CTR1b)

“The hardest is your own radiographers about this threat, this perceived trying to be better than other people, a lot of “I can do your job” ” (CTR1b)

Furthermore, the CTR exclaimed that this attitude was very much present in the higher levels of the department

“Bizarrely, from a senior section of the department it’s very real, yeah there’s a lot of professional jealousy” (CTR1b)

However, it was clear from the CTR that they were confident to deal with this challenge and deserving of the role:

"I am not ashamed to say yes I am a consultant and I am very well supported"

(CTR1b)

Another challenging aspect was very much based on the CTR's personal thoughts regarding the amount of pressure attached to the role. The CTR particularly acknowledged the notion of self-pressure and fear of failing and the negative impact it potentially creates:

"I feel stressed about being seen as an independent practitioner, I feel a lot of pressure on myself. I put a lot of pressure on myself um to feel that I have to justify my existence and that I am working at a consultant level."

(CTR1b)

In addition:

"I still feel that somebody in the background going "are you really a consultant?", you are not a consultant, this is a consultant, there is a massive stress to balance this feeling that you've got to be doing all the domains"

(CTR1b)

The response from the CTR potentially highlights the frustrations they are faced with as a result of the expectations set out by the role itself.

Theme 4: Power

A number of issues relating to power were acknowledged mainly by the CTR. The CTR in particular provided a lot of examples toward this theme; for instance, although they felt supported in the role, they sensed there was still an undercurrent of hierarchy within the department which had an impact on performing the actual role:

"When I worked with one clinician, I had much more of a say than I do now because I am fifth in the line, it's a bit like a throne isn't it? Now there are four clinicians to me so I am not a doctor so therefore I'm never going to have that influence – a pecking order as such as they would say"

(CTR1b)

In addition to this, the CTR also highlighted that there have been instances of exclusion occurring with other health care staff, which again impacts on being able to fully engage in the role:

"I have a fantastic working relationship with the nurses but I still don't get asked to do things, I am a resource in the department and yet you're being excluded, everybody is boxed into their disciplines very much" (CTR1b)

Issues surrounding gaining respect were also raised by the CTR and having to prove worth to be in the role to some of the clinicians, for instance:

"It's still hard to get them to respect me. It's just about people understanding that you're capable of it. They have this need to box people and if you're not a doctor you can't possibly know, but I think you have to show them you are capable" (CTR1b)

Interestingly, the concept of protectionism also was featured with the CTR stating that certain roles were very much guarded by the clinicians and not offered up to the CTR; a particular example was pertaining to prescribing radiotherapy dose:

"There is one massive block which is prescribing radiotherapy and um you know they won't go there...but that is not a massive hardship and I don't get hung up on that" (CTR1b)

The aforementioned can also be linked with another issue raised by the CTR which is surrounding limited autonomy and that is it testing to be fully autonomous as clinicians are still responsible and essentially accountable for some of the clinical work, for example:

"That's a strange word in oncology because to be truly autonomous is impossible in oncology. I still don't feel that I am autonomous, I feel as though I'm still always having to go through somebody else, I don't feel I have a direct route" (CTR1b)

The sentiments were further echoed as the CTR emphasised that the clinicians are very much responsible for what the CTR performs as a result of the medical regulations:

“You know I can’t have my own workload on the computer screen, it has to have a GMC number to have a clinic, so even if your name is on it, underneath somewhere will be the clinician who will collect those numbers”

(CTR1b)

Of the rest of the participants interviewed, the Clinical Oncologist had made some reference to power issues, in particular control issues or more so lack of acceptance / acquiescence by some of the junior doctors toward the CTR role, for example:

“Some of the junior medical staff find it quite difficult because they have no conception that they don’t particularly like being told what to do by a radiographer and they find it quite difficult. I have to tell them you know this person knows more about it than you”

(Clin.Onc1b)

This was positively reinforced by the SpR, who made it transparent that the CTR had indeed a role for training and teaching and helped in their own development:

“CTR is a resource that myself as a trainee should be encouraged to access and learn from so that we can gain our own experience.”

(SpR1b)

Theme 5: Future

A number of future recommendations regarding the CTR role were considered and quite varied amongst the participants. For instance when interviewed, the Nurse highlighted that although the role of the CTR was patient focussed, perhaps more management could be another facet to their role:

“I wonder whether (CTR)’s role will be pushed to be doing more of management of other staff within her role, so she will have a clinical role but actually she’ll be doing people managing”

(Nurse1b)

Management is essentially part of the leadership domain of the CTR role, so the nurse could be unaware that this should inherently be part of the established role. Interestingly the response from the SpR recommended that the role should have a more formal teaching component to it:

"I just think in terms of actually formal training of trainees you know, (CTR) was a resource that could be better used"

(SpR1b)

Again, one of the domains of the CTR role is education and training, therefore a component that is an expectation. Both responses potentially highlight there is a need for the CTR role to be better informed in order to provide a greater understanding of what the role entails.

On the other hand both the Clin.Onc and CTR shared a similar view that a potential future recommendation would be leading the planning side / pre-treatment aspect of the patient:

"(CTR) has achieved a lot; (CTR) could do the planning and the outlining. I know (CTR) has been leading the initiative to try to optimise our CT imaging from planning which is still not optimal"

(Clin.Onc1b)

"I would be interested in the target volume delineation and we would have our own planning meeting so what I would draw would be checked just like the Clin.Onc is checked at their planning meeting"

(CTR1b)

6.5.4 Summary of case study site 1b

Participants perceived that the CTR did make an impact in the department. Specifically, four areas of perceived impact were evident including service targets (the CTR had a bearing on the service and workforce), perceived patient experience (aiding in the patient experience positively), professional outcomes (aiding radiographers career progression) and working relationship (a positive relationship with staff).

Interview participants also had a good understanding of the role, recognising it as a specialist, existing in its own right and were able to differentiate it from a medical

consultant. In addition, participants identified the role based on the clinical remit (tasks and duties the CTR performed) and traits (abilities to perform the role such as an expert). Participants also noted that the role had visibility and status in the department indicating its importance. Moreover, how the role had a notable presence in the department. The title of consultant was discussed and overall participants felt the title was appropriate and reflected the role. One participant did however highlight the potential for the title to confuse patients and important to be mindful of it.

A number of challenges were stated by participants such as increased workload resulting in burnout was a potential concern for the role. Financial pressures were also discussed by the participants and the negative impact on creating more CTRs. The CTR perceived an undercurrent of inherent professional jealousy in this site but felt it was managed. The effects of fear of failing in the role was also reported by the CTR and seen as a frustration in trying to meet the expectations.

The CTR felt there was evidence of power issues which impacted on the role. Examples such as hierarchy in the department, exclusion from some duties, gaining the respect / acceptance and protectionism of roles specifically prescribing radiotherapy treatment were raised.

With regard to the future of the role, two participants suggested involvement of the CTR in management and education. Both components are already part of the role and suggest the need for providing staff with more information about the elements of the role.

6.5.5 Mapping to the Dimensions of Impact framework

Details of mapping professional and organisational impact using the Dimensions of Impact framework for case study site 1b can be found in Appendix L.

Professional impact

Professional competence

The CTR was perceived to impact on the competence and confidence of other healthcare professionals. For instance the SpR perceived the CTR played an important role in their learning and helped develop their skills. Also the CTR's

knowledge base and clinical experience positively impacted on the SpR who found it invaluable and helped enhance their technical skills. Furthermore, perceived impact was evident through the CTR's expert knowledge of their specialism by advising the clinical oncologist on patient matters.

Quality of life

Interviews with participants acknowledged that the CTR role had the potential to positively impact on staff working experience. Recognition that the role would benefit radiographer career structure and progression was acknowledged. Furthermore the CTR's role in supervising specialist radiographers was also perceived as potential to impact on their professional development.

Professional social significance

It was perceived that the CTR had an impact on the overall workload of the service, for instance independently running an on-treatment review clinic with their own group of patients; also monitoring patients follow up through the development of a telephone clinic which previously would have been undertaken by a clinical oncologist.

Professional social validity

Interview participants perceived that the CTR had a positive impact on team working. Participants acknowledged that the CTR was a valued member of the team and were reliant on them. Participants also recognised that the role was just as important as the medical consultant and ensure cohesion within the team. Further a positive working relationship was apparent with the CTR complementing each member of the team.

Organisational impact

Organisational competence

Evidence of perceived impact by the CTR on the organisation was acknowledged by interview participants. For instance the clinical oncologist reported that the CTR was tasked in setting up and leading a new service to optimise an effective care pathway

for the department. In addition, development of the CTR role was to implement and lead pathways and also to help in service evaluation and improvement.

Organisational social significance

CTR's active role in audits and reviewing services was perceived as a potential impact. For example, the clinical oncologist highlighted that the outcomes of the CTR audits would be used to inform practice in the department. Furthermore, as the CTR was engaged in research through publications and involvement in projects, this would have a perceived positive impact on overall knowledge generation that would benefit the organisation.

Organisational social validity

Perceived impact of the CTR in achieving the organisations core values was recognised with a Trust award for services to patient care. Interview participants reported that patients provided positive feedback and were appreciative of the CTR. Furthermore the CTR's involvement at a national level was also regarded as perceived organisational impact by raising the profile of the department.

6.6 CASE STUDY SITE 2

6.6.1 Setting the scene

This Foundation NHS trust is an acute hospital providing a range of elective and emergency services including an innovative Emergency Care Centre (ECC).

The oncology centre receives approximately 8,000 new patient referrals a year and provides a comprehensive cancer service for the 1.8 million population at this site. The radiotherapy department provides a modern environment for patients with state-of-the-art equipment, research facilities and a Macmillan patient information centre.

The centre works in a multidisciplinary team (MDT) approach with involvement of physicians, oncologists, radiologists, clinical nurse specialists and radiographers

The radiotherapy department has fully embraced radiographer role development comprising of a consultant therapeutic radiographer who leads a team of Macmillan specialist radiographers and advanced practitioners.

The interview participants at this site included: the CTR, Specialist Registrar (SpR), Clinical Oncologist (Clin.Onc) and Nurse.

6.6.2 Thematic Framework

Codes	Sub themes	Theme
A prompt service Efficient service Timely treatment delivery Useful to service Improves service Improves waiting times Streamlining service Fast tracking Speeds up pathway Reduces admissions	Service targets	Impact
Improves overall patient care Patients seen quicker Vital for patients More time with the patient Increased rapport with patients Point of contact for patients Considers patient holistically	Perceived patient experience	
Part of the team Works alongside Dr's Sharing workload Go to person in dept. Reduces Dr's work burden/pressure Extra pair of hands to the clinicians	Working relationships	
Embraces the four tier structure Maintain professional development Empowerment Confidence	Professional outcomes	

Enhanced practitioner Extra experience Dealing with patients Liaising Specialist Reviews patients Decision making Autonomous practice Advises Consents Expert practice Independent practice Four domains Assesses patients Prescribing	Role aspects	Identity
Like having another registrar Similar to a Registrar Doing the role of a registrar Similar to Nurse specialist Feel like a consultant	Portrayal	
Title Protection Support from all An equal Trust Respect Acceptance	Status	
Showcase role Role expansion Increase uptake	Recommendations	Future
Increased workload Victim of own success Outside scope of practice Clinical governance Lack of medical knowledge Training aspects	Concerns	Challenges

Protectionism Reluctance Scrutiny	Medical dominance	Power
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Table 6.4 Thematic framework for case study site 2

6.6.3 Presentation of key themes

Theme 1: Impact

As with the previous case study sites, impact yet again is featured predominantly within this case study site. Similar categories have also been developed from the responses provided, which are ***service targets, perceived patient experience, professional outcomes*** and ***working relationships***.

With ***service targets***, the participants all perceived the CTR role did help the service and ultimately make a difference to the patients, for instance:

“I think it’s helped streamlined things, the CTR has helped in many ways you know it also speeds up the pathway and patients get treated quicker”

(Clin.Onc2)

“Waiting times are vastly reduced – that is such a massive difference and improves the service, as a result a patient is getting seen quicker” (Nurse2)

“The role is very useful to (department name) and very useful in dealing with the emergency radiotherapy cases. I think it is a success for the centre”

(SpR2)

The CTR provided more of a personal account and linked the responses to the creation of the role with the intention to improve the service for instance:

“It was felt they needed someone in terms of fast tracking the cancer patients, treating the patients more quickly and efficiently and really streamlining the service. With the increasing workload in the oncology centre, I feel probably the role has been able to lessen the burden on the department” (CTR2)

Under **perceived patient experience**, all the participants were highly positive on this area and highlighted that there was indeed a perceived benefit toward the patients as a result of the role, for example:

“(CTR) has a got the luxury of yeah having a bit more time, so I think they get a good service from (CTR). I think the role is very useful for patient care in this centre”
(SpR2)

“I believe from a patient point of view (CTR) is a very good link between the oncologist and the radiographers and (CTR's) presence has made a big difference to the patients”
(Clin.Onc2)

This was also reinforced by the nurse, whose response also made reference to why it would benefit the patient, for instance:

“It’s a fantastic role; I think it’s vital for our patients you know, in order to get them seen in a timely fashion and prevent them from long hospital admissions”
(Nurse2)

With regard to **professional outcomes** the CTR discussed the perceived merits that the role brought to the post holder and to the profession itself. In terms of the post holder this focussed on what they would gain from being in the role and how they potentially could be empowered by it too:

“Yes the role was also to certainly alleviate some of the problems of workload, but I can see the motivational side of it for the post holder and also the morale boosting too.”
(CTR2)

“The level of work at which I work is one where your training, your knowledge of skills empowers you and enables you to have the confidence to make that decision”
(CTR2)

In addition, the CTR also stated that assuming such a role highlights the importance of maintaining professional development:

“In terms of my knowledge and skills based that’s growing all the time, I am becoming more and more of an expert and I do this by maintaining my CPD, you never stop learning do you?” (CTR2)

In terms of the actual profession, the CTR perceived that the role did have a bearing on the department’s vision of embracing role development:

“The icing on the cake was for the centre to have a consultant post because they very much embraced the idea of the four-tier structure as they had assistant practitioners, advanced practitioners” (CTR2)

The final aspect of impact is **working relationships**; again the participants were very positive and supportive regarding the addition of such a role for instance:

“(CTR) is an important member of the team and we are pretty much happy with (CTR) oh yeah and happy for (CTR) to share the work”

(Clin.Onc2)

“So I have a really good relationship with (CTR) from my specific tumour group, I know I can ring (CTR) and I kind go and see him and discuss the scans together and things like that” (Nurse2)

“From my point of view I think that (CTR) enhanced my training and that (CTR) was a good person to get teaching and experience from.” (SpR2)

Theme 2: Identity

Three notable sub themes were evident within this case study site *portrayal, status and role aspects* of the CTR role.

With *portrayal* this was based on how the participants saw the role. The participants made comparisons of the role to what they felt it resembles. For instance, the clinical oncologist, specialist registrar and even the nurse associated the CTR role to a medical registrar; interestingly the clinical oncologist also compared the role to a nurse specialist:

"It's like having another registrar in the department, another person to help out" (Clin.Onc2)

"So like a nurse, like a clinical nurse specialist" (Clin.Onc2)

"I suppose doing the job of a junior registrar. So they branched out and given (CTR) clinics to do, so kind of a junior registrar job" (SpR2)

"Quite often you know, it's a case of it works very very similarly I think to the registrar role in the sense when (CTR) is reviewing patients" (Nurse2)

Equally the CTR also offered a comparison of the role, but actually felt that the role was very similar to that of the medical consultant, this was as in the context of staff seeking advice:

"You know you feel like you're a consultant because a consultant is consulting and they are consulting you, that's what it should be like" (CTR2)

Under *Status*, the issue of using the title "consultant" was raised. Three of the participants were very supportive of using the title and highlighted that it was warranted due to the highly specialised nature of the role for instance:

"For me I think you know it's a natural progression, I think it does state within the title that they are specialists within that field, it's a very clear title and I don't think there is any harm in the name" (Nurse2)

"I don't have an issue about it, I am not bothered by it – it's just a name and it's just a title. It's what you do that counts" (Clin.Onc2)

However, an opposing view was offered by the SpR, who viewed the title as not appropriate as felt it could mislead and confuse the patients in thinking the CTR was in fact a real medical doctor, for example:

"I don't like term Consultant because I don't think it's fair to the patients"
(SpR2)

In addition, the SpR further reinforced the view that it could confuse patients in terms of who was responsible for their care:

“It is unnecessary and confusing, I think patients need to that they only have one consultant” (SpR2)

Interestingly, the SpR also alluded towards the historical nature of the title within the medical discipline and also indicated a view of protectionism in that the title should remain within the medical view:

“In a hospital scenario the consultant word has been reserved for the head clinician of that patient’s care. I don’t know why they have to steal the word from the medical side because it makes it complicated” (SpR2)

However, the SpR was supportive of the role but felt an alternative title would be fitting and lessen the potential confusion:

“(CTR) does a good job and it’s good for the patients...the name is just an issue, I’m sure there are other titles such as senior, senior radiotherapist or radiographer?” (SpR2)

The CTR felt the title was appropriate for the role. Moreover, the CTR highlighted that the initial title had the prefix “Trainee” attached to it was also a form of protection in two scenarios; as a way of labelling that the CTR was in a learning and teaching capacity and also to dispel any animosity and professional jealousy amongst the peers, for example:

“The title trainee consultant made such a difference, because you know I was sort of saying that I am here to learn, teach me...you know I’m not – I’m not here to tell you what to do” (CTR2)

“What really helped was the fact that I was called trainee consultant and not consultant. If I had gone in as a consultant radiographer, for some that would have been a hard pill to swallow, some would have been why is he a consultant, what makes him a consultant, so for me that was a protection”

(CTR2)

Another area under *Status* was surrounding the general impression the CTR had within the department. All the participants were very favourable towards the role and indicated a positive support and saw the benefit of it, for instance:

"It's good we have the role, it works extremely well and the Consultants quite happily will say can you discuss that with the (CTR)." (Nurse2)

"(CTR) does a good job in terms of the actual way and an extra pair of hands to the consultants. They are keen for (CTR) to continue because it takes the pressure off them" (SpR2)

Therefore, echoing the positive working relationship as mentioned under impact earlier.

The clinical oncologist went a step further in support of the role by acknowledging that the CTR was perceived as an equal in terms of knowledge after a period of time, for instance:

"It began as a teaching role, I was teaching (CTR) about (speciality) cancers, as (CTR) got to know more and more about it you know, you feel an equal" (Clin.Onc)

The CTR felt the support working in the department, however did also mention the initial attitudes towards the role was difficult due to not understanding the role, for example:

"There have been issues when we've been understaffed and they may see me just sat on my desk think I just push paper, they only see snippets of what I do and don't understand the role" (CTR2)

However the CTR acknowledged that it had improved and now felt recognised for the role, for instance:

"It's going better than I would imagine; it's getting the confidence, gaining the acceptance and gaining the trust" (CTR2)

“They come (doctors) to me all the time with referrals, because their case load is heavy and they trust me and know I provide a good service to the patients”

(CTR2)

Moreover, the participants were knowledgeable regarding the role of the CTR. Two of the participants based their understanding on the actual function the CTR carried out, for instance:

“A specialist within their field, they can action things, review someone, recommend radiotherapy and plan it “

(Nurse2)

“Someone who is working independently and makes decisions without direct supervision within protocols

(CTR2)

Whilst the SpR and the clinical oncologist, on the other hand have based their understanding with respect to the qualification of the role, for example:

“Someone who’s not got a medical qualification but who has gone through some extra qualification / experience and assessment above and beyond their normal role so that they’re a sort of enhanced practitioner compared to their peers”

(SpR2)

“An individual who has got a medical type of degree without being a doctor that has obtained competencies to take on some of the roles that traditionally doctors did”

(Clin.Onc2)

Interestingly, both participants have from the onset indicated that the role is not a medical role but more so a form of role enhancement which is different to the usual role radiographer.

Theme 3: Challenges

Discussion around the increased workload to the CTR was highlighted by some of the participants as a potential concern. The nurse in particular acknowledged that there should be a limit to the workload for the CTR, for instance:

"I wonder sometimes you know whether there is too much work for you, or what is the limit? At what point do you say no?"

(Nurse2)

"I know that they (doctors) are accessing (CTR) more, a lot more than would have been accessed before. So whether or not that is too much"

(Nurse2)

In addition, being the "victim of your own success" was alluded to by the clinical oncologist who felt this could be an added issue associated with the increased workload:

"I think one thing that can be a bit worrying is if someone is very competent and very good at what they do, you can end up doing more than you are supposed to do"

(Clin.Onc2)

This sentiment was also shared by the CTR, who also acknowledged that there could be implications for working outside ones scope of practice, for instance:

"Clinical governance concerns me I think. You're working outside of you know, you're not working under protocol and you have to be aware of your limitations."

(CTR2)

In addition, the CTR highlighted that the potential consequences was something that needed to be considered:

"One day you may cross that line and then there could be repercussions for patients and for myself, so you have to be aware of that"

(CTR2)

Interestingly, the clinical oncologist was assured that the CTR was very aware of the ethical implications and also had the confidence to seek advice if needed by citing:

"(CTR) has a strong character to say no...(CTR) knows the limitations and that's what I like about (CTR), if something (CTR) is not happy about it can be left for us (doctors) to sort out"

(Clin.Onc2)

The lack of medical knowledge was primarily discussed by the SpR who felt this could be a potential area of concern and essentially impact on the patient care, for instance:

“If a patient asks (CTR) an unrelated cancer medical problem, then would (CTR) feel slightly out of their depth? Patient’s safety would be unlikely to be uncompromised but ultimately (CTR) is a less qualified person to deal with these types of issues” (SpR2)

Although not doubting the CTR role the SpR was more concerned that any patient issues could potentially “slip through the net” but essentially also ensuring that the CTR was protected from any serious situations, for instance:

“Is the CTR occasionally missing things which perhaps may not be picked up and impossible to prove?” (SpR2)

“It is not about the individual it more actually for the (CTR) there would be an issue if a patient made a big complaint” (SpR2)

This particular area was not a concern or addressed by the other participants, for instance the clinical oncologist felt it was not an issue and again acknowledged that the CTR was someone who had the character to refer back if need be:

“Co – morbidities, (CTR) will ask, I don’t have to worry about that and of course if it’s something (CTR) is not happy with it will be for us to come and intervene” (Clin.Onc2)

Alongside lack of knowledge, the SpR also felt that training aspect of the role should also be examined. The SpR alluded to a need for a more robust training for such a highly specialised position and particularly as the patients’ wellbeing was concerned, for instance:

“Registrars go through formal teaching and the basics but I think that (CTR) has a lot of practical experience. (CTR) is picking up knowledge and skills ad hoc from the Consultant but is that satisfactory, does (CTR) feel adequately prepared for it?” (SpR2)

The SpR highlighted that a medical background was important and this was very much where the differences were seen:

“I am a brand new registrar but I do have 8 years of medical training behind me. No disrespect, (CTR) is probably more qualified as a registrar on their first day but from a patient’s point of view do they want somebody who has more medical qualifications?” (SpR2)

Conversely, the CTR felt that the training received was actually structured well and appropriate in carrying out the role:

“They got on aboard an oncologist who agreed to mentor that person and it was underpinned by an academic portfolio in conjunction with the University; there were clear objectives and you are directly supervised for so many different scenarios” (CTR2)

Theme 4: Power

This theme was mainly acknowledged by the CTR; as during the initial period of being in the role the CTR felt there was some evidence of protectionism from the medical consultants, for instance:

“Getting the oncologists to let go of the patients – that was such a challenge” (CTR2)

However, the CTR was mindful why there were some reservations from the medical consultants and it possibly was due to issues surrounding clinical governance:

“You can’t blame them because the buck would stop at them if anything went wrong and it’s such a big clinical governance issue” (CTR2)

In addition, some initial reluctance was noted by the CTR, who felt that there was some apprehension from the medical consultants:

“You understand where they are coming from, you’re seeing their patients, you’d have your own accountability but they would be accountable because it’s their name at the bottom of the letter you know” (CTR2)

The CTR also acknowledged that again during the initial period, they felt scrutinized and had to convince someone of the value of the role:

“It was a hard struggle; you got to justify your existence. It’s important to document everything, have I left a trail of what I have been doing, your always thinking that some is looking over my shoulder” (CTR2)

However, the CTR was eager to point out that this was in the early days of being in the post and attitudes have now changed and improved:

“It has taken several years to gain their trust and respect and initially I might have to keep reminding them I was here, you have to sell yourself” (CTR2)

This was supported by the clinical oncologist who recognised that change had occurred and there are new ways of working:

“There is a lot of responsibility that has been devolved, I don’t think we can go back to the old days where everything was done by the doctor, some of the things that have been handed over to other professionals are done in a much better way than medics used to do” (Clin.Onc2)

Theme 5: Future

A number of recommendations for the future were offered by the participants in this case study site. For instance showcasing the CTR role was mentioned by the nurse who felt that the role deserved recognition, for example:

“Knowing how well it works needs to be showcased and knowing how well its working here I think needs to be highlighted” (Nurse2)

In addition,

“(CTR) is seen as an expert in the field, they know the job title, and people would say yeah that is what it is; but he probably does a lot more than what the title says” (Nurse2)

The CTR was very honest that the role did require more promotion, citing that:

“My profile is probably lower than it should be on a national level” (CTR2)

Moreover, the CTR considered that the role should be promoted at an earlier stage to illustrate the opportunities that the radiography profession has:

“I think it is really important to motivate and teach them while they are at college you know, so instead of saying we’re training you to become a radiographer, we are training you with a view to be, you know, a consultant radiographer” (CTR2)

Further expanding the role was also acknowledged by both the clinical oncologist and the nurse in terms of more responsibilities that could be taken on by the CTR, for instance:

“Whether there is a scope for the CTR to kind of take on the follow up and things like that. There is you know a scope for the role to be widened”

(SpR2)

“It would be nice to include the (CTR) in the MDT particularly the (named speciality) ones, which would be useful because it’s all about the patient”

(Clin.Onc2)

Finally the CTR suggested that it was important to increase the uptake of the CTR role to preserve it. Citing the deficit of CTR could be due to factors such as inertia, reluctance and initial apprehension of embracing radiographer led services, for example:

"I do feel and it's very sad that the uptake hasn't happened and why these roles are not being pushed for?" (CTR2)

The CTR highlighted that the role has multiple benefits and personally felt it would essentially become a missed opportunity for departments:

"They (departments) need to see the wisdom of such a post and how much easier their workload becomes, but also the level of high quality of care and treatment that can be given to patients with such roles." (CTR2)

6.6.4 Summary of case study site 2

Evidence of perceived impact of the CTR role was highlighted at this site with participants providing examples relating to service targets (streamlining the service), perceived patient experience (benefitting the patients care), professional outcomes (merits the role has to the postholder and the profession) and working relationships (forming positive relationships with other staff).

The CTR role was identified by some participants making comparisons with other roles such as a registrar or a nurse specialist, but recognised the role as a specialist with an advanced skill set. The SpR and clinical oncologist based their understanding on the qualifications of the role and were clear it was not a medical doctor. The title of consultant was also discussed with three participants agreeing that it was appropriate and warranted. The SpR however considered the title could potentially confuse patients and felt it should remain with the medical profession and consider adopting a different title. The initial use of the title "trainee" was seen as a protection for the CTR who felt this helped prevent any confusion. Interview participants overall were supportive of the role and saw the benefits.

Participants highlighted a number of concerns to the role such as increased workload, working outside scope of practice if given more responsibilities. Lack of medical knowledge and review of the training was acknowledged by the SpR who indicated this should be examined.

Power issues particularly protectionism was discussed by the CTR, although aware that this may be due to clinical governance issues. Initial feeling of scrutiny was also raised by the CTR, yet reported changed and improved.

Recognition and further promoting the role was deemed as a future prospect for the CTR role to ensure that it would provide a better understanding of it. The CTR also felt it was important to increase the number of CTRs to ensure preservation and the highlight the advantages to departments.

6.6.5 Mapping to the Dimension of Impact framework

Details of mapping professional and organisational impact using the Dimensions of Impact framework for case study site 2 can be found in Appendix M.

Professional impact

Professional competence

Interview participants at this case study site recognised the perceived impact the CTR role made on other staff in particular impact on their knowledge and skills. For instance the SpR perceived that the CTR enhanced their training through advice and teaching which was of value. Furthermore, this was supported by the clinical oncologist who acknowledged the teaching component of the CTR role and the perceived benefits it provided to the registrars in gaining clinical experience.

Quality of working life

It was perceived the CTR role could positively impact on the post holder by motivating and boosting morale, in addition the potential to empower and enhance confidence when making clinical decisions. Furthermore, the role could also influence others, for instance the CTR as the professional lead to a team of specialist radiographers would nurture and give advice.

Professional social significance

The CTR had perceived impact on the workload and acknowledged that due to increasing workload in the department it made sense that the role would support the clinical oncologists. This was reinforced by both the clinical oncologist and SpR

reporting that the CTR helps to ease the work pressures and saves them a lot of time.

Professional social validity

Interview participants recognised the value the CTR made within the team and the positive working relationship that existed. Both the clinical oncologist and nurse acknowledged that the CTR had a presence in the department which was important in building a rapport and maintaining links.

Organisational impact

Organisational competence

The introduction of the CTR role has led to a streamlined service; the CTR perceived impact was evident through identifying inefficiencies in triaging. The CTR was responsible for fast tracking patients and evaluating ways to reduce hospital admissions cost effectively. Furthermore, the perceived impact on patient waiting times saw the CTR role vastly reduce the wait times and enable a quick turnaround for investigations.

Organisational social significance

The CTR's involvement in clinical trials was perceived to positively impact on patient recruitment and numbers for several clinical trials. In addition, the CTR was active in research and conducted audits to inform practice and contribute to policy and protocol development.

Organisational social validity

Evidence of perceived impact on the organisations core values relating to patient care was potentially recognised through the CTR's service evaluation using a patient satisfaction survey. The CTR perceived patients were satisfied with the service provided by the CTR and in some instances reported as better.

6.7 CASE STUDY SITE 3

6.7.1 Setting the scene

This large teaching hospital founded in the 17th Century is one of eight hospitals within the Foundation Trust. It has links with both local Universities. It provides acute services to a population of approximately 300,000 and provides specialist tertiary care in areas including cardiac surgery and children's services. The teaching hospital has a staffing workforce of 8,442 on the main site.

The oncology centre provides specialist non-surgical treatments for people with cancer and for people who do not have cancer but require specialist radiotherapy and haematology services. It has three main specialities – oncology, haematology and palliative care. The radiotherapy department itself has a range of treatment modalities and treatment management options for patients, including gamma knife, chemotherapy, brachytherapy and radioactive isotopes.

The radiotherapy department actively supports radiographer role development, which comprises of a consultant therapeutic radiographer and a team of expert / specialist site specific radiographers

The interview participants at this case study site included: CTR, Specialist Registrar (SpR), Clinical Oncologist (Clin.Onc) and Nurse

6.7.2 Thematic Framework

Codes	Sub themes	Theme
Streamlined Efficient Smooth running Aids the service Better organisation Reduces Dr's workload Process mapping	Service targets	Impact
More time Point of contact Information & support Positive feedback Familiarisation	Perceived patient experience	
Support for role development Changing practice Pushing boundaries	Professional outcomes	
Partnerships Peer review Training Resistance	Working relationships	
Titles Comparisons Respect Trust	Status	Identity
Expertise Coordinates Independent practice Autonomy Treatment delivery Consenting Patient assessment Management role On treatment review Strategic role Decision making	Role aspects	

Work pressures Overload Burn out Know limits Lack of time for research Sustainability	Concerns	Challenges
Further role extension Formalise training Showcase the role	Recommendations	Future
Protectionism Superiority Power dynamics	Medical dominance	Power

Table 6.5 Thematic Framework for case study site 3

6.7.3 Presentation of key themes

Theme 1: Impact

The participants perceived how such a role did make an impact; as with the previous case studies, the areas of perceived impact were once again identical. The specific areas were ***service targets, perceived patient experience; professional outcomes*** and ***working relationships***.

Under ***service targets*** the participants perceived the role did positively impact on the provisions and the overall running of it; with narratives highlighting efficiency, and smooth running of the department; for example:

“Just having somebody in that central role to coordinate everything so things like getting theatre staff and anaesthetist and so on, making sure the scanner is there ready for when patients need scans and so, having somebody there doing that and being responsible for it, I’m sure helps the service run smoothly”

(SpR3)

In addition:

"The service is much more streamlined that (CTR) is there - So (CTR) process maps and made it so much easier so that has been really good on the service provision, (CTR) has just been brilliant" (Nurse3)

In particular the clinical oncologist perceived the role was useful in easing the clinicians' workload and an ideal opportunity for the role to be involved in the service:

"In terms of from the service point of view (CTR) has managed to take a lot of the service out from the medical consultants to be able to do this and aid them" (Clin.Onc3)

In terms of **perceived patient experience** again the role was perceived by the participants as being crucial for the patients on the radiotherapy journey. The participants highlighted what they felt was the potential benefits but some also provided actual feedback from the patients who had been seen by the CTR for example:

"Going through with the patient what the...what procedure is going to involve, answering any queries that they have. I think that's really important because often (speciality) is quite an alien concept for most patients and having somebody who's got enough knowledge and expertise in it to answer those queries and give them that time is really useful." (SpR3)

In addition:

"A lot of patients having prostate treatment have commented that they felt very well looked after while they're having the treatment." (SpR3)

"I have to say my patients are very complimentary - they receive (CTR) care very well and there is no criticism ...So the patient benefits massively" (Nurse3)

With regard to **professional outcomes**, again the participants indicated the perceived benefits the role provided to those in post. The responses were based on

how the role champions the notion of role expansion but also the advantages it could bring for the post holder, for instance:

“An awful lot of the things that the doctors do, there are many roles that could be given to therapy radiographers or diagnostic radiographers to do just as well, and even possibly better” (CTR3)

“There are a lot of things that I feel that can be dealt with non-consultant, or non-medical consultants, so this is not strange from our point of view that we have other roles stepping in to do as allied health professional stepping up to do major roles.” (Clin.Onc3)

In addition, the nurse was very eager to highlight the perceived gain for both the person in post and how it helps the service, for instance

“(CTR) has changed practice such as skincare -- little things like that that might seem little to -- not particularly sexy to many but to the patient a massive difference. Also, the distress thermometer; which was another thing that (CTR) helped with and bring into the whole of the oncology centre and helped with the research and now uses a modified version.” (Nurse3)

Moreover, the nurse perceived that such roles provided a gain to the person performing the role citing:

“Oh definitely (CTR) is pushing boundaries and is so innovative” (Nurse3)

Finally in terms of **working relationships**, again this was overall perceived as a positive for the participants, who indicated a strong affiliation with the CTR. For example:

“(CTR) was learning from me and then I was learning more techie stuff from (CTR). So we learnt we sort of traded off learning from each other. Professionally we get on well -- we have become friends through our professionalism” (Nurse3)

The clinical oncologist was very pleased with the rapport that existed with the CTR, citing:

"It's very close actually. So I think three or four days a week that we actually work together. There are days that there are no procedures at all, in those days we actually meet for peer reviewing." (Clin.Onc3)

Equally the CTR acknowledged the support from colleagues was evident, for instance:

"The oncologists have been fantastic, absolutely fantastic. And they're always asking me to do more and more, and sometimes I can say to them, would it be helpful if I did this? So incredibly supportive"
(CTR3)

The SpR perceived the working relationship valuable in terms of the training/learning opportunities gained from the CTR:

"I've always found her very helpful, always very helpful to discuss any questions I have as a registrar and is very good at the teaching aspect of it. (CTR) certainly has a sort of training role with registrars, and will spend time going through how everything works and so on, and the protocols that we've got." (SpR3)

Interestingly, the clinical oncologist raised the issue that the surgeons found the role difficult to embrace; this was on top of having a lack of understanding as mentioned early;

"I think you can sense it from the surgical side of things, they're not used to this, because they don't have a similar role in surgery and I actually sensed it several times, and I had to say this is actually someone who's very capable of doing that and making that decision. So yes, I think there is a bit of resistance" (Clin.Onc3)

The clinical oncologist was very quick to acknowledge that regardless of the attitude from the surgeons, the department saw the perceived benefits of role development citing:

“There is support for role development in the department” (Clin.Onc3)

Theme 2: Identity

Again as with previous case study sites, the topic of the title consultant was a discussion point amongst the participants. All the participants felt that the title was indeed appropriate and reflected the role. For example:

“I think it’s an appropriate title for somebody who’s got consultative skills and expertise which (CTR) does have in that field. I guess, you know, in any other field of work, it wouldn’t...no one bats an eyelid if someone was called a consultant of something. I think...yeah, on a practical level, it makes it very clear what (CTR) ‘s role is.” (SpR3)

In addition,

“Yes, I think it should say consultant because it has gravitas and it actually elevates the expectations of what other therapy radiographers -- and so it puts (CTR) above the rest” (Nurse3)

This was equally reinforced by the CTR who acknowledged that the title came with the level of responsibility citing:

“I have got a title that reflects the level that I’m working at” (CTR3)

The Clinical Oncologist made an interesting comment by highlighting that it should not be about the title but more so the abilities demonstrated to carry out the role:

“I mean (CTR) is not a consultant because of (speciality), it’s because of (CTR)’s capabilities of taking on clinical assessments, and the responsibilities”
(Clin.Onc3)

Moreover, the clinical oncologist insisted that the role had allowed the CTR to be comparable to that of a medical doctor due to the nature and the higher level of working with such a role, whilst the nurse went further and exclaimed that the role was actually replacing a medic's role:

"I sometimes find the discussions we have are as if you're talking to another medical colleague....very capable and picks things up quickly" (Clin.Onc3)

Also,

"Sometimes it is synergy and sometimes it is not, but is definitely replacing a medic.... the reality is it is replacing the medic role and cheaper. There is no doubt about it and there is no point in us pretending" (Nurse3)

Viewpoints on the status of the CTR role were also offered by the participants who were very pleased with the recognition that was attached to the role. For instance:

"I believe all of (CTR) staff respect and look up to (CTR) and I trust (CTR) implicitly" (Nurse3)

"(CTR) is obviously clearly well respected by (CTR) peers, (CTR) clinical oncologist peers or (CTR) med-onc peers" (Nurse3)

Continuing on, from a personal viewpoint the CTR felt that respect was evident in the department and was fitting:

"It's been a gradual process. Just...and I think they trust in me and them teaching me. Um, it's been a very two-way process." (CTR3)

Also,

"I'm quite well respected; people are genuinely delighted that somebody that is still working practically with patients has got to that level" (CTR3)

In addition, the participants were very aware and had a good understanding of what the role comprised of; this was evident in the responses based on what the consultant therapeutic radiographer was involved in, for instance:

"I would see that as someone who has a high level of expertise in a specific field coordinating the (speciality), setting up the treatments and can be involved in the consent" (SpR3)

"I see (CTR) as an autonomous clinical practitioner, in the role of (speciality) and (CTR) does it independently and performs the role very well" (Nurse3)

Moreover,

"It's a post that comes because of your clinical expertise then it's about being more strategic, more managerial" (CTR3)

Interestingly, although the participants interviewed were all conscious of the role, the SpR, clinical oncologist and the CTR acknowledged that there was very much a lack of understanding particularly from the surgeons who are involved in this area of work, for instance:

"The surgeons in the MDT, I've had a few problems with one of those in particular who thinks I am a glorified nurse specialist. And wants me to come to clinic to hold patients' hands" (CTR3)

In addition,

"(CTR) has a direct liaison with the surgeons, I don't know if our surgeons are quite aware that it exists or what (CTR) does...you know." (SpR3)

The SpR also added that attempts to showcase the role have been made with the CTR providing information on the role:

"(CTR) has come and spoken to some of our own MDTs about what being actually offered and doing and invited them over to see what's going on" (SpR3)

Theme 3: Challenges

A number of issues were presented by the participants in terms of the potential challenges the role could pose. Increased work pressure / overload was mentioned by the majority of the participants, for example

"Taking on too much because (CTR) is asked to do an awful lot because (CTR) has got so much expertise in (speciality) and I think...we all do rely on (CTR) quite heavily" (SpR3)

"Work pressures and I don't think that (CTR) could take anything else on, really. In fact, I do (CTR)'s appraisals, and in fact, the advice that I have, if you want to take anything on, you have to drop something." (Clin.Onc3)

The Nurse agreed with the risk of increased workload but also highlighted that it could also result in burn out:

"I think (CTR) takes on too much – people will take (CTR) for granted totally, (CTR) will burn out or that somebody in that role could burn out -- so my concern would be if not looked after well enough and is over used." (Nurse3)

Knowing the limits of the role was also highlighted by the SpR and the Clinical Oncologist who considered this important as this could potentially have a negative impact, for example:

"I guess, you know, if somebody in that role would need to be really careful that they are aware of their limits and pipe up when necessary if they're being asked to do things that are outside the scope" (SpR3)

"You're asking someone who's not medical to be taking that role with certain dimensions, and I think you have to be very careful about it." (Clin.Onc3)

This was clearly an important aspect for the CTR who was cognisant of keeping within their limits of the role and felt it was of paramount importance to uphold it:

"You are taking responsibility for that patient and you will do it in the best way you possibly can, no corners cut. It's my responsibility and I think it's as you go up the ladder as well, you take on more responsibility. And there's no way I'm going to accept substandard treatment" (CTR3)

The final concerns were very much acknowledged by the CTR, who firstly mentioned the lack of time to do research, therefore essentially not meeting one of the domains of consultant practice:

"The research is the thing that does tend to suffer" (CTR3)

The CTR was conscious this was as a result of the work pressures of the role citing:

"It's just the pressures of the job, isn't it? And I think it is the fact that you do need head space, you need time away. I'd actually think I might actually get stuff done, just focus on research or development or writing or you know but no" (CTR3)

This was also reinforced by the clinical oncologist who also felt the work pressures impacted on the aspects of the role:

We're a very busy centre so it would impact on the things that (CTR) would like to do, and (CTR) can't take on. So things like research, (CTR) wants to take more research, this is something that (CTR) wants to do." (Clin.Onc3)

The final concern from the CTR was surrounding the notion of sustainability of the role and also longevity of the role as a result of funding / financial situations within trusts, for instance:

"Money. Cut backs. Um, where is it going? Will departments eventually get more consultant radiographers, what's the future here, even? Where is it going? And in this financial climate, it's hard for radiotherapy services managers to find the extra money to pay and create a consultant post" (CTR3)

Theme 4: Future

A number of recommendations were put forward in terms of how the participants felt the role could be expanded. Further role expansion was an idea that was put across particularly in the area of prescribing radiotherapy treatments:

"The only thing the doctor does now is prescribe the radiation which, probably for me, is the next step, to start prescribing but not quite sure yet what hoops I've got to jump through" (CTR3)

Although the notion of prescribing radiotherapy was shared by the clinical oncologist, it was made very clear what the CTR could prescribe, for instance:

"Because there are standard doses, and I can't see why not, I mean especially in our department because normally we review the progress forms, so if we've agreed on the doses, there's no reason why it shouldn't."

(Clin.Onc3)

The topic of prescribing radiotherapy and the responsibility of it will be revisited in a later theme.

Another recommendation was the importance of having a recognised training programme as acknowledged by the clinical oncologist who felt this was crucial in the success of future roles:

"The fact that it is not just a role, it needs to be proven by the variety of knowledge and training, there must be sort of, some form of steps that radiographers can take a minimum kind of training that they need to pass first before we start introducing more and more non-medical consultant roles"

(Clin.Onc3)

Promoting the role both at a local and national level to gain better recognition was another recommendation made by the nurse, when interviewed. For instance:

"Showcase: Those conferences the consultant therapy radiographer should have their own slot -- should be speaking should actually be speaking in the main programme so that you are recognised on the same level, should be"

heard on the same level as the Clin.Onc - it is just the recognition of -- it is an important role.” (Nurse3)

This was also shared by the SpR who viewed it from a local / department level, citing:

“Guess a bit more...a bit more limelight you know of what (CTR) does; (CTR) is very involved in sort of lots of things in the department but perhaps, from time to time, do some kind of presentations to the department to update people on what's happening ...would be good to showcase.” (SpR3)

Theme 5: Power

The final theme of the case study site pertained to power. This was made evident through a number of examples. Firstly, in reference to prescribing radiotherapy treatment, where there was an undercurrent of protectionism noted, for instance the SpR and the clinical oncologist viewed this as an aspect the doctors needed to retain as part of their role:

“We always...a doctor always prescribes it. I think that's appropriate because I, you know, feel I have overall responsibility for that side of things. I think you know...I think it is ultimately the clinician's responsibility, but that's not so much the prescription, the piece of paper that the prescriptions are, it's more an implied responsibility for the whole of that patient's care. So, you know, I would have...I would probably have an issue it.” (SpR3)

In addition the clinical oncologist added:

“No, the prescribing is still done by us, and I think it has to be, because of the doses and things, I think it's the RCR guidelines, that it would need to be done by a clinical oncologist having had the FRCR.” (Clin.Onc3)

This was interesting; as earlier the clinical oncologist stated that standard dose of prescribing radiotherapy treatment would be an option. In addition, as stated earlier the CTR also acknowledged that it would be a future recommendation but was mindful of the “hoops to jump through” and the potential barriers to come up against, for instance:

“I'm not sure how one of them would be about me actually signing the dose. Because his...when we discussed it a couple of years ago, he said that a registrar would have to do their part ones and part twos before they can prescribe. So, how would what I do be equivalent? But I feel in the narrow area that I'd be prescribing, that I would have...well, I have got more knowledge than the registrars. But it might not be on an exam, like a part two. So, I don't know how easily he's going to accept that.” (CTR3)

Issues surrounding superiority were commented on by the CTR particularly some attitudes from the registrar grades that were sometimes uncomfortable with a non-medic teaching them. The CTR was very frank and open with regard to it:

“The registrars, that's an interesting one. Very variable. I do have a few problems when it comes to sort of...the doctors expect me to supervise and teach the registrars now. Um, and some of them don't particularly like it. They don't like me telling them what to do, some of them have been fantastic, and so, it's not all of them.” (CTR3)

The CTR commented that their medical status may have been a contributory factor:

“I get the impression from some other registrars that they think they're better at it even though they've never done it before. Because they're a doctor, they think they know everything, some of them do.” (CTR3)

Regardless, the CTR was confident that her expertise would prevail and it would be the case of having a supervisory role:

“Sometimes, they only want to learn from a doctor, though - there can be a bit of friction. But I think that they are aware that when they are in that situation, that I am supervising them.” (CTR3)

Power dynamics were observed by the nurse, who felt that this existed between the clinical oncologists and the CTR and potentially hindered the professional relationship; in particular this was to the perceived autonomy that was bestowed upon the CTR in terms of responsibilities and making decisions and again surrounding the issue of protectionism as mentioned earlier:

“So I think there is a bit of power play that goes on, there are a number of clinical oncologists that potentially find it a challenge. So they might say, yes it is fine and it is it is great that (CTR) can do the treatment we will then leave (CTR) alone and let them do it; but then (CTR) is not left alone. But that is a thing where I think the clinical oncologists needs to be educated to let go. And I can understand that that is a hard thing to do” (Nurse3)

6.7.4 Summary of case study 3

Interview participants acknowledged that perceived impact of the CTR role was evident. Examples were made in reference to four specific areas: service targets (a positive impact on the service provisions and smooth running of the department), perceived patient experience (benefits to improving the patient experience), professional outcomes (benefitting the person in post) and working relationship (building a rapport with staff).

Participants demonstrated a good awareness and understanding of the role and were able to provide examples of what the CTR role comprised, yet there was an agreement that surgeons had a general lack of understanding toward the role. The title consultant was also discussed and all participants felt it was appropriate, and reflected the role. Furthermore two participants in particular felt the role was comparable to a medical doctor due to the level of responsibility. Recognition of the role was reported and participants acknowledged the CTR was well respected in the department.

A number of challenges were also highlighted, specifically increased workload and pressure with potential to burnout. Working outside the scope of practice was also considered as a potential concern. The CTR raised a number of concerns such as lack of time for research due to the increase in workload and issues of uncertainty surrounding sustainability and longevity of the role as a result of lack of funding.

Recommendations for the future of the role were also discussed with participants agreeing that role expansion such as prescribing standard radiotherapy treatments could be the way forward. The importance of a recognised training programme was also mentioned to ensure longevity of the role. Better recognition at a local and national level was also recommended to raise the profile of the role.

Issues relating to power were also evident; protectionism relating to prescribing radiotherapy treatment was a notable example. In addition a sense of superiority by some registrars toward the role was reported by the CTR. Interestingly the nurse felt that power dynamics was apparent between the CTR and clinical oncologist relating to the level of autonomy and responsibility the CTR was given.

6.7.5 Mapping to Dimensions of Impact framework

Details of mapping professional and organisational impact using the Dimensions of Impact framework for case study site 3 can be found in Appendix N.

Professional impact

Professional competence

Both the nurse and SpR perceived that the CTR was seen to impact on their knowledge and skills. A detailed account from the SpR highlighted the CTR's role in teaching, training and affording the time to help in gaining hands on experience which was useful. Furthermore the nurse acknowledged how the learning was a mutual relationship and the CTR's knowledge was valuable.

Quality of working life

Perceived CTR impact on staff job satisfaction, motivation and morale was also evident at this case study site. Morale in the department was enhanced as staff had a high regard for the CTR. In addition, the nurse commented on the positive working relationship with the CTR built on trust and mutual respect. Furthermore the clinical oncologist reported satisfaction with the CTR managing the overall workload.

Professional social significance

Perceived positive impact on the service by the CTR was evident. For instance the clinical oncologist highlighted the input the CTR had on leading and managing the

service allowing the medical consultants to focus on other areas. The CTR was recognised as supportive and aiding the medical consultants by reducing their workload.

Professional social validity

Perceived impact on team working was evidenced through the CTR's role as a coordinator within the department. For example, the SpR valued the CTR's input in coordinating pre-treatment assessments, treatments and the point of contact for patients and liaising with staff. The CTR's positive contribution within the MDT was noted, with staff acknowledging the respect gained from peers in the MDT.

Organisational impact

Organisational competence

The CTR was perceived to have an impact on the financial aspects of the department. For instance the CTR was able to negotiate with a local hotel a cost effective set up to accommodate patients overnight in order to release ward beds. Furthermore the CTR perceived that the role itself was cost effective and had some impact on income generation by saving the department money.

Organisational social significance

Perceived impact on developing policy was evident. For instance the CTR had contributed to changing practice through research and implementation of new skin care guidelines and the introduction of a distress thermometer. Furthermore perceived impact on knowledge generation was evident through co-writing international guidelines with the nurse.

Organisational social validity

Perceived CTR impact was recognised through contribution to external activities. For instance the CTR highlighted her role as Vice Chair of the radiographer's national forum, but also for establishing links with Higher Education Institutions (HEI) in developing and delivering post-registration provisions thus raising the organisations profile.

6.8 CASE STUDY SITE 4

6.8.1 Setting the scene

This hospital is an 800 – bedded acute trust, comprising a workforce of 4,300 staff. It provides general acute services to a population of 380,000 and hyper-acute stroke, vascular and renal services to the region with a population of 691,952. The Trust is also a cancer centre delivering cancer services to a wider population of 880,000.

The radiotherapy department has recently partnered with another cancer centre to become the fourth largest cancer centre in the country. The department has recently introduced new state-of-the art treatment machines to treat a range of cancer sites. The department has one site specific consultant therapeutic radiographer who works within a multidisciplinary team consisting of oncology doctors, surgeons and specialist Macmillan cancer nurses.

The interview participants at this case study site included: CTR, Specialist Registrar (SpR), Clinical Oncologist (Clin.Onc) and Nurse.

6.8.2 Thematic Framework

Codes	Sub themes	Theme
Streamlined service Efficient service Smooth running Reduces Dr's workload	Service targets	Impact
Point of contact Reduces waiting times Patient appreciation Patient satisfaction Information and support	Perceived patient experience	
Broaden the career prospects Career progression Recruitment & Retention Better opportunities	Professional outcomes	
Partnerships Part of the team Reliance Supportive	Working relationships	
Titles Recognition Respect Acceptance	Status	Identity
Independent practice Autonomy Clinical expert Management of side effects Decision making Organisational Leadership Treatment delivery Liaison On treatment review	Role aspects	

Role Encroachment Workload Meeting the expectations Stepping out	Concerns	Challenges
Showcase the role Develop clinical practices	Recommendations	Future
Protectionism Accountability	Medical dominance	Power

Table 6.6 Thematic Framework for case study site 4

6.8.3 Presentation of key themes

Theme 1: Impact

There was much discussion surrounding the perceived impact across all the interviews at this case study site. Each participant perceived that the CTR role did make an impact. As with the previous case study sites, four areas of perceived impact yet again are apparent and classified as ***service targets, perceived patient experience, professional outcomes and working relationships***.

With ***service targets*** the participants perceived the CTR role to have had some effect on the overall department and service, for instance:

“The CTR role helps the medical clinicians to run the healthcare service more smoothly and efficiently and improve the care... It's a great help for us”

(SpR4)

In addition,

“So I think it makes a smooth running of the service. And I think staff do appreciate it because they really want things to be running on time.”

(Clin.Onc4)

Both the nurse and the clinical oncologist not only acknowledged the perceived benefit it had to the overall service but also specifically to staff who worked within the service, for instance both participants highlighted how it eases the pressure of the doctors workload:

“I’ve heard from the clinicians’ point of view that it’s greatly beneficial to them because it frees up their time enormously because the volumes of patients that we’re dealing with. So the patients get much better service and the clinicians are freed up to concentrate on those more complex cases – new patients for example.”

(Nurse4)

“I think it’s a pretty good thing to do. It offloads some of the work some of the follow up, the routine review on the patient on radiotherapy, then I can actually concentrate in doing other things as well and free up space for someone else that I can see.”

(Clin.Onc4)

In addition, perceived benefits to the patient were also highlighted by all the participants during their interviews. The participants acknowledged that the CTR role had a crucial involvement in ensuring a positive patient experience. For instance:

“From the patient’s perspective, it is really a good opportunity for the patients to have a more concentrated conversation. Because I know they have daily contact with the radiographers, but it’s a very quick how are you? Whereas the CTR has a lot more time to share information with them and it’s driven by the patients, driven by their problems and anxieties. So, the patients appreciate it; appreciate the time that they have to talk about different things.

(Nurse4)

Moreover,

“When you talk to the patients they are happy with (CTR). The patients don't have to wait to see a doctor because (CTR) is easily available. Now (CTR) is looking at all those patients, the role is in fact very useful in this department”

(SpR4)

This was reinforced by the clinical oncologist, who was mindful of improving the patient experience by ensuring a positive connection with the patients and the CTR:

“Yes, it's positive. So I think it's partly I think some of it is how professional they are, but also is the rapport that they build up with the patient.”

(Clin.Onc4)

“They do feel that they got more rapport, I think, it's brilliant for the patient. It does work for the patient.”

(Clin.Onc4)

The CTR's perception was very much based on the potential increased knowledge and understanding that patients would gain from the CTR role in terms of preparing them for treatment, for instance:

“It is about preparing them for the (speciality). So when they come to my clinic they will be actually given some of the information and what it will be like, so they are more prepared and improves the patient experience pretty much”

(CTR4)

With regard to the **professional outcomes**, again the participants were very favourable on identifying the potential for the role to have a positive influence on the person in post. For instance, discussion on perceived increased opportunities and a better career progression for radiographers were acknowledged:

“Broadens the career prospects, the role is within the four-tier structure in place here and has definitely had a benefit on the recruitment and retention of our department. Traditionally we've always had a managerial progression and that was the only way to go, but clinically, it's a nice path” *(CTR4)*

This was also reinforced by the clinical oncologist during the interview:

"I think it's actually a good idea and it's nice to see them developed. And I think it is one thing that has given the radiographer more opportunity. "

(Clin.Onc4)

In addition, the clinical oncologist felt it was important for radiographers to be able to achieve this status, as limited opportunities can affect staff morale and motivation:

"I think if you get stuck in one role of turning on and off the machine, your life gets a bit boring sometimes. And if you know that you can actually move on to the next level and if you want to be more involved, well, there's an opportunity for the person. I think it's actually very useful. Because you need to be able to strive for something, otherwise your life become very miserable"

(Clin.Onc4)

The final aspect under impact is **working relationships**. The participants all acknowledged the contributions the CTR role made to their professional relationship, for instance partnership working was a popular point made:

"We work very closely - I've learned from (CTR) various different bits and pieces over the years and I'm sure (CTR) has from me as well. So, it complements itself really and works well. So yeah we complement each other... It flows."

(Nurse4)

In addition,

"We work together in cooperation, (CTR) works in conjunction with us. It's a sort of a parallel role."

(SpR4)

The clinical oncologist was in particular very complementary about the CTR role and what a difference it made to their working practice and indicated the dependence and support on them:

"I think (CTR)'s very essential in my life. I must say that (CTR) was off sick for a little while, and you suddenly feel how important (CTR) was. But certainly I think not only me, but also the other team members actually did feel that. I think it's good to be appreciated."

(Clin.Onc4)

The sentiment was also extended to how the role was crucial within a team setting:

“(CTR) is a valuable member I think as a team, definitely part of the team.”

(Clin.Onc4)

The CTR indeed felt this was the truth by expressing only gratitude from the staff and feeling supported:

“People in the department are very supportive. In fact, that’s something that surprised me when I actually got the job. The consultants have been quite supportive. I think we work well together.”

(CTR4)

Theme 2: Identity

The participants raised a number of points regarding this theme; again the use of the title “consultant” was discussed. Participants were supportive of the use of this title and felt that it was appropriate to the role. For instance:

“I do, yes. Because you are the expert in that clinical field regardless of whether you are nurse, a doctor, a radiographer or any other allied healthcare professional”

(Nurse4)

“I don't think there is any problem. In fact I support it, if we look across the board like in medicine they've got nurse consultants and the feedback I get from my colleagues is always positive”

(SpR4)

The clinical oncologist also added that it was only a title but it suitably indicated the remit of the role:

“It’s only a title. It’s only a title. You got consultants...what’s it? You got people who deal with other things who are consultant as well, so not even in the medical field. Consultant means that you are sort of like an advisory person”

(Clin.Onc4)

Interestingly, the nurse highlighted that there were some initial reservations towards the use of the title, particularly from the patients and possible due to lack of understanding, but now not an issue:

"I think initially, some patients were confused by it because of the association that 'consultant' automatically means doctor. But I think patients are now a lot more used to seeing other healthcare professionals and it doesn't have to always exclusively be a doctor and patient relationship. It can be an allied healthcare professional and patient relationship. So, I think patients are a lot more open minded so I don't think it's been a particular problem. " (Nurse4)

In addition, the CTR also added that there was some initial personal apprehension in using the title "Consultant" potentially due to the lack of confidence, but has now no hesitations on using the title, citing:

"At first I was a little...shy is not the right word, but, saying I was a consultant seemed a little reserved. I don't know. Perhaps it's just me. Uhm, the consultant...medical consultants, I mean, our...our oncologists, they just...they just smile every time it's said it, but now it's accepted" (CTR4)

Having recognition as a result of the role in the department was also discussed within this case study site. Participants highlighted that the CTR role very much had a presence in the department and overall a very positive feeling. For example:

"I think people are actually very supportive in a way. My colleagues are supportive of it" (Clin.Onc4)

"She's well respected throughout the whole department. (CTR) is very experienced, very highly experienced" (Nurse4)

"Everyone just seems so happy with the role and accepted it, I believe and the department believe it is such a vital role" (SpR4)

In addition, discussions by each of the participants on the role of the consultant therapeutic radiographer were also noted. Participants all were very knowledgeable in what they felt the role encompassed; for example some responses were based on aspects of the role yet also working practices, for instance:

“(CTR) works in a specialised area, does procedures in (CTR)’s own right, runs own clinic and own case load, also has an extended clinical work base”
(Nurse4)

“They are here to help us in some of the clinical work, they also have Independent decision making and they are very good at dealing with all the radiotherapy side effects.”
(SpR4)

In addition, the clinical oncologist also added that having particular qualities should also be part of understanding the role citing:

“They need to be very persistent and they really need to be willing to learn”
(Clin.Onc4)

Theme 3: Challenges

A potential concern that was acknowledged by the clinical oncologist was how the role could encroach on the junior doctor’s role; this was in particular reference to how it could affect the learning opportunities, for instance:

“I think...if I’m a junior doctor, one of the things I will be concerned with is my learning opportunity being taken away. That will be one of the things. Now, as junior doctors, because that role has been taken away... the clinical role has been taken away by the consultant radiographer...then there’s a potential that your junior doctor can be missing the learning opportunity of their skill, it’s just something I think that needs to be looked at.”
(Clin.Onc4)

However, this was not seen as the issue by the SpR, who felt that the CTR role was very separate and did not impinge any other, for instance:

"I don't think so, no. I don't think because their role is a totally different thing. It was actually part of us, but we are trying to separate it okay so nobody feels threatened"
(SpR4)

In addition the SpR highlighted that with a large volume of work in the department, role encroachment should not be an issue

"The number of patients with cancer is increasing, more and more patients are coming to us and more and more people are getting radiotherapy or chemotherapy; so we can distribute work amongst us and we can sort of separate roles. So less work for me (laughs) and learning for (CTR)"
(SpR4)

The CTR raised an interesting point, in that role encroachment could be made into a positive situation, by citing a particular personal experience where it was of use:

"The blurring of roles is actually helping, I think, here, for instance, uhm, when the (speciality) started, the theatre team would come down here, we had to have (speciality) and the room isn't that big. Uhm, there was (sic) lots of people in there so we thought, "What can we do to make the situation better?" So, we became (speciality) trained. We learned the role as a (speciality). They were grateful. And that helped. Because we were helping them, they helped us."
(CTR4)

Concerns surrounding a higher workload for the CTR were again highlighted by a number of the participants. The nurse acknowledged that due to the increased workload it actually forfeited key opportunities for the CTR, for example:

"Oh yeah the workload – (CTR) is not able to attend the MDT anymore but is copied into all of the minutes that arise from the MDT. (CTR) used to be able to come, but not anymore"
(Nurse4)

In addition,

"The main thing is (CTR) has actually got a lot on the plate and I don't think can take anything else on"
(Clin.Onc4)

The CTR importantly highlighted that as a result of the increased workload, this also impacted on the role trying to meet all the expectations of the job as outlined by the 4 domains/pillars of consultant practice citing:

“Time to do the whole role: I mean, obviously, very good clinically in...all that sort of thing but they just haven’t got the time to actually do the other three pillars for instance lack of time to do research” (CTR4)

The CTR further added that not meeting the expectations was very much a concern as it was important to demonstrate the fulfilment to carry out the role:

“It’s very easy, I think, to become a consultant. It’s not so easy to maintain – are you meeting all the four domains. I’m just conscious of the fact that you’ve got to maintain, you’ve got to stay at the forefront of the profession. You just can’t sit back in this role you have to keep that momentum going” (CTR4)

The clinical oncologist importantly highlighted that another concern could be the potential consequences of stepping outside the role’s scope of practice. The clinical oncologist although supportive of the CTR role, yet felt it was essential that the CTR knew the limits and the implications, for instance:

“But you just need to have a restriction, what kind of things that they can do.”

(Clin.Onc4)

It’s not that I don’t believe they will be able to cope, but it’s for patient’s safety issues. Because to go over the boundary then you will be going into really dangerous water. It’s not only the legal medical aspect but also for the safety of a patient and the staff. So I think that’s why that we got all the strict protocols in place.” (Clin.Onc4)

Theme 4: Future

A number of recommendations were put forward by the participants in relation to the CTR role. Namely better showcasing the role as acknowledged by the SpR, who felt this could be improved:

“The consultant radiographer is fairly new, it's not established well yet so it's still new so we have yet to see more sort of feedback from other people to know more about it.” (SpR4)

Further developing the role to improve clinical practice was also another recommendation specifically from the clinical oncologist who believed this would be part of the CTR role:

“Every time when we actually get new techniques and new things, the CTR should actually be involved. So we have been recently in touch with the radiology department, so we're trying to get MRI in for our (speciality) patients and (CTR) is going to liaise and organise everyone” (ClinOnc4)

This was reinforced by the CTR who added that developing the role was important and to keep improving it for the benefit of the patient experience:

“Essentially improve the service to patients already have or have already and make sure we are doing the best we can with what we've got. Uhm, just continue pushing and getting things in place.” (CTR4)

Theme 5: Power

Although developing the role was an important aspect for the CTR role by the participants, both the SpR and clinical oncologist alluded that there were certain tasks that the CTR could not be responsible for. This transpired to be radiotherapy dose prescribing, where both felt this should still be kept with the clinicians for example:

“I think it's going to be difficult to be fair. Dose prescribing.... I'm not quite sure. But a lot of those are your standards to be fair. I think for the most end of things that maybe in the future will be a potential role but that will need to be looked a bit first. But certainly for the more complicated ones then certainly I don't think it will be suitable.” (Clin.Onc4)

The SpR also added that it was more to do with the medico-legal aspects attached to this responsibility and that they are accountable for it, for example:

“But as you can see from the radiation point of view it's someone who has got the license who can authorise it. But (CTR) cannot sign the prescription. I'm happy because I know what she's doing, but because of regulation (CTR) can't prescribe it so I have to prescribe it.” (SpR4)

6.8.4 Summary of case study 4

Evidence of perceived impact by the CTR role was reported across the interviews. Participants were able to identify perceived impact across four distinct areas: service targets (including improved running of service and easing the pressure of the doctors' workload), perceived patient experience (ensuring a positive patient experience), professional outcomes (increased opportunities and career prospect for staff) and working relationship (partnership working and being part of the team).

Knowledge of the CTR role was evident and participants recognised the different work practices of the role such as dealing with side effects and running a review clinic. The title consultant was also discussed and participants were supportive of the title; yet initial confusion by some patients was reported by the nurse which has improved. The CTR felt there was recognition of the role and had a positive presence in the department.

Concerns of role encroachment specifically on the junior doctors training was mentioned by the clinical oncologist, however this was dispelled by the SpR who felt this was not the case and highlighted that the roles were very different. A particular concern of the CTR was increased workload and its negative impact on meeting the four domains of consultant practice. Working outside the scope of practice was also another concern of the clinical oncologist and acknowledged the importance of the CTR knowing the limits.

Promoting the role further and developing the CTR role were highlighted as important recommendations.

Evidence of power was apparent with both clinical oncologist and SpR highlighting the importance of not relinquishing the responsibility of prescribing radiotherapy treatments to the CTR due to the medico-legal issues and accountability.

6.8.5 Mapping to Dimensions of Impact framework

Details of mapping professional and organisational impact using the Dimensions of Impact framework for case study site 4 can be found in Appendix O.

Professional impact

Professional competence

The CTR was perceived to impact on the competence and confidence of other staff in the department. For instance, both the SpR and nurse perceived the CTR role as a learning resource and benefitted from it. In addition, the nurse highlighted that mutual learning was also evident and both roles complemented each other well. Furthermore the CTR echoed these sentiments and acknowledged that mutual learning also took place with other staff such as the theatre team.

Quality of working life

Interview participants perceived that the CTR role had a positive influence on staff morale and motivation. For instance the clinical oncologist perceived that the CTR role provided radiographers with more opportunities. Furthermore the CTR acknowledged the perceived impact the role and radiography role development had on recruitment and retention in the department. The SpR was firmly satisfied that the role was vital and benefitted staff and the department.

Professional social significance

Interview participants perceived that the CTR role had a positive impact on the overall service. A general consensus indicated that the CTR was able to take on some of the work and share the workload from the medics allowing them to focus on other complex cases. An added advantage was patients would benefit from this arrangement.

Professional social validity

Perceived CTR impact was evident in both team working and partnership working. For instance the clinical oncologist viewed the CTR role as a valuable member of the team and saw the potential in coordinating project teams. Furthermore the nurse

acknowledged a positive working relationship with the CTR for example seeking advice for managing patient side effects.

Organisational impact

Organisational competence

Evidence of perceived impact was reported by the SpR recognising that the CTR role had improved patient wait times to see the doctor to aid and streamline the service. Furthermore the CTR viewed the role as contributing to financial implications in the organisation, for example ensuring that patients remain on theatre lists and not removed due to cost cutting decisions.

Organisational social significance

Perceived CTR impact was seen as contributing to developing policies and informing practice. For instance the CTR acknowledged their work in setting up a group on monitoring skin reactions and collaborating with two external sites in writing the guidelines for it. Furthermore the clinical oncologist was aware that the CTR role was more than clinical work and should be involved in other activities that would benefit patients.

Organisational social validity

The CTR's involvement in external activities outside the department was perceived to demonstrate impact. For instance the CTR acknowledged their role as Co-Chair for the cancer site group, in addition collaborating with another consultant radiographer in diagnostic imaging to write a position paper available to all radiographers nationally. Furthermore, the nurse reported the contribution the CTR made to evaluating patient satisfaction of the service they both provided and the importance of the outcomes for patient care and the Trusts core values.

6.9 CASE STUDY SITE 5

6.9.1 Setting the scene

A district general hospital with 602 beds and provides a range of hospital based medical, surgical, paediatric, obstetric and gynaecological services to a population of 700,000 people. The hospital has a dedicated cancer services and has a comprehensive range of radiotherapy treatments. Inpatient and outpatient cancer care is provided at this hospital.

The radiotherapy department has recently commissioned two new state-of-the-art treatment machines and equipment. The department has one consultant therapeutic radiographer and a specialist radiographer for information and support.

The interview participants at this case study site included: CTR, Specialist Registrar (SpR), Clinical Oncologist (Clin.Onc) and Nurse.

6.9.2 Thematic Framework

Codes	Sub themes	Theme
Eases the service Smooth running Improves service Streamlined service Efficient pathway	Service targets	Impact
Point of contact More time with pts. Reduced patient waiting times Acts in the interest of the patients Build rapport	Perceived patient experience	
Staff opportunities Empowering	Professional outcomes	
Part of the team Partnership working Synergy Support from Drs	Working relationships	
Akin to a medical role Respect Acceptance Title	Status	Identity
Specialist Liaison Coordinates Clinical expert Assesses patients Patient management Delivers RT Independent decision making Autonomy	Role aspects	

Lack of medical knowledge Time management Lack of time for research	Concerns	Challenges
Push boundaries Develop medical knowledge Research	Recommendations	Future
Perceived threat to Dr's status Resistance Opposition	Medical dominance	Power

Table 6.7 Thematic framework for case study site 5

6.9.3 Presentation of key themes

Theme 1: Impact

Similarly, discussions from the participants surrounding the notion of perceived impact, was also evident in this case study site. All participants felt that the CTR role did demonstrate examples of perceive impact in various ways. Yet again, with previous case study sites, four areas of perceived impact have been recognised which are; ***service targets, perceived patient experience, professional outcomes*** and ***working relationships***.

With ***service targets***, the participants viewed the CTR role to have a considerable positive effect on the overall service, for example:

“(CTR) helped create a pathway so that we’re able to ensure that sort of speedy process through if there was a patient that presents in this way. (CTR) is also in the process of trying to meet up with (site name) to make sure that the pathway more efficient as well.”
(Nurse5)

“Yeah if you look at impact on the service need, the role is a very important role and is essential to the pathway. The workload is shared and can therefore ease the service and make it run better” (SpR5)

In terms of **perceived patient experience**, the participants perceived that the CTR role did have a positive bearing on the patients overall journey, for instance:

“So the CTR has the time to spend with patients bearing in mind that these are patients with needs because they are mainly palliative patients. I think that’s valuable for the patients.” (Clin.Onc5)

“For the patient, I think it’s excellent in as much as it helps us to ensure they get their treatment in a timely fashion. I think it’s also very reassuring for them to know that there is that service and that specialist knowledge there too” (Nurse5)

In addition,

“From a patient’s point of view, they get to be seen...it gets them to be seen earlier and they have the support. So in terms of patients care journey the impact is hugely beneficial to them” (SpR5)

Impact in terms of **professional outcomes** was very much based on the thoughts from the actual CTR in post, who provided a very frank and open view on this, highlighting the perceived benefits the role actually provides, for instance:

“It’s about getting radiographers who are well placed to do these roles and provide them with an opportunity; it’s allowing recognition of what radiographers can actually do which is, great clinical skills and um, great decision making skills.” (CTR5)

In addition,

“Um, but it’s about finding a...an element of the role of the work that goes on within oncology that needn’t be done by medical professionals but it could be

done by competent, advanced, radiographers with advanced skills and decision making skills and a wide knowledge base who can actually pull those together”
(CTR5)

With respect to **working relationships**, there was a general consensus that the CTR role worked well with other staff and perceived as valuable within the department. Lots of praise was provided throughout, for example:

“As a doctor, I think it’s a very important role and very essential part of our team...we share the workload and (CTR) can singlehandedly take decisions and go ahead with treatments...a big assistance”
(SpR5)

“I am absolutely delighted with the role; (CTR) has been a great part of the service and the (speciality) team”
(Nurse5)

In addition, the CTR agreed that there was a good working relationship especially with the medical doctors and made to feel part of the team:

“I have had brilliant support, just working as part of the team and ensuring that we are just one team really”
(CTR5)

Theme 2: Identity

Under this theme, interestingly two of the participants were clear to highlight that the CTR role was not a medical professional, but acknowledged that the role shared certain similarities for instance,

“To me, the role would mean that it is somebody who is isn’t a doctor or a consultant as we know them to be following medical training. But somebody that’s done the training and has the experience to be able to be classed as a consultant in their field of work.”
(Nurse5)

“They are an allied health professional, not medically qualified but who is at a very senior role yet it is as important as a medically qualified consultant”

(SpR5)

In addition the clinical oncologist recognised that the CTR role had a positive presence with the department citing:

“There is a great deal of mutual respect; (CTR) has the knowledge and skills and has proved it. (CTR) has gained the confidence of my colleagues simply by being able to demonstrate the skills.” (Clin.Onc5)

This sentiment was also shared by the CTR acknowledging:

“Everyone has been fabulous and accepted it; they’ve all been brilliant. For example, I work with the oncologists as a group rather than people coming to support me so I am part of the group” (CTR5)

Interestingly, the CTR also mentioned that the title “consultant” was greeted with some reservation, particularly by the radiologists who felt it was not appropriate, for instance:

“The radiologists in particular who were like, you know, “only doctors should be called consultants” and there were other physicians who really just did not feel that it was appropriate for people who were not medically qualified. I felt that they did not look at what I was representing, it was more “so you are not a medic”” (CTR5)

Moreover,

“It’s just a name, it matters not. I believe they think it’s got a medical connotation, I suppose that’s where they are coming from; but if you explain it to the patient, the patient understands... I get disappointed in this day and age people are so blinkered, what does it matter, it’s just a name” (CTR5)

As in the previous case study sites, participants were also very knowledgeable about the role of the consultant therapeutic radiographer. It was encouraging that all were able to provide their thoughts on what they deemed the role comprised of, for instance:

"They are specialists involved in delivering radiotherapy to people who need it but deciding what's appropriate for that patient, (CTR) may assess the patient on the day and make the decision to request radiotherapy treatment"

(Clin.Onc5)

"I can refer to (CTR) to ask for advice if I feel I need it first. (CTR) is able to help move that treatment if needed forward. It's the link and liaising with (CTR) regarding radiotherapy. And I understand that (CTR) is able to plan the radiotherapy and advise the radiotherapy department and give the treatment too."

(Nurse5)

In addition, to the above comment the clinical oncologist added that the role was very much about independent decision making and having the autonomy citing:

"A consultant therapeutic radiographer can make those decisions independently of a consultant medic and has that level of autonomy and the responsibility for that autonomy. So the role is not have... not needing delegated authority in my view"

(Clin.Onc5)

This was also reinforced by the consultant therapeutic radiographer who also felt that the role was very much about having the level of autonomy attached to it, for instance:

"It's somebody who has the autonomy to make decisions. They have the autonomy and the...there is a recognition of their abilities in order to be able to make autonomous decisions within um radiotherapy management of the patients."

(CTR5)

Theme 3: Challenges

This theme had mixed views from the participants, with the SpR and the nurse both in agreement that they had no concerns or worries toward the CTR role, for instance

"I've not come across anything that I have seen as a concern; all know is that it definitely adds value to the service hugely." (Nurse5)

In addition,

"No, no concerns at all, it works well and I think it everything has been smooth" (SpR5)

Conversely, the clinical oncologist acknowledged that the main concern they could potentially see pertained to the lack of medical knowledge the CTR had in dealing with non-related radiotherapy issues, for example:

"It's the breadth of knowledge, (CTR) may not see things sometimes, it's not a wrong judgement but there are aspects because they have not had the medical training." (Clin.Onc5)

Continuing on:

"(CTR) does not have the - what else could it be? The background knowledge or come up with a differential diagnosis because the breadth of knowledge is missing" (Clin.Onc5)

"It's the knowledge of what else could it be other than cancer? It's that wider medical knowledge and that's the limitation of the role" (Clin.Onc5)

Notably, the clinical oncologist was very supportive of the role and was assured that if there were any issues the CTR would always check:

"There are always uncertainties in medicine and if you are working at that kind of level there is an uncertainty and I know that if (CTR) is not sure then they will come to talk to me about it " (Clin.Onc5)

Interestingly, the CTR agreed that developing the medical knowledge was important and essential to the role, citing:

"Some of the medical problems that they have, I'd like to have more involvement and a greater understanding; to be able to manage them holistically rather than just the radiotherapy element" (CTR5)

The CTR also highlighted a few concerns of the role. Time management was acknowledged as an issue with the CTR stating:

“The time to fit everything in a week so time management is the biggest one; allowing things perhaps that didn’t require so much of my time doing them and then other things have suffered.” (CTR5)

When this response was pursued, another concern as a result of time management was the lack of time to conduct any research, with the CTR highlighting:

“Research is the one that I have not given enough time to and that’s probably what I need to start addressing really” (CTR5)

Theme 4: Future

In terms of recommendations further developing the role was an area that the participants felt should be explored for the CTR role, for instance:

“More extension of this role, perhaps allocated more clinics, getting involved in the in-patient care and also more involvement in the education.” (SpR5)

“In terms of development I think the sky is the limit in terms of what area the person wants to achieve” (Clin.Onc5)

Developing medical knowledge (as discussed earlier) was also a recommendation for the role, with the clinical oncologist highlighting the need for this to be part and parcel of the role, for instance:

“I think it works really well, a consultant radiographer is good at following protocol but not good with uncertainty and that’s where I think, they need to have the broader medical knowledge or training.” (Clin.Onc5)

The CTR felt that the research element under the four domains of clinical practice was a key recommendation, citing:

“What I really like to see to further this role is the research side off it, that’s what I really want to do next” (CTR5)

Theme 5: Power

Interestingly, both the clinical oncologist and the CTR both alluded to evidence of medical dominance with reference to the role. The clinical oncologist was surprisingly vocal in terms of other colleague’s (radiologists in this case) views and attitudes towards the CTR role. For instance:

“There is some underlying issues, there is still a certain amount of I’m at the top of the pinnacle. Some have a big issue with the concept of the consultant radiographer, particularly at the MDT. This was interesting as they did not trust (CTR) to make the decisions about patients and they perceived it as we will make the decisions” (Clin.Onc5)

In addition,

“There is still a lot of old school attitude – some of it may be due to being seen as a threat; it’s a threat to their status and I think that’s the bottom line for a lot of people” (Clin.Onc5)

The CTR also reinforced this, for example:

“I mean historically, we are handmaidens to the radiologists and that kind of thing. Some of the radiologists and some other physicians were a bit, “I am not talking to you because you are a radiographer” type thing, which they were inferring too.” (CTR5)

6.9.4 Summary of case study site 5

Interview participants agreed that the evidence of perceived impact was demonstrated by the CTR role across four areas: service targets (a positive effect on the overall service), perceived patient experience (value of the role to the patient),

professional outcomes (recognition of radiographer's capabilities) and working relationships (working well with other staff).

Participants were knowledgeable regarding the CTR role and were able to identify the different aspects of the role in particular the level of autonomy and independent decision making opportunities. Two of the participants viewed the role as sharing similarities with a doctor in terms of experience. A positive recognition of the role was also apparent in the department. The CTR reported that the title consultant was met with some reservation specifically by radiologists demonstrating a lack of understanding of the role.

A lack of medical knowledge and a limited breadth of knowledge was a concern viewed by the clinical oncologist who felt this could potentially hinder the role. The CTR reported challenges in ensuring good time management and lack of time for research, alluding to a heavy workload.

Further developing the role was reported as one future recommendation by participants. Developing a broader medical knowledge was also mentioned by the clinical oncologist to aid the CTR role. A greater involvement in research was considered to be essential by the CTR.

An undercurrent of medical dominance by the radiologists was reported by both clinical oncologist and CTR who felt it was evident during MDT's and perhaps Radiologist were threatened by the role, attributed by a historical attitude and culture from the medical profession.

6.9.5 Mapping to Dimensions of Impact framework

Details of mapping professional and organisational impact using the Dimensions of Impact framework for case study site 5 can be found in Appendix P.

Professional impact

Professional competence

The CTR was perceived to impact on confidence and competence of other staff. For instance the clinical oncologist and nurse both acknowledged how behaviours and attitudes from staff changed regarding the CTR role. Increased confidence and

credibility for the CTR amongst staff was reported, due to the CTR demonstrating expert knowledge and skills.

Quality of working life

The CTR indicated the perceived positive impact on staff motivation the role had by providing radiographers with a career opportunity and demonstrating the benefits the role can offer such as enhancing clinical skills and autonomous practice.

Professional social significance

Perceived CTR impact on the overall service and workload was reported by interview participants. For instance the SpR recognised that the CTR made an important contribution to the service and patient pathway specifically through sharing the workload to ensure a streamlined service. Furthermore the CTR acknowledged that increased workload seldom impacted on the clinical oncologists' time and therefore provided an ideal opportunity for the CTR role to support the oncologist.

Professional social validity

Perceived impact on team working was also reported, with the CTR having a presence in coordinating and liaising with different teams. For example both nurse and CTR highlighted the role provides a vital link and developed relationships with other departments.

Organisational impact

Organisational competence

The CTR was perceived to impact on the effectiveness and efficiency of the service. For instance the nurse acknowledged a number of examples recognising the contribution the CTR role made; examples such as ensuring patients received treatments in a timely fashion, reducing wait times to allow patients to be seen earlier and coordinating the care indicate the perceived positive impact on the patient journey.

Organisational social significance

The nurse reported that the CTR's involvement in meeting local priorities such as peer review measures was perceived as beneficial to the department. Furthermore the CTR role permitted service review and evaluation of patient pathways to ensure a consistent service provision.

Organisational social validity

The CTR's involvement in external activities outside the department was perceived to demonstrate impact. For instance, appointed as Chair of the Consultant Radiographer Group (a national forum) and also appointed as the very first CTR in the UK, highlighting the perceived positive impact on a personal and professional perspective.

6.10 Chapter summary

Overall the interviews did fulfil the intentions of the phase two aims. The thematic analysis and the developed case studies revealed a number of key themes towards the role of the CTR which were common across all six case studies (see Fig 6.1). The outcomes of phase two will be discussed in more detail in chapter ten.

With the theme of impact, four areas of perceived impact as a result of the CTR role were uncovered; these were categorised as service targets (e.g. efficiency of service, streamlined, reducing waiting times), perceived patient experience (e.g. continuity of care, having a point of contact), professional outcomes (e.g. career opportunities, a career structure) and working relationships (e.g. partnership working, integral to the team). The participants all highlighted the positive influence that the CTR had in their respective departments.

With respect to the theme of identity, the participants were knowledgeable and had a sound awareness of the role in terms of the duties and the characteristics (e.g. an expert autonomous practitioner, patient assessment). Moreover, acknowledgement that such a role has a presence and status attached to it.

Challenges of the role were also a theme amongst the case study sites highlighting some concerns. Examples included lack of medical knowledge, increased workload, lack of time for research and funding / financial issues. Participants highlighted that the concerns would need to be carefully considered for future developments of the CTR role.

On a positive note, the theme of future highlighted some definitive recommendations for the role. The case study sites, provided some examples including the potential for the role to continue to push boundaries, to promote and showcase the role and to be involved in the research element of the role. These recommendations are important for the ongoing success of the CTR role to reach its full potential.

The final theme acknowledged the issues surrounding power. Participants provide some interesting examples that alluded to power differences within their case study sites, for instance; protectionism, medical dominance, perceived threat and resistance. Some of these examples also need to be carefully considered in terms of preserving the actual vision of the CTR role.

Individual case study sites were also mapped to examine professional and organisational impact using the Dimensions of Impact framework. The mapping acknowledged the following areas of discussion:

Professional impact

Overall, case study sites perceived the CTR role demonstrated professional impact. The CTR was recognised as a learning resource, specifically involved in education and training staff in the department. Interview participants valued the CTR's expert knowledge, skills and experience to help further their own development. Furthermore mutual learning was also evident.

The CTR role was also perceived to have an influencing effect on job satisfaction, morale and motivation. Participants reported a number of examples such as increased confidence and empowerment to the postholder, providing benefits such as enhancing clinical skills and autonomous practice, yet also considered perceived impact on a wider perspective such as providing a good career progression, broadening career opportunities and aiding in recruitment and retention.

Opportunities for the CTR to impact on the work load were also evident in the case study sites. Participants perceived the role helped reduce work pressures of the clinical oncologist and saved time by sharing the workload. Furthermore, it provided an opportunity to organise and independently manage clinics such as on-treatment review clinics to support the clinical oncologist.

General consensus across the case study sites perceived that the CTR was a valued member and integral to the team, in some instances reporting dependence on the role to ensure cohesion within the MDT. Positive partnership working was also reported.

Organisational impact

Case study sites also perceived the CTR role demonstrated organisational impact. Interview participants acknowledged the perceived impact the role made to maintain an effective and efficient service. For instance, ensuring a streamlined service, coordinating care pathways and reducing consultation wait times for patients. Furthermore, an involvement in the financial aspects of the department, such as leading negotiations in developing a more cost effective service within one area of the provision.

Perceived CTR impact was recognised through developing policies and protocols to change practice. Interview participants recounted examples such as implementation of guidelines and collaborating with external organisations to inform practice. Furthermore perceived impact on knowledge generation through research, audits and attendance at conferences was also reported.

Perceived CTR impact was evident at a local level through involvement in maintaining Trust core values such as patient care, for instance conducting patient satisfaction surveys and involvement in service evaluation. In addition, perceived impact at a national level was also reported. Contribution through external activities such as appointments as Chair / Vice Chair of network groups, collaborations with cancer charities and links to HEI's to raise the personal, professional and organisational profiles.

6.11 Conclusion

Overall key themes have been highlighted within each case study site and also across all the sites. The outcomes from this phase will now be explored in more detail through a cross-case study analysis (chapter seven). In addition, a document analysis of the CTR job descriptions (chapter eight) will also be conducted to examine opportunities for impact (see Fig 6.1).

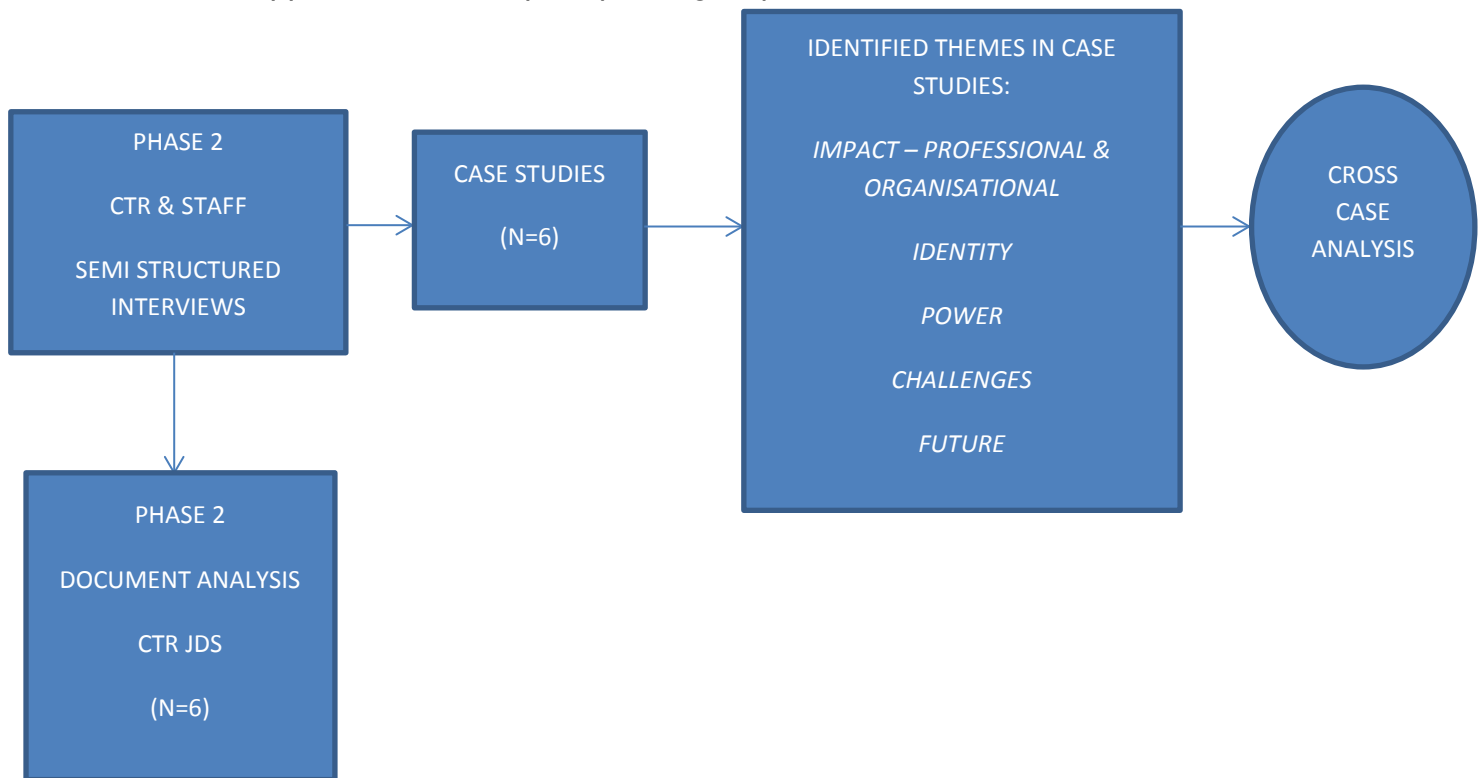


Fig 6.1 Illustration of phase two development and outcomes

CHAPTER SEVEN: CROSS – CASE ANALYSIS OF THE COLLECTIVE CASE STUDIES

7.1 Rationale for cross – case analysis

The purpose of cross-case analysis is to compare cases from one or more setting, examine whether relationships exist and provide an opportunity to learn from different cases (Ragin, 1997). Furthermore cross-case analysis enables the comparison of any commonalties and differences across multiple case studies that have been developed (Khan & Van Wynsberghe, 2008). In addition, Merriam & Tisdell (2015) acknowledge that a two-step analytical process for collective / multiple case studies is present notably “within-case analysis” followed by “cross-case analysis;” with the aim to build abstractions across cases.

7.2 Introduction

This chapter is organised according to the five themes generated from the thematic analysis of phase two interviews and case study development (chapter six); these include: *impact* (with reference to the Dimensions of Impact framework), *identity*, *power*, *challenges* and *future*. This chapter attempts to discuss how the themes are interrelated. Fig 7.1 provides a visual depiction of cross-case analysis process.

7.3 Impact

The theme of impact was a prominent feature across all six case studies acknowledging that the CTR role demonstrated perceived impact. Thematic analysis indicated four specific areas of perceived impact, which were: *service targets*, *perceived patient experience*, *professional outcomes* and *working relationships*. Furthermore mapping case studies to the Dimension of Impact framework demonstrated both perceived organisational and professional impact.

Service targets

Case studies recognised the perceived positive impact on the overall service. For instance, examples included involvement in evolving the service (site 1a), developing the service (site 1b) and also contributing to service improvements and service evaluation (site 1a). Furthermore, case studies highlighted that improvement in service needs positively impacted the patient, for instance a reduction in consultation

waiting times and patient's commencing treatment in a timely manner (sites 2 and 5). Discussions surrounding efficiency and effectiveness of the service pathway were also raised; case studies reported CTR's contributed to ensuring a smooth-running and stream lined service (sites 3, 4 and 5). Furthermore, CTR's were considered to impact on workload and distribution of work by reducing the clinical oncologist's workload and easing work pressures (sites 2, 3, 4 and 5).

Mapping case studies to the Dimensions of Impact framework (See Appendix K to P) indicated that perceived impact on service targets was categorised under the domain of *organisational impact* (specifically the indicator *organisational competence*). There was evidence of overlap into the domain of *professional impact* (specifically the indicator *professional social significance*) which considers workload and distribution of work.

Perceived patient experience

Case studies recognised perceived CTR impact on the overall patient experience. A general consensus indicated the role made a perceived positive impact on the patient's journey. CTR's were identified as a point of contact for patients (sites 1a, 1b and 4). Moreover, continuity of care and building a rapport with the patients were also notable examples (sites 1a and 4). A greater opportunity to spend more time with patients was seen as a benefit (site 1a, 2, 4 and 5). Case studies also acknowledged positive patient satisfaction from the care they received by CTR's (all sites).

Professional outcomes

Case studies highlighted the CTR role had the potential to positively influence the post holder from a professional capacity. Examples included enhanced skills, knowledge and autonomous practice (sites 2, 4 and 5). Case studies also acknowledged benefits such as empowerment, increased confidence and enhanced morale (sites 1a, 2 and 4). A further consideration was noted with the CTR role by providing potential opportunities, better career progression and prospects for therapeutic radiographers (sites 1a, 1b, 4 and 5).

Working relationships

Within this theme, the general feedback was favourable; with the participants agreeing that a positive working relationship was very much evident with the CTR. Participants acknowledged many examples, such as that the role was part of / integral to the team (site 1a, 2, 4), evidence of partnership working and forming a close professional relationship (site 1b, 5), moreover, a mutual association in terms of learning from and supporting each other (site 3, 4). In addition, a sense of importance and value of the role, that benefitted the team (site 2, 5).

Mapping case studies to the Dimensions of Impact Framework (See Appendix K to P) indicated that perceived impact on professional outcomes and working relationships was categorised under the domain of *professional impact*, specifically the indicators *quality of working life* and *professional social validity*

7.4 Identity

The theme of identity was prominent featured across the six case studies. Two key areas pertaining to identity were demonstrated across all the case studies: *role aspects* and *status*. In addition, two of the case studies also commented on the *presence* the role had within the department and one reported on the *portrayal* of the role.

Role aspects

Across the case studies, the participants had a very comprehensive awareness and knowledge regarding the CTR role. The participants understood the role by identifying it through the “practical” aspects and the “qualities” of the role. The practical aspects considered the operational duties the CTR would perform, for instance running their own review clinic; whilst the qualities, related to the abilities the CTR demonstrated in the role, for instance expert practitioner with advanced communication skills; the qualities were often in reference to the four pillars / domains of consultant practice.

Status

Discussions on the use of the title “consultant” were featured across the case studies providing a mixed view (site 1a, 1b, 3). Case studies acknowledged the title was

fitting and reflected the overall remit of the CTR role. Conversely, there was also evidence from some of the participants that the title was not appropriate, citing the potential to confuse patients and that the title was reserved for medical practitioners (site 2, 4). However, all participants did acknowledge that the duties of the CTR were more important to the role than the actual title itself. In addition, all case studies highlighted that the CTR role was very well respected and accepted within the department.

It is worth mentioning that two of the sites (sites 1b and 2) further commented on the identity aspect of the role which were categorised as *Presence* and *Portrayal* of the CTR role. *Presence* highlighted the role in terms of making an impression and the visibility within the department but also recognition and acknowledgment. *Portrayal* pertained to the “frame of reference” participants used to demonstrate their understanding of the role, for instance similar to a registrar, nurse specialist and even akin to a medical doctor.

7.5 Power

The theme of power also featured across all the case studies. The issue of medical dominance was acknowledged during the interviews. The analysis of the codes provided a number of examples to highlight this issue; for instance *protectionism* was referenced to across four of the case sites (sites 1b, 2, 3 and 4) potentially indicating medical doctors wanting to maintain and uphold some of the responsibilities instead of delegating to the CTR. Moreover, there was also reference to some evidence of *hierarchy* (sites 1a, 1b), *accountability* (sites 1a, 4) and *being in control* (sites 1a, 1b). Other codes indicated other areas of medical dominance in their own sites for instance issues surrounding resistance, threat and opposition to the CTR role (site 5). In addition, suggestions regarding superiority / power dynamics (site 3) and one site acknowledged medical dominance was evidenced through scrutiny and having limited autonomy (site 2).

7.6 Challenges

A number of concerns were highlighted across the case studies. One concern acknowledged by the CTR's was the pressures of fulfilling the role; for example reference to meeting expectations, being a victim of own success, pressures, fear of

failing (sites 1b, 2, 3, 4). In addition, the issue of lack of medical knowledge was also raised in three of the case studies (1a, 2, 5) citing that the CTR's limited knowledge in identifying other co-morbidities could be a concern. Reference to Medico-legal implications was also evidenced, with case studies providing examples surrounding recognising limits to the role, working within scope of practice, potential to step out and indemnity issues (sites 1a, 2, 3, 4). The case studies also highlighted role impingement citing issues surrounding role encroachment, overlapping of roles, which could lead to professional jealousy and a perceived threat (sites 1a, 1b, 4). Furthermore, other concerns from the CTR's perspective included financial constraints in terms of funding the role and sustaining the role (sites 1a, 1b). Increased workload which could lead to potential burn out was also reported (sites 2, 3, 4) and lack of time to conduct research (sites 3, 5) which was suggestive of meeting the four domains / pillars of consultant practice.

7.7 Future

Future prospects were acknowledged across the case studies. Further developing the CTR role was a very popular suggestion with examples such as medical prescribing, dose prescribing and leading in planning. Ensuring a greater presence was also a recommendation with case studies highlighting the need to promote the role – at both a local and wider level e.g. national representation (sites 1b, 2, 3, and 4). Increasing the numbers of CTR's in post was also considered (sites 1a, 1b) and also increasing the clinical specialisms (site 1a). With the issue surrounding lack of medical knowledge (as mentioned in 7.6), two case studies (sites 3, 5) recommended developing CTR medical knowledge with further training. Case studies also made reference to the four domains / pillars of consultant practice, with suggestions that the role needed to have responsibilities in management, teaching and research (site 1b, 3)

7.8 Summary

The aim of the cross-case study analysis was to compare the findings from each of the six case studies and to identify similarities and differences. Analysis has indicated that five themes notably impact (with reference to the Dimensions of Impact framework); identity, power, challenges and future were evidenced across all the six case studies. Fig 7.1 illustrates the cross case-study process.

Impact was a prominent feature across the case studies. Reference to four specific aspects of perceived impact was reported and identified as service targets, perceived patient experience, professional outcomes and working relationships. Mapping the case studies to the Dimensions of Impact framework has demonstrated that perceived impact on service targets was categorised under the domain *organisational impact*. In addition impact on professional outcomes and working relationships was categorised under the domain *professional impact*.

With regard to the theme of identity, case studies demonstrated awareness and identified the CTR role through the practical aspects and qualities. Differences were seen on the use of the title “consultant” with two case studies highlighting the potential to confuse patients. Another difference was two case studies also acknowledged the presence of the role and the comparison to a registrar or a nurse specialist.

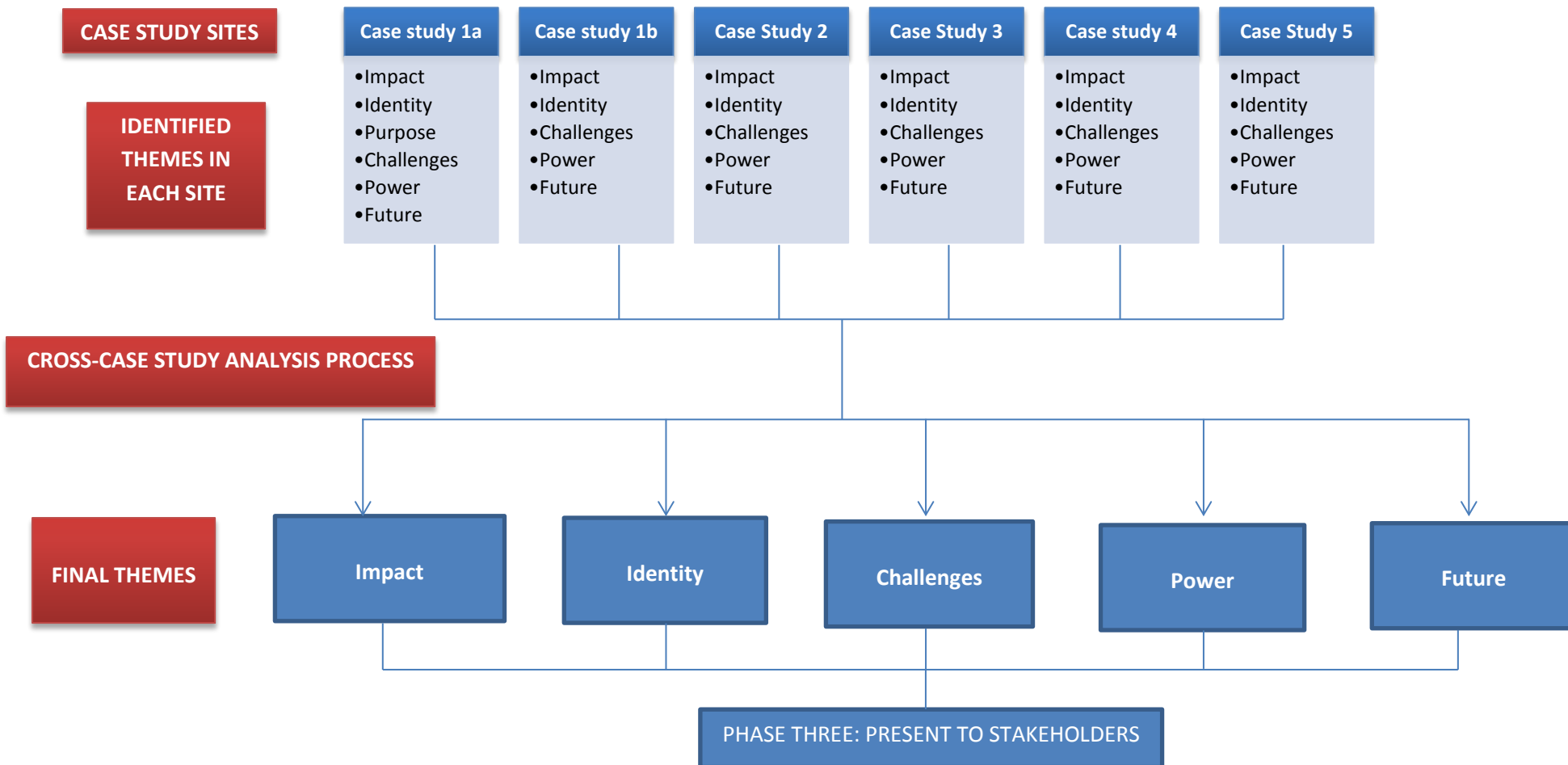
Power evidenced by medical dominance, was reported in the majority of the case studies in particular protectionism of responsibilities. Other examples included evidence of hierarchy, accountability and resistance of the CTR role.

Case studies reported similar concerns of postholders not meeting the expectations and the associated pressures of the role. The lack of medical knowledge was also reported across three case studies. Similarly, reference to medico-legal implications such as working out of scope of practice was reported by the majority of the case studies. Other key concerns also recognised were funding, lack of research, increased workload and role encroachment.

Future prospects for the CTR role were acknowledged. Case studies provided a number of recommendations including developing the role such as responsibilities in dose prescribing. Promoting the CTR role was popular amongst case studies. Developing CTR medical knowledge and increasing the overall numbers

Overall the cross-study analysis had provided a picture of the similarities that are in common across the sites but also identified some differences. The final themes will be presented to key stakeholders forming part of Phase three development.

Fig 7.1 Schematic diagram of the cross-case study analysis



CHAPTER EIGHT RESULTS AND ANALYSIS: PHASE TWO DOCUMENT ANALYSIS OF CTR JOB DESCRIPTIONS

8.0 Introduction

As discussed in the chapter four, part of the three phased research study design was a document analysis of the CTR job description (table 4.3 and section 4.14). The document analysis took place after the phase two interviews and the development of the case studies.

The six CTR's, provided their job descriptions to allow the comprehensive review to:

- Compare with the Department of Health guidance set out in the advanced letter PAM (2/2001) to ascertain if the roles reflected the recommendations set out for these posts.
- Make comparisons between each of the job descriptions to discern any similarities or differences of the role.
- Determine whether the job descriptions provide an opportunity for the postholder to demonstrate professional and organisational impact evidenced against the adapted Dimensions of Impact framework.

In 2010, Ford conducted a document analysis across thirteen consultant radiographer job descriptions using the advance letter. This analysis demonstrated that while there were no key differences, there were slight variations between the jobs descriptions and the advance letter guidance. Robinson (2012) in the analysis of consultant midwives job descriptions, to gain the Trusts perspectives on consultant practice, concluded that each Trust had interpreted the four pillars/domains of consultant practice and had clearly identified expectations for the post holder. Both studies highlighted that the concept of consultant practice could be exemplified within documentary evidence in the form of a job description.

8.1 General characteristics of sample job descriptions

On initial review of the job descriptions (JD), generic observations were made. The JDs were on average seven pages in length. Each of the JDs had an identifiable Trust logo clearly displayed at the beginning of document. Only two of the JDs indicated that they were written by the radiotherapy services manager. One only of

the JDs contained the person specification as part of the document. Two of the JDs used a footnote to indicate when the JD would be reviewed. Overall, all JDs followed a similar template and clear structure to follow.

8.2 Comparison of the Advance letter PAM and the CTR job descriptions

Using the advance letter PAM (2/2001) from the Department of Health (DoH, 2001) on the guidance for consultant allied health professional (AHP) posts the six CTR job descriptions were compared in relation to section headings and brief content outline. Below is the comparison of both documents (see table 8.1).

Comparison of the headings in the Advanced letter PAM and the CTR job descriptions

Consultant Allied Health Professional (AHP) Headings in Advanced Letter PAM (PTA) 2/2001	Headings in CTR jobs descriptions
Definition and purpose: Expert in specialist clinical field, innovation, influence, clinical leadership, strategic direction Integration of research Retain clinical excellence	Termed Job summary (CTR 1a,1b,2 JD) Termed Job purpose (CTR 3,4,5 JD) Content within this section is the same
Accountability, autonomy and responsibility: Work across a range of new service delivery Be in a position to influence decision making	Termed Accountable to (CTR 1a,2,4 JD) Termed To whom responsible (CTR 1b JD) Termed Accountable & Responsible to (CTR 3 JD) Termed Reports to (CTR 4,5 JD) Content embedded within core functions
Support and resources: Provision of CPD, peer support, mentorship and development opportunities	Heading omitted from all CTR job descriptions, Outline evidenced in CTR 5 JD

	under education and training domain
Expert practice: Complex case load Whole system patient focussed approach Advanced knowledge Promotes best practice Ethical and moral dimensions of practice Personal professional autonomy Protocols of care Recognised national and international expert Facilitating a learning culture	Same heading and same content (CTR 1a,2,4 JD) Termed Clinical, whilst content also includes practice and service development (CTR 1b JD) Termed Clinical Expert and same content (CTR 3 JD) Term omitted and content embedded across other domains (CTR 5 JD)
Professional leadership: Effective leader Source of expertise Challenges current structures Process complex information Expert input into Trust quality strategy	Termed Leadership & consultancy and same content (CTR 1a,2,3,4,5 JD) Termed Management & Leadership and same content (CTR 1b JD)
Practice and service development, research and evaluation: High quality patient centred service based on best evidence Leads and collaborates on the development of protocols Contributes to strategic planning and implementation of relevant national policy Evaluates provision of clinical services leading to redesign Identify gaps in evidence base Research development Partnerships with HEI Provision of cross-disciplinary services	Termed Service Development content and same content but partnership in HEI is now moved in to section below (CTR 1a JD) Termed Education & Research and some content also under clinical section (CTR 1b JD) Termed Research & evaluation and content same (CTR 2 JD) Termed Research & Service development and content same (CTR 3 JD) Same term and content (CTR 4,5 JD)
Education and professional development: Promotes a learning environment Assists individuals, teams and organisation in	Termed Education, Training and Development with the addition of partnership in HEI in content (CTR 1a,4 JD)

identifying learning needs Learning opportunities provided for health professionals Provides education in clinical expertise nationally and internationally Undertakes some teaching or research Contributes to educational policy for both pre/post qualifying practitioners	Omitted in CTR 1a JD, content across Clinical and Education & Research heading Termed Education & Training and same content (CTR 2,5 JD) Same heading and content (CTR 3 JD)
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Table 8.1 Comparison of Advanced Letter and CTR jobs description

In comparison to the CTR JDs a number of differences can be seen. In the advanced letter, the heading titled definition and purpose has now been reflected as a different term in the JDs, for instance “*Job purpose*”, the content outline is the same and remains embedded under this section. The heading titled accountability, autonomy and responsibility in the advanced letter, the JDs use a number of different terms such as “*Reports to*” and the content outline has been omitted and embedded across the core functions of the role. The heading titled support and resources and the content outline in advanced letter has been omitted completely in the JDs; however JD CTR 5 has evidence of the content under the education and training domain. Under the core function of Expert practice, three of the JDs had the same heading and the content was reflected, two of the JDs had a different heading for instance “*Clinical expert*,” whilst one JD had the heading completely omitted and the content embedded across the other core functions. Similarly, under the core function of professional leadership, the majority of the JDs had the term “*Consultancy*” also included in the title, with one JD including the word “*Management*.” With the core function of practice and service development, research and evaluation, one JD was identical to the advance letter, whilst the rest of the other JD’s had a variation in the use of the heading, for instance “*Research and Service development*,” in addition some of content in two of the JDs was present in the other core functions. With the final core function on education and professional development, one JD was identical to the advance letter, whilst the remaining JDs either had a different heading such as “*Education, training and development*” or omitted with the content embedded within one of the other core functions.

Overall, comparing the section headings and brief content outline for both documents identified that the differences were minor and attributed to semantics. Whilst the brief content outlines under each section were reflected across both documents with minor variations of content and where it appeared in the JD. Content was further analysed in the next section below (section 8.3).

8.3 Comparison of the CTR job descriptions: identifying similarities and differences

The six CTR job descriptions (JD) were compared to one another to identify similarities and differences. Analysis was conducted under each of the various headings from the JDs as follows:

Job title:

All six were titled Consultant Therapeutic Radiographer additionally each indicating specialisms in their clinical practice. In one JD an affiliation to a joint organisation (Macmillan) was also included.

Accountability and responsibility:

Some variation was noted across the six JDs; in relation to whether the CTR was responsible to one key person or a number of key people. In addition, either the term “*accountable to*” or “*responsible to*” were used in the majority of the job descriptions, whilst two of the JDs used the phrase “*reports to*” (see table 8.2)

Named person	Accountable to:	Responsible to:	Reports to:
Radiotherapy Services Manager	3		2
Head of Radiotherapy		2	
Relevant consultants		1	1
Lead Consultant Clinical Oncologist		1	
Trust AHP lead	1		

Table 8.2 – Accountability and responsibility.

Conditions (including hours of work, banding, salary):

Four of the JDs included the hours of work as either 35 or 37.5 hours, whilst the remaining two did not indicate this. In relation to banding, three JDs omitted the banding. There was some disparity evident in the banding which ranged from Band 8A, 8B and 8C. Salary scales were not mentioned in any of the JDs.

Job summary / Purpose

Under this heading, an overview of the main role of the CTR was provided. The main duties and examples of the roles to be carried out were written as either a statement comprising two paragraphs (seen in CTR 1b, 2, 5 JD) or 4-10 bullet points averaging 8 bullet points (seen in CTR1a, 3, 4).

Across the JDs, the content was similar and referred to the four pillars / domains of consultant practice, providing the postholder with an overview of the expectations of the role.

8.3.1 Comparison of the four key “pillars”/ “domains” of consultant practice

Domain 1: Expert practice

This domain contained between 5 – 23 competencies with an average of 13.2 competencies across the JDs. One JD while appearing to have this pillar had a section on communication; upon reviewing this JD it was evident that elements of expert practice were embedded within the section of professional leadership and consultancy. The competencies can be grouped under the following:

Competency groups
Expert knowledge Expert care Supplementary / Independent prescribing
Patient information, support and education Patient review
Patient referrals Development of the service Collaborative working with Multidisciplinary Teams (MDT)
Working under protocol Knowledge of IR(ME)R, IRR and current legislation

Table 8.3 Competency groups for expert practice

Domain 2: Professional leadership and consultancy

This domain contained between 7 – 26 competencies with an average of 11.6 competencies across all the job descriptions. The competencies can be grouped under the following:

Competency groups
Recognised leader Role model Supervision and support Senior management responsibilities Training radiographers Coordination Expert resource Specialist advice
Maintain links and networks nationally and internationally Develop partnerships Involved in Trust and Network initiatives
Develop evidence based practice policies and procedures Develop standards and protocols
Audit Clinical trials Accreditation Quality Assurance Maintain accurate record keeping

Table 8.4 Competency groups for professional leadership and consultancy

Domain 3: Education and professional development

This domain contained between 4 to 12 competencies with an average of 7.5 competencies across all JDs. All competencies concentrated on education and training, however some of the JDs also considered professional development and research elements under this section. The competencies are grouped under the following:

Competency group
Lead in development of education and training programmes Lead in planning and implementation of education and training programmes Identify educational needs Provide educational sessions Take an active part in the clinical education of multidisciplinary staff
Share skills and knowledge both within and outside the Trust Keep up to date with relevant developments and pass on relevant knowledge to other staff groups
Form links with Higher Education Institutions Provide leadership and educational links with Higher Education Institutions Provide educational links to relevant academic institutions
Demonstrate a portfolio of life learning, experience and education Maintain and improve performance by engaging in formal learning opportunities and maintain a CPD portfolio
Actively encourage staff to acquire new and advanced clinical skills Provide direct support and supervision for specialist radiographers
Prioritise workload to ensure time is made available to study and update in order maintain level of knowledge Maintain up to date knowledge of all issues relating to radiotherapy

Table 8.5 Competency groups for education and professional development

Domain 4: Practice and Service development, research and evaluation

In the final domain, between 4 – 11 competencies were evident with an average of 7 competencies across all the JDs. One JD had this section omitted, yet elements of service development and research were evident and embedded within the other sections.

Below are the competencies that have been grouped:

Competency group
Work across boundaries to provide a seamless service and advise the Radiotherapy Services Manager Use expert knowledge, to act as a resource for Radiotherapy Services Manager regarding service provisions Provide a radiotherapy service that is evidenced based
Lead, coordinate and carry out research projects Initiate and develop R&D programmes To initiate and direct research
Undertake audits to assess impact Agree relevant audit programmes Evaluate the role by undertaking audits to assess impact
Publicise and disseminate my findings of research Promote the role by publishing innovations and research Promote the role by publishing innovations and research and present findings

Table 8.6 Competency groups for practice and service development, research and evaluation

8.3.2 Reviewing job headings:

It was noted that apart from the four pillars/domains other headings, were also evident amongst the JD. A few of these were likely due to be standard additions as stipulated by the respective hospital or trust, whilst others were developed to reflect the specific to the role.

The following table demonstrates some of the examples:

Job headings	Examples of associated competencies
Management	Manage own patient workload Manage the professional development of radiographers Attend management meetings
Professional	Adhere to IR(ME)R regulations Act as an “operator” Act in a professional manner
Quality Assurance and Clinical Governance	Maintain the highest possible clinical and professional standards

	Deputise for the Chair of the clinical governance meetings Keep up to date with departmental quality policies and radiation protection regulations
General	Maintain health and safety for patients, staff and visitors Carry out duties regard to the Trust's Equal Opportunities Policy Comply with the Freedom of Information Act
Other information	Adhere to, at all times, any professional and NHS code of conduct Act in a courteous, dignified and respectful manner Participate in trust policies and procedures
<i>Other headings:</i> Health and safety General compliance Physical and Mental Skills	No set competencies as more so requirement for trust policy.

Table 8.7 Job headings

Overall, slight variations were noted across the JDs for instance, in relation to job banding, work hours and differences in terminology. In terms of inclusion of the four pillars/domains, the majority of the JDs had reference to them with the exception of two JDs where the core function of expert practice and service development was omitted as headings, but the content was evident in the other domains. The associated competencies indicated the role was structured around the four pillars/domains of consultant practice.

8.4 Evidencing professional and organisational impact through the CTR jobs descriptions

The six CTR JDs were then reviewed against the adapted Dimensions of Impact Framework outlined in the chapter three (section 3.5) to determine whether the

associated competencies featured would provide an opportunity for the postholder to demonstrate professional and organisational impact. Tables 8.8 and 8.9 provide an overview of using the framework in relation to the CTR role supported with examples from the CTR JDs. A discussion on the tables follows in section 8.5.

Professional impact:

Domains	Indicators	Example of indicators in a radiotherapy context	Examples of evidence using the CTR job description competencies
<i>Professional Competence</i>	Impact on confidence and competence of healthcare workforce (e.g. effecting knowledge, skills, behaviour, attitudes)	Increased skill of consultant therapeutic radiographer in providing education locally and via the consultant radiographer network Competencies through involvement with projects (for example setting up radiotherapy new patient clinic, on treatment review clinic, follow up review clinic) Increased staff knowledge and autonomy by problem solving complex cases Improved practice through development of protocols, work instructions, guidelines	<i>To share skills and knowledge both within and outside the trust through forums (CTR 5 JD)</i> <i>To establish patient post radiotherapy clinics and information and support services (CTR 1b JD)</i> <i>Developing and co-ordinating a triage system (CTR 1a JD)</i> <i>Post holder will undertake his/her own complex caseload, this will involve providing clinics for assessment and review of patients (CTR 2 JD)</i> <i>Develop protocols and procedures and ensure these are maintained including analysis and interpretation of relevant literature (CTR 3 JD)</i> <i>Develop and implement evidence based clinical policies and practice helping identify resource requirements (CTR 4 JD)</i>

		Increased knowledge and skills for other staff through development of competency framework and supervision of junior staff	<i>To conduct staff development reviews, developing action plans and ensuring the training and development needs of the individual and the department are addressed.(CTR 5 JD)</i> <i>To provide direct support and supervision for specialist radiographers (CTR 5 JD)</i>
<i>Quality of working life</i>	Healthcare workforce on the perspective on the impact on the quality of their working life arising from the practitioner intervention (e.g. job satisfaction, morale and motivation.	Improved confidence – giving advice, recognition of skills, autonomy Positive influence on work environment / team	<i>To practice at a consultant level providing expert care for patients and having a high degree of autonomy (CTR 3 JD)</i> <i>To demonstrate a high degree of personal professional autonomy (CTR 5 JD)</i> <i>To provide specialist advice on the role of radiotherapy (CTR 5 JD)</i> <i>Work in collaboration with the multidisciplinary team making contribution to the service (CTR 2 JD)</i>
<i>Professional social significance</i>	Extent to which the practitioners interventions are important to professional outcomes e.g. workload, work distribution, turnover	Meeting the four domains / functions of consultant practice Lead a service to support the workforce	<i>The post will be structured around the four core functions that exemplify the role (CTR 4 JD)</i> <i>Develop and lead the radiographer led clinic service working with the oncologists to ensure a</i>

	across the workforce.	Supporting / liaise with the oncologist	<i>high standard of patient care (CTR 5 JD)</i> <i>Work in conjunction with the Clinical Oncologist in providing a seamless service to patients (CTR 3 JD)</i>
<i>Professional social validity</i>	Social importance and acceptability of the intervention for the healthcare workforce and whether the interventions address important problems that healthcare staff encounter.	Improved team working – through training, supervision, protocol development Improved team working – involvement in MDT, audits, trials Improved care pathways – to give an efficient service for patients	<i>To manage and lead the departmental radiotherapy treatment programme, developing and maintain protocols, procedures, work instructions and a training programme for qualified radiographers (CTR 1b JD)</i> <i>Contribute as a member of the MDT to the treatment decision making process (CTR 1a JD)</i> <i>To participate in clinical trials, audits and accreditation (CTR 2 JD)</i> <i>To provide a comprehensive therapy radiographer consultant service, improving service delivery to patients, optimising the use of existing and developing services (CTR 1a JD)</i>

Table 8.8 Dimensions of impact framework evidencing professional impact from CTR job descriptions

Organisational impact

Domains	Indicators	Example of indicators in a radiotherapy context	Example of evidence in CTR job description competencies
<i>Organisational competence</i>	Extent to which practitioners contribute to an efficient and effective organisation in terms of business concerns of finance, governance and legal requirements	Redesign of service Income generation Cost savings Reduced admissions in ward Clinical leadership Involvement in strategic design	<i>To lead service evaluation, improve current service and plan future service provisions and development (CTR 3 JD)</i> <i>Have a strategic view of the service assessing financial and resource implications (CTR 5 JD)</i> <i>Evaluate / assess the impact on waiting times and patient satisfaction (CTR 5 JD)</i> <i>Demonstrate advanced leadership qualities and provide clinical leadership and supervision (CTR 4 JD)</i> <i>Be involved in Network and Trust wide initiatives (CTR 4 JD)</i>
<i>Organisational social significance</i>	This concerns policy objectives relating to organisation e.g. national and local priorities, contributing and developing policies and generating new knowledge	Involvement in national guidelines / protocols	<i>Promote and develop evidence based practice locally and in collaboration with other cancer centres across the network and nationally (CTR 4 JD)</i> <i>To ensure current practice is evidenced based and protocols adhere to national guidelines (CTR 1a JD)</i>

		Contribution to other trusts pathway Advanced knowledge in own speciality through research/publications	<i>Strategically review the patient pathway and develop new pathways to optimise radiotherapy (CTR 5 JD)</i> <i>To keep up to date with relevant development by review of literature and attendance at study days (CTR 1b JD)</i>
<i>Organisational social validity</i>	Social importance and acceptability of practitioner intervention for the organisation and whether the interventions address important issues for the organisation and whether the outcomes are meaningful to the organisation in terms of achieving its core values.	Ownership – leading developed service to meet departmental requirements Raise profile of the consultant radiographer through national and international conferences Influence national radiotherapy agenda – through consultant radiographer network and professional body	<i>To be a recognised lead in and expert in the field of radiotherapy and have an impact locally, nationally and internationally (CTR 5 JD)</i> <i>To present any research findings at local, national and international meetings (CTR 1b JD)</i> <i>To make presentations to local, national and international groups and conferences on current issues in radiotherapy (CTR 5 JD)</i> <i>To promote the role by publishing innovations and research in journals and presenting findings and developments (CTR 4 JD)</i> <i>Ensure all key stake holders are fully informed of the service and of service developments (CTR 5 JD)</i> <i>Contribute to the palliative care agenda at national and international level.(CTR 2 JD)</i> <i>To maintain links and networks both nationally and internationally (CTR 3 JD)</i>

Table 8.9 Dimensions of impact evidencing organisational impact from CTR job description

8.5 Discussion of professional and organisation impact in relation to the CTR job descriptions

Using the Dimension of Impact framework opportunities for evidencing professional and organisation impact, indicated in the CTR JD competencies (refer to above tables 8.8 and 8.9 for details of domain and indicators) are discussed below

Professional impact

This domain has four indicators that focus on opportunities for the CTR role to impact on the healthcare workforce:

Professional competence

CTR JD competencies were noted to provide opportunities for impact under this indicator. For instance competencies highlighted sharing of skills and knowledge at both an internal and external trust level. This is reinforced by the document *Consultant Radiographer: Succession Planning* (SCoR, 2009) in which it stated that therapeutic radiographers have the necessary skills and knowledge to take up consultant practitioner status. Furthermore opportunities for impact in involvement in developing and implementing new services (e.g. a new triage service – CTR 1a JD) and protocol / policy development to improve practice to allow other staff to follow and adhere too. Finally opportunities for impact were also evident through competencies acknowledging involvement in staff development, for instance staff development reviews and assessing training and development needs to aid staff (CTR 5 JD) and direct involvement in support and supervision. Snaith (2016) more recently commented that the consultant radiographer role encourages radiographer development and supports career paths.

Quality of working life

JD competencies indicated opportunities for impact on characteristics including autonomy and recognition of skills. For instance developing and demonstrating autonomy (CTR 5 JD) and identifying as an expert and specialist in the role (CTR 3 JD). Harris and Cornelius (2012) acknowledge that CTRs are expected to demonstrate professional autonomy and specialist knowledge. In addition, the JD

competencies indicated opportunities for impact on team working such as collaboration and contribution within the multi-disciplinary team (MDT) (CTR 3 JD).

Professional social significance

JD competencies indicated that all CTR JD's had based the post around the four domains / pillars of consultant practice and the importance of providing care at a consultant level (CTR 3 JD). Furthermore the framework acknowledges areas such as influencing the workload and workforce; hence opportunities to demonstrate impact were evident in the JD competencies through developing and leading a radiographer led service and working in conjunction with the clinical oncologist in supporting the service (CTR 4, 5 JD). Rees (2014) supports this stating that consultant radiographer roles do make a positive contribution to the department. Whilst Henwood et al., (2016) reported in their study that consultant radiographers were introducing new services and driving change.

Professional social validity

Improved team working and involvement in care pathways are considered in this section. The JD competencies clearly evidence opportunities for impact, for instance contribution to training programmes, decision making skills in the MDT setting and improvements in service delivery to patients (CTR 1a, 2 JD). This is reinforced by Williams and Widdison (2013) adding that the consultant radiographer is a major contributor to the multi-disciplinary team (MDT).

Organisational impact

This domain has three indicators, relating to the CTR impact on organisational issues

Organisational competence

JD competencies reflected this indicator by evidencing opportunities for impact in examples such as leading service evaluation and developing service provisions (CTR 3 JD). Impact was also indicated in examples such as assessing patient wait times and satisfaction (CTR 5 JD). Furthermore an involvement in strategic assessment in terms of financial decisions (CTR 5 JD). The National Radiotherapy Advisory Group (NRAG) (2007) recognised the contribution that consultant

radiographers could make on radiotherapy service provisions around the patient needs

Organisational social significance

JD competencies reflected this indicator by evidencing opportunities for impact in areas such as developing evidence based practice across at a local and across network levels (CTR 4 JD) and ensuring practice is evidence based (CTR 1a JD). In addition, JD competencies indicated involvement in keeping up to date and attending courses can make a positive impact on the knowledge development for the CTR (CTR 1b JD) which would be of benefit to the organisation. Harris and Cornelius (2012) acknowledge that engaging in CPD and maintaining skills aid the CTR's professional development.

Organisational social validity

All JD competencies clearly evidenced opportunities for impact in this indicator in areas such as presenting research findings, publishing work, leading in the field of radiotherapy and promoting the role at a local, national and international level. Snaith (2016) adds that consultant radiographers can showcase their work and identifies that sharing /publishing work can further promote the role.

Overall the review of the CTR JDs against the Dimensions of Impact framework has indeed indicated opportunities for both professional and organisation impact.

8.6 Chapter summary

This chapter has comprehensively reviewed in detail the document analysis of the six CTR JDs.

A comparison using the advanced letter PAM (2/2001) and the CTR JDs was initially conducted, the intention of this comparison was to ascertain if CTR roles reflected the guidance in the advance letter. A review of the headings and brief content outlines between both documents was conducted. Overall the review identified the CTR JD followed the recommendations, with minor semantic differences.

The review concluded that opportunities for demonstrating both professional and organisational impact were evident in the CTR JDs.

CHAPTER NINE: RESULTS AND ANALYSIS: PHASE THREE SEMI-STRUCTURED INTERVIEWS

9.1 Introduction

This chapter addresses the findings from the phase three interviews with the key stakeholders'. The purpose of the interviews were to:

- Capture the thoughts from key stakeholders regarding whether the CTR role has met its original intentions since its inception
- Gain key stakeholder feedback on the themes derived from developed case studies in phase two
- Identify recommendations for future policy, clinical practice and workforce development.

As acknowledged in Chapter four (Methodology); the stakeholders were:

- Four representatives from the Society and College of Radiographers (SCoR)
- One representative from NHS England
- One representative from Health Education England (HEE)

The chapter will be divided into two parts:

- Part one will review the feedback from the stakeholders regarding the overall role of the CTR.
- Part two will review the feedback from the stakeholders regarding the themes which were developed from the phase two case studies and reviewed in the cross-case study analysis.

9.2 PART ONE: Stakeholder feedback regarding the CTR role

9.2.1 Interview process

Details regarding the stakeholder interviews can be found in chapter four (section 4.15).

9.2.2 Thematic analysis

As with phase one and two, the transcripts were analysed using thematic analysis demonstrated by Braun and Clark (2006:87) the detail of the process can be found in chapter four (section 4.16). A thematic framework (see fig 9.1) was developed indicating the codes, sub themes and themes which are presented in section 9.2.3.

9.2.3 Thematic Framework

Codes	Sub Themes	Theme
Government initiative and review SCoR vision document for radiotherapy Skills mix project proposal with the DoH Implementing the Career Progression Framework in Radiotherapy. National Radiotherapy Advisory Group recommendations Society and College's influence Council strategy Implementation Group Clinical Reference Group DoH input / Vision Society business vision planning guide Policy decision Ministerial push	Policies	Drivers supporting role development
Concept of 4 Tier structure Fill a gap Replacing some of the traditional roles New opportunities Innovating practise Develop career frameworks Develop advanced practice to the next level Reduces service pressures Improving services and quality Strengthening leadership	Development	Purpose of the role
Reduces clinicians workload A role in terms of moving services forward Cost-effective care Increase capacity of workforce Expand capacity Addresses increases demands Enhances service	Service provision	

Bespoke special roles Developing advanced skills Expand the skills base of practitioners Enhanced training Enables opportunities Push boundaries Empowerment Supports career development Boosts career development	Professional outcomes	Impact
Patient focused Supporting the patient pathway Enhancing care	Perceived patient experience	
Slow uptake Lack of understanding Lack of vision Feeling threatened Protectionism Resistance Financial / Funding Lack of research possibilities	Concerns	Challenges
Promote the role Develop more consultant practice Gain accreditation	Recommendations	Future

Table 9.1 Thematic Framework for stakeholder interviews

9.2.4 Presentation of key themes

Theme 1: Drivers supporting role development

All stakeholders acknowledged that the drive for role development was supported through various policies. Participants were able to indicate that the policies were either from a government level (Department of Health), or the professional body (Society and College of Radiographers). For instance reference to the Department of Health's role included:

“Original remit of the role was an expert practitioner that was written out by the Department of Health in the AHP strategy in about 2000 which was that the role would be about innovating practise, also research and leadership”

(SCoR Rep, B)

“Department of Health in 2000 developed a policy around the nurse and midwife consultant role and that would then extend to allied health professionals such as radiography”

(NHS Eng. Rep)

Moreover, recognition from the professional bodies’ involvement with the vision:

“Society and College’s influence in that early work with the Department of Health and actually how these roles came about, they were early implementers particularly with consultant radiographers”

(SCoR Rep, C)

“By 2003 the Society had produced a planning guide, it was a business planning guide, but it had set out the...the work from 2000-2003 in terms of vision for the consultant radiographer role in both diagnostics and in radiotherapy”

(SCoR Rep, D)

Overall there was a clear indication that policy was a driver for supporting role development and this was a shared opinion by the participants.

Theme 2: Purpose of the role

The stakeholders expressed a range of opinions pertaining to the rationale and development of the CTR role highlighting that the role developed either from a *service need* or in *recognition of the benefits* it could provide. For example in relation to service need:

“It was kind of recognising that there was increasing pressure on services and a desire to try to get patients to be seen within the waiting time period. With a growing population and a growing aging population and finite resources for the NHS, inevitably, services become squeezed”

(HEE Rep)

“It was to give better outcomes to patients via things such as – improving services and quality of them”

(NHS Eng. Rep)

“The role would fill a gap in the service, and particularly if there were a shortage of oncologists”
(SCoR Rep, B)

In regard to the potential benefits feedback was insightful with stakeholders recognising the advantages that the development of the role provides for the practitioner and the profession as a whole, for instance:

“I think consultant practice was seen as an opportunity to develop advanced practice to the next level, I think we saw an opportunity there and advanced practice had been moving forward ”
(SCoR Rep, D)

“The concept and format of the 4 –Tier structure had some much relevance to radiographers careers”
(SCoR Rep, A)

“It was really about strengthening leadership and offering new career opportunities for practitioners”
(NHS Eng. Rep)

Theme 3: Impact

This theme was a prominent feature throughout the interviews. Stakeholders perceived that there was evidence of impact and made reference to three areas, which were **service provision**, **professional outcomes** and **perceived patient experience**.

In regard to **service provision**, stakeholders perceived that the CTR had influence on the service and workforce, for instance:

“It is clear that the consultant role provides cost effective care and should be embedded and supported by everybody”
(SCoR Rep, A)

“The benefits of the role in terms of moving services forward and acknowledging what allied health professionals could offer to services”
(SCoR Rep, B)

Mapped against the Dimensions of Impact framework has indicated service provisions is categorised under the domain *organisational impact*, specifically the indicator *organisational competence* (see Appendix Q).

In terms of **professional outcomes**, stakeholders recognised the perceived benefit of the CTR role to radiotherapy practitioners particularly citing perceived benefits in career developments, opportunities and role expansion; for example:

“I think it’s also very good because it supports career development for individuals and to gain new skills and should have a really sort of boost to their career development”
(HEE Rep)

“It’s about actually empowering the radiographers, the workforce from advanced practice and beyond”
(SCoR Rep, C)

Moreover,

“Think it’s an excellent role. I think it’s a fantastic opportunity. Radiographers, over a period of time, gain an incredible amount of skills across many different domains”
(SCoR Rep, A)

Mapped against the Dimensions of Impact framework has indicated professional outcomes is categorised under the domain *professional impact*, specifically the indicator *quality of working life* (see Appendix Q).

Finally, for **perceived patient experience** the stakeholders acknowledged that the CTR had a perceived positive bearing on the patient journey for example:

“It’s a really good role in enable to facilitate the patient pathway in supporting the patient, from the time that they first arrive in a pathway to the time they complete”
(SCoR Rep, A)

“All the skills/roles that the radiographer can learn as a consultant, they’d offer support and actual fact, it enhances care”
(NHS Eng. Rep)

Moreover,

“Their focus is coming from the patient up, rather than from a hierarchy down, enabling them to offer some different opportunities and skills that enhance the care of the patient”
(SCoR Rep, B)

Theme 4: Challenges

The stakeholder interviews highlighted a number of concerns they felt could make the role challenging, for instance one of the stakeholders was concerned regarding the slow uptake of the role:

"In certain areas, particularly in breast practice, it's been very clear; there's been a clear role. The highest number of consultant practitioners we have is in breast and it works very well, however in other groups like therapeutic radiography it's been very slow and that's very disappointing"

(SCoR, Rep A)

This issue was also reinforced by another stakeholder, who reported that the original target numbers of implementing consultant practitioners in AHP (which includes radiography) was actually never met:

"The Department of Health had a target of 250 consultant AHPs by 2004. And the very fact that our document was...was actually published in April 2003 kind of indicates the very tight time scale. And I think it's widely accepted that that target of 250 by the end of 2003 was not met. There was certainly a feeling that if we rushed too much then actually the role would not be sustainable; there'd be a risk that...that people would find themselves in a role which was not supported, not understood"

(SCoR, Rep D)

Another contributory factor was the lack of understanding of the role, in particular in relation to the four domains of consultant practice; with some of the stakeholders acknowledging that this too was a concern, for example:

"Some of the challenges would've been around, if I'm honest with you, around clinical leaders perhaps not fully understanding the role and having the capacity or the capability to develop the role in a way that it matches those sort of four core domains"

(SCoR, Rep B)

Moreover,

"I think unfortunately within the profession, there are still challenges in terms of the understanding of meeting those four core domains"

(SCoR, Rep C)

In addition, one stakeholder felt that lack of understanding may be also due to the indistinct integration of the role within departments citing:

“There’s also a lack of understanding of how that role fits in to the hierarchy of the structure of the department” (SCoR, Rep A)

A number of the stakeholders also made reference to the attitudes of some Radiotherapy Services Managers towards the CTR role; in particular, the lack of vision for the role and its potential threat to them. For instance:

“I think it has been challenging not at least because of the economic challenges that the service is currently faced. But I think that vision that’s required to implement the role, but also to acknowledge that that role might not necessarily report directly to the service manager, it might be reporting in a different way. And I think that in itself brings its own challenges in terms of cultural change as well” (SCoR, Rep B)

In addition,

“I think radiotherapy managers have felt threatened by the role, because they’re obviously being paid at their level” (SCoR, Rep A)

“Leadership is quite interesting and I wonder whether this is one of the constraints with some RT managers, that actually they can’t really get their head around...you know, where does this person sit in terms of leading services” SCoR, Rep D)

Concerns regarding protectionism and resistance were highlighted by two of the stakeholders, who explained that they felt it remained evident in the workplace but primarily in relation to diagnostic radiography, for instance:

“Unfortunately, the medical consultants are very protective about their role as a huge resistance they made at the radiography reporting, and allowing diagnostic radiographers to take on new roles” (SCoR, Rep C)

In addition,

“Recent example is the resistance and negative feedback in the consultation of independent prescribing, which was very successful for therapeutic radiography because it was supported by the clinical oncologist, and unfortunately failed currently in diagnostic radiography” (SCoR, Rep A)

Financial issues were also suggested as a concern that would have an impact on the CTR role with stakeholders citing:

“Think they found that challenging because services has been very stretched”
(HEE Rep)

“I think there are cost constraints but I...I think that people are really stuck when it comes to proving the value” (SCoR, Rep D)

“Funding cuts as we know and actually how are we going to then get these people through these roles” (SCoR, Rep C)

The final concern as acknowledged by one stakeholder pertains to the potential lack of research possibilities the CTR has in their role; but also highlighting the importance of engaging in research to support the role, for instance:

“Publication output is still low - role fits into the evidence-based publication and needs to push it forward. It can be challenging to meet what I would perceive as the true nature of the consultant role” (SCoR, Rep C)

This was also reinforced by the NHS Eng. representative, who also highlighted the importance of research in relation to the four domains of consultant practice, citing:

“The research component, which was thought to be very important to influence practice” (NHS Eng. Rep)

Theme 5: Future

Recommendations for future practice were also suggested by the stakeholders; increasing CTR numbers, promoting the CTR further and the importance of potential accreditation, for instance:

“My impression is that we are disappointed that there are not more consultants already in post. So there's a...there's an aim to continue pushing, showing the value of consultant practice and then helping to understand this is something that will be a help not only to their service and to their patients but to them personally in running their services. So increasing numbers, I think reinforcing the work around the role.” (SCoR, Rep D)

“You know, we are really trying to promote these roles and the benefits of expert practise across the whole of radiography” (SCoR, Rep, B)

“The accreditation process, so I think for me, that's priority number one really, to get the accreditation right in there, we need to have that standard because it's not a protected title, we know it's not” (SCoR, Rep, C)

9.3 Summary

The acquisition of stakeholders' perspectives on the CTR role has identified a number of important themes within the first part of this analysis; which has acknowledged the evolution of the CTR role, and also highlighted some of the key issues to be considered for developing the role further. A number of these themes (e.g. impact, challenges and future) echo themes developed from phase two which therefore corroborate each other.

The next section, will examine the stakeholders views on themes that were developed from phase two case studies and cross-case study analysis.

9.4 PART TWO: Stakeholder feedback on the themes developed from Phase two case study and cross-case study

The stakeholders were asked to comment the themes that had been developed from phase two case studies and cross-case study analysis. The themes identified were:

- **Impact** (*service targets, professional outcomes, perceived patient experience, working relationships*)
- **Identity** (*Use of the title “consultant,” presence, status and recognition (at local and national levels)*)
- **Challenges** (*Lack of medical knowledge, lack of time to conduct research, increased workload/burn out, financial pressures/sustainability*)
- **Power** (*Medical dominance and protectionism*)
- **Future** (*Increase the numbers, extending the roles*)

In addition, the stakeholders were given the opportunity to consider “**any other thoughts**” they felt would be important to mention with this research which will also be reported within this section

9.4.1 Presentation of stakeholder feedback from phase two case study themes

Theme: Impact

All stakeholders agreed that this was a highly relevant theme. In addition, stakeholders perceived that the CTR definitely made a positive impact. The feedback from some stakeholders included the perceived positive impact on patient care for instance:

“Improves patient care and that the patients have their side effects managed in a way that they have a high quality of life” (SCoR, Rep A)

“For consultant radiographers, it is very much being part of the wider team. And I think you know, a mutual understanding of what different professions can offer and can offer in breaking down boundaries to improve the patient experience is absolutely essential” (SCoR, Rep B)

There was also agreement on the positive influence the CTR had on the service and the perceived benefits it would provide, for instance:

“I think these roles offer that opportunity to break down, to smooth that journey, and to see actually where there are the gaps in the service”

(SCoR, Rep B)

Moreover,

“If it can prove better value, demonstrate an ability to meet clinical targets, and people are saying yes, this is helping us meet clinical targets, that’s fantastic. So yes, I’m pleased to hear of the benefits of the role “

(SCoR, Rep D)

Overwhelmingly, the stakeholders also perceived that professional benefits were evident by the CTR role, citing:

“We need to be able to promote and have a good career structure to enable retention of radiographers. So, we very much support the need for consultant career structure”

(SCoR, Rep B)

“They can go the whole way and really push the practise forward, and the consultant radiographers can step in to the gap, and that’s needed”

(SCoR, Rep C)

In addition,

“It’s really important to have that career opportunity available for those individuals who want to advance their practice, to undertake research, to lead, etcetera”

(NHS Eng. Rep)

Theme: Identity

On discussion on the issue of the use of “consultant” as a title, the stakeholders were in agreement that the title was appropriate and fitting for the role that provides a positive identity, for instance:

“I think it’s a good title and I think it should be used. I’m very proud of them. I think it’s an actually wonderful achievement to be able to get to the top of your career. It’s a very exciting role and it’s a very interesting role and it should be something that all radiographers should strive for.” (SCoR, Rep A)

“If you’re advising other people on what’s best for that patient, then you’re providing a consultancy role. If you’re advising carers and others as well as the patient about their role, you aren’t just giving advice; you’re giving a consultation about it. So I think I’d be really disappointed if there was work to try and roll back on the use of the word consultant because I think it’s good and descriptive” (SCoR, Rep D)

In addition, one of the stakeholders highlighted that the title of the role was not of importance; rather the type of person in the role was more meaningful:

“I mean, it’s a high level role and I’m not that worried about the title actually it’s more important to get the person in role with the right skills in.” (SCoR, Rep C)

In relation to presence, status and overall recognition, stakeholders agreed that the CTR role had a strong professional standing within the departments, for instance, they expressed the following thoughts:

“I think they’re highly respected and regarded, their standard and the quality of their work is outstanding and, I believe, indeed, are role models for the profession” (SCoR, Rep A)

“They are credible, impactful individuals who very clearly are making a difference to patients and services”
(NHS Eng. Rep)

Moreover,

“I think certainly, from the professional bodies’ perspective, they really do have a strong status, and they...we really do see these people as the experts in the clinical field for radiography”
(SCoR, Rep B)

One of the stakeholders added that at a local level the CTR presence was very much felt, however at a more national level much more work was required, for instance:

“At local level, I...I would...I believe there is; on a local level there's real understanding. Nationally I think we could do more. There are relatively few that reach national prominence. So I think making the role a big prominent thing nationally is important. I think that how many individuals, sort of, rise to the top not only in their local field but also in terms of national reputation”

(SCoR, Rep D)

This particular viewpoint also shares some relevance under the theme of future, in terms of potential recommendations of the role.

Theme: Challenges

The stakeholders were informed of some of the concerns that were acknowledged in the phase two case studies and were asked to provide their thoughts on the following areas, *lack of medical knowledge, lack of research, increased workload/burnout, financial / sustainability*.

With *lack of medical knowledge*, the stakeholders felt this was a valid question but were able to refute this concern, for example a number of the stakeholders highlighted that the educational structure of the role provided the CTR with the appropriate knowledge within their scope of practice:

"I think it is important that the clinical oncologists are assured we have the appropriate education and training, and that they're involved in the mentorship of any radiographers who are doing aspects of the role; but I equally think these roles aren't just about that. So, I don't think it's just about specific medical knowledge, I think it's about other areas of practise as well. And we certainly want radiographers to be equipped with the right knowledge and skills for the role that they're undertaking." (SCoR, Rep B)

In addition,

"I believe there is an education infrastructure built in the role development, there are plenty of CPD opportunities to build on that knowledge, there's plenty of opportunities to go to conferences and to do MSc modules to get that information and knowledge" (SCoR, Rep A)

Stakeholders felt that this area of concern was potentially based on a misperception that the CTR role was to replace the doctor, rather than compliment it, for instance a few expressed the following:

"I think it's important that everybody realises that no consultant practitioner is pretending to be a doctor. They're...you know, their job is a consultant therapeutic radiographer and that means that they work within the limits of their scope of practice as a doctor does" (SCoR, Rep D)

Equally,

"Everybody has their speciality. So I think...I think it's quite right for people to be concerned about that. I don't...the...I...I mean, there's a lot of sighing goes on when...when, you know, medical colleagues say is this safe or things like that. And we can say well, actually, the evidence shows that this practice is safe. You have to go by the evidence." (SCoR, Rep C)

Interestingly, one of the stakeholders expressed that doctors themselves have had to learn their knowledge and in fact may have gaps in their own knowledge if it is not an area of their speciality, for instance:

“I don't believe that a consultant oncologist, for example, although they started out with a...a very broad knowledge which they'd learnt over many years of medical training and then into clinical practice. I don't imagine they're as good at their musculoskeletal, you know; particularly fracture anatomy or physiology...physiological processes around fracture healing as they are around oncology anymore because it's natural for people's scope of practice... to mould around what they're doing.” (SCoR, Rep D)

Likewise, one of the stakeholders viewed this from a different perspective and felt this area of concern was potentially based on ensuring patient safety, citing:

“The medical colleagues, they are looking for the veracity about the benchmark for patient safety and public protection and risk and all of those sorts of things” (NHS Eng. Rep)

Another concern was the *lack of research time*. The stakeholders all agreed that this was an ongoing challenge for the CTR role, for example:

“That is very true. I think it's very definite a concern the Society of Radiographers have, we lack horrifically behind other people, it is a lack of understanding about the benefit of research” (SCoR, Rep A)

Moreover,

“I...I can understand that must be a particular problem and because clinical environments are very, very pressurized but research time should be allocated.” (SCoR, Rep D)

A number of the stakeholders also highlighted that lack of time for research maybe due to departments prioritising clinical services over conducting research, for instance:

"I think there's real bias towards clinical expertise. And is that a default setting for the profession? The default about to actually delivering care; but why are we seeing research as separate to practise?" (SCoR, Rep C)

In addition,

"I think this is a huge challenge, because generally we're seen as professionals who should be working flat out on equipment all day long that I think some of it's around having clarity on research at the beginning when these new roles are being set up" (SCoR, Rep B)

References to accountability by the CTR were also made where stakeholders who expressed that the CTR's should be able to voice any issues if appropriate research time is not provided, for example:

"Actually it's down to the practitioner to make sure that they use that time... and not just say it was far too difficult if what they're really saying is not that interested in doing the research; I think that people who are enthusiastic about research find a way to do the research." (SCoR, Rep D)

Also,

"If there's not physically any time within the role, then it's about actually highlighting that and pushing forward" (SCoR, Rep C)

A resolution to the concern was shared by a number of the stakeholders, who felt that a detailed job plan would potentially solve the issue whereby it acknowledges the requirement within the role. For instances:

"We need to be empowered enough as individuals in the profession to try and negotiate a way out of that and having that considered. And that's where the job plans come in; the job plan will actually enforce engagement, unless that's part of the role, we won't have research at the core of the profession. It would be seen as an add-on which is the problem" (SCoR, Rep C)

In addition,

"We always try to support services who are developing new job roles in really providing examples of job plans. So, very similar to, you know, clinical jobs. We can't just assume research can just be fitted in at the end of the day. So, it's about having an appropriate job plan and also working closely with other consultants who do have really good examples of job plans" (SCoR, Rep B)

One stakeholder highlighted that evidencing good research and the impact it can afford was another way forward particularly from an employer's perspective and the overall benefit it could bring to the service and the individual, for example:

"I guess, for me, it's about how do we encourage research that very much is rooted in practice that genuinely will have an impact on employers and the provider organisations and therefore, there is that symbiotic benefit in terms of both to the clinician undertaking the research, but also to the employer and host environment for patients and I think that's really key" (NHS Eng. Rep)

With regard to the concern of *increased workload / burnout*, again all the stakeholders shared similar views by this issue and highlighted that indeed it was an important consideration, for instance:

"I think that's very real, I think I think part of the problem is, is that the role is not necessary clearly defined yet, because each role is service-led, each role is bespoke to the service, it's all too easy just to add more workload onto the consultant when there's not a clear defined, what is the job, it seems to be a never-ending end, there's no stop at the end as to what the job actually finishes and looks like and I think it is just the way of trying to solve workforce issues and dumping it on them." (SCoR, Rep A)

In addition,

"Yes, clinical pressures undoubtedly are going to encroach for all sorts of reasons, if there's so much clinical work that this person is in danger of burnout because they can't support that workload plus the rest of the stuff, then clearly you're onto a loser." (SCoR, Rep D)

Ways to limit burnout were also offered by some of the stakeholders; again reference to a job plan was acknowledged as an example amongst others, for instance:

"I think that comes back again to appropriate and realistic job plans, appropriate support and mentorship within, and supervision within these roles I think one of the key areas is ensuring as well there's appropriate succession planning, and appropriate cover" (SCoR, Rep C)

Moreover,

"I think burnout from any members of staff is something that should be considered, I think it is about thinking that these aren't just one-off roles, it's about thinking about the appropriate infrastructure to support the roles." (SCoR, Rep B)

Finally, one stakeholder highlighted the negative impact that burnout has on a service, the financial implications and the realities within departments citing:

"It's inefficient. So it's not efficient to let people burn out. It's another of those things which at the moment I suspect managers have got their heads in their hands about because they don't see any easy solution. And there is a constant pressure there to do more and more and more with less. If you lose that person even for a period of two months sick leave, then that's...you...you know, you're losing money" (SCoR, Rep D)

A final area of concern pertains to the *financial pressures/sustainability*. The stakeholders agreed that financial issues were a concern for departments and also having to prove that new roles such as the CTR role are a value for money, for example:

"Yes, I think that's a very real problem, even those managers who are bright enough to do business plans not necessarily just for consultant practice can sometimes get a really good business plan not backed simply because someone is saying well, we haven't got any money to develop that money-saving idea" (SCoR, Rep D)

In addition,

“There’s a finite pot of money available to the NHS. And HEE has a budget which is £5 billion a year which we distribute to the NHS for workforce purposes. What we can do, and this is I say what we’re aiming to do with radiography is to understand what the concerns are. It doesn’t mean we’re not going to have lots and lots of money to throw at the problem I’m afraid. I mean there are financial pressures in the NHS; I think that’s very acknowledged.” (HEE, Rep)

The stakeholders were all in support of the CTR role in terms of value of money and the benefits it brought with it, for example:

“Consultant radiographers I think offer a very realistic, you know, effective way of bringing about change, I think overall these roles offer great value for money, So, yes, these roles are more expensive than a Band 7 radiographer, but actually we’re expecting so much more from this radiographer” (SCoR, Rep C)

In addition,

“We know there’s a strong likelihood of evidence to say that these roles can be economically viable over and above a consultant delivering them and viable for patient support and being economic.” (SCoR, Rep B)

Finally one stakeholder acknowledged that communicating the positive impact of role and advocating it, would in turn provide evidence toward the economic benefit to the departments, for example:

“Dare I say, there is an economic benefit in terms of clearly radiographers even at this grade are somewhat cheaper – forgive me for saying – than my medical colleagues; so in terms of appropriate mix, one would think employers would be looking judiciously at this and thinking about how they align their workforce appropriately in terms of non-medical and medical

colleagues to actually achieve an economic balance. And I think, for me, that opportunity is really there. (NHS Eng. Rep)

Theme: Power

The stakeholders acknowledged that medical dominance / protectionism was potentially based on attitudes and the lack of understanding towards the CTR role, but also saw it from a generic perspective that it could be apparent in any role, for example:

"Is pretty much a barrier, caused by a lack of understanding of the role and a lack of vision of the role, barriers that are put up by the medical workforce and it's very much around the fear of losing their role and not realising that actually, its teamwork and everybody can work well together to deliver better care for patients." (SCoR, Rep A)

In addition:

"I think equally, as we guard our boundaries, I think clinicians guard their boundaries some of that might be because they, as you alluded to earlier you know, do they understand the skills that we have? I think there's still misunderstanding about the role of radiographers in terms of...well, you know, just treat the patient." (SCoR, Rep B)

One stakeholder although felt that the issue was apparent, yet personally did think it was appropriately addressed citing:

"It's a phenomenon. It's a live phenomenon. It's almost culturally embedded which is worrying, I happen to think that it's not such a great phenomenon as...as everybody makes out in terms of its scale because you wouldn't see the amount of advanced practice going on in this country without radiologist support." (SCoR, Rep D)

Solutions to address the issue were discussed by the stakeholders and all agreed that clarity in defining the role and a realisation that role development is the way forward could possibly reduce this issue, for example:

“So I think that power, I think it would be wrong to say it doesn’t exist, because I think it does in various forms but it’s quite varied. But we need to move away from that and as you know, the council strategy really clearly identifies the fact that people need to step away from traditional roles and we need to look at patient pathway and what’s the best for that”

(SCoR, Rep C)

In addition,

“I think we need to work further at breaking down those boundaries. You know, it’s not about sort of taking over their roles, it’s about taking over some other things that are actually much more-able to be done more routinely by somebody other than the doctor of freeing their time.”

(SCoR, Rep B)

Finally one stakeholder highlighted that the historical context of the issue and often cited, but was confident that it could be resolved by expressing:

“I mean, that’s often a theme that has run through skill mix changes over the years actually; and we have picked up some sensitivity from the medical profession, some anxieties probably is the best way to put it. So I think there is always actually in my experience, once you start to introduce new roles or new ways of doing things that always leads to apprehension from others who are nervous about those changing roles. Over time I think the tendency is that once the new roles confirmed themselves then those concerns dissipate”

(HEE, Rep)

Theme: Future

Under this theme the stakeholders were informed of the recommendations to the role that were offered by participants within the phase two case studies; in particular surrounding *increasing the numbers of CTR’s and expanding the role further.*

All stakeholders agreed there had been an increase in the numbers of CTRs but only slowly and said this slow uptake needed to be addressed

“Well, increasing numbers is happening. It's not happening...you know, of course we'd like to see a...a more rapid progression and...and more numbers more quickly” (SCoR, Rep D)

In addition,

“The good news is that we've seen an increase in therapeutic consultant radiographers; it's taken a long time for us to have a reasonable number of therapeutic consultant radiographers and it's only the last couple of years, really, that we begin to start seeing those numbers grow.” (SCoR, Rep A)

Reasons for the slow uptake of numbers were offered by stakeholders, who felt that the service and finances guided the decision to have such a role, for instance:

“I think services are finding it tough. I think Trusts are finding it tough. There's so many savings to be made. So, unfortunately, often the short-termism wins over the long-term vision of actually what do we want in five years; so the thought of trying to invest in this sort of role is challenging.”

(SCoR, Rep B)

Moreover:

“I think there's been certainly whether its reticence or just that the service wasn't ready. It's almost like it sort of hit a critical mass where people are saying, “Well actually we need these roles.” But do we need the role because everyone else has got one, or does that role fit into what we're doing as a service?” (SCoR, Rep C)

In relation to the final recommendation *expanding the role further*, stakeholders acknowledged that the responsibilities of the CTR role could be further expanded. A

popular comment for agreement pertained to the responsibility of prescribing the radiotherapy dose, for instance:

"If therapeutic radiographers can get through those sort of courses at advance level, the prescribing radiotherapy treatments I think is a lot simpler than that. It's very protocol-driven, it's very clear about what is required. It's very clear what the rationales are, the RCR produced guidelines as to how you do it. And it's very controlled and protocol and research-driven. I think it's incredibly safe for therapeutic radiographers to do prescribing of therapeutic treatments."
(SCoR, Rep A)

Also,

"It's always been that radiographers could do this with the appropriate education and training – prescribing doses, so there may be situations where an appropriately educated and trained radiographer working within the multidisciplinary team, with the support of a clinical oncologist could prescribe radiation for certain conditions of patients of certain protocol"
(SCoR, Rep B)

One stakeholder expressed that another facet of the role, could concern health promotion, for instance:

"I can't really see a reason why consultant practitioners can't branch out into all sorts of, sort of, public health type roles"
(NHS Eng. Rep)

Furthermore another stakeholder positively highlighted that CTR's have the potential for all types of role and responsibilities, but it is essential that they are supported well, for instance:

"Well, part of the Society of Radiographers' ethos is that...that there isn't any limit. There's no sort of notional limit to the scope of practice of radiography. You know, tasks can be done by anyone as long as they're properly trained and educated and experienced. They're competent to do the work."
(SCoR, Rep D)

9.4.2 Any other thoughts

To secure further data, each representative was asked to provide any further viewpoints they felt would be useful to complement the research. The importance of a job plan to evidence working at a consultant level, was a theme across all stakeholders

“Looking at job descriptions and looking at job roles and ensuring they are actually working at a consultant level and not advanced levels”

(SCoR, Rep A)

“Job descriptions to the job plans - how do we then make this work in practise and that’s where the job plan comes in and a flexible approach to protected time but ultimately to make sure that you can meet all four domains”

(SCoR, Rep C)

“I’m really pleased to hear that more and more consultant practitioners talk about a job plan these days, wherein the same way as a doctor does. So it’s not just a job description, it’s your plan. This is what you’re going to be assessed against in the year and you’re going to talk to your manager about the plan and how it works. And any change to that has to be negotiated.”

(SCoR, Rep D)

Ensuring support and guidance for CTR’s was also deemed important; with stakeholders highlighting that the role requires clear structure and a route for progression, for example:

“We need to have a very clear pathway for people you know, setting up clearly the expectations and requirements at each stage. So that people have something to aspire to and be challenged by, but so that there is a kind of clear picture of you know, this is where you get to sort of thing.”

(HEE, Rep)

Moreover,

“I think where the challenge is having the underpinning educational developments and supports and the supervision to be able to do that; we need people to be able to deliver the treatment, but we also need that whole role development. So how do we as a profession, with our education framework, support that? That is where their clear goal should be”

(SCoR, Rep B)

9.5 Summary of phase three interviews with stakeholders

Overall the interviews fulfilled the aims of phase three. Part one using thematic analysis revealed a number of key themes provided by the stakeholders; whilst part two acknowledged that the stakeholders were in agreement with the outcomes of the phase two themes from the case studies (see Fig 9.1). The outcomes of phase three will be discussed in more detail in chapter ten.

Within part one, the theme of *drivers supporting role development* suggested stakeholders all recognised that policy was of paramount importance for the development of the CTR role and provided sound examples from both a government stance and from a professional body perspective.

Under the theme *purpose of the role*, stakeholders agreed that the development of the CTR role was mainly due to service needs, but also recognition of the benefits that the role could provide to the person in post.

With regard to the theme *impact*, stakeholders perceived that indeed a positive impact was apparent in terms of service targets, professional outcomes and perceived patient experience. Mapped against the Dimensions of Impact framework, service targets was categorised under the domain *organisational impact* and professional outcomes categorised under the domain *professional impact*.

Challenges as a theme was also highlighted and stakeholders expressed that there were noticeable concerns that the CTR faced, for instance lack of research opportunities and lack of understanding on the part of the role.

Finally, the theme of *future* acknowledged that stakeholders felt that gaining accreditation to ensure standards and promote the role further would be essential to further progress the role.

With part two, stakeholders were presented with each of the themes derived from the phase two case studies. Themes on *impact*, *challenges*, *identity*, *power* and *future* were considered by the six stakeholders and agreed that these themes were significant. Finally, to secure further rich data, stakeholders were asked to provide any further thoughts on the CTR role; whereby the shared thoughts were ensuring a robust job plan and mechanisms of support.

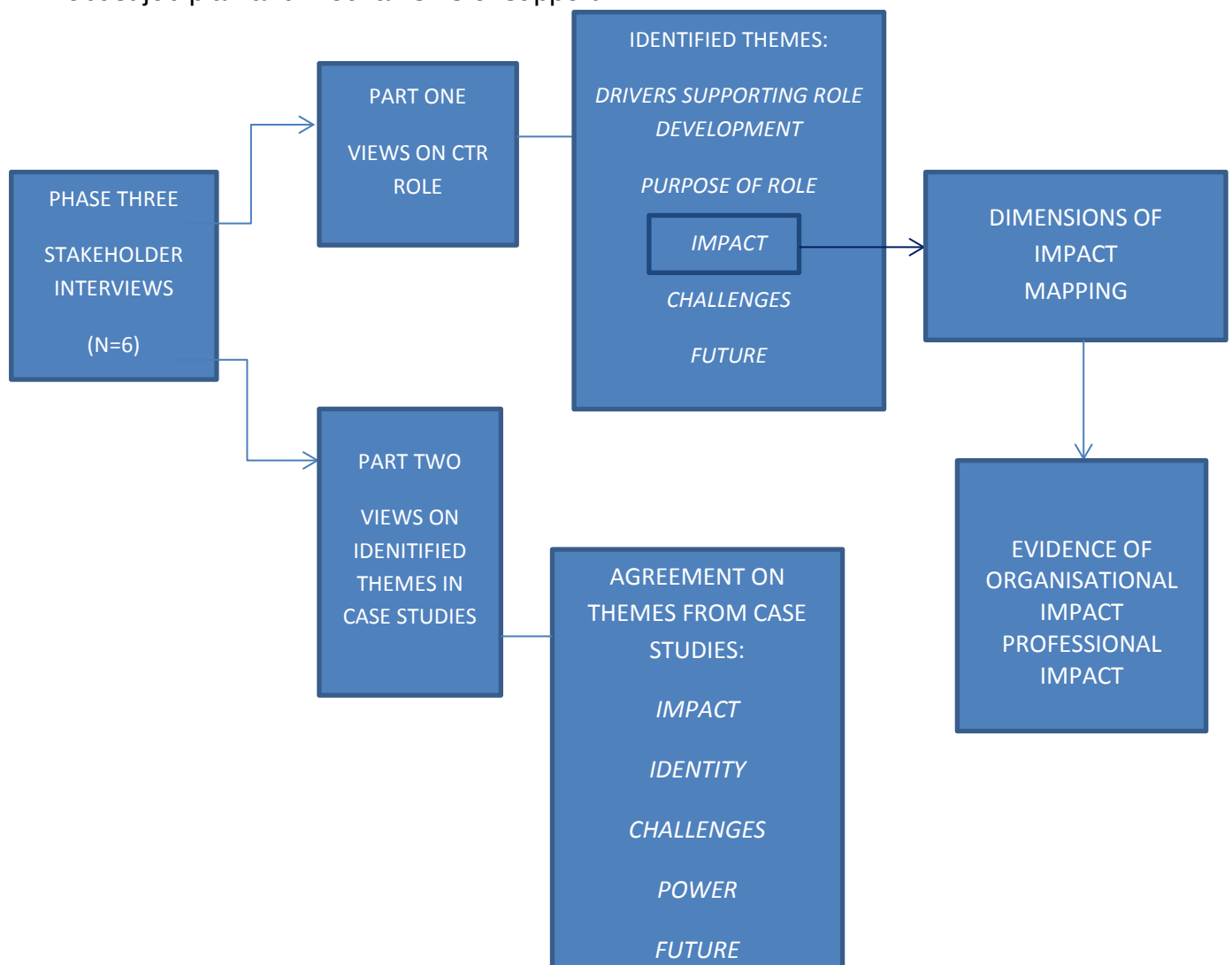


Fig 9.1 Illustration of phase three development and outcomes

CHAPTER TEN: DISCUSSION

10.1 Introduction

The aim of the study was to examine the role of the Consultant Therapeutic Radiographer (CTR) and to capture evidence of professional and organisational impact. The combined findings from phases 1 to 3 of the study will be discussed in greater depth within this chapter.

Overall the chapter aims to provide:

- An initial synopsis of the main findings extracted from all the phases.
- A discussion of the main findings in depth.
- A discussion related to the theoretical framework underpinning the research, in this case the *dimensions of impact, power and identity*.
- A consideration of the strengths and limitations of the research study.
- A reflective account of the research journey from the researcher's personal perspective.
- A summary of the main points discussed.

10.2 Synopsis of the main findings from phase 1 to 3

The research was carried out over three successive phases. Phase 1 was a scoping exercise utilising a focus group of the CTR's; to explore the CTR's views of their roles. The viewpoints informed the development of questions and the sample for phase 2 data collection. The main findings of phase 1 acknowledged that the CTR's were very clear as to why the role was developed (*inception*), cognisant of their main responsibilities within role, yet mindful of a lack of understanding toward their role (*perception*) and importantly highlighted some of the concerns they were experiencing (*challenges*).

In phase 2, a case study approach was used. Individual semi-structured interviews were utilised to further secure rich data from the CTR's, yet also to capture the thoughts and opinions of the staff who work alongside the CTR's (medical, nursing and therapeutic staff) to develop individual case study sites. In addition, document analysis of the CTR job descriptions was undertaken to demonstrate opportunities

for organisational and professional impact using the Dimensions of Impact framework. The main findings indicated a prominent theme of *impact* (sub categories of perceived impact on service target, perceived patient experience, professional outcomes and working relationships) which featured across all the case study sites; *impact* itself was also reinforced by the outcomes of the document analysis of the CTR's job descriptions. Importantly, further key themes were also reported (*power, identity challenges* and *future*) for consideration. Similarly, the findings would also inform the development of the phase 3 data collection.

The final phase 3 utilised semi-structured interviews to collect qualitative data gaining the views from stakeholders regarding the CTR role and also to explore their thoughts on the themes derived from the phase 2 case study sites. The main findings demonstrated that stakeholders had a comprehensive understanding of the CTR role (*drivers for implementation, purpose of the role*), yet also recognised a number of other key factors (*impact, challenges* and *future*) to be considered. Likewise, all stakeholders agreed with the themes from the phase 2 case study sites, confirming the themes are relevant to the role.

10.3 Outcomes of the main findings

Results from both phase 2 and phase 3 identified *impact* as the main theme evident across both phases with further key themes for consideration. The findings indicate that perceived impact can be considered under four sub categories: *service targets, perceived patient experience, professional outcomes* and *working relationships*. Moreover, further key themes have also been identified of which are *power, identity, challenges* and *future*. The resultant findings can now be linked back to the original research question and aim of the study and grouped under the following headings (see table 10.1): *What has been the professional and organisational impact of the introduction of the consultant therapeutic radiographer role?*

Organisational impact	Professional impact
Service targets	Professional outcomes
Perceived patient experience	Working relationships
Power	Identity

Table 10.1 Categorisation of key themes relating to both impact aspects

In addition the further key themes of challenges and future will also have a bearing on the discussion. The outcomes are depicted in Fig.10.1.

10.4 Discussion of main findings

10.4.1 Organisational impact

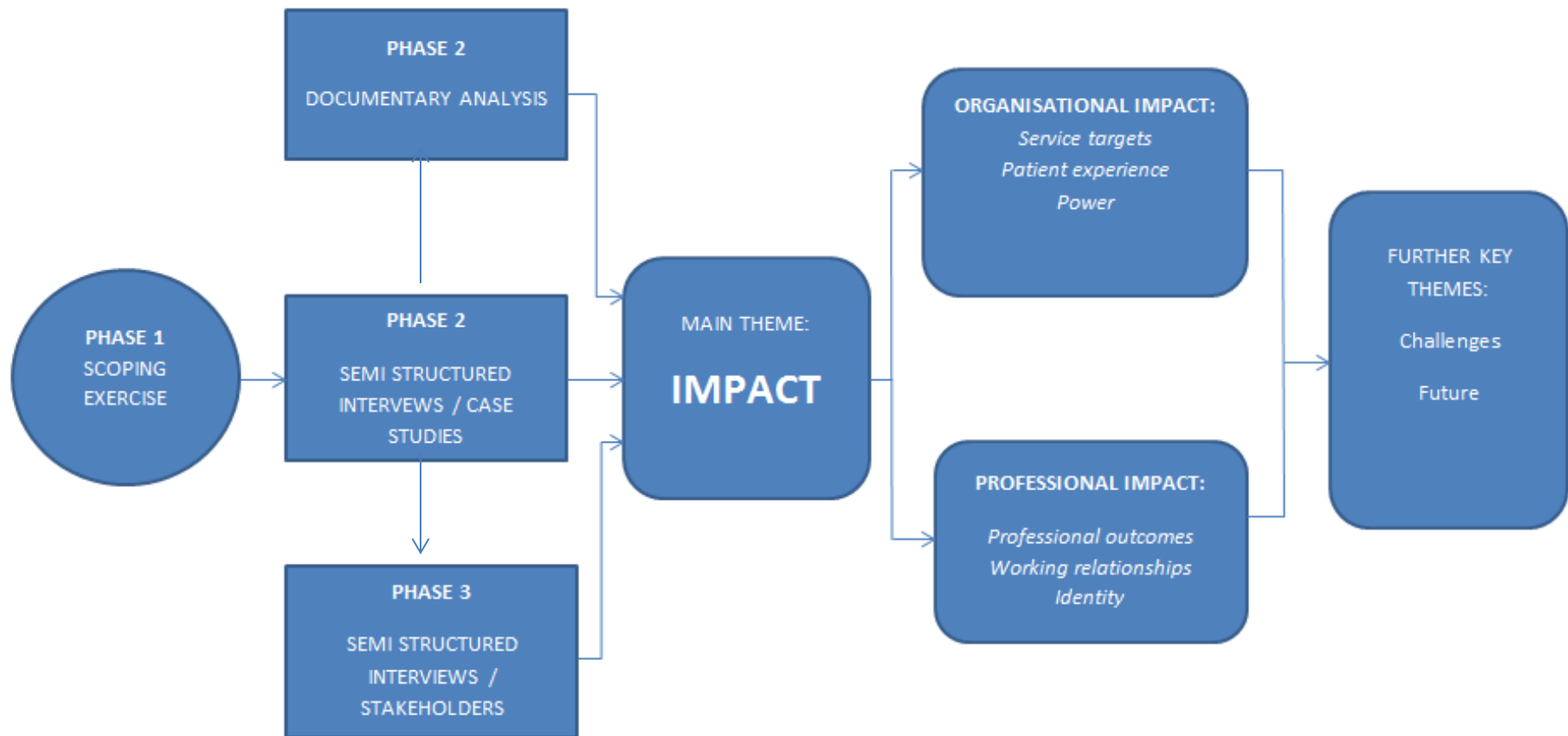
(Encompassing service targets, perceived patient experience and power)

Service Targets

Results from the phase 1 scoping exercise initially highlighted that CTR role had some influence on service, not strictly in terms of impact, but more because development of the role was based on the service needs. The scoping exercise identified a number of issues surrounding service needs such as a shortage of registrars, breaching of target dates and even financial motives. Such role development is often led by service / department needs (Hardy and Snaith, 2006), and provides with the potential benefits to ensure an efficient patient service (Woodford, 2006) and as a result seen as aiding the service positively.

Results from both phase 2 and 3 clearly identified the perceived positive impact the CTR role made on the service overall. Findings across the case study sites provide numerous examples of impact directly on the service, for instance reducing patient waiting times, streamlining the service and providing an efficient service pathway. Such findings are reflective of the study by Price and Miller (2010) in which their evaluation on the consultant radiographer role in clinical imaging concluded that benefits and improvements in service delivery were evident. Moreover this is also reinforced by Henwood et al., (2016) who acknowledge in their study that the consultant radiographers clearly articulate that their roles positively impact on service delivery and patient care. In addition, reference to the document “*Consultant Radiographers: Succession Planning*” published by the Society and College of Radiographers (SCoR, 2009) also identifies that consultant radiographers should input into service delivery requirements to improve the patient care pathway and deliver effective and efficient services.

Figure 10. 1 A schematic diagram of the resultant findings



The Department of Health (DoH) (1999, 2000, 2001, and 2005) identifies strategic service development as one of the four domains of consultant practice, therefore reinforcing the impact the CTR has on service targets. The National Radiotherapy Advisory Group (NRAG) published a document in 2007 recognising the impact and contribution that consultant radiographers made by acknowledging the potential to drive efficiency and refocus radiotherapy service provisions around the patient needs.

Studies from other professions such as in nursing have also highlighted the impact that a consultant practitioner can provide in terms of service delivery. Unsworth and Cook (2003) cite that the nurse consultants are in an ideal position to map what services exist and where gaps are and often influence service planning. Whilst qualitative illustrations of impact of nurse consultants gathered by Guest et al., (2004) again indicate the role can improve access to services, provide better outcomes/faster more efficient services. A later study by Gerrish et al., (2013) demonstrated that nurse consultants had made an impact on the organisations' ability to achieve national targets and hence reduce wait times, as one example.

Perceived patient experience

Although no patients were interviewed or were part of the research; findings from this study have shown the perceived impact the CTR role has made on the overall patient care. Results of the phase 1 scoping exercise indicated that patients' needs could be met through input from CTR as they were experts in their practice with the required knowledge and skills. An opinion the SCoR shares, citing that therapeutic radiographers have the skills in care of the patients with cancer, which make them ideally placed to deliver care along the radiotherapy pathway (SCoR, 2009).

Further evidence of perceived impact on patient experience was also demonstrated from the findings in phase 2. All case study sites reported examples where patients benefitted from the CTR role, moreover the analysis highlighted the various ways in which this was evident, for instance examples were either based on the perceived impact on the overall pathway and service (e.g. improving patient pathway, improving the patient journey, reduced patient waiting times) or perceived impact directly to the patient (e.g. point of contact, providing information and support, spending more time, developing a rapport). This was reinforced in the phase 2

document analysis of CTR jobs which highlighted the involvement of the role in patient care by citing core activities such as patient review, patient information, support and education, also involvement in strategic development of reviewing the patient pathway and developing new patient pathways. Within radiography, anecdotal evidence reported by Dann (2016) acknowledges that the introduction of consultant roles have demonstrated a positive effect on patient experience and benefits for the patient of integrating a multi-staged pathway into a more streamlined pathway. Likewise, findings in a study by Henwood et al., (2016) suggest that the consultant role has a positive impact on practice and that the consultants were patient-centred in their approach; which also provided job satisfaction. In addition with the outcomes from Henwood et al., (2016), the stakeholder feedback in phase 3 also recognised that the CTR role can enhance the patient journey and improve the experience positively.

Findings in a study on nurse consultants (NC) by Ryan et al., (2006) had sought direct feedback from the patients being looked after by the NC. Patients positively described the consultation with the NC as holistic with a focus not just on the physical issues but also other aspects which they valued. Patients were equally positive with the experience relating to the consultation where they felt cared for. Other nursing studies have explored the role of the NC and emphasize the perceived impact it has on patients. The findings in the studies express ways in which the NC role is developing unique services to meet the patient needs (Redwood et al., 2007, Humphreys et al., 2010 and Stevenson et al., 2011).

Power

The role of the radiographer is rapidly changing and with the evolution of role development many are developing skills which are parallel to that of their medical counterparts. Witz and Annadale (2006) acknowledge that gains in professional autonomy through role development may be considered as challenges to medicine and encroach upon the professional powers of medicine. In relation to this study, issues of professional power can be examined in terms of the level of autonomy the CTR's work at and whether power differences exist.

Results from the phase 1 scoping exercise, highlight the CTR's own perspective towards consultant practice acknowledging that autonomy and making decisions

feature as a key component of the role. In relation to the four domains of consultant practice autonomy would sit under the domain of expert practice in which CTR's would be expected to demonstrate highly specialised knowledge and be working at high levels of autonomy (Harris and Cornelius, 2012). Findings in phase 2 reinforce the notion that autonomy is synonymous with being a CTR, with participants within the case study sites perceiving the role as demonstrating autonomous practice, independent practice and decisions making.

Within this study, levels of autonomy are considered under the issues of medical dominance. Phase 2 findings suggest that medical dominance was evident within the case study sites and had a negative impact on the organisation. Feedback from participants highlighted examples such as protectionism of roles, being in control (particular example being radiotherapy treatment prescribing discussed later), alluding to the fact that some roles and responsibilities were not given up, shared or delegated but remained with the person, therefore limiting the level of autonomy. Accountability, whereby the medical doctor is still responsible for the patient; equally limiting the level of autonomy and hierarchy, suggests that a chain of command exists within the organisation. Furthermore, other indicative areas include resistance, perceived threat and opposing the CTR role. It could be argued that these findings are based on the lack of understanding toward the role (Mullen et al 2011., Dean 2011, SCoR, 2009) and hence, a recommendation would be more clarity in defining the role and highlighting that the CTR is not to replace the clinician but to work in harmony and have a synergistic relationship. Snaith (2016) acknowledges that roles such as consultant radiographers are an adjunct to (not a replacement) for medical staff and have the responsibility of ensuring service provision is improved for the patient experience through innovation. Medical dominance or barriers have been cited in literature and considered an issue. In an earlier study, White et al., (2004) identified medical dominance as a potential barrier to radiography role development. Lewis et al., (2008) also highlighted this issue; in their study clinical radiographers referred to the effects of medical dominance and subordination as a result of the authority commanded by the radiologists, therefore negatively impacting on their morale and workplace. More recently Eddy (2010) commented that the issue of medical dominance could be perpetuated by confusion or disagreement over

radiographer role development and that providing a clear picture of what role development entails is crucial and may alleviate this.

The findings in phase 3 also highlight medical dominance, with stakeholders agreeing that it exists. The stakeholders comment that lack of understanding and lack of vision toward the CTR role are potential contributory factors; but recognise that it is often viewed as an inherent historical concept. Henderson (2016) acknowledges that concept of historical medical dominance in this day and age is archaic and that skills mix is not a threat to patients or other staff, but a reactionary thinking is. An earlier study by Redwood et al., (2005) of nurse consultants highlighted the issue of power; one of the tensions that emerged from their study was although the nurse consultant role was invested with power, the organisational culture and working with colleagues was characterised by frustrations, as the power to make decisions was often met with limitations and restrictions.

10.4.2 Professional impact

(Encompassing professional outcomes, working relationships and identity)

Professional outcomes

Results from the phase 1 scoping exercise identified under the theme of inception that role development was important and had a bearing on professional outcome. The CTR's perceived that their role provides opportunities for radiographers to advance in their career and are ideally placed for role development as they possess the appropriate knowledge and skills. The document *Consultant Radiographers: Succession Planning* (SCoR, 2009) identifies that many experienced radiographers in advanced practice roles already have the skills and are well placed to take up consultant practitioner status.

Similarly, findings from the phase 2 interviews also indicate the positive professional outcomes with participants reporting a range of perceived benefits. Benefits were essentially considered as “*benefits to self*” for instance terms such as motivation, influencing change, empowerment, increased confidence and pushing boundaries. Whilst on the other hand, considered as “*benefits to the career*” for instance aiding career development, broadening career prospects, more career opportunities and supporting recruitment and retention. Snaith (2016) echoes these examples and

cites that with the emergence of clinical careers, radiographers have opportunities to be clinical leaders through role development, to empower and enact strategic change and encourage development of radiographers and support staff along their career paths. These sentiments are shared by Dann (2016) acknowledging that consultant practitioner roles demonstrate a positive effect on the patient experience, yet also offer career development for radiographers and utilising their skills for the benefit of the patient.

Studies in other professions such as nursing have also commented on the impact in terms of professional outcomes. Gerrish et al., (2013) reports that the nurse consultant (NC) role impacted on the professional competence of other healthcare professionals, including improvements in staff knowledge, skills, attitudes and increased confidence; in addition a change in behaviour such as developing critical thinking and a questioning approach toward clinical practice. The concept of empowerment has been commonly referenced in nursing literature and provides benefits for the professional. Rao (2012) highlights that empowerment is critical in nursing practice and nurses should feel empowered to act, through their professional knowledge and skills they possess, and use it to challenge practice and question clinical decisions thus providing a positive outcome. In radiography Ford (2003) articulated that enabling an improved service delivery can be achieved through empowerment of others, acknowledging that the consultant radiographer can develop, assist staff in achieving their potential and develop key skills to meet the expectations of the patient. Howes (2009), alludes to empowerment citing that consultant radiographers need to be motivators, decisive and influential and be willing to challenge practice and be assertive.

These findings were also echoed in phase 3, in which key stakeholders agreed that there were a range of benefits attached to the CTR role. As seen in phase 1 and 2, the stakeholders commented with similar views acknowledging benefits such as expanding skills base, enabling opportunities, boosting career development, pushing boundaries and empowerment. Henwood et al., (2016) reported that consultant radiographers highlighted novel key characteristics that are essential to being in the role such as a having a strong sense of self-belief and inner confidence. Moreover, in another study Henwood & Booth (2016) cite that the consultant radiographers commented that the role provided "*motivation*", reporting examples such a wanting to

make a difference, a desire for change, particularly in terms of building a career and towards something new and away from their current role, and a desire for a challenge, particularly in terms of taking on new responsibilities.

Working relationships

The findings in the phase 1 scoping exercise highlighted a mixed view in terms of working relationships. The CTR's reported that working with other staff groups was part of their role and essential, particularly in terms of the multi-disciplinary team (MDT) working. Team working should be seen as crucial in role development, Price and Miller (2010) reported in their study that the introduction of the consultant radiographer had a beneficial impact and improved overall team working within the department and across the service provisions. This is reinforced by Williams and Widdison (2013) adding that the consultant radiographer is a major contributor to the multi-disciplinary team (MDT). The NHS core values (2011) cites team working as a central tenet under its key principles acknowledging that the value of working together and collaborating is in the interests of the patient. Ensuring that a team working approach is maintained can equally be challenging; as the CTR's also reported some difficulties, in particular ensuring interprofessional working was taking place and the challenges of achieving this. Difficulties may arise due to lack of understanding and appreciating each other roles (Xyrichis & Lowton, 2007), guarding of territories and ineffective communication (Strudwick & Day, 2014). Howes (2009) stressed that, forming meaningful interprofessional relationships is fundamentally important and that encouraging team working with effective communication ensures the delivery of excellent care.

An element of perceived professional jealousy was also reported by some of the CTR's from fellow therapeutic radiographers but most alarmingly from the radiotherapy services managers. The CTR's cite lack of support, placing limitations and the perceived threat by the role. Although, dishearteningly, literature does reference this issue. Snaith (2011) highlighted that manager's reluctance to support the role was due to lack of vision and not understanding the potential of the role. Likewise low levels of enthusiasm from the managers and a poor understanding in terms of how the role would be integrated into the service have been reported (SCoR, 2009). Logsdails (2011) highlighted the issue of the perceived threat to

radiotherapy service managers' position, and that any evidence of professional jealousy or conflict maybe due to the confusion over understanding each other's roles and the overlap of responsibilities. The document from the SCoR, *Implementing Radiography Career Progression: Guidance for Managers (2005)* provides clarity on the responsibilities, in that the radiotherapy services managers' responsibility is planning and delivery of current and future services, whilst the consultant radiographer's remit is clinical leadership within a particular specialism or service, therefore indicating that the roles are well defined and very different. Yet, Logsdail (2011) also highlights another contributory factor, and how radiotherapy service managers and consultant therapeutic radiographers are on similar pay bandings which potentially further perpetuates the issue. The phase 2 document analysis evidences that the CTR's were banded between 8A to 8C, reflecting the banding scale of radiotherapy services managers under the Agenda for Change pay rates (2016). This particular point was also voiced by one of the key stakeholders in phase 3, stating that any evidence of friction could also be due to both being paid at the same level.

Conversely, results from phase 2 and 3 were much more encouraging with examples indicating the perceived positive impact on the working relationships. Examples from the CTR's were in reference to the "*contribution to the team*" for instance being part of the team, to be seen as integral, central, pivotal, a valued member and fundamental. Also reference to "*partnership working*" for instance; sharing the workload, synergy, working alongside the clinician, a mutual understanding and being supported. This can be corroborated as evidence does suggest that consultant radiographers are key team members and are considered to be vital assets to MDT's (SCoR, 2009). In addition, the 2007 publication "*Royal College of Radiologists Team working within clinical imaging*" acknowledged that appointing consultant radiographers is complementary to, and supportive of medical practice indicating that a positive relationship can exist.

Identity

The phase 1 scoping exercise acknowledged that the CTR's had a good understanding of their role, in terms of the tasks and responsibilities; but most importantly were knowledgeable regarding the concept of consultant practice by

referencing the four domain / pillars of consultant practice. Moreover, the CTR's also agreed that the role had particular qualities including being a clinical expert, working autonomously and possessing highly specialised knowledge; echoing those as reported in studies by Price and Miller (2010) and Booth et al., (2016). Equally, in phase 2 and 3 the findings also indicated that participants had an awareness of the duties and the characteristics associated with the CTR role. Interestingly, the CTR's during the scoping exercise reported that some staff (namely the surgeons) had no understanding of their role or concept of the consultant practice. Yet in contrast, the phase 2 case studies demonstrated that participants had a comprehensive understanding of the role by acknowledging the practical elements of the role (e.g. running an on-treatment review clinic, consenting patients, treatment delivery), to the qualities / attributes associated with the role (e.g. expert knowledge, expert clinical practice, extra experience). This mismatch indicates that the role has gained significant traction internally (the radiotherapy department), yet externally (other departments outside of radiotherapy) the role has not gained the same level of recognition. This was evident in a study by Rees (2014) on consultant breast radiographers, stating that staff in the surgical directorate had little or no understanding of their title or role, and they had to prove themselves to gain the respect of the surgical team. Field and Snaith (2013) cite that whilst it is important to accept the variety of new roles, there is also an obligation to have an awareness of the true identity of each profession.

The findings from all 3 phases highlighted that the CTR role had presence and status within the department. In the phase 1 scoping exercise, there was a clear convergence by the CTR's stating that the role gave them a sense of identity and they also felt uplifted of their professional standing in their respective departments. Ekmecki & Turley (2008) reported that a strong professional identity amongst radiations therapists (alternative name for therapeutic radiographer in the USA) was vital, as it increased awareness amongst other healthcare professionals they engaged with, yet helped to enrich the profession in new and expanded directions. Both phase 2 and 3; equally reflect the professional standing with participants providing numerous examples such as, the CTR role being very well respected, accepted, appreciated, and established in the department; thus demonstrating that the CTR role is well regarded for the work they are involved in. Similarly, Henwood et

al (2016) reported that consultant radiographers in their study felt a sense of pride in their achievements as well as feeling appreciated by other staff. Whilst Law (2006) acknowledged that consultant practice of allied health professionals is deemed as greatest compliment associated with role development.

The title “consultant” was also a discussion point particularly in the phase 2 case studies. The findings within this phase, reported mixed views towards the use of the title “consultant.” Some participants felt the title was warranted, appropriate and reflected the role; in addition providing the CTR with the deserved recognition of the work they carried out. Conversely, some participants, although supportive of the role, felt that the title could confuse the patients by conveying the wrong perception / impression toward the patient. Jacques (2011) study reported that the doctor’s main concern in relation using medical titles may potentially confuse patients’ especially surrounding consent and confidentiality. In radiography, the “consultant” title has been viewed as a barrier to role development by radiologists, who are concerned by the use of the title (Hardy, 2010). However, Hawes (2009) highlighted that the role goes beyond the title and the fact that consultant radiographers push boundaries should prove their value and worth, not the title. Paterson (2009) expressed that consultant radiographers have a responsibility to showcase that they add value to the service. Equally, Snaith (2016) agrees and states that radiographers are expected to fulfil their expectations of the “consultant” title to demonstrate the impact they have on clinical practice and patient care. Whilst in phase 3, all key stakeholders agreed that the title was fitting for the role and provided a positive identity.

It is also worth noting that the findings revealed how the CTR role was portrayed by the participants in phase 2. Participants commented that the CTR role shared a similar professional identity with a nurse specialist role, an oncology registrar and even as far as akin to a clinical oncologist (medical doctor). The responses perhaps highlight that the participants require a “frame of reference” to actually demonstrate their understanding and to appreciate this type of role. Although, a comparison to a medical doctor has a positive representation attached to it, Price and Edwards (2008) however emphasise the importance to avoid comparisons as the roles are very different and that consultant radiographers have their own profile and remit and must continue to shape their own professional identity. Additionally, there is also a

need to re-highlight that the CTR role is not replacing the medical doctor, but to work with medical colleagues and complement one another (Williams & Widdison, 2013, Snaith, 2016).

10.5 Further key themes for discussion

(Encompassing challenges and future)

Challenges

The lack of medical knowledge was an example of challenges faced by the CTR's. The findings from phase 2 highlighted that in particular medical staff reported this as an area of concern regarding the role. Identification of knowledge surrounding other pre-existing medical conditions or other co-morbidities by the CTR was scrutinized and whether CTR's have the required knowledge to deal with such issues. Rees (2014) reported that a core concern of consultant practice amongst radiologists is the lack of medical background to be able to deal with any complications and inadequate knowledge base to make clinical decisions. Similarly, earlier literature reports of the anxieties that radiologists have toward role development, in particular their view of the absence of knowledge in making clinical decisions by radiographers (Donovan & Manning, 2006, Forsyth & Robertson, 2007). Attempts to dispel the issue of lack of medical knowledge have been conveyed. Price & Edwards (2008) acknowledge the importance of rigid educational requirements to support consultants. Likewise Harris & Cornelius (2012) acknowledge that training, upping of skills and engaging in CPD may help reduce potential vulnerability. Equally, the phase 2 document analysis of the CTR job descriptions state the importance of maintaining up to date knowledge, acquiring new and advanced clinical skills and engaging informal learning opportunities to aid the CTR's professional development in carrying out their role.

Notably, Robert's (2016) study on developing a suitable competency framework to underpin the level of knowledge and skills required by the CTR has credence to dismiss any opinions on limited knowledge. Roberts (2016) reports an adapted version of the Fellowship of the Royal College of Radiologists (FRCR) syllabus to cover the breadth of knowledge required as a template for trainee consultant radiographers. The education standards set out by the FRCR embody the required "benchmark" for Consultant Clinical Oncologist training (a gold standard) and hence

in this context can potentially serve as the vehicle to ensure that CTR's have the necessary clinical knowledge to carry out their role and also work safely within the sphere of practice. Eddy (2006) acknowledges that adopting a structured framework for consultant practitioners to develop their skills and abilities is crucial. Similarly, the lack of consistency in education provisions has also been evident in the nurse consultant role; Hoskins (2008) reports an example in nursing where a medical model of education, similar to registrars training has been used to develop a national training for nurse consultant to avoid such discrepancies.

Findings within both phase 1 and phase 2, also mention the lack of time for research. CTR's reported that due to increased workload (a challenge itself to be discussed later) and spending more time on the clinical expert domain, has thus resulted in neglecting the research domain. The key stakeholders in phase 3 also share this concern citing the lack of research opportunities. The lack of research activity was evident by Forsyth & Maehle (2010) where consultant radiographers indicated a lack of research culture amongst their respective departments. Recently, Harris and Paterson (2015) reported on-going issues surrounding the research domain of consultant practice, in particular lack of time for research, whereby 61% of the consultant radiographers they surveyed cited they had no time allocated for research. The phase 2 document analysis on the CTR job descriptions clearly indicates that engaging in research is embedded in the role and thus a requirement of the role. Equally, the SCoR highlighted that research is of paramount importance to consultant radiographers, who should be promoting research across the profession. This notion is supported by the document SCoR Research Strategy (2016-2021), which considers a number of research priorities for consultant radiographers, for instance, to alleviate the issue of lack of time for research, the document states that where job descriptions specify research activity, this should be reflected in the job plan with specified time allocation for research. The lack of engagement in research is not a predicament exclusive to radiography; as earlier studies in evaluating the nurse consultant role also indicated a general lack of research activity engagement (Guest et al., 2001).

Increased workload and the negative impact this would have, was also highlighted as a challenge to the role. Findings in phase 2 highlight this concern by the participants. For instance examples include the CTR being accessed a lot more, and

taking on too much work. The participants reported that this would have a negative consequence including burn out, lack of time devoted to research and even forfeiting key opportunities such as absence from MDT's and learning sessions. Guidance on workload has been proposed by the Department of Health guidelines (1999) suggesting that a minimum of 50% of the consultant radiographers time should be spent in clinical practice and the remaining 50% being divided across the other domains. Williams and Widdison (2013) report that the tendency for consultant radiographers to focus more on the clinical work can result in excessive workload and cause burn out if not monitored. Excessive workloads by consultant radiographers were also raised by Henwood et al., (2016) with reported examples such as working over contracted hours and working before and after hours; lack of clarity regarding the structure of the role was considered a contributory factor and that a robust workload evaluation would be recommended. Equally, in nursing, Guest et al., (2001) had reported that work over load was a problem for nurse consultants and the issue was the insufficient attention being given to defining role priorities. Burn out was investigated by Probst & Griffiths (2008) who acknowledge that opportunities for burn out are often linked to heavy workloads, but also stressful situations; they cite that appropriate team support is crucial in coping with such circumstances. The key stakeholders in phase 3 concur that increased workload and burn out are important issues that need to be addressed; all stakeholders agreed that a realistic job plan and appropriate support and mentorship / supervision could potentially alleviate this challenge; the latter solution being invaluable to enable an individualised plan to highlight strengths and areas of improvement (Field et al., 2012, Dann, 2016).

Meeting the expectations of the role proved challenging for the CTR's who reported anxieties and voiced concerns. Examples included a feeling of increased pressure; fear of failing, and not fulfilling the role. Analysis of the results in phase 1 and 2 indicate that increased workload (as cited previously) was a contributory factor. CTR's highlighted that increased clinical workload resulted in overlooking other domains of consultant practice such as research (also reported previously). Turnpenney (2003) confirmed that radiographers spent more time focussing on the clinical domain. Likewise, Williams and Widdison (2013) recognised the challenges of balancing and integrating the four domains to normal day practice. Additionally

being “pulled in many directions” due to the extensive range of the role was also recounted as a potential cause (Henwood et al., 2016) further increasing anxieties of not fulfilling the requirements of the role. Henwood & Booth (2016), report on consultant radiographers experiencing added “pressure” attached to the role of being in the limelight thus fuelling the issue even more. The feeling of pressure was acknowledged by Hardy & Nightingale (2014) investigating the emotional experiences during the transition to a consultant post. On interviewing the consultant radiographers (n=5), they were able to conceptualise a transitional journey whereby the range of emotions experienced by the consultant radiographers was charted. The consultant radiographers recounted five emotional stages; in the context of this theme they had experienced doubt (e.g. self-questioning and differing expectations of the role) and crisis (under a lot of pressure to meet the expectations of the organisation.). The study highlighted that the expectations of the role, is associated with high-levels of emotions and experiences. Suggested solutions again note the value of support and mentorship to aid in the journey (Hardy & Nightingale 2014, Henwood & Booth 2016).

The medico-legal implications were also viewed as a challenging aspect. The findings from the phase 2 case studies acknowledge the concerns regarding clinical governance and the consequences of working outside the scope of practice, aspects that are inherent in role development. Field and Snaith (2013) cite that additions to radiographers scope of practice ensues greater responsibility and accountability. Yet the possible medico-legal concern of radiographers undertaking new roles, and increased responsibilities does evoke a feeling of apprehension (Forsyth and Robertson, 2005). Recognition of the legal responsibilities of adopting a new role is important and participants in phase 2 expressed their thoughts on knowing the limits, stepping out, working outside protocol and the fear of the consequences. Eddy (2006) adds that all practitioners need to work within their own competencies and scope of practice, and be aware of legal and professional accountability. Notably, the General Medical Council (GMC) (2006) recognises that the medical practitioner still maintains overall responsibility and if delegating a task to a practitioner they need to ensure the person is competent to carry out the tasks and be aware that of the legal and professional accountability. The GMC further states that the medical practitioner cannot maintain responsibility for the competent execution of the procedure for which

the patient was referred. Buttress and Marangon (2008) highlight that duty of care towards a patient is seen as crucial in all instances of role development. A breach in standards of care can result in a breach of a civil law duty of care owed to the patient, yet also a breach to the practitioner's professional duties. They stress a number of key messages regarding the legal issues of extended practice; that healthcare professionals should be aware of their limitations, assess their own skills of carrying out a procedure and refrain from a procedure if there are any known shortcomings such as lack of training (Buttress and Marangon, 2008:38). Adhering to protocols and acknowledging boundaries of practice provides a very minimal risk to the patient; equally by receiving educational support, having a sound quality training and development embedded for staff and being aware of practitioner's limitations can only help further reduce the risks (Eddy 2006, Dann 2016, Roberts, 2016).

Finally, financial implications were also voiced as a concern by participants across all 3 phases. Concerns surrounding sustainability of the role, funding provisions and proving economic value of the CTR role were articulated. Analysing cost benefits has highlighted a dearth of evidence; however, departments are aware of the financial difficulties that shroud services and the NHS as a whole (Field et al., 2012). Calculating the cost to determine true value for money can be difficult, anecdotal evidence has suggested that the cost of employing a consultant radiographer is likely to be considerably below that of a medical consultant, however direct assessments are impractical as the roles are completely different (SCoR, 2009). Notably, Price and Miller's (2010) evaluation of consultant practitioners in diagnostic imaging led to a discussion on cost savings, and although difficult to identify direct cost savings there was distinguishable evidence that surfaced from the differences between a consultant radiographer's salary and a medical consultant's salary. The authors recommend that a detailed cost- benefit analysis should be undertaken.

Most recently NHS England has announced further investments (£200 million) over the next two years in cancer services for upgrading modern radiotherapy equipment (NHS England, 2016) therefore a resounding positive outcome for radiotherapy services in providing world class treatment and provisions. Equally, high on the SCoR's agenda is to support the development of the workforce as well. An independent task force was set up in early 2015 to formulate an action plan to radically improve the outcomes that the NHS delivers for people with cancer. The

resultant strategy proposed a number of recommendations including effectively rolling out of advanced/consultant roles in to support improvement to patient outcomes. This is encouraging for consultant radiographers, by allaying any concerns of sustainability of the role and demonstrating the support from the professional body.

Future

The findings in phase 2 and 3 provide examples from participants on future prospects and how the CTR role should progress and develop. A number of the participants highlighted the engagement in more of the domains of consultant practice, in particular the domain of research and how the CTR needed to engage more in research activity, but were cognisant of the issues with the increased work load (mentioned earlier under challenges). Moreover the CTR's involvement in the domains of teaching and management were also mentioned. Again this emphasises the importance of allocating appropriate time to each of the four domains and ensuring a robust job plan and is utilised to demarcate appropriate time for each domain. This was strongly advocated by the key stakeholders in phase 3.

Participants also mentioned the need to increase the CTR numbers and specialities; an issue that has been evident since commencement of this research. A rise in the number of CTR role has occurred from 8 CTR's in post in 2011 to 23 CTR's now in post in 2016 (SCoR, 2016) thus indicating a 30% rise in numbers annually and a renewed interest from services. An example of this positive resurgence of the role may be due to the SCoR's Independent Cancer Task Force (2015), a driver for supporting advanced and consultant practice, which highlights the importance of such roles along the patient pathway. Further exploration of the increase in numbers is recommended.

Developing the CTR's medical knowledge (as discussed under challenges) was another example put forward by the participants as a result of the views regarding lack of medical knowledge and dealing with non-cancer related issues. As mentioned earlier, ensuring a strong educational support mechanism in place would assist in developing the required knowledge and skills. Recalling examples such as Roberts (2016) detailed description of developing a training pathway using the FRCR syllabus is commendable and potentially addresses the issue. Additionally, Dann

(2016) highlights the importance of CTR training and provides another example by utilising an academic training portfolio (with clinical competencies) to underpin the clinical training and the attendance of courses such as history taking and clinical examination skills. Moreover, an identified mentor to provide direct and indirect supervision was a pre-requisite for the role (Dann, 2016). Further exploration is also recommended for the training and standards/accreditation of the CTR role.

Findings in phase 2 and phase 3 highlight that the CTR role needs to be showcased and promoted, to allow a better understanding of the role and recognition in terms of how the role is working and progressing. The findings also indicated that the participants felt the CTR role was familiar internally (within own department), yet externally (network wide or nationally) deemed absent. Literature has recommended increasing the knowledge in the wider radiotherapy community and evidencing the nature of these posts (SCoR 2009, Paterson 2009). Health policies such as the NHS Cancer Plan (2000) and Cancer Reform Strategy (2007) have helped in terms of recognising and providing a national acknowledgment that a career progression model, including the highest level of practice at consultant level should be embedded in radiotherapy services. Moreover, Snaith (2016:29) importantly provides a number of suggestions to aid CTR's in showcasing their work, for instance contribution to teaching at university, put on study days, establishing educational opportunities and share / publish the work. Again further work is required on promoting the role.

Finally, the findings in phase 2 and 3 suggest that further role expansion should be considered. Participants cited 2 particular examples independent medical prescribing and radiotherapy dose prescribing that the CTR could potentially be involved in. Non-medical prescribing in the UK has allowed radiographers to prescribe as supplementary prescribers since 2005 (DoH, 2005). Supplementary prescribing involves a written tripartite agreement between a medical prescriber, supplementary prescriber (SP) and patient, known as a clinical management plan (Hogg et al., 2015). Prior to this, patient group directives (PGDs) were used to supply and administer a limited number of medicines to patients and this mechanism is still used widely in radiotherapy (Kinsmann, 2015). During the time of the research; in 2016 the Commission on Human Medicines, agreed to extend independent prescribing (IP) responsibilities to therapeutic radiographers and for therapeutic radiographers to mix medicines. This positive development has provided therapeutic radiographers

opportunities to extend their role of practice at both advanced and consultant levels of practice resulting in a higher level of patient care and also positively impacting on radiographer-led services (SCoR, 2016). Radiographer independent prescribing for therapeutic radiography is an essential component in advanced and consultant practice. Clinical decision making and prescribing decision making are closely connected; both are of paramount importance at this level of practice and can enhance the patient's experience (Hogg et al., 2015).

A number of participants also stated that the CTR could have the responsibility of prescribing the radiotherapy treatment. Prescribing radiotherapy dose is the responsibility of the clinical oncologists who takes overall charge for the patient's treatment. They are involved with members of the multidisciplinary team in diagnosing and determining the staging of the cancer and deciding on a course of treatment. The process of prescribing radiotherapy dose can be complicated and involves determining the target volume and the dose to be delivered (SCoR, 2013). Although radiotherapy should be initiated and clinically directed only by doctors who are approved by their department, parts of the process of treatment may be delegated to radiographers in accordance with departmental protocols (RCR, 2003). This is also reinforced by the SCoR document *Positioning Therapeutic Radiographers within Cancer Services: Delivering Patient-Centred Care* (SCoR, 2006:10) recommending that a Consultant practitioner role will include

“Authorisation of the treatment prescription (within protocol)”

Within phase 2 case studies, only 1 CTR had the treatment prescribing rights for palliative sites under a protocol based arrangement. Moreover, the majority of the medical staff interviewed in phase 2 had reservations in relation to this and felt that treatment prescribing of radiotherapy should still be with the responsibility of the doctor as they have the overall responsibility of the patient care. The task of prescribing radiotherapy treatment is still in unfamiliar territory and the dearth of literature in this area therefore suggests it is agreed locally (CTR's own department) and a recommendation but not an entitlement for CTR's in this role.

Nonetheless, the role of the therapeutic radiographer is still advancing, Dann (2016) highlights another example of further responsibilities within consultant practice is being able to assess and manage patients for toxicities for patient on chemotherapy

and biological therapies, which run alongside radiotherapy treatments. Traditionally patients requiring chemotherapy have been managed by doctors and nurses; however a suitably trained therapeutic radiographer (such as a consultant radiographer) can successfully take on this role as they have the knowledge base in both radiotherapy and oncology (McClean et al., 2015).

10.6 Discussion in relation to the theories underpinning the research

This discussion in this section focusses on the theoretical links used to support the research. The overarching theory is the “Dimensions of Impact” framework which has been adapted to include two further associated aspects – “Power” and “Identity.” These aspects are closely associated with organisational (power) and professional (identity) impact. The adaption of the framework has therefore been used to aid in the examination and assessment of the consultant practice in therapeutic radiography.

10.6.1 Dimensions of Impact

The examination of organisational and professional impact of the CTR role is through the use of the Dimensions of Impact framework as designed by Gerrish et al., (2011), a tool that was developed out of the evaluation of the nurse consultant role. On reviewing the literature related to consultant practice in radiography, a large gap in evidence in capturing impact of role existed. Exploring this concept has provided examples within the developed case studies of significant perceived impact, specifically relating to organisational and professional impact. The Dimensions of Impact (Gerrish et al., 2011) as discussed in chapter 3, adapted for the purpose of this research, was used as a framework to capture perceived impact. The initial development of the framework by Gerrish et al., (2011) comprised three domains (clinical significance, professional significance and organisational significance). The adapted framework for this research has omitted the clinical significance domain, and only focuses on the organisational domain (e.g. service design, involvement in trust pathways and leading services) and the professional domain (e.g. increased staff knowledge, increased skills, increased confidence). In detail, findings from this study have clearly demonstrated two specific areas *service targets* and *perceived patient experience* under the organisational impact. *Service targets* as perceived by the participants were based on examples such as how the role can improve the

service, making the service more efficient and effective and the CTR being involved in the developing the service. Under *perceived patient experience*, again as mentioned even though patients were not directly interviewed, participants were able to provide indirect feedback on how the role had a perceived impact on the patient; examples include how the role provided continuity of care, a point of contact for patients and developing a rapport.

Additionally, findings also demonstrated two specific areas *professional outcomes and working relationships* under the professional impact. With *professional outcomes*, the participants acknowledged examples of how the role provides a better career progression and prospect, yet also increases confidence, motivates and empowers the post holder. *Working relationships* was perceived in terms of evidence of partnership working, developing a professional relationship and being seen as integral to the team.

The use of the framework has been a valuable conduit for capturing perceived impact within the developed case studies, which has been successfully evidenced through the various afore mentioned examples. In addition, the framework as developed by Gerrish et al., (2011) for initially evaluating nurse consultants has also indicated its relevance and transferability to other professions such as radiography. Gerrish et al., (2011) acknowledge that further testing and refinement is required, which therefore only makes it an ideal opportunity to test the framework for this research.

10.6.2 Power

The notion of power, often cited by Foucault (1975, 1977) has been evidenced within this research. The results indicated some reference to an undercurrent of medical dominance within the developed case studies. The findings showed that *protectionism* of particular tasks were evident (particularly prescribing radiotherapy treatment) suggesting that the doctor still wanted to maintain and uphold some of the responsibility instead of delegating to the CTR. Evidence of a *hierarchical* structure within two of the case sites was reported, whereby the participants mentioned “a pecking order” and “chain of command” was inherent within the department and negatively influenced the organisation.

Disciplinary power (as described in Chapter three section 3.3) was evidenced within this research; the case study sites had adopted a panoptic way of disciplining, suggestive of Foucault's work. While the participants within the case study sites viewed the CTRs as autonomous practitioners, the study data, however, highlighted some examples that demonstrate disciplinary power exercised by the medical staff, in particular the clinical oncologist. A prime example was evident in the CTRs responsible for organising and conducting their own "patient on treatment review" clinics. As acknowledged in Chapter one section 1.4, patients (some or all patients from a selected group) are reviewed by a suitably trained therapeutic radiographer (in this case the CTR) within a clinic setting to monitor and manage any side effects or treatment related issues. This was a role that had traditionally been undertaken by a clinical oncologist, but now the responsibility has been given to the radiographer.

Interview participants within the case study sites acknowledged that while the CTRs were given the responsibility to organise and conduct the clinics, they considered they were under different forms of surveillance from the medical staff. For instance, a number of the case studies indicated that the clinics were organised concurrently with the clinical oncologists' clinic; one case study site had a joint clinic with both CTR and oncology SpR reviewing patients together. Another case study site reported that the CTR clinic was identified by the GMC number of the clinical oncologist and not identified as their own independent clinic. These examples provide a useful illustration of contemporary disciplinary power. The clinic setting becomes an observational tower (as described in the Panopticon) where the CTRs are aware that their actions may be subject to surveillance by the clinical oncologist without knowing that they are being observed. Udod (2008) describes this as an invisible power that keeps the individual on alert that they are being continuously monitored. The idea of the observational tower is also a reminder of the medical staff's presence and the overall responsibility for the patient. Maintaining *accountability* and *being in control* was shown with the doctors making reference to their overall authority for the patients, thus limiting autonomy reflective of disciplinary power (Foucault, 1977) where the final decision is made by the doctor. Moreover in one of the case study sites also mentioning feelings of being *scrutinized* and having to *convince the value* of the role.

Foucault's "Normalisation" (rules, norms, expectations and laws are internalized without the need for external control or surveillance) through individual self-discipline was also indicated in the analysis. The CTRs reported that in this role, they had an increased awareness of knowing their limitations, practising within their sphere of practice and boundaries, seeking help and advice if needed and understanding the implications and repercussions if not adhered to. This indicates a form of self-surveillance or self-policing, where the CTRs must always act and behave in accordance to the rules.

In some instances, findings also reported examples of *resistance* and *opposition* toward the CTR role implying imbalance of power (McDonald, 2012). The lack of medical knowledge as mentioned under the challenges of the CTR role does share some resemblance with Foucault's "*Le Regard*" (medical gaze) (Foucault, 1975) which considers the doctors skill of diagnosing - which is very much part of the doctors remit. The findings report that this concern of the role was raised by the doctors who expressed that the CTR essentially lacks the diagnostic ability for identifying pre-existing medical conditions and co-morbidities due to the absence of the broad medical training. Hence training standards for the CTR need to be considered in developing the role further.

10.6.3 Identity

The issue of identity is acknowledged in the Social Identity Approach (Hornsey, 2008) – an umbrella term comprising of the social identity theory (Tajfel and Turner, 1979) and the self-categorisation theory (Turner et al 1987). This theoretical perspective has some relevance to this research. The findings showed that the CTR role develops a new "professional identity", exhibiting a shift in roles, as traditional responsibilities of the therapeutic radiographer have now been further extended with newer skills (autonomy, making decisions, reviewing / assessing patients, leadership). This can generate an "us" and "them" perception either positively by enhancing confidence, increased self-esteem and worth; in this case the findings show that the CTR role provides a strong professional standing (a status or presence in their department) and command the respect and acknowledgment of the role they carry out. Yet this may also be viewed negatively as discriminating; in this case the findings articulate some professional jealousy (as described in the earlier section of

working relationships) but also seen in terms of the use of the title “consultant” where some of the doctors felt the identity attached to the title was not appropriate, as it could confuse the patient. Results from the study further demonstrated the strong identity of the CTR, as participants showed a comprehensive awareness and knowledge of the role and understood it by identifying the practical aspects and the qualities attached to it. Yet as mentioned earlier, participants also portrayed the CTR identity using a frame of reference, suggesting that the role shared similarities to a registrar or nurse specialist, in order to make sense of the role. The findings also indicate that a greater external identity of the CTR role was essential; this ensures that recognition of the work by the CTR is acknowledged and promoted, but also highlights how therapeutic radiographers are further pushing boundaries and distancing themselves from the negative stereotype such as a being portrayed as “button pushers” (Day, 2006).

10.7 Strengths and limitations of the research

The research question was to identify the perceived professional and organisational impact of the implementation of the CTR role has; hence to answer the research question the principal aim of the research was to explore the CTR role through the perspectives of medical, nursing, therapeutic staff and key stakeholders by means of qualitative inquiry. The strengths of the research are acknowledged under this section.

The adoption of a qualitative research paradigm was a key strength to this research, as it ensured that knowledge gained from views, attitudes and perspectives of participants could be examined in depth. Moreover, from an epistemological stance, the knowledge gained from the qualitative inquiry provided a comprehensive understanding of the phenomena, in this case the concept of consultant practice. Most importantly, a valuable understanding of the Consultant Therapeutic Radiographer (CTR) role was also obtained in terms of whether evidence of professional and organisational impact was evident.

A further strength of this research was the process of capturing impact; using a case study approach was adopted. A case study consists of a “case” – a unit of analysis which is of particular interest (Hammond and Wellington, 2012) in order to understand a phenomenon. Hence the unique qualities of case study in this

research were: the ability to study the constructs associated with consultant practice (e.g. professional identity, challenges), to focus on the perspectives and experiences, thus allowing the study to examine the notion of consultant practice and its impact in clinical practice. Specifically to this research, a collective case study was selected as it allowed the opportunity to explore differences within and between cases (Yin, 2009, Stake, 1995). The collective cases being the CTR, medical, nursing and therapeutic staff at the 5 NHS trusts whereby the multiple views, opinions and thoughts will aid in examining the impact of the CTR role.

Furthermore, the use of a multi-method data collection guaranteed that the research objectives were met and secured the rich data. The prospect of using such a design provided an opportunity to answer the research aims through a variety of data collection methods. Green and Thorogood (2014) acknowledge that the use of multi-method design adds depth, breadth and also strengthens validity. In this research the use of a focus group to function as a scoping exercise allowed the researcher to gauge the current stance on the CTR role. This was of value, as it provided a detailed understanding of some of the issues faced by the CTR's in post; yet also provided an opportunity to interact with the CTR's and to establish a rapport. The use of individual semi-structured interviews was equally important by ensuring further rich data could be secured from a more personal, honest and private perspective. The use of documentary analysis was relevant in the reviewing CTR job descriptions and examining opportunities to demonstrate professional and organisational impact. In addition, a multi-method design ensured that triangulation was achieved; as each method used aids to improved understanding of the phenomenon (Green and Thorogood, 2014). Denzin and Lincoln (2008) add that triangulation from a qualitative perspective aims to bring the object of study more sharply in to focus and that each method used will reveal a different observation.

The inclusion of key stakeholders was a pragmatic decision, and further strengthened the research. The feedback gained from the stakeholders provided additional insight from their perspective and enriched the data collected. The stakeholders within this research were the policy makers directly involved with the CTR role and this was advantageous. Characteristics such as their knowledge of policy and decisions made related to the policy were valuable in understanding the CTR role. Also in this particular case, providing the stake holders with the results of

the research outcomes allowed them to comprehend the current stance on the CTR role in clinical practice through the case studies, yet also to gain their support and consensus on the outcomes.

A final strength was utilising a multi-phase approach (three phases). Embedding a phased approach ensured that each component (phases) would inform and build on each other along the data collection pathway. Hence, Phase 1 (scoping exercise) informed the design and development of the phase 2 semi-structured interview guides and in turn the outcomes of the phase 2 aided in developing a rationale for the phase 3 semi-structured interviews with the key stakeholders.

A number of limitations are identified and will be discussed. A limiting factor was the number of CTR's participating in the research as only 6 CTR's (n=6) agreed to take part in the research. This potentially limited the overall representation of the role. However, at the time of the research only 8 CTR's were in existence and the researcher was confident that all 8 would be agree to participate, however one CTR declined to be part of the research, whilst the other CTR never responded back even after multiple attempts to initiate contact. On a positive note since the commencement of this study, the number of CTR's has risen (23 in total to date) and thus the opportunity of including more CTR's in capturing impact is considered for future research. Moreover, the number of participants in the Phase 2 semi – structured interview could have also been increased, as a total of 24 participants (n=24) only were interviewed. Inclusion of more participants in this phase could provide further and a wider range of opinions and views to examine the CTR role.

The sample of participants chosen may also have been a limitation. The research only considered the specific views of the CTR and medical, nursing and therapeutic staff. Inclusion of other individuals who also have interactions with the CTR could have resulted a in further examination of the CTR role, for instance individuals such as the radiotherapy services manager and therapeutic radiographers would be useful. Hence, further research should consider the opinions and views of afore mentioned individuals to test the findings and to gain further insight into the issue.

Exclusion of the patient's perspective of the CTR role can perhaps be seen as unfavourable. The research may have gained valuable accounts from the patient's viewpoints. Although the patients were not part of the data collection; the perceived

patients experience offered by the participants during the phase 2 semi-structured interviews which did reinforce the analysis. Yet, a further recommendation would be to incorporate the patient's perspective to ensure a complete rounded view of the CTR role from all aspects.

The limitations in the research have acknowledged some potential opportunities for future research which are further developed in the recommendations chapter.

10.8 A reflective account of the research journey.

This section acknowledges a reflective account from the researcher's perspective along the research journey. The purpose of the reflective account is to provide a narrative, written in the first person to demonstrate how the researcher embraced the research journey, overcame any obstacles and draws attention to what individual learning was acquired during the journey.

My focus and drive in embarking on this research was due to my personal interest in radiographer role development and to illustrate the professionalisation of the radiographer role. As a result I felt that the evolution of the Consultant Therapeutic Radiographer (CTR) role would be the ideal candidate to exhibit this.

As part of the research journey, I kept a reflective log book to write down my thoughts and discussions which proved helpful in terms of shaping and directing my research, and also assisted me in evidencing an audit trail and helped identify any researcher introduced bias (Lincoln and Guba, 1985). In addition, throughout this process, I have always been mindful of the relationship between my role as a researcher, my role as a qualified therapeutic radiographer and my participants.

Traditional approaches to research assume the researcher to be an "outsider" (Reed and Proctor, 1995). However, a range of different relationships in terms of the researcher's role and knowledge exist. Reed and Proctor (1995) acknowledge this as a researcher position continuum comprising "insider, hybrid and outsider" positions. In this instance, I initially viewed myself as an insider because of my background as a therapeutic radiographer. Upon reflection, I now view myself in the "hybrid" (i.e. both an outsider and insider) category, as I am an educator not practicing clinically but have a very comprehensive working knowledge of therapeutic radiography and consultant radiographers.

Adopting the hybrid role has both advantages and disadvantages to the researcher. A distinct advantage was demonstrated when conducting the focus group and interviews with the CTRs. This allowed me to build a rapport with the CTRs, it also enabled me to develop a trusting relationship which allowed the CTRs to recognise that I was professional at all times, not one sided and assured them the confidentiality. This was of paramount importance as the CTRs provided me with very open, frank and honest viewpoints.

I was, however, cognisant of the fact that my position may have biased my own opinions and perceptions towards the CTR role. Dhesi (2013) acknowledged that a consequence of a shared professional background is that, although the researcher may have a deep understanding of the discipline, a familiarity with the culture and environment in which the participants work, can result in the researcher being reluctant or failing to challenge any issues that arise. Drake and Heath (2011) also identify a number of challenges including issues surrounding loyalties, contentious relationships and power. Charmaz (2004) also acknowledges the term “intimate familiarity” where the researcher’s closeness to the research subjects may seem inappropriate. As a result, Redwood et al., (2005) state that data collection using interviews, for example, may become uncritical and overly positive.

I felt that I was able to remain unbiased and not be influenced regardless of my professional identity. I believed I effectively managed this through the use of a reflective log book as acknowledged earlier, which enabled me to capture my feelings, thoughts and discussions. The diary also provided opportunities to continuously self-reflect on my progress, yet also remain self-aware at all times. In addition, discussions with my research supervisors and professional advisor were valuable and helpful in ensuring that my personal perceptions did not influence the data collection and results.

My position as an external researcher also helped me to remain focused and almost invisible, so as to maintain objectivity. It was therefore important that throughout the data collection, I was able consider all aspects of views, opinions and thoughts regardless of whether they were positive or negative, so as not to bias the findings. The role also helped me to keep on track, so as not to stray from the purpose or the

process of the research, hence allowing me to gain a much deeper understanding of the issues pertaining to the CTR role as fed back from the participants.

A main obstacle that I faced was the large deficit and gap in literature on the CTR role and it became obvious that little research had been afforded towards this role. However, this did not detract me but in fact encouraged me to continue with this research topic; this would be advantageous as I would be generating new and novel research towards the CTR role and also attempting to capture impact; which I felt would be of valuable use to the CTR's in post, to new CTR's commencing the role but also useful for the professional body, the thought of having a positive input excited me. Reading the literature on nurse consultants was extremely helpful, as I was able to really understand the concept of consultant practice and the inception of the role and notice how relevant it could be in radiography.

Designing the study and deciding upon the best approach was also a challenge; how would I be able to capture the thoughts and opinions of the individuals? A range of designs were reviewed, but a multi-method approach was eventually considered whereby a focus group to assess the current stance on the CTR role, followed by semi-structured interviews to secure a multitude of views, thoughts and opinions of individuals and documentary analysis of the CTR job descriptions to review the role was fitting. This design was effective in meeting the aims and objectives of my research; in addition, it also equipped me with the knowledge and skills on conducting qualitative research.

Obtaining ethical approval was equally challenging at times. I felt that the process was an infuriating experience. Multiple applications to the ethics committee due to the phased approach of my research design were required and this proved to be a lengthy process. Application to an Integrated Research Application Service (IRAS) was time consuming. In addition, seeking R&D approval and permission from the respective NHS trusts and managers for the phase 2 interviews proved to be difficult at times due to volume of administrative requirements and the disparity of information each trust required. This hindered data collection as interviews had to be postponed and planned dates according to my Gantt chart had to be adapted. Nevertheless, I have come to appreciate that the ethics approval stage is crucial and

necessary in terms of the legislative requirements. On a personal level, I understand that patience is a virtue and preparation is important.

A personal challenge for me was maintaining my work – life and study balance. The research journey took place over a 6 year period and became part of my life. In addition working full time as an academic lecturer and studying was also a strain on many occasions and as a result my research was often neglected due to my teaching commitments and responsibilities. Negotiating time to conduct the data collection and travelling to various NHS trusts across the UK was equally difficult. A very unfortunate family event whereby my father's health deteriorated during the 2nd year of my PhD was a very difficult time in managing my studies. However, I believe that these personal challenges empowered me to develop my organisational and time management skills and kept me focussed.

A change in numerous supervisors along the research journey was worrying at times. I felt that building a rapport with my initial supervisors who understood my ideas and research would have been lost with the appointment of my two new supervisors; however this has not been the case and my current supervisors have been extremely supportive and helped guide me towards completion.

The reflective account of my research journey has proven to be worthwhile, I have come to appreciate the challenges that I faced, yet it has also enabled me to recognise the learning that I have gained from this experience. I believe that I have acquired improved skills in qualitative research, better organisation and time management and developed improved writing skills.

10.9 Chapter summary

The results from the all phases of this study were discussed in detail to generate a better understanding of the CTR role.

Evidence of perceived impact was apparent across the developed case study sites and for the purpose of the research both organisational and professional impact were considered. Perceived organisational impact was discussed in relation to three aspects – service targets, perceived patient experience and power. Likewise, perceived professional impact was also discussed in relation to three aspects – professional outcomes, working relationships and identity. The use of the

Dimensions of Impact framework (Gerrish et al., 2011) adapted to this research proved to be useful tool to capture perceived impact. Theoretical perspectives on power (Foucault, 1975, 1977) and identity (Hornsey 2008, Turner et al., 1987, Tajfel and Turner 1979) have also been used to underpin the additional themes.

Further themes also came to light, challenges of the role and the future prospects. The challenges highlighted issues such as the lack of medical knowledge, identifying the needs to review training and educational support. The lack of time for research was discussed, suggesting the need to develop a job plan alongside the CTR job description. In addition, concerns surrounding increased workload, and potential burnout were debated; again the need for a job plan and appropriate mentoring were highlighted. Mentoring was also a suggestion to address the challenge of meeting the expectations of the role. The medico-legal aspects were also discussed and the general consensus was adhering to protocols / guidelines and the CTR being aware of their own scope of practice would provide reassurance. Finally financial implications were raised. Assurances such as further investment from policy makers and role development being high on the professional bodies' agenda can assist in allaying these fears.

The theme of future prospects of the CTR role, highlighted the need to increase the numbers, yet the recent survey has demonstrated a positive increase in numbers annually. Engaging in more of the domains of consultant practice was considered essential and again reference to a job plan was raised. To aim to develop the lack of medical knowledge again was highlighted, with the need to ensure better educational support and recommendations surrounding standards and accreditation. Better recognition and promoting the role was discussed, with ideas such as involvement in more external facing initiatives were considered a solution. Finally developing the role further, where two examples were provided; independent prescribing for medication and the potential to prescribe radiotherapy treatments. A recent success in therapeutic radiographers' independently prescribing medication is now in place due to change in recent health policy. Whilst prescribing radiotherapy treatment is still unfamiliar territory, as findings suggest evidence of protectionism from medical counterparts and lack of literature supporting this indicates further exploration is required. This chapter concluded with discussion of the limitations of the research and reflections on the research journey.

CHAPTER ELEVEN: CONCLUSION AND RECOMMENDATIONS

11.1 Introduction

This final chapter closes the research by acknowledging central issues surrounding the Consultant Therapeutic Radiographer (CTR) role. The chapter begins with the main conclusions uncovered from the results of the research, followed by the recommendations for the role (specific implications to radiotherapy clinical practice and policy) and concludes with how the research has added to existing knowledge and theory.

11.2 Main conclusions

This research study focusing on the CTR was undertaken due to a dearth of research evidence in relation the role. Its intention was to explore the CTR role through the perspective of medical, nursing, therapeutic staff and key stakeholders by means of a qualitative inquiry. In addition, answer the research question namely what professional and organisational impact does the implementation of the CTR have?

The study has given an insight to a number of issues pertaining to the CTR role, drawn out from the findings of this study and also from the developed six case study sites.

Evidence from this study demonstrates the perceived impact of the CTR role apparent within the six case studies. Specifically in terms of *organisational* and *professional* impact. Organisational impact was evident through three aspects: *service targets* which highlighted the CTR role influence in relation to streamlining the service and improving service pathways; *perceived patient experience* where the role provides a point of contact to patients, providing patients with information and support and finally, *power* which demonstrated an undercurrent of medical dominance and hegemony within the organisation and its effect on the CTR role. Similarly, professional impact was also evident through three aspects: *professional outcomes* which reported how the CTR role provided a range of perceived benefits to the post-holder such as increased motivation, confidence and empowerment, yet also added perceived benefits to the career, including aiding career development, more career opportunities; *working relationships* which highlighted the positive

inclusion and integration of the CTR role within the multi-disciplinary team, but also alluded to an element of perceived professional jealousy from the radiotherapy services managers which can constrain the relationship. Finally, *identity* which demonstrated that the awareness and understanding of the CTR role provided the CTR with status and credibility, yet also deliberated the use of the title “consultant”. The evidence of perceived impact is visible within the six case studies; however, due to the small scale of this research, a larger scaled national evaluation to corroborate the findings is required. In addition, inclusion from the service user’s perspective would be useful and could strengthen the evaluation.

The study has identified two further themes categorised as *challenges* and *future* of the CTR role which have been jointly considered below:

Comments regarding the lack of medical training have led to a need for robust mechanisms in training and education to address the issue. It is essential to ensure consistency of training for current and future CTRs, to ensure that CTR’s have the necessary skills in performing the role and maintaining their professional development. In addition, mentorship and supervision are critical for the CTR role to ensure further support. Moreover, a stronger educational underpinning can ensure that any apprehensions regarding medico-legal implications can be avoided through appropriate and structured training and developing an awareness of their scope of practice. Finally, the prospect of role expansion was indicated, two particular examples were provided; independent prescribing of medications which has successfully been embedded in to clinical practice for suitably trained therapeutic radiographers; however, the suggestion that the CTRs have responsibility of radiotherapy dose prescribing was met with reservations by the medical practitioners who exhibited a level of uncertainty and displayed protectionism.

Equal engagement in all four domains of consultant practice as stipulated in the job description is crucial to the role. However, the research has identified an imbalance in covering all domains. Increased attention toward the domain expert / clinical practice has resulted in an increase in clinical workload and little time devoted for the research domain. In addition, anxieties and concerns have been voiced relative to meeting the expectations of the role and increased pressure of not being able to fully integrate the four domains in normal day practice. The findings support the need for

a job plan to complement the job description, providing guidance on allocating appropriate time toward the four domains.

Concerns regarding financial implications of the role remain problematic with no clear assurances. However, recent financial investment into radiotherapy services and the professional bodies' commitment to advancing the radiographer through advanced and consultant practice roles may ease tensions. Moreover, the increase in CTR numbers in the last five years indicates a resurgence and renewed interest. Nonetheless, to evidence the value of roles, employers need to execute a cost benefit-analysis of the role to demonstrate worth and ultimately strengthen and support its longevity of the role.

Evidence from this study supports the need to enhance the external visibility of the role and strengthen the CTR's identity. Promoting the role is of paramount importance to ensure its long-term future. Employers, in collaboration with the professional body need to consider strategies for publicising the role, while giving individual post-holders the responsibility to self-promote internally and through external engagement opportunities.

11.3 Recommendations specific to clinical practice and policy

Recommendations are made in reference to the follow headings: the professional body, radiotherapy service managers, higher education institutions and the consultant therapeutic radiographer.

11.3.1 Recommendations to the professional body

Evidence from this study clearly supports the need for a national evaluation of the CTR role at a much larger scale. The evaluation will aid in capturing impact and provide a better understanding of the role. With the Independent Cancer Taskforce (CRUK, 2015) set up to review advanced and consultant practice roles this evaluation would be ideal and perfectly timed. In other professions such as nursing, a national evaluation of the nurse consultant role was conducted (Guest et al., 2004) with reported outcomes that could be useful when developing the evaluation in terms of methodological approaches used.

Although, the research provided examples of perceived impact on the service users; the inclusion and input from service users within the evaluation is also crucial and highly recommended. Service users experiences and perspectives regarding the care from the CTR can be extremely valuable (Ryan, 2006) and would provide another facet of evidence in capturing impact.

A review of the increase in numbers of CTR roles particularly seen in the last five years (SCoR, 2016) is also recommended. This positive resurgence requires investigation in relation to identifying this renewed interest and recent popularity; this review could also complement or be integrated as part of the recommended national evaluation.

Findings in this study have indicated a lack of external visibility of the CTR role. Therefore a recommendation is to promote the role further to strengthen the CTR identity. The Society and College of Radiographers in collaboration with clinical departments should focus on publicizing the role. Strategies to enhance the profile are required, to emulate schemes such as SCoR's annual "World Radiography Day" and the National Radiotherapy Awareness initiative titled the "Year of Radiotherapy" (2011) that have proved successful in raising awareness and profiles of radiographers and the profession. In addition the professional body should encourage CTRs to apply for accreditation to further strengthen their identity. The SCoR Consultant Practitioner Accreditation process as outlined in the policy document *Education and Professional Development Strategy: New Directions* (SCoR, 2016:19), provides explicit recognition of the professional achievements of the CTR, providing clarity for other professionals and service users on the nature of consultant practice in radiotherapy and oncology and promotes the value of consultant practice skills and status.

Findings in this study suggest that a review of the training for CTRs is required as variations in training have been highlighted (Field et al., 2012, Dann 2016, and Roberts 2016). A scoping exercise to review how CTR's are currently trained in their respective sites should be performed as this will be useful in establishing similarities, differences and perhaps discrepancies. As such the outcomes from the review can provide guidance for the development of a standardised CTR training pathway

nationally. Moreover, the review could aid education providers in building the curriculum aligned with the four domains of consultant practice.

11.3.2 Recommendations to radiotherapy services managers

The development of a job plan, complementing the job description is highly recommended. With the noted issues from this study surrounding lack of engagement of the four domains, increased workload and specifically lack of time for research; guidance with suggested allocated time to the four domains should be articulated from the outset and in consultation with the CTR and Clinical Director.

Managers need to consider a departmental cost benefit analysis of the role. Price and Miller (2010) recommended that cost benefit analyses would be useful; yet a full health economics benefit would be more realistic. In addition, they also suggested that guidance from the professional body advising department managers on cost benefit assessment was required. Calculating the cost benefits associated with introducing the CTR role can aid in supporting business cases for developing new CTR posts, and ensure sustainability of current posts.

Managers should ensure that support is provided for new and current CTR's. For instance mentoring by a clinical oncologist can provide direct and indirect clinical supervision throughout the CTR's training period and beyond (Dann, 2016: 20). Mentoring is invaluable, and can enable an individualised development plan to evidence strengths, yet also indicate areas for improvement (Field et al., 2012).

A review of the roles and responsibilities of the Manager and CTR is suggested in view of the evidence from this research. This review in consultation with the professional body could clarify and establish defined roles and responsibilities more clearly to reduce role confusion and eliminate professional jealousy as shown in this research. The findings from this review suggest that the SCoR policy document (2005) *Implementing Radiography Career Progression: Guidance for Managers* which outlines early roles and responsibilities needs to be updated to fully reflect both roles.

11.3.3 Recommendations to higher education institutions

To support the professional body in education and training initiatives for the CTR, education providers in conjunction with the professional body, managers and CTR's, need to further expand and build postgraduate provisions for consultant roles. The modules should reflect the four domains of consultant practice and equip the CTR's with the required skills supported by academic foundations; a key requirement is also to develop the evidence base, research skills yet also include leadership and advanced skills (Snaith, 2016). This would assist in eliminating concerns of lack of medical knowledge. Involvement of the professional body, managers and CTR's in the development could help structure a well-thought-out curriculum. One successful example is the development of the independent prescribing course for therapeutic radiographers, already been adopted in one university (LSBU, 2016). There is much debate on the academic level required of the CTR's as outlined by the recent SCoR Research strategy (2016-2021), with an expectation that CTR's have achieved or be undertaking a PhD or professional doctorate by 2021, thus indicating an ever more definitive need to support CTR's with this stipulation.

11.3.4 Recommendations to consultant therapeutic radiographers

Findings showed that CTR engagement through external opportunities is important to promote their role and strengthen their professional identity. Snaith (2016) highlighted suggestions for individual CTR's to identify opportunities to develop and demonstrate the impact the roles have, for instance developing a study day, research publications and contributing to teaching at universities. Roberts (2016) discussed the partnership of the CTR with an education provider; where the CTR role can be utilised in both undergraduate and postgraduate levels. A mutual benefit is thus given where the domain of research and education for consultant practice is met by the CTR, a collaborative relationship (particularly for research and trials) is formed between the education provider and clinical department and importantly it raises the profile of the CTR further.

As previously recommended, the CTR should apply for accreditation through the SCoR scheme to enable the role to be promoted, and demonstrate that the post holder has met the standards of achieving consultant practitioner status and is worthy of the title.

11.4 What the research can add to existing knowledge and theory

Capturing impact

The *Dimensions of Impact* framework Gerrish et al., (2011), was appropriate to underpin this research to capture perceived impact. However the framework had only been used to evaluate the nurse consultant role and further testing and refinement was required in the context of the CTR. Hence, the research has provided that opportunity to test the framework and adapt accordingly to the aims and objectives of this research. In addition, the framework has also provided a number of indicators to capture perceived impact in terms of organisational and professional impact which has proven useful when analysing the data collected. As a result the research has evidenced examples of perceived impact in terms of organisational and professional impact from a radiotherapy perspective.

Power and identity

The research has contributed to theories of *power* and *identity* from a radiotherapy context by providing key examples in the clinical setting. In considering the works of Foucault (1975, 1977), the research has demonstrated examples of disciplinary power and medical gaze within the case study sites. In addition, the incorporation of the Social identity approach (Tajfel and Turner 1979, Turner et al., 1987 and Hornsey 2008) in this research has demonstrated aspects such as professional identity, use of titles and professional standing.

Case study

The research has been supported through the use of case study studies to investigate the phenomenon of consultant practice. Case studies have been valuable within this research as they have been able to focus on the “case” and retain a holistic perspective by studying the views, attitudes and opinions of the participants. Moreover, the use of a collective case study approach, permitted comparisons to be made between cases.

11.5 Final summary

Although a small scale study, this research has answered the aims and research questions by providing an insight into the current state of consultant practice within therapeutic radiography amongst the case study sites specifically in relation to capturing examples of perceived impact, examining issues such as power and identity, while acknowledging other key aspects such as the challenges and future for the CTR role. Recommendations for clinical practice and policy, as a result of the research findings have been clearly documented. The perceptions, attitudes and opinions from the participants have demonstrated organisational and professional impact, yet for the role to continue to thrive, the identified challenges and its future prospects need to be considered.

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APPENDIX A

Summary of reviewed included articles - Radiography

Study	Aim	Method	Description of Findings	Appraisal outcomes
Henwood S Booth L, Miller (2016) Reflections on the role of consultant radiographers in the UK: The perceived impact on practice and factors that support and hinder the role	A longitudinal case study exploring the role of consultant radiographers in the UK	Phenomenological approach In-depth interviews to explore and record individual stories and experiences Eight consultant radiographers participated	Substantial variation in the experiences Introduction of role had impact on service delivery and quality of patient care. Consultant role effectively needs further support in future	Small scale study Small sample size Good indication of perceived impact
Williams S, Widdison S (2013) Role models? Are consultant radiographers perceived by their colleagues as essential to service delivery?	To examine the attitudes towards the consultant radiographer within the breast unit.	Short attitudinal questionnaire devised to ascertain the impact consultant radiographer have on their respective teams 29 respondents within the MDT breast team (including surgeons, nurses, oncologists, radiologists, pathologists, manager, radiographers, imaging assistants)	MDT supportive of the consultant radiographer and confirmed that it has a role to play as part of the breast team. Consultant Radiographer is a separate role and not an alternative to the clinician. Clear benefits and perceived impact - felt an improvement to service delivery Challenges in meeting all four domains Limitations of background training compared to a clinician	Focus on breast team only Good number of respondents Good range of professions as respondents Only seven questions asked No details of data analysis

Price RC, Miller L (2010) An evaluation of the impact of implementation of consultant practitioners in clinical imaging	Identify and quantify the different healthcare environments in which the radiography workforce function. Quantify the current radiography workforce within the career progression framework. Quantify the different roles undertaken by the radiography workforce within clinical practice, management, education and research. Identify role developments within the profession	2 exploratory case studies consisting of structured face to face interviews Site one: 3 individuals (radiology speciality manager, directorate manager and consultant radiographer) Site two: 4 individuals (radiologist, 2 consultant radiographers, director of service).	Improved use of medical staff time - evidence suggested that the introduction of the consultant practitioner posts led to radiologists' time and effort being used to greater effect. Inter-professional working had been improved, leading to service improvements No increase in errors or complaints had been experienced since introduction of the consultant posts and their introduction had allowed service 'gold standards' for double reporting to be achieved. Improved team working. Introduction of the consultant radiographer posts had had a beneficial impact on team working, both within the imaging service and across departments/professions.	Robust and thorough research design Good indication of impact Two sites only used Sample size small Inconsistent choice of interviewees across both sites No limitations of role provided
Forsyth L, Robertson E (2007) Radiologists perceptions of	To survey the perceptions of the Scottish radiology community in relation to radiographer role	Postal Questionnaire 132 responses received of the 211 survey questionnaires distributed. (All were	Scottish radiologists are supportive of radiographer role development (inc. Consultant Radiographers and Advanced practitioners) Guidance required on medico-legal and accountability aspects	One data collection method No details of analysis Response rate adequate

radiographer role development in Scotland	development	radiologists)	A number of perceived benefits / impact including reduced service pressures, increased flexibility of service improvement and increased ability to provide effective clinical service.	Questionnaire not included
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Summary of sources to support included articles

Author(s)	Year	Title	Source	Vol, issue, page	Reason for inclusion
Field L, Snaith B	2013	Developing radiographer roles in the context of advanced and consultant practice	Journal of Medical Radiation Sciences	60:11-15	Reference to impact on the service
Harris R, Cornelius N	2012	Consultant Radiographers - taking the radiographic profession into the future?	Synergy Imaging & Therapy Practice	October: 10-12	Reference to impact on professional significance
Field L, McGuinness A, Coates A, Yunis S, Clarke R	2012	All Roads lead to Rome – bridging the gap from advanced practice to consultant radiographer	Synergy Imaging and Therapy Practice	November: 4-5	Reference to impact on service provision
Ford P	2010	Consultant Radiographers – does the profession want them?	Radiography	16(1):5-7	Reference to impact on service provision and staff career opportunities
Forsyth L, Maehle V	2010	Consultant radiographers: profile of the first generation	Radiography	10(4):1-6	Reference to impact on service provisions and staff
Paterson, A	2009	Consultant Radiographers – the point of no return?	Radiography	15(1):2-5	Reference to impact on service delivery and staff relationships
Hogg P, Hogg D, Henwood S	2008	Consultant Radiographer leadership – a discussion	Radiography	14(1):39-45	Impact on effective leadership on healthcare organisation

Law R	2006	Consultant radiographic practice: Impacts on service delivery and patient management	Imaging and Oncology	28-32	Reference to impact on service delivery
Howes N	2009	Demystifying the role of the consultant therapy radiographer	Imaging and Oncology	6 - 11	Reference to impact on service and the profession

Summary of reviewed included articles – Nurse and Allied Health Professionals

Study	Aim	Method	Description of Findings	Appraisal outcomes
Guest, D, Redfern, S, Wilson-Barnett J, Dewe, P, Peccei, R, Rosenthal, P, Evans, A, Young, C, Montgomery, J, Oakley, P (2001) Kings College London: A preliminary	A preliminary evaluation of the establishment of nurse, midwife and health visitor consultants.	Thirty two consultants were interviewed via the telephone; Ten case studies of consultants in practice were undertaken involving interviews, observation and documentary analysis; 158 questionnaire focusing on role and experience response rate.153 returned, .	Findings presented in relation to each core category.	Complex identification of findings for each professions

evaluation of the establishment of nurse, midwife and health visitor consultants.				
Guest, D, Peccei R, Rosenthal P, Redfern S, Wilson Barnett J, Dewe P, Coster S, Evans, Sudbury A (2004) Kings College London: An evaluation of the impact of nurse, midwife and health visitor consultants	An evaluation of the impact of nurse, midwife and health visitor consultants	Quantitative and qualitative methods Interviews such as telephone, face to Face. Questionnaire and Focus groups	Findings presented in relation to core categories (four) Consultant practitioners were seen to be having a significant effect on patient / client care and delivery Strengths and limitations of the role explored Concerns related to role overload and lack of support; Time spent undertaking each feature of the role	Limited indication of impact Detailed research design Very well reported and written
Redwood S, Carr E, Graham I (2005) Perspectives	Consultant Nurse impact on practice	A participatory research design A 360-degree evaluation approach; 6 participating	Thematic content analysis Key themes identified across all 6 case studies; Four categories generated from the Data: Evolution, About the person, The work, Resolving issues	Interviewees given interview guide prior to interview - potential to give pre-prepared answers No users involved

on the Consultant Nurse Role		consultant nurses each with 6 key informants interviewed		
Ryan S, Hassell A, Thwaites, Manley K, Home D (2006) Exploring the perceived role and impact of the nurse consultant	To identify the perceived role and impact of one nurse consultant in rheumatology within the context of being a practitioner-researcher	Semi – structured Interviews Seven peers were identified Five patients care for by the NC	Thematic analysis Four themes identified: development of new model of care, holistic person centred approach and value, leadership and education, feeling cared for. NC impacted on service development and culture, leadership and education and patients experienced the holistic nature of the role.	Users involved Impact indicated and evidenced One NC only evaluated
McSherry R, Mudd D, Campbell S (2007) Evaluating the perceived role of the nurse consultant through the lived experience of healthcare professionals	To evaluate the perceived impact of the nurse consultant through the lived experience of healthcare professionals.	A 360-degree evaluation approach Sample included 3 consultant Nurses A collaborative purposive sampling approach was used – 10 participants per CN A total of 30.	Thematic Analysis A number of themes emerged focusing on improving the role in the future through staff engagement.	small scale study 360-degree evaluation ensured representation of viewpoints Analysis described very well Some indication of impact
Humphreys A,	To construct and test an activity	Exploratory study	Time sampling revealed that the activity diary could be used to capture impact,	Sample small

Richardson J, Stenhouse E and Watkins M (2010) Assessing the impact of nurse and allied health professional consultants: developing an activity diary	diary designed to measure the impact and explore the activities of the nurse and allied health professional consultants in relation to each speciality and function of the role	Activity diary for five NC and one Physiotherapy consultant Activities in diary were recorded under the four pillars / domains of consultant practice over a period of one week	complexities and diversity of the consultant role	A useful tool for measuring contribution Activity diary – user friendly Consideration of interviewing participants as a follow up and to gain in depth views and perspectives Only one AHP consultant
Stevenson K, Ryan S, Masterson A (2011) Nurse and allied health professional consultants: perceptions and experiences of the role	To explore the perception and experiences of nurse and allied health professional consultants and key stakeholders	Qualitative Focus group interviews Focus group 1: Five nurses, one physiotherapist and a pharmacist Focus group 2: eight stakeholders	Content analysis Four themes identified: role interpretation, role implementation, role impact and challenges	Inclusion of stakeholders Good indication of impact Focus group enabled discussions to be explores Consideration of both sides – practitioners and stakeholders
Mullen C Gavin Daley A (2010)	To complete the first NW wide evaluation of the NMC role – to include Nurses,	Qualitative and quantitative methods (including focus groups and questionnaires)	NMCs in the north west are fulfilling the defined core functions of the role NMC does have a significant impact on the NHS agenda with evidence of their contribution to Quality, Innovation,	Short time scale for data collection Not all questions answered Can be used as a platform for a

Ten years on - An evaluation of the non-medical consultant role in the North West - the main findings NHS Northwest executive summary	Midwives, Health Visitors, Allied Health Professionals and Pharmacists To provide an overview of the impact findings To review the influencing factors and sustainability	130 NMC invited to participate	Productivity and Prevention (QIPP) NMC is making a huge impact and contribution on the development of the current and future workforce. NMC can play a key role in leading and supporting collaborative working NMC can play a key strategic role in actively leading and developing services.	national evaluation
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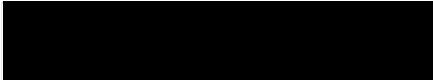
Summary of sources to support included articles

Author	Year	Title	Source	Vol, issue, page	Reason for inclusion
Manley K	2000a	Organisational culture and the consultant nurse outcomes part 1	Nursing Standard	14(36) 34-38	Reference to positive impact on the organisation and role was influential
Manley K	2000b	Organisational culture and the consultant nurse outcomes part 2	Nursing Standard	14(37) 34-39	Reference to positive impact on the organisation and role was influential
Keilty SE	2010	Consultant Physiotherapists in Respiratory Care	Association of Chartered Physiotherapists in Respiratory Care:	7-11	Reference to influencing care and implementation of physiotherapy consultant

			Professional Practice		
Craick C, McKay EA	2003	Consultant Therapists: recognising and developing expertise	British Journal of Occupational Therapy	66(6)281-283	Reference to recognition of the benefits it provides to postholder, service and patient
McDermott J	2013	Consultant Occupational Therapists in the UK	Presentation at COT 37th Annual Conference		Reference to influence on service change to improve outcomes for service users
Turnpenny J	2005	Final Report – Consultant AHP Leadership Development Programme	NHS Modernisation Agency		Identification of impact on service delivery and career opportunities
Lomer MCE	2009	The role of the Consultant Dietician in Gastroenterology in the UK	Nutrition Today	44(4):174-179	Reference to benefits such a clinical speciality providing leadership and strategic direction
Kirk S	2010	Diversity of a consultant oncology pharmacist's role.	The British Journal of Clinical Pharmacy	(2):23-24	Reference to benefits such as highest level of expertise, high level skills in patient care, strengthen professional leadership and provide a new career opportunity

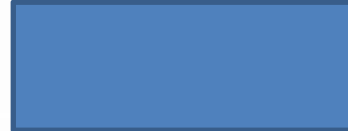
21 September 2012

Mr Ricardo Khine
Lecturer in Radiotherapy
Applied Biological, Diagnostics & Therapeutic Sciences
School of Health Sciences
City University London



NHS Trust

Research & Development Centre



R&D Manager: Mrs Julie Wilson

Dear Mr Khine

Inter-professional's perspectives and perceptions of the consultant therapy radiographer

Thank you for forwarding a copy of your proposal in relation to the above project.

I have noted that your project has been classified as a service evaluation by the City University, London. On the basis of this classification, I can confirm that your service evaluation is not required to be ethically reviewed under the terms of the governance arrangements for NHS Research Ethics Committees, and as such, Trust management approval from the R&D office is not required. However, I would request that you obtain permission from the relevant departmental heads before you approach members of staff to participate in the evaluation.

With best wishes for the success of your project.

Kind regards.

Yours sincerely



Julie Wilson
R&D Manager

APPENDIX B

School of Community and Health Sciences

Ref: PhD/11-12/06

16 February 2012

Research Office
20 Bartholomew Close
London EC1A 7QN

Tel: +44 (0) 20 7040 5704

www.city.ac.uk

Dear Ricardo / Kathryn

Re: Interprofessional perspectives and perceptions of the consultant therapy radiographer

Thank you for forwarding amendments and clarifications regarding your project. These have now been reviewed **and approved** by the Chair of the School Research Ethics Committee.

Please find attached, details of the full indemnity cover for your study.

Under the School Research Governance guidelines you are requested to contact myself once the project has been completed, and may be asked to complete a brief progress report six months after registering the project with the School.

If you have any queries please do not hesitate to contact me as below.

Yours sincerely



Alison Welton

Research Governance Officer



APPENDIX B**School of Health Sciences**

Research Office
Northampton Square
London EC1V 0HB

Tel: +44 (0) 20 7040 5704

www.city.ac.uk

Ref: PhD/12-13/07

15 November 2012

Dear Ricardo / Kathryn / Ros

Re: Interprofessional perspectives and perceptions of the consultant therapy radiographer – phase two and three interview data collection

Thank you for forwarding amendments and clarifications regarding your project. These have now been reviewed **and approved** by the Chair of the School Research Ethics Committee.

Please find attached, details of the full indemnity cover for your study.

Under the School Research Governance guidelines you are requested to contact myself once the project has been completed, and may be asked to complete a brief progress report six months after registering the project with the School.

If you have any queries please do not hesitate to contact me as below.

Yours sincerely



Alison Welton

Research Governance Officer



020 7040 5704

APPENDIX C

Ricardo N M Khine
Lecturer in Radiotherapy / PhD student
Department of Radiography
School of Health Sciences
City University London
Northampton Square
EC1V 0HB

Tel: [REDACTED]
Email: [REDACTED]

Dear

Re: Interprofessional perspectives and perceptions of the Consultant Therapy Radiographer

I am currently undertaking some research as part of my thesis for the PhD Radiography at City University London.

The research is looking into role of the Consultant Practitioner in Therapeutic Radiography. I am hoping to investigate the opinions and views from you as a Consultant Radiographer on the role during an organised Focus Group. The results gathered from this will then form the basis of my initial data collection.

The Focus Group is to coincide with the planned SoR Consultant Radiographers Group Network Meeting, taking place on:

I would like to include you in my research and hence would like to know if you would be agreeable to participate and will be attending the Consultant Radiographers Group Network Meeting.

I enclose a Participant Information Sheet that provides you with the relevant information and details regarding the research.

In addition, I also enclose a Consent Form, which you would need to sign for confirmation.

Could you please let me know as soon as possible if you interested in participating by signing the consent form and returning it in the self addressed envelope provided?

If you have any queries regarding the above please do not hesitate to contact me.

With kindest regards

Yours Sincerely

Ricardo N M Khine
Lecturer in Radiotherapy / PhD student
Department of Radiography

APPENDIX D

PARTICIPANT INFORMATION SHEET

I am a Lecturer in Radiotherapy at City University London and I am studying further to obtain my PhD in Radiography.

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully.

Thank you for reading this.

Research Title:

Interprofessional perspectives and perceptions of the consultant therapy radiographer

What is the purpose of the study?

Over the past four years, changes in the therapeutic radiography workforce have permitted the development of a consultant practitioner role in clinical practice. Clinical duties that were once performed by the clinical oncologist are now being shared in some trusts by consultant therapy radiographers who are deemed as experts in their scope of practice.

The aim is to explore the development of such a role. In addition to understand what it means to be a consultant radiographer, the purpose of labelling someone with the title "consultant" and whether the role is recognised and accepted by the medical counterparts. Likewise it, addresses whether such a role will provide strengthened relationships among interdisciplinary teams or actually encroach into their territories.

The opinions and views of the Consultant Therapy Radiographers will be assessed by means of a one to one interview.

Why have I been chosen?

As a Consultant Therapy Radiographer your views, opinions and experiences of your role will be useful in evaluating its benefit and impact. In addition, your feedback on the working relationship with your respective medical and healthcare counterparts will be valuable in evaluating the role as a whole.

Do I have to take part?

It is your decision whether or not to take part. If you decide to take part you will be given this information sheet to keep and be asked to sign a consent form. In addition, if you decide to take part you are still free to withdraw at any time and without giving a reason. A decision to withdraw at any time or not to take part will not affect your legal rights

What do I have to do?

To give permission and consent that you are agreeable to be interviewed by the researcher and that all your responses will be recorded. All you need to do is provide feedback on set topic areas for discussion. Your responses will be recorded and written up as an interview transcript. It will form the basis of the data, which can then be analysed.

What are the possible benefits of taking part?

The outcomes of the research will hopefully provide useful information or guidance for departments interested in establishing and implementing a Consultant Practitioner role.

In addition, the findings of the research will hopefully improve the overall patient care; inform ways to provide better working systems and practices within oncology services. In addition to assist radiographers in developing and promoting themselves professionally and personally and help them to acquire/gain new skill sets. Likewise to, ultimately build a better collaborative relationship with our medical counterparts.

Will my taking part in the study be kept confidential?

All information, which is collected from the interview will be strictly confidential and will be stored and secured at all times at the University, within the researcher's office. You may request a copy of the interview transcript. Audio interviews will be erased once the research has completed.

What will happen to the results of the research study?

The results of the research will form part of my PhD thesis and maybe published in a professional journal however, you will not be identified in any report / publication or organisation.

Who has reviewed the study?

The study has had approval from the School of Health Sciences Research Ethics Committee at City University London

Making a complaint

If you would like to complain about any aspect of the study, City University London has established a complaints procedure via the Secretary to Senate Research Ethics Committee. To complain about the study, please phone 020 7040 3040. You can then ask to speak to the Secretary to Senate Research Ethics Committee and inform them that the name of the project is: *"Interprofessional perspectives and perceptions of the consultant therapy radiographer"* (by Ricardo Khine)

You could also write to the Secretary at:

Anna Ramberg
Secretary to Senate Research Ethics Committee
City University London
Northampton Square
EC1V 0HB
Tel: [REDACTED] Email: [REDACTED]

Contact for further information:

Ricardo Khine
Lecturer in Radiotherapy / PhD Student
City University London
Northampton Square
EC1V 0HB
Tel: [REDACTED] Email: [REDACTED]

APPENDIX E

CONSENT FORM

Title of Research: The professional and organisational impact of the consultant therapeutic radiographer : a case study

Name of Researcher: Ricardo N M Khine (PhD Student)

Please initial in the box:

I agree to take part and be interviewed by the researcher for the above City University London Research project.

☐

I confirm that I have read and understood the Participant Information Sheet provided for the research.

☐

I understand that agreeing to take part means that I am willing to allow the interview to be audio taped.

☐

I agree for quotations and extracts from the interview to be used in the PhD Thesis and any research publications.

☐

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason and without my legal rights being affected.

☐

I understand that the results of the research will adhere to both the data protection act and that my confidentiality will respected at all times and the data is to be used only for this research.

☐

I understand that there is a complaints process in place and have been provided with the relevant details if I need to make a formal complaint.

☐

_____	_____	_____
Name of Participant	Signature	Date

_____	_____	_____
Name of Researcher	Signature	Date

APPENDIX F

TOPIC GUIDE FOR SCOPING EXERCISE / FOCUS GROUP

Welcome and introduce self

Present the purpose of the research

Specify the research objectives

Discuss procedure of the scoping exercise, permission to record and this scoping exercise is useful in designing questions for 1 – 1 interviews

Participant's introduction

Present areas of discussion:

- Purpose / components of role
- Role interpretation / perceptions from other healthcare professionals
- Challenges / Concerns
- Memorable Incidents / experiences

Prompt Questions:

How does such a role fit in your organisation?

What were your expectations when you first started this role?

How was your role embraced by other healthcare professionals?

What concerns (if any) do you have about your role?

What challenges have you experienced in your role as a consultant?

Where do you see yourself and your role in the next 5 years?

Closure:

Is there any other information that you think would be useful for me to know?

Discussion of 1 – 1 interviews in September and would CTR's be happy for me to come to them and interview for next phase?

Collect details of staff if not given

Thanks and end of focus group

APPENDIX G

Focus groups - a reflexive account

Justification for using a focus group

It has already been established that focus groups are the most appropriate method for researching a particular question and due to its nature of using group interactions they are suited to studying attitudes and experiences. As my research question is based on perspectives and perceptions from a range of people, I felt that choosing to use focus groups as a data collection method would be ideal. In this research by assembling the consultant therapeutic radiographers in this manner I knew that I would be able to create a forum for them that would allow a multitude of discussions, opinions and reactions on the issues raised from the topic guide to take place. This was of paramount importance as the range of views would be essential in generating the rich data. By participating in a focus group the CTRs could comfortably share their experiences regarding their role and possibly learn from one another.

Another significant reason for using focus groups in my research was they were able to assist me in developing and generating questions and potential concepts for my phase two data collection which were interviews. This was vital to the next stage of the data collection; as the researcher I needed to ensure that the questions developed would be appropriate, relevant and would provide me the responses to draw out the rich data pertaining to my research topic. This was highlighted in the works of Webb and Doman (2008) who agree that it is of benefit to the researcher whilst increasing their value.

The focus group process

In this section I will be detailing a range of issues on the focus group that was organised for the phase one data collection; this includes organising the focus group, my role as facilitator / moderator during the focus group, participant selection and contact, location of the focus group and choice of topic guide.

Organising the focus group.

Initially I was quite nervous with the thought of having to organise the focus group. Until I commenced on this research journey had no real training or experience with

focus groups. By embracing focus groups through reading current literature and the opportunity to participate in one, I was able to appreciate the usefulness and the benefit they would be to my research. Due to my teaching commitments I was unable to attend an identified focus group course which I thought would have provided me with an overall introduction and solid outline of this data collection method. Nevertheless I became aware that my supervisor was involved in a focus group where she was the facilitator and as a result I was invited by her to not only attend but to participate and observe at the same time. I felt that this would be ideal and actually more conducive than a training course. After the organised session my supervisor and I had a post focus group meeting. This was indeed important; work cited by Schon (1991) acknowledged the notion of “*reflection on action*” which takes place after any activity and in this situation it allowed me reflect on my experience and what I may have gained from participating in the focus group.

My role as the facilitator and moderator.

Observing my supervisor in the role as facilitator I became aware of what would be required of me in adopting this role. The main emphasis of this role is facilitation of interactions between participants and ensuring that discussions are taking place. Morgan and Kreuger (1993) recognise that the role requires managing the process and maximising discussions. Looking back I felt that I took on this role considerably well and in my capacity as an academic lecturer I believed that I was able to promote as much debate on the topics provided to the participants. Likewise, my experience in teaching undergraduate students prepared me to tease out a varied range of meanings from the participants on the topics under discussion. Embracing this role was crucial, as at the outset I had to provide clear explanations on the purpose of organising the focus group and to ensure that the participants clearly understood the intent of the research. It was also important that I set out “ground rules” for example one person to speak at a time and that the focus group would be recorded. My main aims during the focus group was keeping the session focused, sometimes delving for details or moving discussions forward when I felt the interaction had stilted. Similarly research by Woodring et al., (2006) who organised a focus group acknowledged that the facilitator guides the conversation, be prepared to allow the discussion to flow accordingly and be assertive where necessary. Ensuring confidentiality was an issue that I was conscious about maintaining. As my research was gaining views,

opinions and feedback from the participants it was essential that all information discussed in the focus group was confidential. Gibbs (1997) recognised that some participants may be discouraged from involvement in focus groups as the material is shared with others in the group and as a result felt that confidentiality may be contravened. To ensure that the facilitation ran smoothly I invited another colleague (who was also an academic lecturer) to help monitor the focus group; their role was to be able to jot down extensive notes and any key issue that were apparent during the discussion, whilst also assisting in practical matters such as setting up the digital recorders. This I felt was of some use as it allowed me to concentrate fully on the group as a whole and ensure that discussions were taking place; whilst not being side tracked with the practical issues.

Aside from organising the focus group, the participant's perspective was equally important for me to consider. This was the first time that I had met the CTRs and it was imperative that I had to gain their trust to open up and reveal their experiences, opinions and views. At the beginning of the focus group, it was vital that I made time to establish a relationship with my participants, giving them the opportunity to introduce each other and explaining my research aims and objectives to ensure they clearly understood my research intentions. Sharing the same professional background was significant in gaining their trust and confidence; as a qualified therapeutic radiographer with current clinical experience, I could relate and empathise with some of the issues that were discussed. I also felt that the *safety in numbers factor* had a part to play, as if any of the participants were wary of me, being in a group with similar peers in similar roles, should essentially put them at ease and also encourage active participation (Kitzinger, 1995). I also had to ensure that my interpersonal skills and listening abilities were important as I felt it would also promote the consultant radiographers trust in me and increase the prospect of open and interactive discussions. Finally as a moderator I was also conscious that I would need to remain neutral throughout and avoid expressing my personal opinions so as not to potentially sway the participants towards a particular position or opinion.

Contacting the participants

I became aware that a "Consultant Radiographer Network Group" existed which was organised by the Society of Radiographers and met twice a year; this was

advantageous to me as there was a potential to organise the focus group at one of the meeting dates. By contacting the Director of Professional Policy to discuss the proposed research and the idea of organising a focus group, permission was eventually granted. It was proposed that I could set up the focus group at the very end of the meeting so that it would not impinge on the business of the meeting. Each of the eight CTRs were contacted via email that included a covering letter inviting them to be part of the Focus Group, a participant information sheet and explaining the full details of the research and a consent form. The CTRs were asked to sign the consent form and return it in the self-addressed envelope provided. A copy of their signed consent form was made available to each CTR at the beginning of the Focus Group. The CTRs were emailed five weeks prior to the network meeting was due to take place, which gave the participants approximately five weeks to review the information and give consent.

On reflection, my main worry at the time was whether the participants would be willing to participate as they were under no obligation. This was out of my hands and I felt I was put in a weak position. The response rate was disappointing. Only four out of the eight CTRs responded positively; two, of the CTR's, although happy to be part of the overall research were unable to make the actual network meeting due to work commitments and could not partake in the focus group; whilst the remaining two CTRs did not wish to part of the research. My main concern was primarily the number of participants attending the focus group and whether it would provide me with enough rich data. At this point I was reminded by some of the focus group literature surrounding. Kitzinger (1995:301) who acknowledged that:

"The ideal group size is between four and eight people"

Gibbs (1997) suggests that the recommended number of people is between six and ten, but that some researchers have used up to fifteen and as few as four. Woodring et al., (2006) reports that the sample size should take into account the needs of the participants, highlighting that recruitment is a major obstacle when utilizing a focus group method. Equally Krueger and Casey (2014) note that a limitation of focus groups is the difficulty in assembling the groups.

Location of the focus group

The location of the focus group is an equally important factor. Powell et al., (1996) highlight that focus groups can be held in a variety of places including people's homes or where participants hold their regular meetings. Gibbs (1997) comments that neutral locations are ideal and are helpful to avoid either a negative or positive association with a particular site or building. In the case of my research the focus group was at the Society of Radiographers Headquarters and coincided with a Consultant Radiographer Network Meeting. This was beneficial because the CTRs would all be in one place together thus convenient and in a familiar setting. As a researcher, it was a convenient location and incurred no expenses. Having initially made contact with the Society of Radiographers to seek permission they were also very supportive in assisting with my data collection and permitted me to use one of their meeting rooms to arrange the focus group. The room was ideal, it was spacious, had a friendly ambiance, contained the necessary facilities needed (table, chairs) and importantly was free from interruptions and distractions. Upon reflection, I think this added to the overall smooth organisation and running of the focus group.

One other area of consideration was the seating arrangement of the participants in the focus group. This was also significant as it could also have an influence on the overall set up and may affect the dynamics of the group. The document "Organising and running a focus group" (HSE, 2012) acknowledges that seating arrangement has a bearing on the group as it is important that the participants are able to see and hear each other easily. They recommend that a U – shaped formation or a seating arrangement where the participants are around a table is ideal. Therefore creating a more comfortable and conducive discussion. In relation to my focus group, the participants sat around a table, they were all in view of each other and me as the facilitator, and importantly they could all hear each other.

APPENDIX H

CONSULTANT THERAPY RADIOGRAPHER INTERVIEW GUIDE:

INTRODUCTION

RATIONALE OF PHASE TWO

QUESTIONS (other questions were asked if further clarification was required)

- *Can you provide me with a definition of the title “consultant therapy radiographer”?*
- *What does it mean to be a consultant?*
- *What makes you a consultant?*
- *How does such a role fit in your department and why was it created?*
- *What were the intentions of the profession to create this role?*
- *What were your expectations when you first started this role?*
- *Where there clear objectives for you when you took on this role?*
- *How was your role embraced by other healthcare professionals?*
- *What concerns (if any) do you have about your role?*
- *What challenges have you experienced in your role as a consultant?*
- *Can you think of any changes or improvements if any, you would recommend to the role?*

CLOSING REMARKS

APPENDIX H

INTERVIEW GUIDE WITH MEDICAL / NURSING / THERAPEUTIC STAFF

INTRODUCTION

RATIONALE OF PHASE TWO (other questions to be asked if further clarification is required)

- *What do you understand by the term “consultant therapy radiographer”?*
- *What do you see as the main role of the consultant therapy radiographer?*
- *How does the role fit in the department?*
- *Can you provide me with some examples of the types of work that the consultant therapy radiotherapy is engaged in?*
- *Do you have any concerns (if any) regarding this role?*
- *What are your current thoughts on the consultant therapy radiographers remit within the radiotherapy service?*
- *I am interested to know your relationship with the consultant therapy radiographer, what is it like working with (name of CTR)*
- *What impact has the role of the consultant therapy radiographer had within the radiotherapy department?*
- *Can you think of any changes or improvements that if any, you would recommend to the role?*

CLOSING REMARKS

APPENDIX I

Interviews - a reflexive account

Justification for using interviews

I felt the use of interviews was the best way to proceed. The focus group initially provided me with a forum to gain several perspectives from the CTRs regarding the role and their working relationship with medical and nursing staff. Although a useful mechanism to gauge the current issues taking place in clinical practice, I was mindful whether the consultant therapeutic radiographers may have been a little reserved in providing their actual views and opinions on the topics discussed due to being in a group setting. As highlighted previously, one of the limitations of a focus group was the issue of the Group Think Syndrome (section 4.8.4) where the group may refrain from disagreement in favour of maintaining consensus; thus suggesting that some participants may potentially be holding back their true and honest views. Likewise they may also be conscious that being too honest, will actually backfire and tarnish their professional standing amongst the group.

To effectively remedy this potential situation, face to face interviews were the most appropriate approach; by allowing each consultant therapeutic radiographer to fully acknowledge any further issues or opinions not mentioned in the focus group in a very personal and honest perspective and explore in-depth, the experiences of each consultant, whilst based in a private setting. Likewise with respect to the medical and nursing staff, the interviews also allowed them open up and provide the necessary view and opinions on consultant practitioners.

The interview process

In this section I will be detailing a range of issues on the face to face interviews that were arranged for the phase two data collection. The areas to consider include type of interview selected, my role as the interviewer, contacting the participants, and identifying the location of the interview:

Type of interview selected

For this phase of data collection, I selected semi-structured interviews. My justification for using this type of interview was purely down to their conduct and approach in so far as they are flexible and provide a loose structure of open ended questions to explore the experiences and attitudes. In addition, the nature of semi-structured interviews provides the possibility to acquire more detail about the issue or experience. Likewise, the added benefit is also the potential to unearth and secure issues that as a researcher I did not anticipate. In relation to my research the fore mentioned points were imperative; although the set up was classed as an interview, I wanted it to be more of an informal exchange rather like a conversation. To guide the process I had a set number of questions (see appendix for interview questions), this was useful as it provided me with the necessary direction for the data collection. Throughout the interviews, I was conscious that I did not wish to appear too intrusive and make the participants feel uncomfortable. It was important that I reassured the participants that I was not there to scrutinize their work or them as individuals, but that my interest was solely about the role of a consultant radiographer. However it was equally important that I needed to ensure that the data I collected would answer my aim and research objectives, so I reminded each participant to be open, honest and truthful as much as possible during the interview and to acknowledge both positive and negative experiences of the role. This would then allow me to secure the rich data that I required. As McConnell – Henry et al., (2009:5) comment:

“...participants may interpret the interaction as therapeutic, encouraging or simply a friendly chat, rather than accepting that the prime intent of the interaction is to generate data.

In addition, this is reinforced by Johnston (2010:189) who acknowledges that:

“...this format allows for a more conversational tone and the freedom to elaborate”

The nature of semi structured interview also required the need for me as a researcher to take on the role as an effective listener. It was important that I listened attentively throughout each interview so that I could evaluate and gauge the responses given. In addition, it also prepared me if I needed to follow up on a

response, delve deeper into a particular point raised or deal with any unexpected responses. Likewise embracing a semi structured approach in this research has been valuable in allowing me to be flexible and adaptable during the actual interview, for instance modifying some of the questions, adjusting the sequence of them and asking additional questions in relation to the responses provided. This method is fitting in terms of attempting to maintain a conversational exchange rather than a formal interview, making it friendlier for participants and provides them with the confidence in providing more honest and open responses.

My role as the interviewer

I was very nervous particularly in my first interview, I was apprehensive that as a novice researcher and interviewer I would not secure the rich data that I needed for the research. My main concern was I lacked the interview experience therefore missing vital information from the responses and likewise the chance to further explore a pertinent point that was raised. On discussion with my supervisor it was clear that this was a normal reaction and as discussed earlier I needed to treat the interview as more of a conversation rather than a very formal question and answer approach. This was indeed true and I did feel less vulnerable but more in control with the later interviews. Another way to remedy this issue was attending a formal course on interviewing which I found immensely useful and valuable; likewise the realisation that others on the course were also reticent in conducting an interview was indeed comforting. McConnell – Henry et al., (2009) highlight that preparation is the key to success, they also acknowledge that being unprepared or even a lack of awareness can impact on securing the rich data, hence interview skills need to be developed.

Another important consideration of my role as interviewer was establishing a rapport with the participants. In order to gain the richness and depth of data through the interviews a positive relationship between me as the interviewer and the participants (interviewees) was paramount. To forge a connection with the participants it was essential that I gained their trust and respect. DiCicco-Bloom and Crabtree (2006) acknowledge that in offering trust and providing a comfortable setting participants are willing to open up. In addition DiCicco-Bloom and Crabtree (2006) state that there are four unique phases in establishing rapport, which are initial, exploration, co-operative and participation. Therefore once the participation stage has been reached and established, only then do participants begin to really open up. In

relation to my research, establishing a rapport with the consultant therapeutic radiographers was not an issue as I had already preserved such a relationship with each one of them during the phase one focus group. However, with the medical and nursing staff in the phase two data collection I did have to start from the beginning and establish and develop a rapport. I found that in this instance, initially discussing the intentions and the details of the research and likewise introducing myself to them, assisted in developing the rapport. Also, when asking questions at appropriate times and seeking clarification was indeed useful and advantageous as I sensed that the participants were reassured that I was listening and paying attention and hence they continued to further articulate.

In addition to the above I was also aware of the relationships that interviews can create; in particular the concept of power dynamics. Collins (1998) cites that interviews are more than just an interviewer simply asking and the interviewee answering questions, but in fact there lies a balance of power between them. This whole idea of asymmetries of power was acknowledged earlier in section. I was very conscious that I did not want the participants to feel they were purely there to just provide the raw data I needed for my research. When interviewing the consultant therapeutic radiographers in particular, I felt it was very much a positive reciprocal relationship; as the majority of them knew of me and likewise were aware that I was of the same professional background (therapeutic radiography) as them, which hopefully ensured that they could open up more in my presence. In addition, I also believe that this put them at ease when knowing that I could potentially empathise and understand some of the issues they raised. Hand (2003) had a very similar experience during one of her interviews she conducted; she highlighted that as the participants knew of her professional role as a nurse she effectively became a sounding board to their issues. Although she secured the rich data for her own research, she felt at times that she was lending a sympathetic ear to the problems and concerns; even feeling that she had taken on the role as a counsellor. Collins (1998) stated that as interviewees, participants would express things they would never disclose to anyone else in this type of setting.

Conversely, it was a different situation interviewing the medical and nursing staff, as they did not know me at all. Hence it was imperative that from the onset I had to introduce myself to them prior to the interview and inform them of the research.

Likewise when conducting the actual interviews, I ensured that I emphasized my role as researcher, the aims / objectives of my research and likewise the notion of confidentiality and anonymity. In addition, I made it very clear that I was not there to scrutinize them as individuals or their roles, but more so interested in their thoughts on the CTR role.

Location of the interview

Naturally, the location of the semi-structured interviews was equally important to address. In this instance interviews took place at each of their respective NHS trusts or organisation (key stakeholders). I was mindful of the time they could afford to give and yet conscious of their availability, particularly as they were all clinical practitioners; it thus made sense I would travel to the participants. However, there were two stakeholder interviews, where the participants visited my workplace as they were going to be in the vicinity prior to another engagement and thus made sense for them. A range of venues were used for the interviews, such as the participants' office, a meeting room, a clinic room and even an unoccupied clinical control room. All the rooms that were arranged by the interviewees fortunately provided privacy and ensured that during the interview there were no disruptions or interruptions. Participants should be given the choice of venue (Clarke 2006) and interviews should be conducted in a quiet, private room Gray et al., (2017).

The logistics of the room set up was also an important factor that is worth reflecting on. I arrived early on every occasion to allow time to set up the interview. I wanted to ensure that the room was appropriate for the face to face format and there was also space to arrange the audio devices. Positioning of the devices (there were two, the main and a backup device) was just as important, I wanted to guarantee that the participants' voices were clear and distinct on the recordings. DiCicco-Bloom et al (2006) state that sustaining high quality audio-recordings can avert hitches later in the research process. In addition, I made sure the audio devices were also in full view, so that I could confirm they were working accordingly and again to avoid any potential problems with the recording. The last thing I needed was to discover the recording had failed and no data was present.

APPENDIX J

Key Stakeholders interview guide

- Can you provide your thoughts on the development of the Consultant Practitioner post? What was the drive behind it?
- Can you provide your thoughts on the original vision of the role as outlined in the original policy? What was the original remit of the role?
- Do you feel the role has met the original intentions since its inception? If not why not?
- Where do you think the role is currently at?
- What is your stance as (*title of representative*) on the role of the Consultant Practitioner?

Specifically to my research on the **Consultant Therapeutic Radiographer** and the current themes from my final analysis:

- Can you provide your thoughts on the analysis / themes regarding the role:

Impact: a) Professional impact (e.g. career opportunities, motivating staff)
 b) Organisational impact (e.g. meet service target, improves patient experience, better working relationships)

Power: Medical dominance and protectionism

Concerns of the role: Lack of medical knowledge, lack of time to conduct research, increased workload/burn out, financial pressures, sustainability

Identity: Use of the title “consultant,” presence, status and recognition (local and national levels)

Future: Increase the numbers, extending the roles (e.g. prescribing radiation doses for treatment)

- Is there anything else you would like to comment on that would be useful for my research?

APPENDIX K Dimensions of Impact framework for case study 1a

Professional impact:

Domains	Indicators	Examples of impact
<i>Professional Competence</i>	Impact on confidence and competence of healthcare workforce (e.g. effecting knowledge, skills, behaviour, attitudes)	<i>"(CTR) has a wealth of knowledge and leads from the front and has pushed the boundaries every time and at every point."</i> (Adv.Prac1a) <i>"I was very dependent on (CTR) to help, encourage and support me whilst I was advancing my practice and (CTR) supported me in developing my practice."</i> (Adv.Prac1a) <i>"The registrars they find it quite useful to have someone that they can go to for training that's not their consultant, their medical consultant because they know we have quite a depth of knowledge and we know how the medical oncologists function. Uhm so, they sort of utilise, they tap into us, a lot I think"</i> (CTR1a) <i>"You know, I think that is very integral to our role is looking at the education of others around us"</i> (CTR1a)
<i>Quality of working life</i>	Healthcare workforce on the perspective on the impact on the quality of their working life arising from the practitioner intervention (e.g. job satisfaction, morale and motivation.	<i>"(CTR) has the ability to motivate research, the staff and influence the decision making process within the department"</i> (Adv.Prac1a) <i>"You're looking at uhm having a good career progression; it attracts people into the profession if they know there is a route to go."</i> (CTR1a) <i>"I am very supportive obviously but I think it's more supportive of the people who are good and because there's a career progression."</i> (Clin.Onc1a)

<i>Professional social significance</i>	Extent to which the practitioners interventions are important to professional outcomes e.g. workload, work distribution, turnover across the workforce.	<i>"The role has taken a lot of pressures off the Oncologists and made their workload more manageable. And, certainly, for the service as a whole information and support, treatment, providing support for patients with problems was a gap in the service, identified by (CTR) and service developed to address this"</i> (Adv.Prac1a) <i>"At the new patient clinic (CTR) sees them consents them, discusses the adjuvant treatment with them and then, you know consents them so basically does it without a seeing a doctor. The patients don't see a doctor at all. Um... and (CTR) has own list of patients"</i> (Clin.Onc1a) <i>"The oncologists don't have time to look at where the gaps are but (CTR) has really evolved the service."</i> (Adv.Prac1a)
<i>Professional social validity</i>	Social importance and acceptability of the intervention for the healthcare workforce and whether the interventions address important problems that healthcare staff encounter e.g. teamwork	<i>"We work very closely with (CTR) an integral part of the team, so yeah; (CTR) is a central part of the team."</i> (SpR1a) <i>"(CTR) has got a very close relationship with the surgeons as in the (speciality) surgeons. (CTR) comes to the MDT, is fairly well-known in our hospital and our department with the (site) special interest"</i> (SpR1a)

Organisational impact:

Domains	Indicators	Examples of impact
<i>Organisational competence</i>	Extent to which practitioners contribute to an efficient and effective	<i>"Uhm for me it was very clear that our (speciality) patients had a very poor service. There was more and more evidence coming out that patients did</i>

	organisation in terms of business concerns of finance, governance and legal requirements	<i>better, from a survivorship point of view, if they had information on rehabilitation, post-treatment and that wasn't happening. So, uhm, I sort of identified this. I did a report. Sent it to the Trust and as a result of that, they allowed me to focus on the (speciality) patients. Uh, so my role really grew from a service need. So we'd identify that there was a gap in the service"</i> (CTR1a) <i>"New patients probably don't have to wait as long as if (CTR) wasn't here. Because otherwise, they would have had to just come into our new patient slots. So actually, (CTR) often has a few more free slots to see them quicker"</i> (SpR1a) <i>"I think from a financial costing point of view, we are actually quite cost effective in the, you know some of the roles that I do would have to be done by uhm the very least a registrar. So, if you're looking at the balance of-of costing per session, then we do work out cheaper but it doesn't always work like that"</i> (CTR1a)
<i>Organisational social significance</i>	This concerns policy objectives relating to organisation e.g. national and local priorities, contributing and developing policies and generating new knowledge	<i>"The vision of the CTR role being uhm network-wide responsibility. So I take on the (speciality) support, throughout the (location) Cancer Network. So it was – their vision was that the role can be rolled out if you like across all of the whole of the Cancer Network."</i> (CTR1a) <i>"I'm working with the uhm, National (speciality) nurse for their consequences of treatment group and by the end of next– end of this year, we want to have published national recommendations on management of late effects."</i> (CTR1a) <i>"In some ways (CTR) has got strong interests, and going to these conferences not only to talk but to absorb what other people are doing, it does keep us up-to-date in some ways, like the late effects. So, (CTR) arranging a one-day talk on the late effects of GI, late effects from</i>

		radiotherapy. So, we then benefit from knowing what (CTR) learnt from other centres” (CTR1a)
Organisational social validity	Social importance and acceptability of practitioner intervention for the organisation and whether the interventions address important issues for the organisation and whether the outcomes are meaningful to the organisation in terms of achieving its core values.	“As the CTR I am also the chair of the (location) Cancer Network (speciality) Group. Uhm we look at policies and procedures across the whole of the network, information delivery, and we’re really, obviously, we’re a cancer centre so I get patients referred in from all across the region for specific information” (CTR1a) I’m working with Department of Health and (Cancer Charity) I’m looking at survivorship and late effects. I ideally like to establish is a very recognised pathway. Uhm, again, across the networks, I want to identify (speciality) within the cancer network and es-establish a multi-disciplinary team and to manage late effects. And as I say, uhm, uh, the Department of Health and (Cancer Charity) have identified this is one of their top three uhm, projects to put money into as well so, I’m working quite closely with the” (CTR1a)

APPENDIX L Dimensions of Impact framework for case study 1b

Professional impact:

Domains	Indicators	Examples of impact
Professional Competence	Impact on confidence and competence of healthcare workforce (e.g. effecting knowledge, skills, behaviour, attitudes)	<i>"For me (CTR) played quite a few roles really. Um... she was there in terms of sort of an education and training purpose and then was there for guidance. As a trainee my experience of working with (CTR) was more from a team perspective and looking after patient care and... yes sort of a training role, she helped me develop my training, my skills that are relevant to (speciality) and (CTR) specialism"</i> (SpR1b) <i>"From my point of view as a trainee, (CTR) knowledge base and experience is invaluable. Um... and (CTR) helped improve my skills, my technical skills, and also helped me learn about the whole process of (speciality) and the particular aspects of it really."</i> (SpR1b) <i>"So (CTR) is constantly talking to the clinical oncologists or questioning, not questioning, more advising them and they do listen to what (CTR) has to say especially with the setup of patients and that's where (CTR) expert knowledge comes into...our patients and our consultants will listen to (CTR) and say "Well ahh, I didn't think of that." "Okay yes, we'll do it that way."</i> (Nurse1b)
Quality of working life	Healthcare workforce on the perspective on the impact on the quality of their working life arising from the practitioner intervention (e.g. job satisfaction, morale)	<i>"Here I think the majority of people look at our CTR and specialist radiographer structure and quite a number of them quite admire it and would like to do it"</i> (Clin.Onc1b) <i>"I think in the department, you know, (CTR) does do a lot... a lot at different levels, not only patient base but also technology and various other things. I know (CTR) supervises other specialist radiographers so a sort of managerial role"</i> (Clin.Onc1b)

	and motivation.	
<i>Professional social significance</i>	Extent to which the practitioners interventions are important to professional outcomes e.g. workload, work distribution, turnover across the workforce.	<i>"(CTR) has own review clinic, so on- treatment patients would see (CTR) so all of the patients who are on review for both radiotherapy and concomitant (chemotherapy drug) and (CTR) organises that and runs a weekly clinic. (CTR) has own group of patients that (CTR) will see and is just in the role of now developing a telephone follow-up clinic for that group of patients who are followed up"</i> <i>(Clin.Oc1b)</i>
<i>Professional social validity</i>	Social importance and acceptability of the intervention for the healthcare workforce and whether the interventions address important problems that healthcare staff encounter e.g. team work	<i>"(CTR) is a very valued member of the team, in the department (CTR) does a lot and we are quite dependent on (CTR) as one individual; we would be hugely at risk if (CTR) left as there aren't many people like her"</i> <i>(SpR1b)</i> <i>"So (CTR) has just as much an important role as the consultants in (speciality) and actually because (CTR) doing that full time probably is one of the most cohesive members of the team because (CTR) pulls everything together."</i> <i>(Clin.Onc1b)</i> <i>"I think, from our team's point of view, (CTR) does all the radiotherapy and knows exactly where they are on their treatment. So I think they are providing the doctors with time available to do other things."</i> <i>(Nurse1b)</i> <i>"In my job um the part of the independent practice I've taking on, which is (speciality), is actually a need to fill. We've only got one oncologist that works in the (speciality). So I actually work as a second oncologist on that so there's two of us. And so if she's off, I will see patients. I'm still there at the MDT to offer an oncology opinion if she's not around. So it was a need"</i> <i>(CTR1b)</i>

Organisational impact:

Domains	Indicators	Examples of impact
<i>Organisational competence</i>	Extent to which practitioners contribute to an efficient and effective organisation in terms of business concerns of finance, governance and legal requirements	<i>“So the implementation of the (speciality) CTR was to be able to have a person who is in the role that could manage and look after wide range of aspects for patients with (speciality) tumours and so from the implementation of their pathway through to seeing them independently on treatment and also to further develop it for certain groups of patients in which the CTR can see and counsel patients about treatment options particularly in treatments with (speciality)”</i> (Clin.Onc1b) <i>“There is a role for (CTR) in fractionating (speciality) so we’re thinking about trying to set that up as a service. Because that would be something (CTR) would be in charge of. And (CTR) been leading the... initiative to trying to optimise our CT imaging from planning which is still not optimal”</i> (Clin.Onc1b)
<i>Organisational social significance</i>	This concerns policy objectives relating to organisation e.g. national and local priorities, contributing and developing policies and generating new knowledge	<i>“(CTR) has always been very much involved in the research, to be honest. With Professor (name), at one point. You know (CTR) is always getting names on papers or doing research.”</i> (Nurse1b) <i>“CTR has done things like auditing the set-up of the (specialist equipment). (CTR) has just audited the role in the (speciality) clinic and is presenting at UKRO, so looking at own patient base and what’s happened as an outcome of (CTR) counselling compared to my counselling for patients’ options. So (CTR) is quite active in audit”</i> (Clin.Onc1b)
<i>Organisational social validity</i>	Social importance and acceptability of practitioner intervention	<i>“(CTR) had the You Made A Difference Award within the Trust. That’s from patients’ feeding back...they can write in or send in a slip, you know. They</i>

	for the organisation and whether the interventions address important issues for the organisation and whether the outcomes are meaningful to the organisation in terms of achieving its core values.	<i>go to PALS and they say how happy they've been with someone's care."</i> <i>(Nurse 1b)</i> <i>"(CTR) is also on quite a few now national bodies where (CTR) has input nationally as well.</i> <i>(Clin.Onc1b)</i>
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APPENDIX M Dimensions of Impact framework for case study 2

Professional impact:

Domains	Indicators	Examples of impact
Professional Competence	Impact on confidence and competence of healthcare workforce (e.g. effecting knowledge, skills, behaviour, attitudes)	<i>"From my point of view, I think (CTR) enhanced my training and was a good person to get teaching and experience from, I think you know junior registrars value (CTR) advice and teaching. I think that particularly if you're a first year, (CTR) is quite a good person to talk to"</i> (SpR2) <i>"I think the registrars and (CTR) work very well together and in fact (CTR) does a lot of teaching and quite often lets them do some of the work and then double checks it."</i> (Clin.Onc2)
Quality of working life	Healthcare workforce on the perspective on the impact on the quality of their working life arising from the practitioner intervention (e.g. job satisfaction, morale and motivation.	<i>"I can see the-the motivational side of it for the post holder, morale-boosting and everything."</i> (CTR2) <i>"The level of work at which I work is one where your training, your knowledge of skills empowers you and enables you to have the confidence to make that decision"</i> (CTR2) <i>"But also to nurture, ah, people who are coming out through the ranks. As I say, we now got a team here of four or five specialists radiographers, advanced practitioners and, ah, and I'm lucky enough to be able to be they're professional lead and give them advice and, ah, helping them learn from my experience."</i> (CTR2)
Professional social significance	Extent to which the practitioners interventions are	<i>"It just made absolute total sense because, um, the increasing work load in oncology centres is-is just phenomenal and, um, the work load of the oncologists have gone up. And, ah, to take the work load off-off them will</i>

	important to professional outcomes e.g. workload, work distribution, turnover across the workforce.	certainly alleviate some of the problems“ (CTR2) <i>I think that his role is very useful for (location) and for patient care because (CTR) being there means that in terms of capacity of seeing patients you know say if a GP rings up you know because someone has got really bad pain they can be fitted in the following week and things get done and (CTR) has got all morning and under less pressure than the consultants for clinic space and general time constraints” (SpR2)</i> <i>“So CTR saves me a lot of work, like you know to be honest. He saves me a lot of phone calls, organising radiotherapy, so we’ll always have a chat or via e-mail or um, verbally to say “Are you happy for me to do this?” or you know, I’ll ask him if (CTR) is happy to sort things out. But then the actual organisation of it (CTR) just does that and so it saves a lot of work load for us, it frees up clinics space um, and (CTR) got his own simulator list you know, so (speciality) patients.” (Clin.Onc2)</i>
Professional social validity	Social importance and acceptability of the intervention for the healthcare workforce and whether the interventions address important problems that healthcare staff encounter e.g. teamwork	<i>“(CTR) is an important member of the team and we are pretty much happy with (CTR) oh yeah and happy for (CTR) to share the work” (Clin.Onc2)</i> <i>“(CTR) is a very good link between the oncologist, the um... radiographers, the hospice even, get very feedback from the hospice that they feel the consultants, they feel that CTR presence has made a big difference to the patients” (Clin.Onc2)</i> <i>“I think it’s helped to streamline things. I think (CTR) presence has helped in many ways um, people always go to (CTR) for advice you know, um, it’s like having another registrar in the department, another person to help out.” (Nurse2)</i>

Organisational impact:

Domains	Indicators	Examples of impact
<i>Organisational competence</i>	Extent to which practitioners contribute to an efficient and effective organisation in terms of business concerns of finance, governance and legal requirements	<i>"Patients were often admitted to hospital and kept in for-for long durations and when that was looked at they decided to go with a model where patients would be triaged quite quickly when they come to A and E, to avoid unnecessary stays in hospital along with all the inherent costs that brings with it. Palliative cancer patients often fall into that area. It was felt that if there was somebody that could lead, a palliative service for cancer patients in terms of fast tracking them through the system or identifying patients who were in hospitals languishing and costing health service money but also coming out with new ways of treating patients more quickly and more effectively and really streamlining the service so this post really was born."</i> <i>(CTR2)</i> <i>"I mean, in terms of waiting times vastly, vastly reduced, so we're like literally as soon as we get scanned results back within, you know, two to three working days, okay, that is a massive difference to, in terms of waiting times that may have previously been there. The impact on the patient obviously, a patient is getting seen sooner."</i> <i>(Nurse2)</i>
<i>Organisational social significance</i>	This concerns policy objectives relating to organisation e.g. national and local priorities, contributing and developing policies and generating new knowledge	<i>"I'm interested in research. I'm on, um, the delegation logs for several clinical trials. Um, I do audits"</i> <i>(CTR2)</i> <i>"(CTR) has enabled us to improve recruitment to trials like the (clinical) trial just (CTR) being here enabled us to recruit quite a lot of patients."</i> <i>(Clin.Onc2)</i>
<i>Organisational social validity</i>	Social importance and acceptability of	<i>"I undertook an audit to prove to myself whether the service I was providing</i>

	practitioner intervention for the organisation and whether the interventions address important issues for the organisation and whether the outcomes are meaningful to the organisation in terms of achieving its core values.	<i>was as good as it would have been if it was the oncologist doing it. So it was a survey looking at a patient questionnaire, satisfaction audit asking patients how they felt about the service that I provided compared to the service the oncologist provided and it was comparable and in some instances better"</i> (CTR2)
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APPENDIX N Dimensions of Impact framework for case study 3

Professional impact:

Domains	Indicators	Examples of impact
<i>Professional Competence</i>	Impact on confidence and competence of healthcare workforce (e.g. effecting knowledge, skills, behaviour, attitudes)	<i>"(CTR) was learning from me and then I was learning more techie stuff from (CTR). So we learnt we sort of traded off learning from each other." (Nurse3)</i> <i>"(CTR) always very helpful to discuss any questions that we had as registrars. In terms of getting through what the protocols are (CTR) is very good and that sort of teaching aspect of it. (CTR) often offered registrars to spend some time without the patient there, just looking at...go through the equipment and what...how everything fits together and so on because it's all a bit of a mystery. You don't have a surgical background and you just come into it, so (CTR) has a sort of training role with registrars, that will spend time going through how everything works and the protocols" (SpR3)</i> <i>"I used (CTR) clinical acumen and knowledge to help support my decision making" (Nurse3)</i>
<i>Quality of working life</i>	Healthcare workforce on the perspective on the impact on the quality of their working life arising from the practitioner intervention (e.g. job satisfaction, morale and motivation.	<i>"I believe all of the staff respect and look up to (CTR)" (Nurse3)</i> <i>"Professionally we get on well -- we have become friends through our professionalism. We did not know each other before. I trust (CTR) implicitly" (Nurse3)</i> <i>"The things that directly affect me, are patients that are referred for (speciality) oncology treatment; (CTR) vets all the progress forms that are been written by me, and by other consultants from other trusts and then at that point, we decide, is this patient suitable for (CTR) to be doing, or does it have to be myself doing it. I think the majority of the cases are now being managed by (CTR) so a positive impact"</i>

		(Clin.Onc3)
<i>Professional social significance</i>	Extent to which the practitioners interventions are important to professional outcomes e.g. workload, work distribution, turnover across the workforce.	<i>"In terms of from the service point of view (CTR) has managed to take a lot of the service out from the medical consultants to be able to do this and aid them"</i> (Clin.Onc3) <i>"Patients come from different trusts so there is a lot of management that needs to be involved in terms of making sure that the patients are coming from the other trusts with enough information that we can go ahead with treatments. It's completely unsustainable that we actually need a medical consultant all the time do be doing that. So really it was (CTR) role, in terms of from the service point of view that (CTR) has managed to take a lot of the service out from the medical consultants to be able to do this."</i> (Clin.Onc3)
<i>Professional social validity</i>	Social importance and acceptability of the intervention for the healthcare workforce and whether the interventions address important problems that healthcare staff encounter e.g. Teamwork	<i>"CTR is very much the coordinator of (speciality) within our centre, so...and really anything to do with setting up treatments, arranging the sort of pre-treatment assessments and scans. (CTR) can be involved in consenting patients and being a point of contact for patients who undergo treatments. It's very important and then, is actually responsible really for the delivery and the sort of running of the day and follow up"</i> (SpR3) <i>"(CTR) is always ready and coordinating that and also liaising with other staff. So (CTR) often discuss patients directly with our anaesthetist about (speciality) cases if there's any concerns about the anaesthetic side of things, which is always useful."</i> (SpR3) <i>"In the MDT (CTR) is always there. (CTR) is obviously clearly well respected by peers, clinical oncologist peers or med-onc peers because sometimes (CTR) is the one that is making sure governance wise that the patient is heard"</i> (Nurse3)

Organisational impact:

Domains	Indicators	Examples of impact
Organisational competence	Extent to which practitioners contribute to an efficient and effective organisation in terms of business concerns of finance, governance and legal requirements	<i>"The patient benefits massively. (CTR) has done things like instead of patients staying overnight in the hospitals, so we are thinking about impact on service -- because a lot of the patients need to be there sort of seen at silly o'clock in the morning. And the public transport cannot get them there or whatever, she has organised – (CTR) has a deal with the (hotel name), would you believe. (CTR) has costed it, so this is good for the service, good for the patient. It is cheaper for the patient to stay in there which is just across the road and much nicer rather than clog up an oncology bed.</i> <i>(Nurse3)</i> <i>"I mean, probably the first, the most cynical thing you can say is that it the CTR role saves money. In the NHS if you've got a consultant radiographer, that's far cheaper than a consultant oncologist. And an awful lot of the things we do in that the doctors do, there are many roles that could be given to therapy radiographers do just as well, possibly better. So, it's sort of common sense, financially"</i> <i>(CTR3)</i>
Organisational social significance	This concerns policy objectives relating to organisation e.g. national and local priorities, contributing and developing policies and generating new knowledge	<i>"(CTR) has changed practice such as skincare -- little things like that that might seem little to -- not particularly sexy to many but to the patient a massive difference. Also, the distress thermometer; which was another thing that (CTR) helped with and bring into the whole of the oncology centre and helped with the research and now uses a modified version."</i> <i>(Nurse3)</i> <i>"I wanted to write international guidelines because there were not any guidelines because I did not believe what we were doing was right, but I need to co-opt around the world and I wanted to be multidisciplinary. So of the 15 multidisciplinary international authors that I had, the one that actually</i>

		<i>wrote it with me was (CTR) – (CTR) changed practice”</i> (Nurse3)
<i>Organisational social validity</i>	Social importance and acceptability of practitioner intervention for the organisation and whether the interventions address important issues for the organisation and whether the outcomes are meaningful to the organisation in terms of achieving its core values.	<i>“I work with charities so I have taken (CTR) out to (name) cancer trust charity and to the (name) appeal charity and got (CTR) heavily involved with those.”</i> (Nurse3) <i>“I see her as an educator. So she runs a (speciality) module -- masters module and I see her organising the education for therapy radiographers”</i> (Nurse3) <i>“People are always asking for advice and nationally, too. You’ve got things like the (speciality) Radiographers Forum. Um, so, uh, vice chair with that. Um, also done a bit of work with NCAT and things like that. So, you sort of feel that people are drawing on your knowledge and expertise. So, yeah, consultancy work is a big part of the CTR”</i> (CTR3)

APPENDIX O Dimensions of Impact framework for case study 4

Professional impact:

Domains	Indicators	Examples of impact
Professional Competence	Impact on confidence and competence of healthcare workforce (e.g. effecting knowledge, skills, behaviour, attitudes)	<i>"When the (speciality) started, the theatre team would come down here, we had to have (speciality) and the room isn't that big. Uhm, there was lots of people in there so we thought, "What can we do to make the situation better?" So, we became (speciality) trained. We learned the role as a (speciality). They were grateful. And that helped. Because we were helping them, they helped us."</i> <i>2 (CTR4)</i> <i>I've learned from (CTR) various different bits and pieces over the years and I'm sure (CTR) has from me as well. So, it complements itself really and works well.</i> <i>(Nurse4)</i> <i>"I did MSc in oncology on (speciality) cancers and everything was on (speciality) and (CTR) actually helped me a lot so I understood everything about it."</i> <i>(SpR4)</i>
Quality of working life	Healthcare workforce on the perspective on the impact on the quality of their working life arising from the practitioner intervention (e.g. job satisfaction, morale and motivation).	<i>"The CTR role helps the medical clinicians to run the healthcare service more smoothly and efficiently and improve the care... It's a great help for us"</i> <i>(SpR4)</i> <i>"I think it's actually good idea and it's nice to see them developed and I think it's one thing is given the radiographer more opportunity. "</i> <i>(Clin.Onc4)</i> <i>"I think if you get stuck in one role of turning on and off the machine, your life gets a bit boring sometimes. And if you know that you can actually move on to next level and if you want to be more involved well there's an opportunity for the person. I think it's actually very useful. Because you need to be able to strive for something, otherwise your life becomes very miserable."</i>

		(Clin.Onc4) <i>"Broadens the career prospects, the role is within the four-tier structure in place here and has definitely had a benefit on the recruitment and retention of our department. Traditionally we've always had a managerial progression and that was the only way to go, but clinically, it's a nice path."</i> (CTR4) <i>"Everyone just seems so happy with the role and accepted it, I believe and the department believe it is such a vital role."</i> (SpR4)
Professional social significance	Extent to which the practitioners interventions are important to professional outcomes e.g. workload, work distribution, turnover across the workforce.	<i>"I've heard from the clinicians' point of view that it's greatly beneficial to them because it frees up their time enormously because the volumes of patients that we're dealing with. So the patients get much better service and the clinicians are freed up to concentrate on those more complex cases – new patients for example."</i> (Nurse4) <i>"I think it's a pretty good thing to do. It offloads some of the work some of the follow up, the routine review on the patient on radiotherapy, then I can actually concentrate in doing other things as well and free up space for someone else that I can see."</i> (Clin.Onc4) <i>"The number of patients cancer is increasing, more and more patients are coming to us and more and more people are getting radiotherapy or chemotherapy; so we can distribute work amongst us and we can sort of separate roles. So less work for me (laughs) and learning for (CTR)"</i> (SpR4)

<i>Professional social validity</i>	Social importance and acceptability of the intervention for the healthcare workforce and whether the interventions address important problems that healthcare staff encounter e.g. Teamwork	<i>"(CTR) is a valuable member I think as a team, definitely part of the team."</i> (Clin.Onc4) <i>"Every time when we actually get new techniques and new things, the CTR should actually be involved. So we have been recently in touch with the radiology department, so we're trying to get MRI in for our (speciality) patients and (CTR) is going to liaise and organise everyone."</i> (ClinOnc4) <i>"I had a patient whose skin reactions were far worse than we'd anticipated and it really was beyond me the right advice to give when it was such extreme skin changes. So, I was straight on the phone to (CTR) to ask for advice. So, (CTR) is at the end of the phone or email whenever I need more experienced advice that I can't give straight away".</i> (Nurse4)
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Organisational impact:

Domains	Indicators	Examples of impact
<i>Organisational competence</i>	Extent to which practitioners contribute to an efficient and effective organisation in terms of business concerns of finance, governance and legal requirements	<i>The patients don't have to wait to see a doctor because (CTR) is easily available. Now (CTR) is looking at all those patients, the role is in fact very useful in this department."</i> (SpR4) <i>"That's been one of the biggest things is last part of this year; they've been trying to get rid of us basically from the theatre list for the (speciality) patients. That's been hard because the other things cost...they get paid more for other procedures. So, I had quite a battle with that one but is better and I have kept our patients"</i> (CTR4)
<i>Organisational social significance</i>	This concerns policy objectives relating to organisation e.g. national and local priorities,	<i>"I was talking earlier about involving other radiographers. We're doing the skin...uhm, we are setting up a group for the, uhm, monitoring skin of patients or sites... which we're...I'm working with somebody in Nottingham and I know somebody in Leicester. You know, sort of gradually expanding it</i>

	contributing and developing policies and generating new knowledge	<i>out so that, uh, we can get a bit...bit more evidence.” (CTR4)</i> <i>“So not only clinical work there is a lot of other things that (CTR) does. (CTR) actually put down a sort of a guideline for the (speciality) patients so for our patient who’s coming for (speciality).”</i> <i>(Clin.Onc4)</i>
<i>Organisational social validity</i>	Social importance and acceptability of practitioner intervention for the organisation and whether the interventions address important issues for the organisation and whether the outcomes are meaningful to the organisation in terms of achieving its core values.	<i>“Hmm, how can I achieve some of these things?” Which is why I stepped up for the, uh, vice...co-chair of the (speciality) group and vice chair of the, uhm, consultants group. (CTR4)</i> <i>I’m working with diagnostic consultant radiographer, who, uhm, uhm, we’re just doing about the four...four pillars, actually a position paper that’s what we’re writing about and how to achieve them and the fact that some people might not be unable to be at that level and what... what can be done about it. (CTR4)</i> <i>“For our joint clinic, we did an audit, patient satisfaction survey, and got a really good feedback and then just carried on really. The service hasn’t changed since then.” (Nurse4)</i>

APPENDIX P Dimensions of Impact framework for case study 5

Professional impact:

Domains	Indicators	Examples of impact
<i>Professional Competence</i>	Impact on confidence and competence of healthcare workforce (e.g. effecting knowledge, skills, behaviour, attitudes)	<i>"There is a great deal of mutual respect; (CTR) has the knowledge and skills and has proved it. (CTR) has gained the confidence of my colleagues simply by able to demonstrate the skills."</i> (Clin.Onc5) <i>"(CTR) knows anything I need to ask as well as things like paperwork that needs to be filled or you know. (CTR) has got the clinical skills as well as being able to request or any audits that need doing or know anything around the service. You know, that kind of things, (CTR) is very clued up with that kind of things as well."</i> (Nurse5)
<i>Quality of working life</i>	Healthcare workforce on the perspective on the impact on the quality of their working life arising from the practitioner intervention (e.g. job satisfaction, morale and motivation.	<i>"It's about getting radiographers who are well placed to do these roles and provide them with an opportunity; it's allowing recognition of what radiographers can actually do which is, great clinical skills and um, great decision making skills."</i> (CTR5)
<i>Professional social significance</i>	Extent to which the practitioners interventions are important to professional outcomes e.g. workload, work distribution, turnover	<i>"Yeah if you look at impact on the service need, the role is a very important role and is essential to the pathway. The workload is shared and can therefore ease the service and make it run better"</i> (SpR5) <i>"As a doctor, I think it's a very important role and very essential part of our team...we share the workload and (CTR) can singlehandedly take decisions and go ahead with treatments...a big assistance"</i> (SpR5)

	across the workforce.	<i>"In my area of practice and area that...where there's a lot of scope to do, to invest the time that maybe the oncologists and those sort of people don't have. So, you can actually make a better pathway for the...for the patient." (CTR5)</i>
<i>Professional social validity</i>	Social importance and acceptability of the intervention for the healthcare workforce and whether the interventions address important problems that healthcare staff encounter e.g. teamwork	<i>"I can refer to (CTR) to ask for advice if I feel I need it first. (CTR) is able to help move that treatment if needed forward. It's the link and liaising with (CTR) regarding radiotherapy. And I understand that (CTR) is able to plan the radiotherapy and advise the radiotherapy department and give the treatment too." (Nurse5)</i> <i>"It's a clinical leadership role and it's about um how I manage the patients away from just having the radiotherapy and delivering the, the actual elements for it. It's how they come into the department, how they'll manage within that and also, it's about talking to the department about other elements of it as well, bringing together the wider elements of radiotherapy practice and not just the clinical stuff" (CTR5)</i>

Organisational impact:

Domains	Indicators	Examples of impact
<i>Organisational competence</i>	Extent to which practitioners contribute to an efficient and effective organisation in terms of business concerns of finance, governance and legal requirements	<i>"For the patient, I think it's excellent in as much as it helps us to ensure they get their treatment in a timely fashion. I think it's also very reassuring for them to know that there is that service and that specialist knowledge there that they'll be able to get straight to somebody rather than sort of getting in touch with a doctor, waiting for the doctor on-call, to try to sort it out." (Nurse5)</i> <i>"In their point of view, they get to be seen...it gets them seen earlier because...as well as linking in with myself, I can then go the oncologist</i>

		<i>that's here and get anything I need sorted out for them as well. So patient care, journey impacts hugely, beneficially"</i> (Nurse5) <i>"I think the whole thing has worked really well. I think if it was just, if there was nobody there to be able to coordinate the care, especially with us being across the sites, it would be a lot more difficult. It would take a lot more of my time, which obviously would take away from other patients and as well if they are not on our oncology ward, if they are still in A&E or any of the emergency wards, because there aren't beds on the oncology ward, then it will be a lot more difficult you know to communicate things over really and keep that consistency going. So in that respect, I just think it's really vital for us and for the patients."</i> (Nurse5)
<i>Organisational social significance</i>	This concerns policy objectives relating to organisation e.g. national and local priorities, contributing and developing policies and generating new knowledge	<i>"Well there's a peer review measures anyway isn't there. At least we know we are meeting those because of having (CTR) in place. The pathway we have in place now having come into post myself and being able to look to see what pathways were there is more robust and a lot simpler. So, again service provision in that respect is more consistent"</i> (Nurse5)
<i>Organisational social validity</i>	Social importance and acceptability of practitioner intervention for the organisation and whether the interventions address important issues for the organisation and whether the outcomes are meaningful to the organisation in terms of achieving its core values.	<i>"As the chair of the consultant network group it is valuable as a network I think that group I think is really, really good and they do put a lot of stuff together."</i> (CTR5) <i>"I am the first CTR, it was such a...like an opportunity, not for me as an individual but for the profession, to showcase what we could do"</i> (CTR5)

APPENDIX Q Dimensions of Impact framework for stakeholders

Professional impact:

Domains	Indicators	Examples of impact
<i>Professional Competence</i>	Impact on confidence and competence of healthcare workforce (e.g. effecting knowledge, skills, behaviour, attitudes)	
<i>Quality of working life</i>	Healthcare workforce on the perspective on the impact on the quality of their working life arising from the practitioner intervention (e.g. job satisfaction, morale and motivation.	<i>"I think it's also very good because it supports career development for individuals and to gain new skills and should have a really sort of boost to their career development"</i> (HEE Rep) <i>"It's about actually empowering the radiographers, the workforce from advanced practice and beyond"</i> (SCoR Rep, C) <i>"Think it's an excellent role. I think it's a fantastic opportunity. Radiographers, over a period of time, gain an incredible amount of skills across many different domains"</i> (SCoR Rep, A)
<i>Professional social significance</i>	Extent to which the practitioners interventions are important to professional outcomes e.g. workload, work distribution, turnover across the workforce.	

<i>Professional social validity</i>	Social importance and acceptability of the intervention for the healthcare workforce and whether the interventions address important problems that healthcare staff encounter e.g. teamwork	
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Organisational impact:

Domains	Indicators	Examples of impact
<i>Organisational competence</i>	Extent to which practitioners contribute to an efficient and effective organisation in terms of business concerns of finance, governance and legal requirements	<i>“It is clear that the consultant role provides cost effective care and should be embedded and supported by everybody”</i> (SCoR Rep, A) <i>“The benefits of the role in terms of moving services forward and acknowledging what Allied Health Professionals could offer to services”</i> (SCoR Rep, B)
<i>Organisational social significance</i>	This concerns policy objectives relating to organisation e.g. national and local priorities, contributing and developing policies and	

	generating new knowledge	
<i>Organisational social validity</i>	Social importance and acceptability of practitioner intervention for the organisation and whether the interventions address important issues for the organisation and whether the outcomes are meaningful to the organisation in terms of achieving its core values.	