



The
University
Of
Sheffield.

Access to Electronic Thesis

Author: Stuart Anthony Smith
Thesis title: Identifying the Key Elements of Effective Leadership in Interdisciplinary
Heath and Social Care Teams
Qualification: PhD

This electronic thesis is protected by the Copyright, Designs and Patents Act 1988. No reproduction is permitted without consent of the author. It is also protected by the Creative Commons Licence allowing Attributions-Non-commercial-No derivatives.

If this electronic thesis has been edited by the author it will be indicated as such on the title page and in the text.



THE UNIVERSITY OF SHEFFIELD

Identifying the key elements of effective leadership in interdisciplinary health and social care teams

Their impact on services, staff and patient
outcomes

A PhD Thesis Submitted by: Stuart Anthony (Tony) Smith
School of Health and Related Research

January 2012

ABSTRACT

Aims

This study aimed to identify the key elements of effective leadership in interdisciplinary health and social care teams providing community rehabilitation and intermediate care in England, and investigate their impact on services, staff, team dynamics and patient outcomes.

Methods

This mixed methods health services research investigated workforce issues through the use of a range of methods including a literature review, qualitative study and a cross sectional quantitative study. Fifteen staff interviews were conducted during the qualitative study. Data was recorded, transcribed and analysed thematically using a template approach. The cross-sectional study generated data from 10 teams, including 210 staff and 2210 patients.

Results

The results of the qualitative study show that because of the interdisciplinary nature of the workforce in community rehabilitation and intermediate care services and the unique context in which they operate, interdisciplinary team leadership (IdTL) does require a distinctive form of leadership. However, IdTL does demonstrate many of the same elements as generic theories of team leadership.

The quantitative study found that there were significant associations between: Service structure and working practices and IdTL; IdTL and staff and team behavioural dynamics; staff behavioural dynamics and team behavioural dynamics.

No direct relationship was found between IdTL and patient outcomes. Weak statistical relationships were found between staff and team behavioural dynamics, and patient outcomes

Conclusions

The research shows that effective IdTL can significantly improve staff and team behavioural dynamics. There is some indicative evidence of the effect of staff and team behavioural dynamics on patient outcomes. These results were achieved with a sample of only 10 teams, which provides encouragement that leadership in IdTL is worthy of further investigation.

Concerning all acts of initiative (and creation) there is one elemental truth, the ignorance of which kills countless ideas and splendid plans: that the moment one definitely commits oneself, then providence moves too. All sorts of things occur to help one that would not otherwise have occurred. A whole stream of events issues from the decision. Raising in ones favour all manner of unforeseen incidents and meetings and material assistance which no man would have dreamed would come his way. I have learned a deep respect for one of Goethe's couplets: "Whatever you can do, or dream you can, begin it. Boldness has genius, magic and power in it. Begin it now."

W.H. Murray (1951), The Scottish Himalayan Expedition, London, Dent

Acknowledgements

The above quotation brings to mind that providence has lent me much good fortune in this endeavour and that more people have helped and supported me than I can count.

In particular though, I would like to thank the following people for their direct acts of kindness and assistance throughout this project.

I would like to give a special thank you to Professor Pam Enderby for encouraging and cajoling into undertaking the PhD in the first place; and for patience, commitment and unstinting support throughout. Without you Pam it would never have happened so I share this achievement with you in particular. Thanks also to Professor Mike Campbell, for his patience and good humour in tutoring me in the statistics I required to undertake the work. Again, it is hard to see how I would have managed it without you.

A big thank you should also go to Professor Susan Nancarrow, who was for a time in year two, my supervisor. Despite huge commitments, Susan has over the last 4 years, managed to combine having and raising children with a brilliant academic career, and also emigrating. She still found time though whilst marshalling all these commitments - the amount of which would have sunk most mere mortals - to read drafts of my work, advise and encourage me. Susan, your consistent kindness, calmness and huge intelligence were both appreciated and inspirational.

A huge thank you also goes to the rest of the EEICC team. Steve and Adele, you have provided me with so much support, I can't begin to think of how to thank you. To Andrew Booth also go thanks for help and assistance with the literature searches and review.

I would also like to place on record my profound thanks to my friend and colleague, Professor Malcolm Whitfield, who found two months of funding to cover my salary to allow me finish writing a full draft. Finally, I would like to thank my colleagues in the CPOD team, who took over my teaching workload so I had the time to write. I am not sure I would have finished without this time and assistance.

Finally, I would like to thank my friends and family for supporting and generally putting up with me over the last three and a half years. There are times when I was struggling when I wasn't the greatest of company. In particular to my daughter Sian, who has endured the consequences of this great endeavour more than anyone else. To my Mum for always being there and doing a final read through and edit. And, to my Dad and in particular his wife Deirdre for unstinting support and stepping in with childcare when I desperately needed a break.

Table of Contents

ABSTRACT.....	1-2
<i>Aims.....</i>	<i>1-2</i>
<i>Methods.....</i>	<i>1-2</i>
<i>Results.....</i>	<i>1-2</i>
<i>Conclusions.....</i>	<i>1-2</i>
ACKNOWLEDGEMENTS.....	1-4
TABLE OF CONTENTS.....	1-6
TABLES.....	1-10
FIGURES.....	1-13
GLOSSARY OF TERMS.....	1-15
CHAPTER 1 INTRODUCTION.....	20
1.1 BACKGROUND LEADERSHIP STUDIES AND HEALTHCARE	21
1.2 AIMS AND OBJECTIVES.....	24
1.2.1 <i>Aims.....</i>	<i>24</i>
1.2.2 <i>Objectives.....</i>	<i>25</i>
1.3 CONTRIBUTION AND DIFFERENTIATION.....	26
1.3.1 <i>Contribution.....</i>	<i>26</i>
1.3.2 <i>Differentiation.....</i>	<i>29</i>
1.4 ETHICS	30
1.5 DEFINITIONS AND TERMINOLOGY.....	30
1.5.1 <i>Interprofessional vs. Interdisciplinary.....</i>	<i>31</i>
1.5.2 <i>The Nature of Participating Teams.....</i>	<i>32</i>
1.5.3 <i>Health vs. Social Care.....</i>	<i>33</i>
1.6 STRUCTURE OF THE THESIS.....	33
CHAPTER 2 LITERATURE REVIEW.....	35
2.1 INTRODUCTION.....	36
2.2 METHODS.....	36
2.3 REVIEW QUESTIONS/OBJECTIVES.....	36
2.4 SEARCH STRATEGY.....	38
2.5 INCLUSION AND EXCLUSION CRITERIA.....	40
2.6 ASSESSMENT OF METHODOLOGICAL QUALITY.....	41
2.7 RESULTS	41
2.8 WHAT IS LEADERSHIP?	42
2.8.1 <i>Introduction.....</i>	<i>42</i>
2.8.2 <i>Defining leadership.....</i>	<i>42</i>

2.8.3	<i>Distinguishing between management and leadership</i>	43
2.8.4	<i>The development of leadership theory</i>	47
2.9	LEADERSHIP IN HEALTHCARE	59
2.10	TEAM WORKING AND LEADERSHIP IN TEAMS	66
2.10.1	<i>The key elements of effective leadership in teams</i>	69
2.10.2	<i>Evidence of the Effectiveness of Generic Leadership Models in Teams</i>	76
2.11	INTERDISCIPLINARY TEAM WORKING IN HEALTH AND SOCIAL CARE	78
2.11.1	<i>Introduction</i>	78
2.11.2	<i>Background</i>	78
2.11.3	<i>Evidence of the benefits of Interdisciplinary teams</i>	85
2.11.4	<i>Factors supporting Interdisciplinary Team working</i>	89
2.11.5	<i>Conclusions</i>	100
2.12	THE ROLE OF LEADERSHIP IN INTERDISCIPLINARY TEAMS	102
2.12.1	<i>Defining Interprofessional Team Leadership</i>	102
2.13	SUMMARY AND CONCLUSIONS	110
2.13.1	<i>Final Integrated Framework</i>	115
CHAPTER 3	RESEARCH QUESTIONS	119
3.1	RESEARCH QUESTIONS.....	120
3.1.1	<i>Introduction</i>	120
3.1.2	<i>Core themes and issues arising from the literature review</i>	120
3.1.3	<i>Research Aims and Objectives</i>	122
3.1.4	<i>Research Questions</i>	123
CHAPTER 4	RESEARCH METHODS	124
4.1	INTRODUCTION	125
4.2	OVERALL RESEARCH DESIGN.....	125
4.3	EXPLANATION OF DIFFERENT STUDY METHODS USED	130
4.4	QUANTITATIVE METHODS.....	131
4.4.1	<i>Recruitment of Teams</i>	131
4.4.2	<i>Eligibility</i>	132
4.4.3	<i>Participants</i>	133
4.4.4	<i>Patients</i>	133
4.4.5	<i>Research Process</i>	133
4.4.6	<i>Analysis</i>	134
4.5	DATA COLLECTION TOOLS	137
4.5.1	<i>Service Structure data</i>	137
4.5.2	<i>Leadership data</i>	138
4.5.3	<i>Team Outcome Data</i>	142
4.5.4	<i>Patient Outcome Data</i>	143
4.6	QUALITATIVE METHODS.....	148
4.6.1	<i>Data Collection</i>	148
4.6.2	<i>Sampling & Recruitment</i>	148
4.6.3	<i>Analysis</i>	149

4.7	OUTLINE OF METHODS USED TO ANSWER EACH RESEARCH QUESTION	152
4.7.1	<i>Introduction</i>	152
4.7.2	<i>Question 1</i>	152
4.7.3	<i>Question 2</i>	153
4.7.4	<i>Question 3</i>	155
4.7.5	<i>Question 4</i>	157
4.7.6	<i>Question 5</i>	159
4.7.7	<i>Question 6</i>	160
4.8	METHODOLOGICAL RATIONALE.....	163
4.8.1	<i>Qualitative Study</i>	163
4.8.2	<i>Quantitative - Cross-sectional Study</i>	164
4.9	ETHICAL CONSIDERATIONS.....	165
4.9.1	<i>Qualitative Study</i>	165
4.9.2	<i>Cross-sectional Study</i>	165
CHAPTER 5	QUALITATIVE STUDY	169
5.1	INTRODUCTION.....	170
5.2	REVIEW OF RESEARCH OBJECTIVES.....	170
5.3	RESULTS	171
5.3.1	<i>Person focused leadership behaviours</i>	172
5.3.2	<i>Task focused Leadership (formal structuring behaviours)</i>	191
5.3.3	<i>Negative Leadership Behaviours</i>	199
5.3.4	<i>Background Issues</i>	202
5.4	KEY FINDINGS.....	208
5.4.2	<i>Mapping the final IdTL framework and MLQ</i>	215
CHAPTER 6	CROSS-SECTIONAL STUDY.....	219
6.1	REVIEW OF RESEARCH OBJECTIVES.....	220
6.2	RESULTS	221
6.2.1	<i>Introduction</i>	221
6.2.2	<i>Participants and Response Rates</i>	221
6.2.3	<i>Question 2</i>	229
6.2.4	<i>Question 3</i>	235
6.2.5	<i>Question 4</i>	254
6.2.6	<i>Question 5</i>	257
6.2.7	<i>Question 6</i>	263
6.3	OVERALL FINDINGS OF THE CROSS-SECTIONAL STUDY	272
CHAPTER 7	DISCUSSION	276
7.1	INTRODUCTION	277
7.2	SUMMARY OF THE RESEARCH	278
7.3	RESEARCH FINDINGS	281
7.3.1	<i>Question 1</i>	281
7.3.2	<i>Question 2</i>	284
7.3.3	<i>Question 3</i>	288

7.3.4	<i>Question 4</i>	293
7.3.5	<i>Question 5</i>	294
7.3.6	<i>Question 6</i>	296
7.4	RESEARCH LIMITATIONS.....	300
7.4.1	<i>Is there such a thing as Intermediate Care?</i>	300
7.4.2	<i>Literature Review</i>	300
7.4.3	<i>Qualitative study limitations</i>	301
7.4.4	<i>Quantitative study limitations</i>	303
7.5	IMPLICATIONS FOR FURTHER RESEARCH.....	307
7.6	IMPLICATIONS FOR POLICY.....	309
7.7	IMPLICATIONS FOR SERVICES	311
7.8	OVERALL CONCLUSIONS.....	314
	BIBLIOGRAPHY	317
	APPENDICES	334

Tables

Table 1-1 – Personal Contribution to the wider research.....	27
Table 1-2 – Conceptual differences between the terms –professional and –disciplinary (Nancarrow et al., 2011).....	32
Table 2-1 – Databases Searched	38
Table 2.2 – Key Search Terms for Interdisciplinary Team Leadership.....	39
Table 2.3 - Key search terms for outcomes of Interdisciplinary team leadership	40
Table 2.4 - A comparison of the NHS Leadership Qualities Framework (2005) and the NHS Leadership Framework 2011	62
Table 2.5 - Attributes of an Effective Nursing Leader (Smith et al., 2009).....	64
Table 2.6 - Generic Team Leadership Framework	75
Table 2.7 - Percentage of variance in team performance outcomes accounted for by leadership behaviours (Burke et al., 2006).....	76
Table 2.8 - Common Characteristics of Four Types of Team (Yukl, 2006, p319) with Inter-agency team type added	81
Table 2.9 - Advantages of Interprofessional team Care (Grant and Finnocchio, 1995)	85
Table 2.10 – Factors Supporting Interdisciplinary Team working	100
Table 2.11 - Interdisciplinary Team Leadership Framework.....	104
Table 2.12 - Behavioural indicators for interprofessional competency ‘knowledge of the professional role of others’ (MacDonald et al., 2010).	110
Table 2.13 - Literature Review – Final IdTL Framework	116
Table 4.1 - Dimensions of the Multi-factor leadership questionnaire (Avolio and Bass, 2004)	141
Table 4.2 - Domains of the Workforce Dynamics Questionnaire.....	142
Table 4.3 - Dimensions of the TOMS questionnaire	143
Table 4.4 - Operational codes and descriptors for TOMS rating scale.....	144
Box 4.5 - Sample Question from EQ-5D	146
Table 4.6 - Variables used to answer Question 2.....	154
Table 4.7 - Analysis Protocol for Question 2.....	155
Table 4.8 - Variables used to answer Question 3.....	156
Table 4.9 - Analysis Protocol for Question 3.....	157
Table 4.10 - Variables of interest to answer Question 4.....	158
Table 4.11 - The analysis protocol for the primary hypothesis question 4.....	158
Table 4.12 - Predictor and Outcome variables used to answer Question 5.....	159
Table 4.13 - Analysis protocol for Question 5, Primary Hypothesis	160

Table 4.14 - Predictor and Outcome variables used to answer Question 6.....	160
Table 4.15 - Analysis protocol for Question 5, Primary Hypothesis	161
Table 4.16 - A summary of sources of data and tools used	162
Table 4.17 - Summary of ethical arrangements for data gathering.....	167
Table 5.1 - The profession/role of team members interviewed	171
Table 5.2 - The final Interdisciplinary Team Leadership framework.....	172
Table 5.3 - The number of comments found for IdTL factors identified.....	208
Table 5.4 - a comparison between the findings of the literature review and the qualitative study.	212
Table 5.5 - The Final IdTL framework mapped against the Multifactor Leadership Questionnaire.....	216
Table 6.1 - Number of Team Responses.....	222
Table 6.2 - Characteristics of participating teams.....	224
Table 6.3 - Multifactor Leadership Questionnaire Summary Team Scores.....	226
Table 6.4 – WDQ scores for participating teams.....	227
Table 6.5 Summary of Patient Outcome Data by team.....	228
Table 6.6 - Variables used to answer this question.....	230
Table 6.7 - The analysis protocol and results for hypothesis 2a	231
Table 6.8. – Summary of the analysis protocol and results for the secondary exploration of data Question 2.....	232
Table 6.9 - Variables Used to Answer Question 3.....	236
Table 6.10 - Analysis protocol and results for question 3., primary hypothesis	237
Table 6.11 - Analysis protocol and results for question 3. data exploration....	239
Table 6.12 - Predictor and Outcome variables used to answer Question 4.....	254
Table 6.13 - The analysis protocol and results for Question 4 primary hypothesis.....	255
Table 6.14 - The analysis protocol and results for Question 4 primary hypothesis.....	256
Table 6.15 - Predictor and Outcome variables used to answer Question 5.....	258
Table 6.16 - Analysis protocol and results for Question 5, Primary Hypothesis	258
Table 6.17 - Protocol for data exploration and results of the analysis for Question 5.	260
Table 6.18 - Predictor and Outcome variables used to answer Question 6.....	264
Table 6.19 - Analysis protocol and results for Question 6, Primary Hypothesis	264
Table 6.20 - Protocol for data exploration and results of the analysis for Question 5.	266
Table 6.21 - Summary of findings from Cross Sectional Study	273

Table 7.1 - The significant relationships between predictor and outcome variables found for question 3, with the amount of variation explained by each model and whether the association was positive or negative.....288

Table 7.2 showing the significant relationships between predictor and outcome variables found for question 6, with the amount of variation explained by each model and whether the association was positive or negative/298

Figures

Figure 1. Diagramme of Overall Research Design (EEICC Project).....	126
Figure 2. Flow chart of cross-sectional PhD study	127
Figure 3. Analytic Framework for Cross-Sectional Study.....	129
Figure 4. The relationship between Transformational and Transactional Leadership to Enhanced Motivation and Performance Beyond Expectation (Avolio & Bass: 1999)	138
Figure 5. WTE staff involved in the IMT intervention shown by discipline/profession as a percentage (n=253)	223
Figure 6. Matrix scatter plot showing the relationship between the ratio of patients to staff and the ratio of team members to team leader, and person-focused IdTL with lines of best fit.	231
Figure 7. The relationship between the Ratio of Team Members to Team Leader and Clarity of Leadership with best-fit line	233
Figure 8. Scatter plot matrix demonstrating the relationship between IdTL variables and Leadership Outcomes (Satisfaction, Effectiveness and Extra-Effort) with lines of best fit.....	238
Figure 9. Scatter plot matrix demonstrating the relationship between IdTL variables and Team working with lines of best fit	240
Figure 10. Scatter plot matrix demonstrating the relationship between IdTL variables and Clarity of Leadership with lines of best fit	241
Figure 11. Scatter plot matrix demonstrating the relationship between IdTL variables and WDQ Management with lines of best fit	243
Figure 12. Scatter plot matrix demonstrating the relationship between IdTL variables and WDQ Training/Career Progression with lines of best fit.....	244
Figure 13. Matrix Scatter plot demonstrating the relationship between IdTL variables and Sense of Direction with lines of best fit.....	246
Figure 14. Scatter plot matrix showing the relationship between IdTL variables and Sense of Direction with lines of best fit.....	248
Figure 15. Scatter plot matrix demonstrating the relationship between IdTL variables and Intention to leave employer within the next 12 months with lines of best fit	250
Figure 16. Scatter plot matrix demonstrating the relationship between IdTL variables and Intention to Leave the Profession in the next 12 months.....	252
Figure 17. Scatter plot matrix showing the relationship between Role Flexibility and Communication, and Eq-5D and TOMS change scores.....	261

- Figure 18. Scatter plot matrix demonstrating the relationship between Leadership Outcomes, Satisfaction and Team working with lines of best fit...265
- Figure 19. Scatter plot matrix demonstrating the relationship between Intention to leave employer in the next 12 months and intention to leave profession in the next 12 months, and Team working, with lines of best fit ...268
- Figure 20. Scatter plot matrix demonstrating the relationship between Leadership Outcomes, Communication, Training/Career Progression and Sense of Direction 270
- Figure 21. Logic Model - the significant relationships observed in Question 2 287
- Figure 22. Logic Model - the significant relationships observed in Question 3 292
- Figure 23. Logic Model - the significant relationships observed in Question 6 299

Glossary of Terms

Allied Health Professional (AHP)	Allied health professional refers to professions aligned to medicine, excluding nurses. These professions include: Arts Therapists, Chiropodists, Dieticians, Occupational Therapists, Orthotists, Paramedics, Physiotherapists, Prosthetists and Psychologists, Psychotherapists, Radiographers and Speech and Language Therapists
Care provider	Any person employed in formal delivery of care for a service user, either professionally trained staff or non professional staff
Community rehabilitation	Community-based services including a range of professions and support workers (physiotherapists, occupational therapists, nurses, speech and language therapists, dieticians, psychologists and pharmacists etc) aimed at increasing and promoting independence and autonomy of persons with disabilities
Crag	Community Rehabilitation Advisory Group
CRAICS	Community rehabilitation and intermediate care services
CRT	Community Rehabilitation Team
DoH	Department of Health
Education	A formal process, which leads to a qualification that is normally a prerequisite for entry to a health profession. It is usually undertaken by tertiary institutions.
EEICC	Enhancing the Effectiveness of Interprofessional Teamworking: Costs and Outcomes. The larger project that this thesis sat within. The NIHR SDO funded the project.
EQ-5D	A generic, patient-reported, standardised instrument to measure health status or health-related quality of life. Formerly called the

	EuroQOL
Extended scope practitioner	Practitioners with special interests are GPs, nurses, therapists and other health professionals who develop an additional expertise which enables them to expand their clinical practice in a defined area
GMC	General Medical Council
HPC	Health Professions Council
HSC	Health Service circular – Department of Health policy guidance document for health services
IC	Intermediate care
IdT	Interdisciplinary Team, Interdisciplinary Team working
IdTL	Interdisciplinary Team Leadership
IMT	Interdisciplinary management tool
Interdisciplinary	A team of individuals including professionals and support workers frequently from different agencies (health and social care) working with common policies and approaches focused on a clear goal
Interdisciplinary working	Outcomes can only be accomplished through the interactive effort and contribution of the disciplines involved; this implies a high level of communication, mutual planning, collective decisions and shared responsibilities. These independent contributions have to be co-ordinated.
Intermediate care	Community-based services provided, mostly for older people, aiming at avoiding unnecessary admission to hospital and/or facilitating early discharge from hospital and preventing admission to long term residential and nursing care
Interprofessional Team	A group of professionals working closely together with blurred boundaries of their roles.
Interprofessional working	Team collaboration, which involves coordination of professional expertise to optimise the care of the service user. An

	inter-professional team will have regular meetings, formalised systems for the exchange of information and work to a joint treatment plan with common goals for the service user.
IPE	Inter-professional education
LAC	Local Authority Circular– Department of Health policy guidance document for local authorities
MDT	Multidisciplinary Team
MLQ	Multi-factor Leadership Questionnaire
Multidisciplinary Team	A group of practitioners with different training who meet regularly to coordinate their work providing services to one or more service users in a defined area. Each team member brings expertise to address problems separately.
Multidisciplinary working	In multidisciplinary teams members of different professions or disciplines assess or treat a client/patient independently and share only information with each other. The team is focused on the task, not the collective working process, and contributions are made either in parallel or sequentially to each other with minimum communication. Each contribution stands alone and can be performed without the input from others.
Multiprofessional	A group of professionals working closely alongside each other but maintaining professional boundaries
NHS	National Health Service
NLU	Nurse Led Unit
NMC	Nursing and Midwifery Council
NSF	National Service Framework
NVIVO	Software package for qualitative data analysis
NVQ	National Vocational Qualification
PCG	Primary Care Group
PCT	Primary Care Trust
PPI	Patient and Public Involvement

Professional	An individual belonging to a group which has a clear definition of the elements of work over which the individual has autonomy or control; legislative recognition of the profession by the state, protecting the profession from encroachment by another profession and ownership over an exclusive body of knowledge and skills and a code of ethics that protects their legitimacy
QALY	Quality Adjusted Life Years
RCT	Randomised Controlled Trial
RSW	Rehabilitation Support Workers
Role	A function designed to achieve a defined output or outcome
Role substitution	The ability of a worker from one discipline to adopt the roles of a worker from another discipline
SAP	Single Assessment Process
SCW	Social Care Workers
SEC	Service Evaluation Conference
Service user	A recipient of health or social care services. Depending on the context, the service user may include the family and / or carers of the person directly receiving the service
Skill	A level of knowledge or competence that is required to successfully perform a work-related function or role
Skill mix	Can refer to the mix of disciplines involved in care, the mix of skills within a disciplinary group or the skills possessed by an individual worker
Support worker / support staff (SS)	An individual who works with professionally qualified staff who may have health &/or social care training such as National Vocational Qualifications (NVQ) but who do not have tertiary or equivalent qualifications and who does not have legislative recognition of professional status by the state. Titles included under this category include: Technical instructors, Rehabilitation

	assistants, Social work assistants, Physiotherapy assistants, Rehabilitation technicians, Psychology assistants, Occupational Therapy technicians, Carers, Intermediate care technicians, Care management assistants, Therapy assistant, Technician & Home Enablers
TLS	Team Learning Set
TOMS	Therapy Outcomes Measures
Training	A learning process that is used to augment vocationally acquired skills or to upgrade and enhance skills obtained through prior educational experience
UK	United Kingdom
USA	United States of America
WDQ	Workforce Dynamics Questionnaire
Workforce configuration	The combination of skill mix, training, delegation, substitution and specialization and role overlap
Workforce development	Activities that increase the capacity of individuals to participate effectively in the workplace. It incorporates components of workforce planning, education and training and management
Workforce planning	A component of workforce development that aims to ensure that there are sufficient staff with the appropriate skills to deliver quality care to patients and secondly, to predict and plan for the future workforce needs
WTE	Whole Time Equivalent

Chapter 1 Introduction

1.1 Background Leadership Studies and Healthcare

Leadership in organisations has been the subject of study by social scientists for many years. In the 1930's Lewin et al. (1939) investigated the relationship between a manager's leadership style and the climate that existed within their department or organization and concluded, that these factors were key influencers of worker performance. Since this time the field of leadership research has grown and developed in the field of management and organizational science and today there is a prevailing view that leadership plays a vital role in the creating of high performing organisations.

In European healthcare systems the application of managerialism and market forces have come to be seen as key mechanisms to improve the performance of the largely state funded healthcare systems. This is epitomised in the UK by development of the New Public Management paradigm (Hughes, 2003), which asserts that more orientation to market forces will lead to greater cost efficiency in the public sector. With regards to UK health services these views found their apotheosis in the White paper: Working for Patients (1989), which resulted via the NHS and Community Care Act (1990) and the NHS Internal Market act (1991) in the implementation of an NHS internal market and a split between purchasers and providers.

This focus on managerialism as a reform mechanism has, more recently, resulted in leadership becoming a focus of policymakers within health and social care. In the last decade, the National Health Service (NHS) England and Wales has increasingly emphasized the importance of leadership as a means of delivering high quality care and treatment and maximising the impact of health system change. According to the Department of Health's plan for investment and reform of the NHS (Department of Health, 2001c, p 44) "*Delivering the plan's radical change programme will require first*

class leaders at all levels of the NHS and so we need clinical and managerial leadership throughout the service". Hunt (2000) asserted that effective leadership was crucial to the performance of the NHS plan and that there was an urgent requirement for leaders who could embrace and drive through the radical transformation of NHS services. This message has remained consistent. In 2005, Hunt told the House of Commons Health Workforce Planning committee, *"...if you are asking me what is one of my top priorities in workforce planning, it is in enhancing leadership skills of people in individual organisations so that they lead this change."* (Health Committee, 2007, p38).

The focus on leadership as a mechanism for transforming health services and improving performance continues. A 2007 NHS Confederation report acknowledged that: NHS leaders have a short term, "upwards" focus on targets and DoH policy rather than on what is happening within trusts, and; that there was disempowerment of leaders at lower levels of the organisation, *"who are often sandwiched between senior clinicians and senior managers"* (NHS Confederation, 2007, p3). Unsurprisingly, there has been an increasing focus on clinical leadership and strengthening the working relationships between NHS management and clinicians, over the last few years.

Since 2009, a key driver of reform has been the increased financial pressure on the NHS. This has led to calls for leadership of bottom up innovation, rather than utilising the national machinery of policy and targets (NHS Confederation, 2009). However, according to a more recent King's Fund study (2011) NHS Leadership thinking still appears to be focused on improving the strategic skills of senior leaders. The report calls for an extension of leadership development at all levels and replacement of the heroic leadership model with an increased focus on shared leadership. In keeping with the findings of an NHS Confederation report (2009) it is

envisaged that adopting a bottom-up approach will increase innovation and entrepreneurial thinking.

The research findings of a study by Mason, Carter et al support this notion. They found evidence that the management style of the Lead Clinician in Emergency Departments was one of 3 factors that accounted for 35.5% of variability in waiting times (Mason et al., 2006). Further, *“that a participative management style was associated with inclusivity of staff, reduced role conflict with staff associated with the department, increased information on work performance, increased leader support, and reduced autonomy and control for nurses, doctors and managers. Further, a participative management style of the Lead Clinician was associated with increased collaboration with other departments in the Trust and a more positive view of morale in the Emergency Department”* (2006, p.10). One of the recommendations of the study is that the effect of leadership on both staff and team level variables (i.e. motivation, satisfaction, morale, absenteeism) and key patient outcomes (waiting times, patient safety and quality of care, mortality, transfer of costs) requires further exploration. It also recommended that intervention studies are required to better understand the effects of changing practices on performance.

In part this focus on leadership is a response to new complexities in the planning and delivery of services as a result of developments in policy to introduce; patient centred care, interprofessional working, the push for workforce flexibility (Department of Health, 2000a, Department of Health, 2000d, Department of Health, 2006b) coupled with patient choice (Department of Health, 2006a) and new financial arrangements (Department of Health, 2006b, Department of Health, 2004c).

As a result of these changes many services have been reconfigured to address the needs of people with long-term conditions living in the community. At the same time, NHS employers are required to improve the working lives of staff, address recruitment and retention issues and optimise

staff and service performance (Department of Health, 2004a, Department of Health, 2001b).

Several National Service Frameworks and policies related to the support of older people and those with long-term conditions have promoted interprofessional practice over recent years (Department of Health, 1997, Department of Health, 1998, Department of Health, 2000b, Department of Health, 2000c, Department of Health, 2001a, Department of Health, 2005a, Department of Health, 2006b, Department of Health, 2008a).

However, whilst the rhetoric is strong there is still a dearth of understanding generally on leadership in health and social care organisations. In particular, there appears little empirical evidence of how best to lead interprofessional teams effectively, or the influence of leadership on interprofessional working practices and patient, staff and service outcomes.

This mixed methods study explores the dynamics of interprofessional team leadership in order to identify the key attributes effective leadership within community based service settings.

1.2 Aims and Objectives

1.2.1 Aims

The aim of this study is to identify the key attributes of effective leadership in interprofessional healthcare teams based in community rehabilitation and intermediate care settings. It will examine how leadership attributes and styles:

- Influence interprofessional team work practices;
- Impact on staff and services; and ultimately,
- Affect outcomes for patients and carers;
- Are impacted by service structure.

1.2.2 Objectives

The project will seek to meet five objectives, expressed as the following research questions.

1. What are the attributes of effective leadership in interdisciplinary health and social care teams, and how does this differ from generic theories of leadership, or theories of leadership in healthcare?
2. What is the relationship between service structure and working practices and effective leadership in interdisciplinary health and social care teams?
3. What is the relationship between interdisciplinary team leadership, and team dynamics and staff morale in interdisciplinary teams?
4. What is the relationship between effective interdisciplinary team leadership and patient/client outcomes (i.e. such as clinical outcomes, wellbeing and quality of life)?
5. What is the relationship between team dynamics and staff morale in interdisciplinary teams, and patient outcomes?
6. What is the relationship between staff morale and team dynamics in interdisciplinary teams?

1.3 Contribution and Differentiation

This research adds a unique and separately identifiable contribution to the larger study entitled Enhancing the Effectiveness of Interprofessional Team working: Costs and Outcomes which was funded by the NIHR SDO programme. This section specifies the contributions made by me to the larger research project and identifies the unique differences between the larger study and that of this thesis.

This study aimed to identify the key elements of effective IdTL. Although some of the data from the main study have been used in this PhD study, the overall study design of this thesis stands alone and the research questions it attempts to answer were unique to the wider study, being derived from a separate and comprehensive review of literature pertinent to leadership in interdisciplinary health and social care teams. To answer these questions, this PhD study employed a mixed methods design, utilising cross-sectional data derived from time-point one of the main study, supplemented by additional qualitative data identify key elements of the leadership dynamics in interdisciplinary teams and quantitative data to empirically test the effects of key leadership variables.

1.3.1 Contribution

Throughout the period of the EEICC study I was employed (14 hours per week) by the University of Sheffield, initially as a Research Fellow and from April 2009 to June 2011 as a Senior Lecturer seconded from Sheffield Hallam University. My specific role on the project was to act as project manager, to ensure that the project ran efficiently, in adherence to the research protocol. In this role I was second in command to the principal researcher and responsible for the day-to-day running of the project, ably assisted by a part-time Research Assistant (14 hours per week and an administrator (10 hours per week). Duties involved, project planning and timetabling, organizing and running regular project management, working

group and steering group meetings, liaising with the funder and submitting reports, designing and organizing facilitator training for the intervention component of the research project, co-designing team interventions. Liaising with teams and dealing with queries and problems. Designing, organizing and delivering resources for the study, preparing, submitting and updating ethics application and overseeing governance application.

As well as these administrative duties, my role involved; overseeing preparation of all study materials; participating in the project literature reviews, designing descriptive, formative data collection forms; and design and authorship of the Interprofessional Management Tool. I was responsible for overseeing inputting of the data, data cleaning and I played a key role in the analysis of project data. As such I was a key contributor to the final report.

Table 1.1 below shows a breakdown of contributions made to the research project. Column two shows the contributors to each element of the study, in order of level of contribution made. My initials are TS.

Table 1-1 – Personal Contribution to the wider research

Item	Contributors*
Funding Proposal (SDO NIHR)	SN, TS , PE, AM
Ethics and Governance	
NHS Ethics protocol	TS , SN, PE, LE
NHS Ethics submission	TS , PE, SN
NHS Research Governance preparation	SA, PE, TS
Team Recruitment, Training & Follow-up	
Team recruitment	JW, PE, TS
Team training	TS , PE, SA
Team Follow up	TS , SA
Administration	
Service proforma construction & distribution	AM, SN, TS , JW
Health record/data collection form	AM, SN, PE, TS

construction & distribution	
Information sheet construction & distribution	TS, PE, JW, AB
Staff Consent	TS, PE, JW, AB
Funder Liaison and interim reports	PE, TS, SA

Facilitator Training Recruitment & Follow-up

Facilitator recruitment	TS, PE
Design and delivery of facilitator training	EC, TS, PE
Facilitator follow-up	TS, EC

Literature Search Review and Write Up

Review 1	AB, AC, PE, SN, TS, LE
Review 2	AC, AB, TS, PE, SN, LE
Review 3	AB, AC, PE, SN, TS, LE
Leadership in Interdisciplinary Teams review	TS

Focus Group& Interviews

Facilitator focus group	TS, EC, SN, IS
Interprofessional Team leader interviews	TS

Intervention Component

Design & authorship of	TS, AB, SN, SA, PE
Interprofessional Management Tool	
Design of Service Evaluation conferences	EC, TS
Team Learning Sets	EC, TS, SA
Team Facilitation	TS, SA, TR, IS, FS, JK

Data entry & analysis

Qualitative data – leadership	TS
Qualitative Evaluation Data	TS
Qualitative - Formative data	SA, TS
Data Entry	SA, TS, AB
Data Cleaning	SA, SE
Database construction	SA, SN, TS, MB, PE,
Patient level data analysis – project	SN, SA, TS
Patient level data analysis – leadership	TS
Service Level data analysis – project	SN, MC
Service Level data analysis – leadership	TS
Staff level data analysis – project	SN, TS, MC, SA
Staff level data analysis – leadership	TS

Final Report Write Up

SN, PE, SA, TS, AB, MC

1.3.2 Differentiation

Whilst this thesis is based on data collected during the EEICC project, the original set of instruments proposed for the main study were supplemented by the addition of further instruments and data collection methods, to enable a separate but complementary study to be conducted specifically on the dynamics of leadership in interprofessional teams in the context of community rehabilitation and intermediate care services (CRAICS) for older people.

The main study utilized an action research framework, which attempted to apply research findings from a previous study that examined the costs and outcomes of interdisciplinary team working in CRAICS for older people. The findings of the COOP study were supplemented with the findings of a literature review to construct an “Interprofessional Management Tool” (IMT). The IMT was then used to evaluate the performance of participating teams and then implement changes based on the findings of the evaluations. A longitudinal research design was utilized to evaluate the impact of the above intervention.

In contrast, this PhD study utilizes a cross-sectional research design, utilising data derived from time-point one of the main study, but supplemented by additional qualitative and quantitative data to allow a separate analysis of leadership dynamics in interdisciplinary teams.

Qualitative cohort data was collected, by semi-structured interview, to understand what staff perceived to be the attributes of effective interdisciplinary team leadership.

Although some of the data from the main study have been used in this PhD study, the overall study design of this thesis stands alone and the research questions it attempts to answer were derived from a separate and comprehensive review of literature pertinent to leadership in interdisciplinary health and social care teams.

It was not possible to address these areas of interest and research questions through directly utilizing the results from the main study. Therefore, a distinct research design from the main study was required, which, in turn, necessitated that supplementary gathering, analysis and interpretation of data had to be undertaken. All these additional activities were carried out by myself.

This said, I must acknowledge directly the statistical input of Professors Susan Nancarrow and Mike Campbell who contributed substantially to the statistical analysis for the main study; to Mr. Andrew Booth, who conducted the literature reviews for the main study, which complemented the literature review for this study and identified additional relevant data; and to Dr. Steven Ariss who took major responsibility for data management for the wider EEICC project.

1.4 Ethics

This thesis is based on data collected as part of a three-year study. Enhancing the Effectiveness of Interprofessional Teamworking: Costs and Outcomes ran from 01/04/2008 to 31/06/2011 and NHS ethical approval was sought and gained in September 2008 (08/H1004/124). The ethics approval letter appears in Appendix 1.

The preparation of the NHS ethics submission included completion of all required forms and preparation of all proforma, information sheets and consent forms for the study. Supported by the project principal investigator, Professor Pam Enderby, I carried out all the work for the submission. The NHS ethics approval, (08/H1004/124) includes approval for the additional ethical requirements required for this thesis and to utilize data collected from the study.

1.5 Definitions and terminology

Health and social care workforce literature is complex. It uses a wide range of terms and definitions, often to describe the same or very similar

phenomena. This is particularly the case in relation to interprofessional team working. Whilst I have included a full glossary of terms, I therefore felt it was necessary to discuss some of these terms and definitions used in the thesis and the rationale for choices I have made, in order to aid the reader.

1.5.1 Interprofessional vs. Interdisciplinary

Workforce literature uses a wide range of terms to describe when health and social care staff with different fields of expertise work together. The terms interprofessional and interdisciplinary and their variations, as set out in table 1.2, are often used interchangeably. However, according to Nancarrow et al. (2011) there is a subtle difference between them in that (inter)disciplinary is generally used when the focus of literature is on the sharing of specialist knowledge in working collaborations. The term (inter)professional is often used when the focus of the literature is on professional boundaries and roles and the perceived unique contribution of the individual professional. Often within this literature there is a subtext that sharing is a potential threat to professional identity which needs to be navigated carefully (McCallin, 1999b). Furthermore the prefixes, Cross-, Multi-, Inter-, and Trans refer to the level of integration in working practices (Thylefors et al., 2005) with multi(professional) being the least integrated and trans(professional) the most.

Within this thesis I have chosen to use the term interdisciplinary team working as a generic term to cover all these terms. My reasoning for this is two-fold. Firstly, as previously discussed, there appears to be little conceptual stability with these terms and they seem to be used interchangeably in practice. Secondly, in reviewing this body of literature on team working, I have come to the conclusion that use of the term (inter)professional to be a misnomer, as it often ignores the fact that the majority of the teams featured in this body of literature contain increasing numbers of staff members other than professionals who are also engaged in

the care and treatment of patients. To understand how these teams work one must understand how all disciplines involved collaborate together.

For these reasons the term interdisciplinary seems to me to be more appropriate as it: includes all members of the teams being studied; focuses purely on how team members collaborate together without getting mired in political discussions about professional role boundaries; and removes mostly unnecessary complication from the narrative of this thesis.

This said, during the literature review, I have retained the terms as used by the authors of the literature reviewed, when directly discussing specific papers.

Table 1-2 – Conceptual differences between the terms – professional and –disciplinary (Nancarrow et al., 2011)

<p>ROLE Professional teams Uniprofessional Teams Cross Professional Multiprofessional team Interprofessional teams Transprofessional team</p>
<p>KNOWLEDGE Disciplinary working Unidisciplinary working Crossdisciplinary working Multidisciplinary working Interdisciplinary working Transdisciplinary working</p>

1.5.2 The Nature of Participating Teams

In this thesis the focus is on leadership in interdisciplinary health and social care teams delivering community rehabilitation and intermediate care services, predominantly with older people. Teams participating within the study all fit into this criteria, though some are health service based and some

are located in social care organisations. As this description is long-winded I will simply refer to these teams as Interdisciplinary Teams or IdT's and leadership within these teams simply as Interdisciplinary team leadership or IdTL. The only exception will be when teams discussed (particularly in the literature review) are working in other contexts. In these cases, and where relevant to the discourse, I will specifically name the context in which the teams in question operate.

1.5.3 Health vs. Social Care

As teams who participated in this study are located both within health care and social care organisations, I have used the term health and social care in describing them. However, it must be noted that the searches that took place for the literature review primarily took place in medical and health services databases. However, as the types of teams focused on in the review increasingly work in community based settings and are either integrated with or work closely or together with social care services, many papers do tacitly cover health and social care settings. Generally, however, for the reasons outlined, there is a stronger emphasis on health services.

1.6 Structure of the thesis

This thesis has 6 chapters:

Chapter 1 is the introduction.

Chapter 2 presents the findings from a comprehensive literature review of interdisciplinary team leadership.

Chapter 3 establishes the specific questions to be answered by the research.

Chapter 4 summarises the methods used in the research. Where appropriate, for additional clarity, further details of the methods utilized are also included in the separate results sections.

Chapter 5 presents the results of the qualitative study, which builds on the literature review findings to understand IdT staff perspectives of the key elements of Interdisciplinary Team Leadership.

Chapter 6 presents the results of the quantitative, cross-sectional study, which explores the relationships between key leadership variables and team structure and working practices; staff and team level dynamics and patient outcomes.

Chapter 7 concludes the report with implications for policy and practice, research limitations and areas for future research.

Chapter 2 Literature Review

2.1 Introduction

In this chapter existing literature on leadership in interdisciplinary teams across the field of health and social care services is reviewed. The nature and function of leadership within interdisciplinary teams is analysed within the chapter and the findings from the review of health and social care based literature is also related to what is known about from generic management studies. The search strategy, methods and results are described below.

2.2 Methods

According to Tranfield (2003) a potential difficulty of the systematic review approach with regard to management science, is that often the available evidence about any question is small in quantity, of poor quality, and/or inconsistent in terms of both the application of methods and epistemology.

This literature review therefore demonstrates a sensitivity to the particular requirements of systematic reviews in reviewing the management literature (Easterby-Smith et al., 2008, Tranfield et al., 2003) in considering the best evidence available even though these may not be rigorous experimental studies of the type normally conducted within the medical sciences, and may even propose theory where no empirical evidence exists.

2.3 Review questions/objectives

The specific aim of the review is to map and assess the relevant intellectual territory and develop a specific and detailed knowledge of what is known about leadership within interdisciplinary health and social care teams, in order to identify research gaps and questions that will further develop the knowledge base.

The review addresses three key objectives. To critically review:

1. Key literature on interdisciplinary team leadership in the field of health and social care to understand what is already known and to identify any key theoretical constructs and tested variables.
2. Existing literature relating to interdisciplinary health and social care team working, which is relevant to the leadership role in these teams,
3. To understand the above in relation to research evidence and key theories developed in the field of leadership generally and team leadership in particular.

2.4 Search strategy

The search strategy aimed to find published studies for the period 1994 - 2007. This time period was determined as it was deemed adequate to capture literature generated since the Department of Health had begun to focus on the need for changes in services to prevent avoidable hospital admissions and reduce length of stay for patients. (These changes ultimately led to development of CRAICS, services to achieve these aims). Peer reviewed databases as listed below were searched. Governmental databases such as the Department of Health, NIHR, and the NHS Confederation database were also searched.

Table 2-1 – Databases Searched

DATABASE
ASSIA
CINAHL
Cochrane Database of Systematic Reviews
Health Management Information consortium
EMBASE
ERIC
MEDLINE
PsycINFO
NIHR
NHS Confederation
Department of Health
King's Fund
University of Sheffield, STAR library database

Keywords were identified from known literature on leadership in health and social care and interdisciplinary team working. A search using all identified keywords and index terms (see Table 2.2) was then undertaken across all included databases. Reference lists of all identified reports and articles were searched to identify additional studies and relevant texts. Emphasis was placed on literature relating to interdisciplinary team leadership in health services. Literature searches on interdisciplinary team working in health services, undertaken for the wider EEICC project, were

also searched to identify if any of these papers discussed leadership within interdisciplinary teams.

The literature review was also supplemented with underpinning knowledge from generic leadership and team working literature from the management and organisational studies field. Much of the health services workforce literature seems only to reference other health services workforce literature. As such, it can exclude foundational knowledge and evidence from the fields of management and organisational sciences and psychology. The University of Sheffield library database, STAR, was also searched to identify relevant texts on leadership, team leadership, leadership in healthcare and leadership in interdisciplinary healthcare teams.

Table 2.2 – Key Search Terms for Interdisciplinary Team Leadership

Interdisciplinary OR interprofessional OR multiprofessional OR multidisciplinary OR Interdisciplinary OR interprofessional OR co-operat* OR multi-professional OR multidisciplinary OR “Interdisciplinary” OR “interprofessional” OR “multidisciplinary” OR “multi professional”	AND	Team* [includes team, teams, team work, teamwork or team working]	AND	Lead* (includes Leads, Leading, Leader, Leadership)
--	-----	---	-----	---

Table 2.3 - Key search terms for outcomes of Interdisciplinary team leadership

Interdisciplinary OR interprofessional OR cooperat* OR collaborat* OR multidisciplinary OR Inter-disciplinary OR inter-professional OR co-operat* OR multi-disciplinary OR “Inter disciplinary” OR “inter professional” OR “multi disciplinary”	AND	team* [includes team, teams, team work, teamwork or team working]	AND	Lead* (includes Leads, Leading, Leader, Leadership)	AND	Length of Stay Patient Admission Patient Discharge Patient Readmission Patient Transfer Quality of Health Care Outcome and Process Assessment (Health Care) Outcome Assessment (Health Care) Treatment Outcome Treatment Failure Mortality Cause of Death Child Mortality Fatal Outcome Foetal Mortality Hospital Mortality Infant Mortality Maternal Mortality Perinatal Mortality Survival Rate
---	-----	---	-----	---	-----	--

2.5 Inclusion and Exclusion Criteria

A set of decision rules were developed to identify relevant papers and categorise them according to whether they described an empirical study, narrative, or systematic review. These predetermined criteria were developed for use in the wider EEICC study literature reviews, but were adapted for use in this review (see Appendix 2). Their aim was to reduce bias in making decisions about which papers to include or exclude (Paterson et al., 2001). Selection began with an initial screening of the papers by title and abstract utilizing the specific decision rules to identify relevant papers. Initial searches looked for papers covering interdisciplinary team leadership in health and social care. As there were few papers specifically on this topic, the search was extended to include papers on interdisciplinary team working. Grey literature was generally excluded with the exception of government reports, white papers and Department of Health policy documents as the aim was to identify data derived from rigorous, peer reviewed studies.

2.6 Assessment of methodological quality

As the purpose of the review was to develop a theoretical understanding of interdisciplinary team leadership, and in keeping with issues surrounding the methodological diversity of management literature, there was limited application of quality assessment criteria. The aim was to distinguish conceptual models with no empirical basis, from those that had been described from practice and those that have been described and evaluated. Papers that clearly had no apparent evidence base were excluded from the review. Quantitative papers selected for retrieval were assessed for methodological quality before inclusion in the review using a tool devised from a standardised critical appraisal instrument (Appendix 3).

2.7 Results

Initial searches identified a total of 625 texts containing a combination of the key words utilized in the search from 1994 to 2008.

However, after supplementing these searches with relevant papers identified in the EEICC literature review and back-chaining through reference lists, 813 papers were identified as being of possible interest.

After reviewing title and abstract and checking for quality 205 texts on leadership were included in the review. However, only 12 articles found were specifically focused on leadership in interdisciplinary teams. Eleven other articles were included which had a primary focus on interdisciplinary team working, but discussed team leadership in some depth.

I conducted a further search on 20 September 2011 to update the review. A further 64 texts were found. A review of title and abstract added a further 19 papers to the overall review.

2.8 What is Leadership?

2.8.1 Introduction

The role and importance of leadership has long been an area of interest for social scientists. As far back as a 1930s theorists such as Kurt Lewin (1939) realised that there was a relationship between the leadership style of a manager and the social climate within the department, function or organization that they managed. Further, that these factors were key in the influencing of work performance.

A review of organizational studies from the 1950s to 1994, found that between 60% and 75% of all employees said that their supervisor was the most stressful aspect of their job (Hogan et al., 1994). The two most common complaints about managers were to do with misuse of power and authority. These complaints generally occupied opposite ends of a spectrum. The reluctance of managers to make decisions, confront problems, deal with conflict, exercise authority, or use discipline, causes workers as much angst as managers coercing, exploiting or managing them too closely.

2.8.2 Defining leadership

As Stogdill asserts, there are: -

“... almost as many definitions of leadership as there are persons who have attempted to define the concept” (Stogdill, 1974, p 259).

Bass & Stogdill (1990) identify a taxonomy of leadership theories which place definitions into twelve categories.

- *A focus on group process;*
- *Personality and its effects,*
- *The art of inducing compliance,*
- *The exercise of influence,*
- *An act or behaviour,*
- *A form of persuasion,*

- *A power relationship,*
- *An instrument of goal achievement,*
- *An emerging effect of interaction,*
- *A differentiated role,*
- *The initiation of structure, and,*
- *A combination of elements. (1990: p.36)*

However, whilst this taxonomy is useful for general understanding, it is still too broad to act as a working definition. Closer examination of the list reveals that there are links between some of the themes: creating compliance, exercising influence, and a form of persuasion are key in that they begin to reveal the key fact that there are many people who exercise leadership, hold do not occupy a formal leadership role in any social or organisational hierarchy. However, leadership in organisational scenarios is the focus of most research studies.

Yukl proposes a more useful definition, which incorporates many elements of this taxonomy.

“Leadership is the process of influencing others to understand and agree about what needs to be done and how it can be done effectively, and the process of facilitating individual and collective efforts to accomplish the shared objectives.” (Yukl, 2006, p8)

However, this is still a broad definition and could, at least in part, describe management.

2.8.3 Distinguishing between management and leadership

According to Yukl (2006) there is an ongoing controversy within management literature about the difference between leadership and management. Confusion is caused by the fact that leadership and management abilities are always required in the same role and often executed simultaneously. The controversy tends to centre on the degree of overlap between them and the two terms are often conflated and used interchangeably.

Leadership is defined as “*the ability to lead*” in the Oxford English Dictionary. The term is derived from the Saxon word “*Laed*”, which means path or road. The contemporary version “*Lead*”, is defined as “going in front”.¹

The term *Manage* is derived from the Latin word ‘*manus*’ which means, “*hand*”, a term that suggests guidance and control².

Though there is a blurring of conceptual lines between the terms leadership and management they are distinct. Zaleznik, states that; “*managers are concerned about how things get done, and leaders are concerned with what things mean to people.*” (1977, p 68). Bennis and Nanus that; “*Managers are people who do things right and leaders are people who do the right thing*” (1985, p 21). Guest (1987) suggests that leaders influence commitment, whilst managers carry out specific responsibilities related to their position and exercise authority.

These definitions though helpful do not give a comprehensive picture. A major achievement of Full Range Leadership theory (Avolio and Bass, 1997) is that it successfully conceptually separates the behavioural aspects of management and leadership. Within Full-range leadership theory, Management, which, to add to the confusion, is termed Transactional Leadership, is defined by two sets of activities: Contingent Reward, and Active Management by Exception (Avolio and Bass, 2004).

¹¹ OED online (1989) accessed 25.11.2008
http://dictionary.oed.com/cgi/entry/50130888?query_type=word&queryword=leadership&first=1&max_to_show=10&single=1&sort_type=alpha

² OED online (1989) accessed 25.1.2008
http://dictionary.oed.com/cgi/entry/00300804?query_type=word&queryword=manage&first=1&max_to_show=10&sort_type=alpha&result_place=2&search_id=i38u-YbpduP-1601&hilite=00300804

2.8.3.1 Monitoring and Performance Management

The first way in which managers control work processes is through the monitoring of production processes, measuring performance and taking action to ensure the production process continues uninterrupted or with minimum disruption. Within Full-range Leadership theory this element is called Active Management by Exception. Active refers to the fact that good management should be pro-active and Management by Exception that one is trying to identify when performance deviates from acceptable levels. This element of management activity is therefore about closely monitoring work for deviances from the norm, mistakes, and errors, and then taking corrective action as quickly as possible when they occur. It is also part of the manager's job to define what the acceptable standards are, including what defines ineffective performance, and how they will be measured. In systems theory this measuring and monitoring function is termed "control" (Kawalek, 2004).

It is important to note that monitoring, controlling, and rectifying problems as they arise are essential management behaviours to ensure production processes continue with the minimum disruption and work is completed to acceptable quality standards. In the field of healthcare, particularly in the UK, there seems to be an increasing focus on this type of management behaviour to ensure compliance. Such documents as the NHS Outcomes Framework (Department of Health, 2010), Quality and Outcomes Framework (QOF) (NHS Employers, 2011) and Commissioning for Quality and Innovation (CQUIN) Payment Framework (Department of Health, 2008c) set out key standards for NHS organisations. However, it is worth considering the potential impact on motivation if this style of management behaviour was used in isolation.

2.8.3.2 Clarifying Expectations and Contracting

According to Avolio and Bass (2004) working relationships are in essence an exchange process. Workers exchange effort in order to gain

reward. They call this exchange process “Contingent Reward” (1997, p8). This element of management is therefore about clarifying to workers what is expected of them and what they will gain from it. Implicit within this area is the fact that the manager needs to ensure that workers have the skills and resources they require to do the work effectively.

This process of clarifying goals and objectives and how workers will be rewarded is vital. Through all parties being clear about mutual expectations and the rewards that will be forthcoming if goals are achieved, a psychological contract (Mullins, 2008) is formed that is more likely to result in individuals and groups achieving expected levels of performance. Reward however, is contingent upon performance, so if goals are not achieved managers may choose to withhold rewards or impose sanctions upon workers in certain circumstances. Research indicates that carrots are generally more successful than sticks in encouraging and that treating people well unconditionally can be just as effective as contingent reward mechanisms (Yukl, 2006).

2.8.3.3 Design of Work Systems

It is important to note that the two elements described above are essential for effective management and if actioned conscientiously should ensure adequate performance (Avolio and Bass, 1997). However, they do not fully describe management, as they ignore one essential element that was first defined by Taylor in 1912 in his *Principles of Scientific Management* (in Burnes, 1996, p33). A key critique of management is that it is essentially about control (Johnson and Gill, 1993). However, the most crucial way in which managers control work, is not by the two methods described above, but by the way that they design work systems in order to maximise production of the desired outputs and minimise deviations from acceptable quality standards. The systematic design of the production process, builds control into the system, allowing management increased levels of control over the machine like work system. In practice though,

work always requires, to a greater or lesser extent, the cooperation and coordination of human beings. However well designed the production system is the, element that is most difficult to control is human agency.

In summary, according to conventions established early in the 20th century and sustained today, Management is a technical discipline with its roots in systems engineering. It is about the rational process of forecasting; planning and designing of work systems; then organising, monitoring, and controlling work efforts to ensure that production continues as planned and produces the right outputs, in the correct quantities at the appropriate quality and cost.

Leadership's role within this scenario is in maximising performance of the human part of the system, by establishing an achievable vision and goals, and motivating and inspiring others towards achieving them, including changing the organisation when new organisational goals requiring new ways of working are defined. Whilst leadership is conceptually different from management and arguably a broader concept, both activities are in practice often executed simultaneously. Leadership is therefore seen as an essential management skill, because, effective management requires leadership abilities (Daft, 2004).

In contemporary management theory, the manager's role is often termed as an integrating function, ensuring that the technical, organisational system and human elements work seamlessly together (Mullins, 2008). This integration is achieved through a combination of management and leadership practices.

2.8.4 The development of leadership theory

For the purpose of this review, leadership theories have been divided into five broad categories, as these categories loosely represent a chronology of the development of thought in the field.

- **Trait theories:** leaders are able to positively influence others because they possess particular naturally determined traits.
- **Behaviour/style theories:** leaders are able to positively influence others because they engage in particular behaviours.
- **Contingency & Situational theories:** the best person and approach to leadership is contingent upon situational determinants.
- **Values based leadership theories:** centre around charismatic and transformational aspects of leadership,
- **Post Heroic Leadership theories:** leadership is everybody's business and should be distributed throughout organisations.

2.8.4.1 Trait theories

Early studies of leadership tended to focus on identifying personal traits, which made some people better leaders than others Stogdill, (1948). A range of factors such as height, weight, appearance, intelligence and self-confidence were examined by researchers and some consistent associations were found between leaders and particular personality dimensions. Ultimately the approach became thought to be fairly unhelpful though. Criticisms centred around the fact that they looked exclusively at the traits and motives of leaders, but ignored underlying organisational, social and economic factors that also influenced their success (Jennings, 1960), and failed to consider if particular traits were appropriate to situations (Stogdill, 1948).

The contribution that trait based theories have made is perhaps best summed up by Fiedler and House;

“While there is no one ideal leader personality, effective leaders tend to have a high need to influence others to achieve and they tend to be bright, competent and socially adept, rather than stupid incompetent and social disasters.”(Fiedler et al., 1994, p.112)

2.8.4.2 Behavioural theories

In the 1950’s, the possibility that leader effectiveness may be determined by particular behaviours became a subject of investigations.

This work had been pre-empted by Lewin et al, (1939) who had investigated the impact of “*autocratic, laissez-faire and democratic*” leadership styles more than a decade earlier. Tannenbaum et al. (1958) developed a continuum of leadership behaviour, from boss-centred (authoritarian) to subordinate centred (democratic) styles. They identified four main styles of leadership behaviour linked to control and authority: “*telling, selling, consulting and joining.*” The theory was that an effective leader would choose the appropriate style based on three main influences: forces in the leader; forces in the subordinate; and forces in the situation (Tannenbaum and Schmidt, 1958). Studies at Ohio State University led to the development of a 150-item questionnaire, covering 9 dimensions of leader behaviour. However, it was revealed by factor analysis that the questionnaire only measured 2 dimensions of behaviour: –

Consideration: the degree to which the leader shows they are concerned with the welfare of subordinates and is able to develop trusting and supportive relationships. It requires a participative and humanistic approach to leadership and the ability to communicate effectively.

Initiating structure: the degree to which the leader defines roles, initiates actions, organizes work and decides the way tasks should be accomplished (Halpin et al., 1957).

These dimensions were found to be independent and could therefore be plotted on two axes, giving four quadrants of behaviour.

- Directing (high structure, low consideration),
- Coaching (High structure, high consideration),
- Supporting (low structure, high consideration)
- Delegating (low structure and low consideration).

A study by Fleishman and Harris (1962) found that: accidents, grievances and turnover were higher when directing was the dominant style: and, that coaching styles were more effective in terms of worker satisfaction and performance overall, though significant differences were found between production and non-production environments. Studies by Renis Likert (1967), found that “consultative” and “participative” leadership styles generally resulted in higher productivity than “exploitative authoritative” or “benevolent authoritative” styles

Behavioural leadership studies opened up the possibility of being able to identify effective behaviours, assess performance and develop leadership potential through training. They also raised the issue that there were situational factors that also influenced organisational performance.

The key criticism of behavioural studies is that whilst these models do provide insight, their over-simplicity is revealed by the fact that research evidence using these sorts of behavioural models are often inconsistent. The models do not take adequate consideration of any contextual factors (Yukl, 2006). Effective leaders vary their behaviour depending on the situation and may use task and process oriented, participative or authoritarian styles depending on the situation at hand (Yukl, 1999).

2.8.4.3 Contingency and Situational theories

As the body of leadership research developed it became clear that leadership style is mediated by situational or environmental factors, such as:

- the sort of task being done, group cohesiveness, role power, how tasks and jobs are structured, leader-subordinate relationships, culture, or levels of satisfaction, motivation and performance.

Fiedler et al. (1964) developed a contingency theory of leadership that put forward the idea that the most effective leadership style was dependent on the relationship between the leader and the group, the structure of the task and the power/authority of the leader. House's (1971) Path Goal Theory is based on the premise that the leaders job is to help subordinates to develop paths that will lead them to achieving goals. Similarly, situational leadership theory (Hersey and Blanchard, 1984) is based on the idea that leaders should use different styles depending on the maturity or readiness of subordinates (i.e. the situation).

Whilst these theories developed the sophistication of our understanding of leadership they are still criticised for being over simplistic. Contingency theories do recognise the interaction between the leader and group structure, values and attitudes, group dynamics, tasks and the environment and have been found to assist in identifying what behaviours might be appropriate in a given situation (Vroom and Yetton (1973). Situational theories do not take into account that leader perceptions of particular situations might differ markedly however (Yukl, 2006).

2.8.4.4 Values Based Leadership Models

Contingency leadership theories marked somewhat of a watershed. Together with behavioural theories they did a great deal in developing understanding of leadership transactions. In the late 1970's however, a new model of leadership emerged which attempted to explain not just how

leaders attained effective performance, but how some leaders were able to develop extraordinary levels of performance, motivation and commitment and lead organisations, or teams to achievements with outstanding results. The values based models include Charismatic leadership (Conger and Kanungo, 1987, House et al., 1977, Shamir et al., 1993), Visionary Leadership (Bennis and Nanus, 1985, Kouzes and Posner, 1987), and Transformational leadership (Burns, 1978, Bass, 1985).

Charismatic leadership is based on distinguishing attributes and behaviours. Attributes include high levels of; convictions in one's own beliefs, self-confidence, and a need for power. Charismatic leaders espouse goals which resonate with the values of group members, communicate confidence that the group can achieve their goals and become role models through behaving in line with these values (Conger and Kanungo, 1987).

The essential ingredients of a successful vision have been the focus of another strand of research. The findings suggest that a clear vision of a better future, which appeals to the values and hopes of those involved, is the main predeterminant in people supporting radical change and being willing to expend the additional effort required to achieve it (Bennis and Nanus, 1985, Kouzes and Posner, 1987, Tichy and Devanna, 1986). The vision should be realistic enough to allow planning and decision making (Bennis and Nanus, 1985, Yukl, 1998).

Transformational Leadership theory was first developed by Burns (1978) to explain the behaviour of political leaders. It was developed further by Bass (1985) who applied the theory to organisational settings. A notable achievement was the development of a "Full-range" model of leadership that achieves a clear conceptual separation of management behaviours (termed Transactional Leadership) and Transformational Leadership (which incorporates charismatic and visionary leadership) behaviours and attributes (Avolio, 1997).

Values-based leadership models such as Charismatic and Transformational leadership have made a big impact on leadership studies. To a certain extent they build on previous research efforts to provide an expanded model of leadership, which incorporates some elements of trait and charismatic theories, and some elements of the behavioural approach particularly in the individualised consideration component of transformational leadership.

The full range model is the basis of the Multifactor Leadership Questionnaire (MLQ) (Avolio and Bass, 2004) which according to Careless (1998, in Alimo-Metcalfe, 2002) has become the most used instrument for measuring leadership in the world. The MLQ has been used in numerous studies over the last 20 years. A meta-analysis of 39 studies using the MLQ found that the three key elements of transformational leadership, charisma, intellectual stimulation and individualised consideration, consistently correlated positively with subordinate satisfaction and performance; were capable of motivating followers to beyond expected levels of performance; and supported the distinction between transformational and transactional behaviours (Lowe et al., 1996).

Transformational Leadership is generally accepted as the most widely validated model of leadership, as it supports and incorporates many of the findings of previous research, however, there are criticisms of it. Alimo-Metcalfe (2002) has criticised full-range leadership theory for being; (a) gender biased – the key studies used to develop it almost exclusively included only men; (b) biased towards the commercial sector – the interviewees were all business leaders.

Yukl (1999) suggests that whilst transformational theories do contribute to understanding of leadership, the way they conceptualise and measure the leadership process are theoretically weak. In particular, he attacks the full-range leadership theory behind the MLQ. Firstly, he argues that it fails to incorporate a number of important elements of leadership, including task

and change related behaviours; and, importantly for this study, relationship enhancing behaviours such as networking and team building. Secondly, he suggests that the constituent elements of full-range leadership theory are not really unique (Yukl, 1999). His meta-analysis of key variables from the most widely used leadership questionnaires – the LBDQ, MLQ and Managerial Practices Survey - found that none of the two factor models that they are each based upon could comprehensively account for variance in key leadership output variables. A broad analysis of items from all these questionnaires found that leadership was better explained by a three-factor model, which included task-oriented (T), relationship oriented (R), and change oriented (C) behaviour. The R-factor included consideration, contingent reward, recognition, consulting and developing. The T-factor included initiating structure, goal setting, monitoring and operational planning. Finally, the C-factor included vision, inspiration and charismatic leadership (1999).

Post-Heroic Leadership

Post-heroic leadership theories rest on a premise that leadership practices are evolving away from mechanistic, authoritarian models suited to hierarchical, industrial organisations, to new models more appropriate for the post-industrial knowledge economy (Kanter, 2001). Post-heroic models include such theories as shared/distributed leadership (Pearce and Conger, 2000); Adaptive Leadership (Heifetz and Laurie, 1999) Empowerment (Conger, 1989); Servant Leadership (Greenleaf, 1977); Stewardship (Block, 1996) Organisational Learning (Argyris and Schon, 1978, Senge, 1997).

According to Fletcher (2004) post heroic leadership models have three characteristics.

- Rather than a focus on personal characteristics leadership is viewed as a set of practices that are shared and enacted by people at all levels.

- The emphasis is on leadership as an emergent, dynamic, multi-directional, collective social process, which is enacted through relationships and influence.
- The key output of leadership is not simply increased effort, but learning and growth for both the individual and the organisation.

Fletcher asserts that post-heroic leadership challenges:

'... the "who" and "where" of leadership by focusing on the need to distribute the tasks and responsibility of leadership up, down and across the hierarchy. It re-envisioning the "what" of leadership by articulating leadership as a social process that occurs in and through human interactions, and it articulates the "how" of leadership by focusing on the more mutual, less hierarchical leadership practices and skills needed to engage collaborative, collective learning.' (Fletcher, 2004 p. 649)

An important post-heroic model that must be considered is that of Emotional Intelligence based Leadership. Emotional Intelligence is a construct originally proposed by, Salovey and Mayer in 1990, which they define as: -

.... a type of social intelligence that involves the ability to monitor one's own and others' emotions, to discriminate among them, and to use the information to guide one's thinking and actions (Salovey and Mayer, 1990 p 185)

Research by Goleman, Boyatzis & McKee with 200 large companies world-wide found compelling evidence that Emotional Intelligence is a much more effective predictor of career success at senior executive level than either IQ or other measurable leadership factors (Goleman, 2004).

Further, Goleman (2006) claims that existing competence models for leadership consist of 80-100% Emotional Intelligence based abilities

In keeping with the passive-avoidant dimensions of the full-range leadership theory, Emotional Intelligence based Leadership theories raise the issue that what a leader doesn't do is just as important in their success as what they do (Goleman et al., 2002). Harris and Hogan (1992) refer to "dark side" characteristics of leadership. According to Benz (1985) characteristics such as arrogance, insensitivity, untrustworthiness and selfishness can exist alongside the constructive leadership qualities. They are however, consistently identified both as reasons for career derailment and negatively related to team performance. Hogan et al. (1994) assert that one of the reasons for the poor record in organisations appointing effective leaders to key strategic positions is that senior managers tend to appoint people into management positions for their technical managerial competence. However, the attributes that followers feel are most important for effectiveness are related to integrity and trustworthiness (Harris and Schaubroek, 1988). These negative traits may well relate to underlying anxiety. Where high levels of anxiety are present for extended periods, even the most mature and confident people can exhibit frustration and anger and display lack of empathy (Fiedler, 2002). In support of this, a meta-analysis of the relationship between intelligence measures and leadership found that paper based intelligence measures (e.g. IQ tests) had a much weaker relationship with leadership than perceptual measures of intelligence (i.e. appearing to followers to be intelligent), and further, that stress levels were a significant moderator of the intelligence leadership relationship (Judge et al., 2004). In fact, leaders of low and moderate intelligence have been found to outperform leaders of high intelligence in high stress environments (Halverson et al., 2004). Further, experience was found to be a much more robust predictor of leadership effectiveness in stressful environments. However, and confounding the assumptions of many theorists and trainers,

inexperienced leaders were found to be generally more effective in low stress environments (Judge et al., 2004).

Another aspect of appeal for post-heroic leadership paradigms is that they are generally congruent with the new scientific paradigms: chaos and complexity sciences (Uhl-Bien et al., 2007). According to Wheatley (1999) the “new science” has rendered Newtonian scientific principles as, at best, wildly over-simplistic, and in many areas redundant. Further, according to Drucker (1998) most of the assumptions that underpin management thinking (and education!) are at least 50 years old and hopelessly outdated. Seen through the theoretical lens of complexity sciences, leadership is about interactive dynamics, focused on facilitating ‘*the learning, creative and adaptive capacity of organisations*’ (Uhl-Bien et al., 2007 p. 298) which are complex, adaptive systems.

Post-heroic leadership theories are increasingly promoted as a new and radical departure from previous “heroic” (sic) forms of leadership. However, there are some problems validating these theories, as complex adaptive systems cannot be subject to testing through traditional empirical methods, which rely on the isolation of specific causal relationships; an idea essentially based on Newtonian scientific principles.

A summary of the leadership principles put forward in Wheatley’s influential book: *Leadership and the New Sciences* (1999) are broadly congruent with many of the findings of leadership research. These are set out below.

1. Consistently communicate ethical values and vision in words and actions. Ensure that these ideas permeate throughout the organisation and all decisions and actions are consistent with them.
2. Create free flow of information and sharing of ideas in the organisation.
3. Encourage and expect innovation and development of new forms.

4. Participative methods of problem solving are the most objective method of analysis, diagnosis, planning and action within organisations. People only truly support and commit to that which they participate in creating, because:

- a. Objective organisational analysis of complex quantum systems by any single actor is theoretically impossible, and;
- b. People are only able to fully understand that which they have worked to create.

2.8.4.5 Conclusions

Overall, leadership research consistently suggests that generally, people centred, transformational, participative, flexible leadership style is associated with higher levels of satisfaction, motivation, and greater effort and productivity, than task centred, autocratic, transactional, rigid and controlling styles of supervision. Further, the overall pattern of leadership behaviour is generally recognised as more important than any one element.

A key fault of earlier leadership studies is that they ignore both the role of subordinates or organizational factors in the leadership process. Therefore, the ability to analyse work situations and decide, often in the face of competing priorities and values, what style is relevant in a particular context, for a particular individual, or group are now recognised as key leadership skills.

This growing acknowledgement of the complexity of leadership dynamics has more recently led to the development of post-heroic models that are congruent with post-Newtonian scientific theories that are felt by many commentators to be more congruent with the complexities of post-industrial organisational realities. However, these paradigms bring their own challenges because as the complexity of understanding leadership

increases, research has to deal with a burgeoning range of variables, which makes development of empirical evidence ever more challenging.

2.9 Leadership in Healthcare

Leadership has been a major area of study within management and organisational studies for over 70 years. Whilst there is still fierce debate about the nature of leadership and still problems with conceptual clarity, almost all commentators agree that it is important and numerous studies have provided evidence that effective leadership really makes a difference to the performance within groups, organisations and society (Yukl, 2006).

More recently, the role of leadership in high performing and rapidly changing organisations has become a focus of healthcare policymakers. In the UK NHS concerns over leadership first became an area of focus in the late 1980's when professional management was introduced into the organisation (Mackie, 1987). Since this point, leadership has become an increasing area of focus in the health service reform agenda (Goodwin, 1998). The development of leadership capacity throughout the UK National Health Service became a lynchpin in the implementation of a radical healthcare reform agenda to modernise the NHS, when the Labour government came to power in 1997. Leadership was felt to be so important that the Department of Health set up a National Centre for Leadership in April 2001 as part of the NHS Modernisation Agency. This led to a plethora of leadership initiatives and programmes being commissioned by NHS organisations, as well as leadership research and the development of various tools and competency frameworks.

In 2005 the NHS launched its own dedicated Leadership Qualities Framework (LQF) (Institute for Innovation and Improvement, 2005). According to a "Technical Research Paper" issued by the Institute for Innovation and Improvement, LQF was the result of a comprehensive research process (although the research methods are not clarified and the work was never subjected to peer review). A 2007 NHS Confederation

report acknowledged that: NHS leaders have a short term, “upwards” focus on targets and DoH policy rather than within their trusts; and, the disempowerment of leaders at lower levels of the organisation, “*who are often sandwiched between senior clinicians and senior managers*” (NHS Confederation, 2007, pp3). As a result, there has been an increasing focus on clinical leadership and strengthening the working relationships between NHS management and clinicians, over recent years. A key driver of reform since 2009 has been the increased financial pressure on the NHS. This has led to calls for leadership of innovation, that is bottom up, rather than utilising the national machinery of policy and targets (NHS Confederation, 2009).

Despite the launch pronouncements as to the rigour and comprehensive nature of the LQF, a new medical leadership competency framework was introduced in July 2010 (Institute for Innovation and Improvement, 2010a). The reasons given for the development of this new framework were that the LQF was now thought to be too focused on the leadership qualities required of senior managers. The 2010 advice stated that the medical leadership framework was for medical students and doctors, whilst the LQF would be retained for all those in the NHS who aspire to senior leadership positions. However, in August 2011 a new comprehensive NHS Leadership Framework was launched which incorporates the medical leadership framework. The most recent advice is that this new framework supersedes the LQF (Institute for innovation and improvement, 2011).

Although there has been a strong focus on developing leadership in the NHS for at least a decade, concern about its effectiveness has continued. According to a more recent King’s Fund study (2011) NHS Leadership thinking still appears to be focused on a heroic model and improving the strategic thinking of senior leaders. The report calls for an extension of leadership development at all levels and replacement of the heroic

leadership model which focuses on the development of elite groups of individuals with an increased focus on shared leadership.

A comparison of the two leadership frameworks in table 2.4 reveals that the 2011 framework appears to be much more detailed and prescriptive. It includes vision and strategy, which surprisingly are omitted from the first framework. It overtly incorporates management into the framework and also attempts to convey a more active and developmental focus on delivery. Significantly, within the context of this PhD, teamwork related “qualities” such as; empowering others, and; collaborative working have been replaced with: working in teams; encouraging contribution and building and maintaining relationships. Ironically, given the nature of the discourse on leadership in the King’s Fund report, “No More Heroes”, (2011), the new framework appears in many ways to be more hierarchical in its assumptions than the previous version.

Table 2.4 - A comparison of the NHS Leadership Qualities Framework (2005) and the NHS Leadership Framework 2011

LEADERSHIP QUALITIES FRAMEWORK 2006	NHS LEADERSHIP FRAMEWORK 2011
Setting Direction <ul style="list-style-type: none"> • Seizing the future • Intellectual Flexibility • Broad scanning • Political Astuteness • Drive for results 	Creating the Vision <ul style="list-style-type: none"> • Developing the vision for the organisation • Influencing the vision of the wider healthcare system • Communicating the vision • Embodying the vision
	Delivering the Strategy <ul style="list-style-type: none"> • Framing the strategy • Developing the strategy • Implementing the strategy • Embedding the strategy
	MEDICAL LEADERSHIP FRAMEWORK 2010
Delivering the Service <ul style="list-style-type: none"> • Leading change through people • Holding to account • Empowering others • Effective and strategic influencing • Collaborative Working 	Setting Direction <ul style="list-style-type: none"> • Identifying the contexts for change • Applying Knowledge and Evidence • Making Decisions • Evaluating Impact
	Improving Services <ul style="list-style-type: none"> • Ensuring Patient Safety • Critically Evaluating • Encouraging Improvement and Innovation • Facilitating Transformation
	Managing Services <ul style="list-style-type: none"> • Planning • Managing Resources • Managing People • Managing Performance
Personal Qualities <ul style="list-style-type: none"> • Self Belief • Self Awareness • Self-management • Drive for improvement • Personal integrity 	Working with others <ul style="list-style-type: none"> • Developing Networks • Building & Maintaining Relationships • Encouraging Contribution • Working within Teams
	Demonstrating Personal Qualities <ul style="list-style-type: none"> • Developing Self-awareness • Managing Yourself • Continuing Personal development • Acting with integrity

Despite the unique context of healthcare and the NHS, the above frameworks do not convincingly identify a form of leadership that is unique to healthcare. In fact, everything contained in these frameworks can draw direct lineage from generic theories such as Transformational, Charismatic

leadership, Emotional Intelligence and Situational leadership. Perhaps given the size of the NHS the fact that these frameworks, which attempt to create a single theory for the whole service, are so generic is of little surprise.

A recent systematic literature review of literature on the attributes of Nursing Leadership (Smith et al., 2009) concluded that no single theory of leadership accounted for all the attributes of Nursing leadership identified in the review and, further, that nearly all the attributes could be accounted in generic leadership theories. The only truly unique attributes of nursing leadership identified were that effective nurse leaders need to demonstrate high levels of Nursing expertise and experience to gain the authority to lead their nursing colleagues (table 2.5). This need for high levels of professional experience and expertise for those leading professional groups is supported by Adair (2005).

A study by Borrill and West (2004) found that healthcare organisations with well-developed Human Resource Management (HRM) systems performed better than organisations where the HRM function was less well-developed. A 20% increase in staff appraisals and the training of 20% more appraisers resulted in a reduction of 1090 deaths per 100,000 admissions. Appraisal had the strongest link with patient mortality. The link between human resource development and patient mortality were stronger when the director of human resource was a voting member of the executive board (Borrill and West, 2004). Further, in healthcare organisations with well-structured appraisal systems and individual personal development plans, staff were found to have more positive perceptions of senior managers and report higher levels of job satisfaction and lower levels of intention to leave. However, closer, more direct relationships with supervisors/managers were more strongly associated with the staff outcomes, such as job satisfaction and intention to leave the organisation, than were positive staff perceptions of senior managers. These studies suggest that a key strand of leadership is

in developing people and that the major formal mechanism for achieving this is having a well-developed HRM function.

Table 2.5 - Attributes of an Effective Nursing Leader (Smith et al., 2009)

1	<ul style="list-style-type: none"> Personal characteristics 1.1 Self-assured and optimistic 1.2 Personal integrity (consistency in word and action) 1.3 Entrepreneurial spirits and capabilities 1.4 Intelligence and wisdom 1.5 Humanistic – kind, respectful, empathetic
2	<ul style="list-style-type: none"> Interpersonal competences 2.1 Competent Communicator 2.2 Motivating, inspiring and encouraging 2.3 Managing conflict and negotiations 2.4 Team building - able to work collaboratively, and to promote interprofessional collaboration 2.5 Empowering 2.6 Teaching, coaching, and mentoring competence 2.7 Helping and supporting others
3	<ul style="list-style-type: none"> Vision 3.1 Creating and articulating a vision of a appealing future 3.3 Initiating, managing, and leading in a new direction 3.4 Capability of seeing and going beyond the immediate facts 3.5 Being proactive, aware of what is happening in the nursing profession 3.6 Provides a sense of direction and purpose 3.7 Involving personnel in long run projects 3.8 Planning strategically 3.9 Being goal oriented, shared understanding of goals
4	<ul style="list-style-type: none"> Change management 4.1 Facility to adapt to changes 4.2 Promote positive attitudes toward change 4.3 Dramatically change practice while maintaining integrity 4.4 Prepare for constant change and challenge
5	<ul style="list-style-type: none"> Management and business competencies 5.1 Finance and budgeting 5.2 Project management 5.3 Human resources management 5.4 Quality management 5.5 Management of nursing systems 5.6 Resource mobilizing 5.7 Ability of planning, directing, organizing and controlling 5.8 Strong business acumen, business administration knowledge 5.9 Political sensitivity
6	<ul style="list-style-type: none"> Clinical experience 6.1 Articulate nurse’s work and nurse’s contributions. 6.2 Several years of working experiences in direct care 6.3 Exquisite, population-based clinical competence 6.4 Experiences in the application of nursing knowledge to nursing practice 6.5 Clinical grounding in nursing practice 6.6 Clinical background and focus 6.7 Clinical expertise, practice in specialty

A further study found that there was a strong relationship between the sophistication of HRM practices and patient mortality (West et al., 2002). An association was also found between the sophistication of training practices and patient mortality, which again supports a leadership emphasis on developing staff. Organisations with a high-level of access to formal training had a 3.5% lower patient mortality rate (Caley and Reid, 2003). Significantly, a link was also found in this study between multi-disciplinary team working and patient mortality. Patient mortality was 5% less than expected, in hospitals where more than 60% of staff worked in multi-disciplinary teams,

A further study by West et al. (2003a) revealed the importance of leadership clarity in teams. Leadership clarity was significantly associated with: clear team objectives, high levels of participation, commitment to excellence and support for innovation. Significantly, the above team processes were the major determinant of innovation with teams in the study. The study asserts strongly that clear leadership is essential even in self-managed teams and recommends that leadership clarity should be a primary focus in developing organisational teams. Further, in order to promote innovation, the focus should be on developing teams with clear, shared objectives, high levels of participation and commitment to excellence, rather than on innovation itself (West et al., 2003a).

Finally, although there seems to be little evidence of a unique form or health and social care leadership, there is evidence to suggest that leadership in public sector (or heavily state regulated) organisations, has some distinct context related differences to Leadership in commercial organisations (Alimo-Metcalfe and Alban-Metcalfe, 2001). The first difference is that there is no requirement for profit in the public sector. This has a huge impact on how organisations operate, as they are generally attempting to contain costs within an envelope rather than maximise revenues and create a surplus. Further, strategic direction is largely set by politicians and civil

servants rather than by organisational leaders scanning the environment for opportunities aligned with the organisation's mission, vision, values and stakeholder needs. Public Sector leaders therefore have to translate policy imperatives into constructive action. They require skills in such areas as policy analysis, political analysis and political leadership. There is also a much greater need for partnership skills, as public sector organisations have far more requirements to cooperate and coordinate joint actions with social partners (Williams, 2005).

2.10 Team working and Leadership in teams

To fully understand the role of leadership in teams it is first necessary to define the concept of a team. Whilst there may be contention over the constituent elements of team working, there appears to be wider consensus on the definition of a team. Reviewing a number of key texts on team working identified through the literature review revealed that definitions centre around three common characteristics (Stanniforth and West, 1995, Cohen and Bailey, 1997, Katzenbach and Smith, 2003, LaFasto and Larssen, 2002, Larssen and LaFasto, 1989, Yukl, 2006)

- A team is made up of two or more people. Most authors do not specify a maximum limit, however; there is debate about the optimum number of people in the group.
- A team has specific performance objectives or common goals to attain.
- Completion of the tasks the team have to undertake are interdependent and require coordinated action by the members.

There is an almost universal assertion in management literature that team working offers superior performance and outcomes to other modes of organising. The central tenet is that the synergies that develop in collaborative team working will lead to superior outcomes. According to

Finn (2010) the adoption of team working within health and social care is largely driven by the advent of the “New Public Management” movement which assumes that private sector management techniques and the introduction of market forces are the key to public sector reform. This has resulted in an increasing emphasis on team working as a universal means to improve client outcomes efficiently and safely (Department of Health, 2000d, Department of Health, 2002b, Department of Health, 2008b).

However, according to Sennett (1998) the discourse on teams in health and social care in the last decade has developed in a similar way to the way that the team working discourse developed in general management literature, where it led to an almost ubiquitous deployment of team working in management practice in the late 80’s and 90’s. Today, team has become a term that is almost universally given to all sorts of work groups in the assumption that it has universally positive effects. However, the reality about teamwork in health and social care may not be so clear cut as the accepted discourses within management theory and health policy would suggest. A study by Finn et al. (2010) revealed that team working initiatives can provoke wide ranging responses amongst staff. These include teamwork being co-opted by different health professions to reproduce existing divisions and hierarchies (Finn, 2008), or simply perceived as irrelevant and ignored by administrative staff (Learmonth, 2005).

According to Stanniforth & West (1995) the potential gains that team working appears to offer may not be so easy to realise for a number of reasons. Firstly, the assumption that group decisions are better than individual ones may be erroneous. They assert that “*the quality of team decisions is likely to be less than that of the best individual team member it is however likely to be better than that of the average team member.*” (1995 p.28). Secondly, group decision-making can be a much slower process than decisions being made by an individual. Thirdly group decision-making can lead to role conflict and lack of clarity over goals. Finally, team decision-

making is costly and these costs may mitigate any superior overall performance and goal achievement. What this amounts to is that “*teams are not easy to form, straightforward to manage, or immediately capable of producing both efficient and effective outcomes*” (1995 p.33). They conclude that without appropriate leadership, whether this is from one person or from several members of the group, it is unlikely that teams will offer significant improvements in performance over other ways of working.

This relationship between the concepts of leadership and teamwork represents somewhat of a paradox. On one level traditional theories of leadership are largely focused on what Alimo-Metcalfe and Alban-Metcalfe (2003) term a heroic model in that their focus is all on the individual, who through possession of certain behavioural skills and attributes can transform poorly performing organisations and extract maximum commitment and effort from super-motivated followers. The paradox at the same time is that team working, which includes the dispersal of management responsibility to teams who operate through collective effort (and often shared leadership) is seen by many as the key to high performance organisations.

A whole strand of leadership literature focuses upon the issue of whether teams need a leader, or at least to what extent teams can or should be self-managed (Hayes, 2002). Pivotal to this strand of literature is the work of Meindl (1990) who asserts that good performance in organizations or teams is often over-attributed to Leaders. Bennis and Biederman (1997) point out, there is very little written that attributes fantastic accomplishments to the workgroups or talented teams that produced them. A study by Manz (1992) found that what organizations often labelled self-managed teams were far from it. However, he advocates that organizations could go much further and that work groups could and should be given almost complete autonomy (Manz, 1986, Manz and Sims, 1987, Manz et al., 1989, Manz and Sims, 2001). In relation to team working, Hackman (2002) asserts that there is a propensity to assign the successes and failures of teams to individuals. He

calls this natural tendency to find individual scapegoats or heroes “leader attribution error.” (Hackman, 2002 p. 200). Hackman’s thesis is that individual leaders do not shape team performance. Rather, performance is more a combined effect of compelling direction, enabling team structure, and a supportive organisational context. When these design elements are successfully put in place, team performance processes are maximised. The team leader’s role is to provide the elements necessary for high performance and the main mechanism for achieving this within the team is expert coaching. However, the day-to-day leadership within the team should be shared throughout the team, who each have strengths and weakness that are complementary if there is diverse membership.

There is evidence however that self-managed teams often become directionless, unproductive and stuck in minor conflicts (Laiken, 1994). Group autonomy should therefore be an endpoint, not a beginning, and the process of achieving it requires significant investment in time and skilled leadership (Munro and Laiken, 2003). Significantly, Hackman also asserts that the performance research for self managed teams, over attributes performance gains to the teams themselves (Hackman, 2002).

However, whilst the authors of these critiques attack the mainstream discourses about both team working and leadership, they, together with virtually every writer on the subject of teams and team working, acknowledge that effective leadership is important for teams to work successfully.

2.10.1 The key elements of effective leadership in teams

Although Stanniforth and West (1995) point towards a dearth of research, specifically on team leadership, there is more research on team working within which, findings on the key elements of team leadership have been included, and outline models proposed (Larssen and LaFasto, 1989, Hackman, 1990, LaFasto and Larssen, 2002, Katzenbach and Smith, 2003, Stanniforth and West, 1995, Hayes, 2002, Stoker, 2008, Hackman, 2002).

Utilising this qualitative research literature on teamwork I conducted a metasynthesis (Walshe and Downe, 2005) and identified the following elements of team leadership. The framework is summarised in table 2.6).

1. Empowerment. According to Hayes (2002) the concept of empowerment is central to team working. Empowerment differs markedly from delegating. According to Shackleton (1995) there are six aspects related to empowerment.

- **Respect and belief.** Leaders need to respect their staff and believe that they are capable of high-performance.
- **Confidence.** Leaders who lack confidence can feel that the only way they can show their competence is through controlling and directing people, so empowerment can be seen as a potential threat.
- **Training.** Leaders have to strike the correct balance between respecting the team's abilities and establishing training opportunities to develop their skills.
- **Boundaries.** There need to be very clear boundaries about what is empowered and what is not. The team cannot decide absolutely everything about what it does and when.
- **Information.** The team specifies what information it needs to do the job, when and from whom. The leader's job is to get them the information they need to work effectively.
- **Rate of progress.** There needs to be a balance between allowing the team to decide its own rate and pushing them to ensure that organizational schedules are met.

The effective leader achieves the above through expert coaching (Hackman, 2002), active listening, encouragement, building self-confidence and capabilities, and ensuring small successes. As Staniforth and West

(1995) point out empowerment does not equate to the laissez-faire leadership conceptualized by Bass and Avolio (1994). In empowerment, appropriate structure and support are provided to both the team and to individuals, contingent upon circumstances, and their relative expertise and confidence levels. Laissez-faire leadership constitutes an almost total abdication of responsibility and avoidance of conflict.

2. Focus on goals, performance and approach of the team (Larssen and LaFasto, 1989, Katzenbach and Smith, 2003, Stanniforth and West, 1995, Hayes, 2002). The team leader helps the team to understand the purpose and key role of the team (Stanniforth and West, 1995) clarify their aims and values (Katzenbach and Smith, 2003) and takes responsibility for providing direction and compelling vision (Hayes, 2002). In creating favourable performance conditions (Hackman, 1990) team leaders steer their team rather than control and drive them like hierarchical leaders do (Katzenbach and Smith, 2003).

3. Setting priorities for the team (LaFasto and Larssen, 2002, Larssen and LaFasto, 1989) and clarifying the parameters/boundaries of the team's remit (Hackman, 1990, Hackman, 2002) are an important part of the leaders role.

4. Manage relationships with outsiders. A supportive organisational context is vital to any team's success and it is part of the job of the team leader to create this (Hackman, 2002). This includes representing the team to the rest of the organization (Hayes, 2002, Katzenbach and Smith, 2003); to communicate its values and aims (Katzenbach and Smith, 2003); remove obstacles from the team's path; win resources and support (Hackman, 2002) including information the team requires (Shackleton, 1995) and appropriate education and training required in order to complete its tasks effectively (Hackman, 2002).

5. Building and confidence and commitment. The team leader achieves this by highlighting success and positives (Katzenbach and Smith, 2003)

acknowledging the contribution of team members (Larssen and LaFasto, 1989) and showing appreciation for their initiative; and, encouraging the team to value each other's skills and talents (Katzenbach and Smith, 2003).

6. Ensure a collaborative climate (Larssen and LaFasto, 1989). The team leader creates a safe climate for team members to openly and supportively discuss any issue related to the team success (Larssen and LaFasto, 1989) and empowers the team to take joint responsibility for achieving their goal (Hayes, 2002). However, empowerment does not involve leaving the team to their own devices (Stanniforth and West, 1995) but rather balancing group autonomy and the role-power of the leader (Hackman, 2002). The balance is delicate and requires skilled judgement to decide when to empower (i.e. create group autonomy) or when it is right for the leader to exercise role power. Conversely, leaders can mask their lack of confidence by becoming overly autocratic and authoritarian (Hayes, 2002).

It is recognised that this requires sensitivity and awareness to observe and analyse team interaction patterns and work processes, and to make timely interventions when required (Hackman, 2002, Stanniforth and West, 1995).

7. Manage Performance. Whilst the team leader empowers the team, giving them high levels of autonomy to manage their own work, this empowerment does have boundaries (Shackleton, 1995) and the team leader must strike a balance between allowing the team to decide its own rate of work and setting the rate required to meet organisational schedules. In order to achieve this they must also be willing to confront and resolve issues associated with inadequate performance by team members (Larssen and LaFasto, 1989). Within this, they must ensure that everyone on the team, including themselves, does roughly equal amounts of work and do not delegate difficult or unpleasant tasks to others (Katzenbach and Smith, 2003, Stanniforth and West, 1995). When issues do arise or mistakes occur it is important for the team leader not to blame team members but solves the

problem without placing undue pressure on the people involved. Mistakes are best considered an opportunity for team learning; or for developing new levels of understanding. This said, shortfalls in team performance should always be acknowledged and efforts made to sort out problems. By taking responsibility for failures as well as successes the team leader enhances the feeling of teamwork and fosters constructive, collaborative problem-solving (Katzenbach and Smith, 2003).

It is notable however, with reference to the central debates on democratic verses autocratic styles and generic verses situational leadership, that the levels of experience and expertise of individual team members needs to be taken into consideration. An empirical study by Stoker (2008) found that:

- New team members reported high levels of individual performance when their team leader demonstrated directive behaviour.
- They reported lower levels of individual performance and greater emotional exhaustion when their team leader adopted more coaching behavioural styles.
- Finally, individual performance was greater and emotional exhaustion less for team members with relatively long team tenure when their team leader exhibited a coaching style of behaviour.

8. Demonstrate expertise through doing real work (Katzenbach and Smith, 2003, Larssen and LaFasto, 1989). It is important to understand that the role of team leader differs from that of the team manager. The team leader is located within the team and works alongside other team members to achieve team goals. The team manager is generally located outside of the team. They may manage several teams and their role is to ensure that the team achieves the overall organisational goals that are set for it and that the

team has the resources and support it requires (Hayes, 2002). As the team leader works as part of the team it is important that they demonstrate high levels of expertise and technical know how so they can fully appreciate the technical issues that must be faced in achieving the team's goals. In professional organisations this technical expertise is very important. Without it, leaders of teams of professionals find it difficult to command the respect other team members and their position can quickly become untenable (Adair, 2005)

9. Ensuring the correct mix and level of skills in the team (Katzenbach and Smith, 2003, Hackman, 2002, Stanniforth and West, 1995, Shackleton, 1995). An essential team leadership function is to ensure that the characteristics of the team are appropriate for its role and the tasks it has to achieve. The team leader therefore has to ensure that the team is of the right size and has an appropriate skill mix (Hackman, 1990). In recruiting team members with the essential technical skills and experiences to undertake team tasks, one must not assume that the individuals are already equipped to be team players. Teamworking and team leadership skills are not naturally bountiful and generally need to be developed (Stanniforth and West, 1995). Again there is an important balancing act between respecting the abilities of the team, but also establishing opportunities for training, learning and development (Shackleton, 1995). An important mechanism is to create opportunities for team members to develop; share opportunities that arise in the organisation and ensure team members are credited for their achievements, rather than the team leader alone. This both develops member skills and builds commitment to the team (Katzenbach and Smith, 2003).

Table 2.6 - Generic Team Leadership Framework

<p>PERSON - FOCUSED LEADERSHIP - Transformational Leadership</p> <p>Focus on goals, performance and the approach of the team</p> <ul style="list-style-type: none"> • Help the team to understand their purpose and key role (Stanniforth and West, 1995) • Clarify aims and values (Katzenbach and Smith, 2003) • Take responsibility for direction and compelling vision (Hayes, 2002). • Create favourable performance conditions (Hackman, 1990) • Steer team progress rather than control and drive (Katzenbach and Smith, 2003).
<p>Empowerment</p> <ul style="list-style-type: none"> • Provide Expert coaching (Hayes, 2002). • Show respect and belief in staff. • Display confidence in self and others. • Establish training opportunities to develop team skills. • Establish clear boundaries for autonomy and empowerment. • Ensure that the team has the information and resources for the job. • Ensure rate of progress to ensure organizational schedules. (Shackleton, 1995)
<p>Ensure a collaborative climate</p> <ul style="list-style-type: none"> • Create a safe climate for team members to discuss any issue related to the team success (Larssen and LaFasto, 1989). • Balance group autonomy and the role power of the leader (Hackman, 2002). • Judge when to use power and when to empower (i.e. create group autonomy). • Observe and analyse patterns of interaction and the processes of performance within the team • Intervene when required (Hackman, 2002, Stanniforth and West, 1995).
<p>Building confidence and commitment (Motivation)</p> <ul style="list-style-type: none"> • Highlighting success and positives (Katzenbach and Smith, 2003) • Acknowledge the contribution of team members (Larssen and LaFasto, 1989) • Show appreciation for initiative; • Encourage the team to value each others skills and talents (Katzenbach and Smith, 2003).
<p>TASK FOCUSED LEADERSHIP - Transactional Leadership</p>
<p>Initiating Structure</p>
<p>Managing Performance</p> <ul style="list-style-type: none"> • Create an enabling team structure (Hackman, 2002) • Balance rate of work to meet organisational schedules. • Confront and resolve issues around inadequate performance (Larssen and LaFasto, 1989). • Ensure that everyone, including themselves, does equal amounts of work • Do not delegate difficult or nasty tasks to others (Katzenbach and Smith, 2003). • Use mistakes as opportunities for team learning • Encourage team responsibility for failures as well as successes • Foster constructive, collaborative problem-solving (Katzenbach and Smith, 2003). • Match responsibilities and support to individual experience/expertise (Stoker, 2008)
<p>Setting priorities for the team</p> <ul style="list-style-type: none"> • Clarify the parameters of the team's remit (Hackman, 1990, Hackman, 2002). • Setting priorities for the team (LaFasto and Larssen, 2002, Larssen and LaFasto, 1989) • Contingent Reward
<p>Manage relationships with outsiders (Boundary Spanning)</p> <ul style="list-style-type: none"> • Represent the team to the rest of the organization (Hayes, 2002, Katzenbach and Smith, 2003) • Communicate its values and aims (Katzenbach and Smith, 2003) • Remove obstacles from the team's path, • Obtain necessary resources, support (Hackman, 2002) information (Shackleton, 1995) Education and training (Hackman, 2002). • Work to create a supportive organisational context (Hackman, 2002).
<p>Ensuring the correct mix and level of skills in the team</p> <ul style="list-style-type: none"> • Ensure that the team is the right size and has appropriate skill mix (Hackman, 1990). • Recruit staff with appropriate technical skills and experiences to undertake team tasks, • Establish opportunities for training, learning and development (Shackleton, 1995). • Develop team working and leadership skills in the team (Stanniforth and West, 1995). • Create opportunities for team members to develop • Share opportunities that arise in the organisation with the team

<ul style="list-style-type: none"> • Ensure team members are credited for their achievements (Katzenbach and Smith, 2003).
<p>Demonstrate expertise</p> <ul style="list-style-type: none"> • Demonstrate high levels of expertise and technical know how • Do real work (Katzenbach and Smith, 2003, Larssen and LaFasto, 1989) • Understand the technical issues faced in achieving the team's goals (Adair, 2005)

2.10.2 Evidence of the Effectiveness of Generic Leadership Models in Teams

There have also been some notable empirical studies that have used validated instruments based on generic leadership theories to assess if generic leadership theories such as Transformational Leadership (see pages 54-57) are applicable in team environments. These studies have recently been subject to systematic review and meta synthesis (Burke et al., 2006). The amount that particular tested generic leadership behaviours account for particular performance outcome measures are summarise in table 2.7 below.

Table 2.7 - Percentage of variance in team performance outcomes accounted for by leadership behaviours (Burke et al., 2006)

	Perceived team effectiveness (%)	Team productivity (%)	Team learning (%)
Task-focused	11	4	-
Transactional	6	-	-
Boundary spanning	24	-	-
Initiating Structure	10	4	-
Person-focused	13	8	31
Transformational	11	6	-
Consideration	6	5	-
Empowerment	22	10	31
Motivational	-	9	-

- = not enough data to conduct analysis

As can be seen generic task focused leader factors accounted for lower overall levels perceived team effectiveness (11%) than person-focused generic leadership factors (13%, but accounted for half as much team

productivity (4% vs. 8%). Empowerment a person-focused generic leadership factor accounted for 31% of team learning.

A recent study by (Schaubroeck et al., 2011) asserts that transformational leadership variables are consistently the most potent leadership variables for predicting team performance. The study in question found that transformational leadership behaviours accounted for 18% of team performance, 24% of affect-based trust and 48% of cognitive-based trust. However, servant leadership behaviours accounted for a further 10% of team performance, 20% of affect-based trust and a further 35% of cognitive-based trust.

Another recent study by (Hu and Liden, 2011) found that Servant Leadership (see p. 58) moderated the relationships between both goal and process clarity and team potency (team members' shared beliefs about their collective capabilities). Specifically, positive relationships between both goal and process clarity and team potency were significantly stronger in the presence of Servant Leadership.

The results of these studies constitutes a summary of some of the best and most recent empirical evidence of the most effective types of leadership behaviours in team environments.

2.11 Interdisciplinary Team Working in Health and Social care

2.11.1 Introduction

The literature reviewed in this section was identified from literature searches for the wider EEICC project (see page 40-41. for details) to gather evidence about interdisciplinary team working. I reviewed this literature initially in order to develop an Interdisciplinary Management Tool – an evidence based tool to facilitate improvements in interdisciplinary team working. The tool was used as part of an Action Research intervention in the EEICC project. I have included a review of this literature in this thesis as the determinants of effective interdisciplinary team working have direct implications for leadership in interdisciplinary teams.

2.11.2 Background

A large and continually expanding literature exists about the growing need for co-operation between health and social care professionals in order to deliver integrated services (Ovretveit, 1997, Pollard et al., 2005, Means, 2003, Barr, 2000).

Healthcare professionals have always worked together. However, the fundamental basis of professionalism is autonomy and the licence, as one who holds the professional qualifications that give a right to practise, to exercise professional judgement on behalf of the client or patient, even when those interests clash with that of the employing organization (Harrison, 1994).

The rationale for improving interprofessional collaboration between health and social care professionals is that it will meet service users needs more effectively (Thylefors et al., 2005). According to Xyrichis and & Lowton (2008) a wide range of terms are used to describe collaborative working arrangements between professionals. Terms such as: interdisciplinary, interprofessional, multiprofessional, multidisciplinary, are often used interchangeably in the literature to refer to both different types of

teams and different processes within them (Leathard, 2003). They are also often used in conjunction with the term team working.

However, there are some consistent distinctions that are useful to understand for the purposes of this thesis. The terms inter/multi-professional are generally narrower than the terms inter/multi-disciplinary (McCallin, 2003, Cook et al., 2001, Atwal and Caldwell, 2002, Borgsteede et al., 2007). The former refers to teams consisting of exclusively professionals from different professions or disciplines, or at least refers to the relationships between these professionals, but not towards others who work in their teams; an omission that seems very significant and one which makes one speculate on the value attached to the work of nonprofessional staff in delivering effective care. A study by (Pollard, 2005) found that nonprofessional staff and students were largely passive in interprofessional interactions. This is significant because non-professionals are delivering increased amounts of care particularly in intermediate and community care settings (Moran, 2008). According to Nancarrow et al. (2011) there is a subtle difference between these terms in that (inter)disciplinary is generally used when the focus of literature is on the sharing of specialist knowledge in working collaborations. The term (inter)professional is often used when the focus of the literature is on professional boundaries and roles and the perceived unique contribution of the individual professional. The terms multi/inter-disciplinary are therefore broader and includes all members of healthcare teams.

A further issue that requires clarification relates to the nature of the teams being discussed. According to Yukl (2006) a team contrasts with a coacting group who may do the same type of work, but do not rely on or are not interdependent upon, each other. Again, in the literature on interdisciplinary health and social care teams, the term team seems to be used ubiquitously. In terms of leadership this distinction between teams and groups is important, as team leadership requires more complex leadership

processes, particularly when leadership is to some extent shared between team members. A further complication is that there are various types of team. Yukl (2006) identifies four basic team types in table 2.8 below. I have added inter-agency/organisational teams to this table. In health and social care and elsewhere, teams are increasingly being formed consisting of members from different organisations, and terms like inter-agency and inter-organisational are increasingly used to describe them (Masterson and Masterson, 2007). It is also worth noting that the team types are roughly arranged according to level of autonomy within the table. However, what determines whether a group is a team, or vice-versa, relates to how the members work together and interact. As West (1994) points out just calling a group a team does not make them so. Often teams are only groups, and occasionally groups become teams.

With regards to interprofessional working in health and social care, as (Ovretveit, 1997) points out interprofessional working can take many forms. These include, work groups, network teams, management teams, training teams, ad hoc groups, and review groups. However, the terms used above, which are commonplace in management literature, are less often used in health and social care literature. In short, all five types of team described in the above table are represented in interprofessional teamwork literature but the type of team is often unacknowledged.

Table 2.8 - Common Characteristics of Four Types of Team (Yukl, 2006, p319) with Inter-agency team type added

Defining Characteristic	Functional Operating Team	Cross-Functional Team	<i>Inter-agency team</i>	Self-Managed Operating Team	Top Executive Team
Autonomy to determine mission and objectives	Low	Low to moderate	<i>Low to moderate</i>	Low to moderate	High
Autonomy to determine work procedures	Low to moderate	High	<i>High</i>	High	High
Authority of internal leader	High	Moderate to high	<i>Low to moderate</i>	Low	High
Duration of existence	High	Low to moderate	<i>Low to moderate</i>	High	High
Stability of membership	High	Low to moderate	<i>Low to moderate</i>	High	High
Diversity of members in functional background	Low	High	<i>High</i>	Low	High

There may be a number of reasons why commentators fail to acknowledge important distinctions between these team types with regard to health and social care. The vast majority of papers researched for this thesis were ones which commented either on leadership or team working in interprofessional teams and a major pre-occupation in this body of literature seems to be renegotiation of professional boundaries and roles and the maintenance of professional identity and autonomy (McCallin, 1999b). However, I would contend that understanding the type of team that healthcare workers are operating in is vital to understanding the dynamics of the team. Cross-functional or inter-agency teams are hugely different from functional or self-managed teams.

Traditionally, healthcare organisations were considered to be professional bureaucracies where management of the healthcare organisation was dominated by the medical profession assisted by administrators. Within this model healthcare professionals had relatively high levels of professional autonomy, they often worked in work groups or teams that were separated by function, and contacts with other parts of the organization and other professionals were usually transactional (Ranade, 1997).

The changes within the UK health care system that have occurred over the past two decades have reduced management by professionals through the introduction of professional management systems and by reconfiguring healthcare systems/organisations more as machine bureaucracies to try to ensure efficiency, consistency and effectiveness, and ultimately control. These attempts to systematise healthcare delivery can best be illustrated through the developing notion of the patient pathway, where a systems engineering approach has been utilised to design operational pathways for patients with particular conditions. Within the system's model, professional autonomy is reduced as care is organised around the patient, who receives a range of inputs dependent upon their needs at different stages of their journey through the system. These changes mean that healthcare workers have to coordinate their efforts far more closely (Currie, 1994). Significantly, leadership has been found to be instrumental in successfully developing and implementing care pathways (Currie and Harvey, 2000).

This need for coordination has ultimately led to structural changes in health services configuration as it requires the formation of interdisciplinary networks that span patient pathways to form groupings based more around particular services, such as CRAICS, rather than by functional expertise, such as, for example, a dedicated physiotherapy unit. These work groups naturally need to contain a range of health and social care workers with different roles and from different disciplines. The formation of these

interdisciplinary teams has naturally brought the issue of integration to the fore, as these groups of workers need to coordinate their efforts more closely than was traditionally the case. Integration is a big issue, because as previously discussed, it is in many ways paradoxical to the notion of professionalism, a fundamental basis of which is the autonomy of the professional. Within this context it is understandable why so much of the literature on interprofessionalism is preoccupied with negotiating professional boundaries.

Thylefors et al. (2005) identify this issue and have developed a useful taxonomy to understand the level of integration of work practices in healthcare teams consisting of a range of professions/disciplines.

“**Multiprofessional**” working is where members of different disciplines access or treat patients independently and share only information with other disciplines (Sorrels-Jones, 1997). In these teams there is no focus on collective working. Professionals treat the patient independently, without the input of other team members. (Thylefors et al., 2005). This model represents the customary form of healthcare delivery in which doctors traditionally took responsibility for coordinating independent contributions to the care of patients.

Interprofessional working is described as “*the product is more than the simple sum of parts*” (Thylefors et al., 2005, p. 104). In this way it encapsulates the core notion of team working as defined earlier. Effective care is accomplished through the interactive efforts of healthcare workers. Certain responsibilities are shared, which require collective planning and decision making and good communication (Day, 1981, Sicotte et al., 2002). “*To allow for an optimal and holistic management of the client’s problems, everyone involved in the process must take everyone else’s contribution into consideration.*”(Thylefors et al., 2005 p. 104).

Thylefors et al. (2005) add one further concept to their framework. In “**Transprofessional**” teams integration is so complete that professional boundaries are partly dissolved (Zeiss and Steffen, 1996). Transprofessional team working requires “*role extension*” (*increase of profession-specific knowledge*), *role enrichment* (*incorporating knowledge of the other professions*), *role expansion* (*transmitting one’s own expertise to other team members*), *role release* (*blurring traditional professional boundaries*) and *role support* (*support of, and feedback to, others on the implementation of skills*)”(Reilly, 2001 p 218).

Thylefors et al. create a matrix model in which the above three levels of integration are related to six team working variables: role specialisation, task interdependence, coordination, task specialisation, leadership and role interdependence.

A recent study by Korner (2010) compared the effects of multi-disciplinary and interdisciplinary team approaches on team work; and team effectiveness (performance and satisfaction) for teams working in rehabilitation. Interdisciplinary teams showed significantly better results for nearly all aspects of teamwork and team effectiveness measured.

With the above matters in mind, my specific focus for this study will be functional interdisciplinary teams that provide community rehabilitation and intermediate care services to older people, rather than cross-functional, inter-agency, or top management teams. These may be, to some extent, self-managed, or leadership may be directive. It is the dynamics of leadership in these teams, which is the specific focus for this PhD study and in particular the dynamics that are characteristic of and/or causal to higher performance and achieving better patient outcomes.

This said, it is recognised that functional interdisciplinary teams do not work in isolation to other teams, departments or agencies and that individual members may represent the team as part of cross-functional or interagency

teams; or that members of other teams may also be part of the team(s) being studied, albeit on a part-time or occasional basis. However, as much as possible, the unit of analysis will be the self-contained interdisciplinary team, rather than cross-functional or interagency teams/groups that often meet and work together sporadically, for short periods of time.

2.11.3 Evidence of the benefits of Interdisciplinary teams

A number of studies present findings on the benefits of interdisciplinary teams.

According to Grant and Finnocchio (1995) care by interprofessional teams has benefits for patients, healthcare professionals, health systems and educators of health professionals (see table 2.9).

Table 2.9 - Advantages of Interprofessional team Care (Grant and Finnocchio, 1995)

<p>For patients:</p> <ul style="list-style-type: none"> • Improves care by increasing coordination of services, especially for complex problems • Integrates health care for a wide range of problems and needs • Empowers patients as active partners in care • Can serve patients of diverse cultural backgrounds • Uses time more efficiently 	<p>For health care professionals:</p> <ul style="list-style-type: none"> • Increases professional satisfaction • Facilitates shift in emphasis from acute, episodic care to long-term preventive care • Enables the practitioner to learn new skills and approaches • Encourages innovation • Allows providers to focus on individual areas of expertise
<p>For educators and students:</p> <ul style="list-style-type: none"> • Offers multiple health care approaches to study • Fosters appreciation and understanding of other disciplines • Models strategies for future practice • Promotes student participation • Challenges norms and values of each discipline 	<p>For the health care delivery system:</p> <ul style="list-style-type: none"> • Holds potential for more efficient delivery of care • Maximizes resources and facilities • Decreases burden on acute care facilities as a result of increased preventive care • Facilitates continuous quality improvement efforts

A research study by Borrill et al. (2000) on team working in healthcare settings, which gathered information from 400 health care teams and over 7,000 staff, showed clear benefits of team working in improved staff wellbeing and increased performance. Specifically quality of team working was found to be powerfully related to: effectiveness, innovation, mental health of team members, and improved retention of staff. There was also found to be a significant negative relationship between team working and mortality. The study also found that communication, integration and regular meetings in primary and community mental health teams were associated with higher levels of innovation, as was professional diversity within the teams. Significantly for this study, in teams where there was no clear leader or evidence of conflict over leadership, objectives were unclear to staff and there were low levels of: participation, commitment to quality, support for innovation, and effectiveness, and poor team member mental health.

A research project by Millar et al. (1999) which explored the role of shared learning involving clinical team case studies, showed that, there were clear benefits for patients in teams where there were higher levels of collaborative working.

A study by Nancarrow et al (2009a) which included a cross-sectional study for 36 teams and 327 staff showed that there was a lower intention to leave in interdisciplinary teams where staff perceived they had more training and development opportunities to advance their careers. One may reasonably speculate from this that opportunities for further achievement, career advancement and personal growth are important for healthcare workers. This may also relate to the fact that in team settings that were perceived to offer more autonomy, healthcare professionals had lower intention to leave, in that responsibility is strongly related to achievement and advancement. Further, professionals who perceived that their teams were delivering high-quality care showed higher levels of satisfaction and had lower intention to leave. Finally, in teams where management was

perceived as relatively more effective, team members registered relatively higher levels of satisfaction.

There is no evidence presented in the above study that increased satisfaction and lower intention to leave is associated with improved outcomes for patients. However, it is important to note that a fundamental basis of all behavioural science interventions in organizations is that they positively impact on intermediate variables such as increased motivation and satisfaction, which in turn results in additional effort. The resulting extra-effort generally, although not always, results in improved performance outcomes. This has been accepted as fact since the Hawthorne experiments (Mayo et al, 1930, in Mullins et al, 2008) and has been shown in numerous empirical studies.

The obvious methodological challenges represented by the above may be a key reason why direct evidence of better outputs from, both teamwork and team leadership is sparse, and studies most often report on outcomes for staff. A systematic review and metasynthesis by Patterson et al, (2007) found that:

- There were strong to moderate significant relationships between “intermediate” outcomes, such as motivation, satisfaction and organisational and occupational commitment, and Human Resource Management practices in health and social care organisations;
- There were consistent moderate to small significant relationships between these intermediate outcomes and productivity enhancing behaviours such as individual job performance and employee turnover;
- However, the review did not identify any longitudinal evidence on whether intermediate outcomes significantly impact on client outcomes in healthcare organisations. A small number of non-health studies were found, though the results of these were inconsistent with some that did find small but significant relationships and others that did not.

A study by Monaghan et al (2005) found that the introduction of various multidisciplinary team working initiatives resulted in significantly better satisfaction for patients. In particular, multidisciplinary patient rounds improved consideration of patient needs and greater patient involvement. A study of General Practice teams utilizing the Team Culture Inventory (Anderson and West, 1994) found that improved team climate had a direct relationship with greater patient satisfaction over their care (Proudfoot et al., 2007). A before and after study by Ouwens (2007) which also utilised the Team Climate Inventory Questionnaire (Anderson and West, 1994) found that scores improved by 11% after teambuilding interventions to bring in new members and redefine task and goals.

Savic et al. (2007) found that the level of personal involvement of healthcare workers could be explained by four interdependent variables in 49.6% of cases: teamwork, level of education, transformational leadership and transactional Leadership.

Interprofessional training for healthcare professionals utilizing Servant Leadership theory as a framework (Greenleaf, 1977, Spears, 2005) has been found to have a significant effect on participant perceptions of interprofessional practice, with post training participants much more supportive of the concept (Neill et al., 2007). Teambuilding training has been found to improve the participative behaviours of interprofessional team members, particularly with regard to problem solving and decision-making. Professionals within the teams consistently achieved higher outcomes from the training than non-professionals (Currie, 1994).

2.11.4 Factors supporting Interdisciplinary Team working

2.11.4.1 Personal and Professional Development

According to Maister (1993, in, McCallin, 2003) an Interprofessional team is a largely professional group. Professionals are typically highly trained, intelligent, ambitious people who want to develop professionally. However, their good intentions are seldom realized. *‘Left to themselves, professionals, like all human beings, find it all too easy to take care of today, at the risk of under-investing in tomorrow’* (1993, p. 208). McCallin (2003) asserts that interprofessional teams need a practice leader to ensure that there is a focus on developing the team and *“to coach and guide colleagues through learning situations that will ultimately improve team function and practice”* (McCallin, 2003, p.367). The studies by Monaghan (2005), Ouwens (2007), Proudfoot (2007), and Currie (1994) referred to in the previous section, concur that interventions to improve interprofessional teamwork can be effective in improving interprofessional team functioning.

Whilst individual development is very important for staff, there is a tension between this and the needs of the team. As Leggat (2007) points out:

“Focus on individual skill development and individual accountability and achievement resulting from existing models of health professional training, and which are continually reinforced by human resource management practices within healthcare systems, is not consistent with ethos required for effective teamwork” (2007:p.7).

Caley and Reid (2003) concluded that there were nine key factors that influence the strength of the workplace as a site for learning and development these were grouped in three main areas:

1. **Systems factors** - are long-term planning for staff development, organisation and management of work to facilitate learning and significant organisational support for employee learning.

2. **Policy factors** - consideration of organizational and individual learning needs when undertaking workforce planning, enabling experience to be shared by creating informal learning and maximising learning opportunities via providing financial infrastructure and technology support.

3. **Cultural factors** - fostering openness and sharing, encouraging communication, and adhering to clearly and publicly stated values that promote learning.

This study indicates that learning and development activities often fail to have an impact because the systemic supports that allow learning to become part of practice are not in place. This is a key consideration for both team and leadership development as it indicates that efforts will have the most impact in an environment where learning is supported.

2.11.4.2 Autonomy

In generic management studies it has been consistently shown that effective teams have a collaborative climate (Hayes, 2002, LaFasto and Larssen, 2002, Larssen and LaFasto, 1989, Katzenbach and Smith, 2003). This is not simply a matter of staff skills and roles being homogenised as team members still have specific roles and tasks to undertake. Inability to coordinate their work effectively has been found to be a major cause of poor performance on health service teams (Zaccaro et al., 2001).

As already mentioned, it is the idea that the whole team should be more than the sum of parts, which is at the heart of the thinking about teams. This does not however, equate to dissolving professional boundaries. Rather, it is about promoting a model of collaborative practice where practitioners bring different perspectives and skills to patient care; “ . . . *in a shared care model where the whole is more than the sum of the individual practitioners*” (Cashman et al., 2004, p.129) The results of this process is that the autonomous practice of each team member is enhanced rather than

diminished (Arcangelo, 1996, Cashman et al., 2004, Katzenbach and Smith, 2003).

However, there is a tension between the requirement for greater collaboration and desire for greater autonomy. Staff can perceive high levels of collaboration as a benefit when interprofessional teams are functioning well, but in teams functioning poorly, reduction in individual responsibility may be perceived as a loss. According to Loxley (1997) there is the potential for lack of accountability, confusion in roles and the obscuring of indifference when teams are operating badly. Significantly, high-profile enquiries into failures in care in the UK have reported the need for clarity in identification of responsibilities of team members (Laming, 2003, CMS, 2001). However, these findings do not suggest that team working is counterproductive; rather that if team members view team working as reducing individual responsibility and become ineffective it can lead to disastrous results (Baxter and Brumfitt, 2008). However, shared decision-making can be viewed in a positive light, expanding responsibilities and enriching roles. Studies indicate that patient safety (a reduction in clinical errors) can be associated with better team decision-making (Alonso et al., 2006).

A study by Nancarrow et al. (2009a) found that the perceived level of autonomy has a direct relationship with whether or not staff intend to leave their job in the near future. However, the research also shows that teams that are more integrated (and in which individual staff have less autonomy) have better patient outcomes overall. This may indicate, as proposed above, that negative feelings about autonomy may be a result of poor team functioning.

2.11.4.3 Team size

Generic research on team working (Katzenbach and Smith, 2003, Lencioni, 2002) asserts that team size is very important. It is difficult to put an absolute limit on team size, but according to Mullins (2008) cohesiveness

becomes a problem when 10-12 members are exceeded and the figure of 5-7 is often put forward as the optimum size. When groups get larger than 10-12 they tend to split into subgroups. According to Cane (1996) organisations surveyed stated anything from 4-15 as the optimum number. It is difficult to communicate effectively face-to-face with more than 15 and 4 or less restricts the amount of creativity and variety.

A study of health care teams by Shortell (2005) found that teams of 8-12 people are most effective in accomplishing their goals and, more specifically that teams of 8 to 10 members are optimal for teams focused on quality improvement for chronically ill patients. According to Laiken et al, (2006) within small health care centres, there is less need for formalized structures to ensure clear inter-team communication. As the teams are smaller and more manageable, people tend to meet each other informally and deal with issues as they arise. Conversely, working in larger centres can lead to more confusion particularly around team affiliation, particularly if the concept of interprofessional team working is not well understood.

According to a study by Laiken (2006) when team size reaches 40 or more it can become impossible to reach consensus decisions and staff can become frustrated with lack of “air time”. One result was that staff deemed that meetings were largely a waste of time, which unnecessarily kept them away from their work with patients. Attending to the effects of the centre size when supporting teams was recommended as a major consideration by this study

This issue of optimum team size is a constant theme. The core issues seem to be that: if a team is too small, there is not enough diversity of skills or expertise, to work effectively for development of new ideas (Shortell, 2005). When teams get very large, however, there can be heavy transaction costs and it can take too long to get things done. (Fried et al., 2000).

Nancarrow et al (2009a) found, in a study on community based rehabilitation and intermediate care services, that smaller team sizes were related to improved team member satisfaction and lower intention to leave. However, larger team sizes were related to improved patient outcomes. This finding somewhat confounds the other research findings and may indicate that the dynamics in interprofessional teams are more complex than for other types of team. Or, it may simply mean that the decrease in satisfaction caused as a result of working in a large team are more than offset by economies of scale presented to result in better patient care. In small teams, sickness, absence and staff turnover can have a big impact on care.

One might conclude that whilst it may well be that there is an optimum size, it does not automatically mean that teams larger or smaller than the optimum size are ineffective, but there are advantages and disadvantages. Staff may have to work harder to ensure good communication and coordination within a larger team. In a smaller team staff may find it easier to communicate, but might need to be more flexible in order to ensure adequate cover for client care at all times.

2.11.4.4 Team working

According to Stanniforth and West (1995) team working is not a naturally occurring phenomenon. It requires significant development efforts to develop a group into an effective team. This is supported by Cashman et al. (2004) who found that team members who participated in teamwork training and development, consistently expressed values that have been found to be present in high performing teams.

The Canadian Health Services Research Foundation Study (CHSRF, 2006) found that team working can lead to improvements in the patient safety and the quality of care, and reduce the incidence of stress and burnout amongst staff. Further, that the factors most associated with team effectiveness were: clear purpose; good communication; co-ordination;

protocols and procedures; and effective mechanisms to resolve conflict when it arises (CHSRF, 2006).

Similarly a study by Temkin-Greener et al. (2004) found that the leadership, communication, coordination, and conflict management were significant predictors of team effectiveness and cohesion. Further, perceived team effectiveness significantly increased with: age of the respondents; the higher the collective professional work experience of members; more ethnically diverse composition of the team; the more the ethnic mix client groups was reflected within the team; and greater perceived resource availability.

A key feature of successful teams is active participation of all members. The CHSRF study (2006) found that successful teams simultaneously promote individual development and team interdependence (rather than dependence); actively recognize the benefits of working together; cultivate collective accountability; and recognize the professional or personal contributions of all members; .

Team working has been found to result in faster processing of referrals, leading to faster treatment. This effect is of great significance as evidence consistently suggests that the earlier rehabilitation begins the better the outcomes produced (Department of Health 2005b). A cluster randomised trial in which 31 rehabilitation teams took part in a multiphase training programme to develop better interprofessional working (Strasser et al., 2008) found that stroke patients were more likely to make functional improvements in health status when they were treated by staff who had participated in teamwork training, rather than by staff who received only information on effective team working. Other randomised controlled trials (Rubenstein et al., 1984, Wood-Dauphine et al., 1984) show that: patients treated by a multidisciplinary team in a geriatric unit had a lower mortality rate than controls, and; that team-care of stroke patients resulted in significantly higher scores for motor performance and functional ability than

patients who received treatment based on traditional non team-based methods.

A study by Feiger and Schmitt (1979) found that a patient outcomes were better when professionals worked in teams that when they worked in isolation, and further, that the least hierarchical teams achieved the best outcomes. They assert that the benefits to patients accrue through group processes of co-operation, co-ordination and collaboration.

Multidisciplinary team working allows professional staff to develop a more holistic view of patient needs, which can be beneficial (Hall and Weaver, 2001). Baxter and Brumfitt (2008) speculate that team working is creating a shift away from a medical model of care to a more rehabilitative, patient centred model.

According to Griffiths et al, (2004) eradication of recognized barriers to interprofessional teamwork (e.g. geographical separation and different employers) can lead to higher levels of integration. However, it may take longer to achieve flexible working across traditional professional and hierarchical role boundaries.

2.11.4.5 Team Integration

As discussed earlier, a major preoccupation of health services literature on interprofessional team working is focused on the issue of how much professional autonomy is displaced by more integrated approaches to patient care.

Results of the Thylefors et al (2005) study, discussed earlier in this thesis, indicate that the more team characteristics resemble those of the transprofessional team, with a climate, characterized by team spirit, trust, openness, and close co-operation, the higher the perceived effectiveness (Thylefors et al., 2005)..

Lemieux-Charles and McGuire (2006) found that collaboration, conflict resolution, participation, and cohesion had the greatest association with staff satisfaction and perceived team effectiveness, and further that the resulting improvements in integration accounted for improvements in patient care and organizational effectiveness. The findings of Vinokur-Kaplan (1995) support the finding that team cohesion is an important predictor of team effectiveness.

Grumbach and Bodenheimer (2004) found that cohesive interprofessional teams have five characteristics: firm goals and outcomes which are measurable; effective administrative systems; clear roles and responsibilities; ongoing training and development for all staff members; and, effective communication.

Similarly, Poulton and West (1999) found that the factors which determined effective team functioning included: effective team processes such as full participation, support for innovation, clear objectives, and an emphasis on quality. Within this, clarity of team objectives and commitment to them by team members were the strongest predictors of overall effectiveness.

A key factor in supporting effective team working also seems to be continuity of team membership. Laiken et al. (2006) found that continuity of team membership provides stability and an opportunity for the team to develop over time. They conclude that organizations need to focus on creating effective structures to support workforce continuity and maximize benefits of interprofessional working. This is a problem in healthcare settings as high proportions of staff regularly rotate in and out of teams as part of professional training.

According to West and Slater (1996) to perform well in a team environment team members not only need to be able to perform their own

role and responsibilities effectively, but possess the appropriate knowledge, skills and attitude to work effectively with the team. These include:

- Supporting the work of others and building on it;
- The interpersonal skills to get along with others; and,
- The ability to manage conflict.

In order to build and maintain good working relationships within teams, members need to understand and appreciate each other's skills and roles. There also need to be agreed processes for resolving conflict, which will predictably arise from time to time (Borrill, 2000, West and Slater, 1996). Team leadership skills are also required (West and Slater, 1996).

A study by Pritchard and Pritchard (1994) found that group process skills can be significantly strengthened by such multidisciplinary activities as joint education and training, and by teams collaborating in projects such as audits, and pilot projects.

The findings of a study by Tashakorie and Teddlie (1998) add somewhat of a qualification to the integration debated by asserting that effective interprofessional teamwork involves developing a set of shared core tasks, but outside those maintaining differentiated disciplinary roles. They also support the findings of the above studies finding that effective interdisciplinary team working requires effective leadership, team management, clinical supervision and clear mechanisms for dealing with conflicts and to ensure safe practice. Finally, they assert that it is vital that there should not be a monopoly of leadership from any one profession.

2.11.4.6 Team Meetings

There is a wide range of evidence about the potential impact of team meetings on performance.

Cashman et al, (2004) found that supported time set aside for regular team meetings, alongside teamwork training and development, resulted in team members' expressing values consistent with high functioning teams.

The creation of shared knowledge that regular meetings facilitate has been linked improved team performance (Hoopes and Postrell, 1999, Baxter and Brumfitt, 2008). A study of rehabilitation teams by Gibbon (1999) found that discussion and sharing of knowledge and information about patient rehabilitation goals, strategies and progress by team members had positive benefits for staff and patients. In particular for patients, discussions about alternate intervention goals resulted in enhanced patient rehabilitation. Conversely, where there was little interdisciplinary debate about intervention plans, meetings served only to disseminate decisions, rather than establish rehabilitation strategies and goals. However, even when this was the case, the study found that team conferences still improved the sense of collaboration within teams (Gibbon, 1999).

According to Laiken et al. (2006) team meetings are an important mechanism to facilitate team building. Creating protected time for teams to meet regularly provides time for the team to not only discuss tasks and goals, but to acknowledge and celebrate success, and strengthen social bonds. The study recommends that team members who work directly with each other should meet on a daily, or weekly basis and that the wider team, need to meet at least once a month to share information and ensure effective coordination.

Despite all the positives associated with team meetings, there are real pressures that act against staff meeting regularly. There is evidence that health and social care staff do not generally perceive team meeting time as

“real work”, but as additional to their work. Whilst the majority of staff in this study were committed to interprofessional team working, they often grouped meetings along with the growing policy driven demands for more data and bureaucracy, as things that increasingly impinge on the time they had available for the primary task of working with clients (Laiken et al., 2006). According to Baxter and Brumfitt, (2008) staff report making difficult choices between time for patient care and time for team working. This creates potential for different prioritisation of team working activities among individual team members, depending on their workload, levels of staffing ratios and commitment to the team.

The pressures on individual staff can mean that meetings do not take place as regularly as required, or that certain staff may not get enough contact with the wider team to operate effectively as a member. This problem is exacerbated, because as teams become larger the time demands for effective coordination and communication multiplies (Royal College of General Practitioners, 1995).

However, as Laiken et al. (2006) assert, supportive organisations demonstrate that they value time spent in meetings and view it as a vital investment of time for effective teamwork. Mechanisms for promoting the value of team meetings include: encouraging meetings within work hours, ensuring the support and resources required for staff to attend, scheduling meetings well in advance so team members can plan for attendance, and ensuring that meeting discussions are specific and task focused so staff can directly see their contribution to client work (Laiken et al., 2006). A study by Nancarrow et al. (2009a) found that teams which had regular team meetings had higher levels of satisfaction, and produced better patient outcomes overall.

It is clear from the above that team meetings are a primary mechanism for leaders to both facilitate teambuilding and effectively achieve team goals and tasks.

2.11.4.7 Innovation

West et al, (2003b) found that team based work processes consistently predict team innovation as opposed to vice-versa. Team leadership also predicted innovation with team processes partly mediating this relationship. Within health and social care in particular, and teams in general, there is a need to ensure leadership is clear in teams when innovation is a desirable team performance outcome (West et al., 2003b).

2.11.5 Conclusions

This section of the review illustrates many things that need to happen to develop and maintain effective interdisciplinary team working. It is centrally relevant to this thesis as Leaders have the primary responsibility for ensuring that the team is effective. The findings of this review are summarised in table 2.10 below.

Table 2.10 – Factors Supporting Interdisciplinary Team working

<p>Personal and Professional Development</p> <ul style="list-style-type: none">• Foster values that promote learning (Caley and Reid, 2003)• Coach and guide colleagues through learning situations that will improve team function and practice (Maister, 1993)• Give a focus to development of team working skills as an important development activity (Monaghan et al., 2005, Ouwens et al., 2007, Proudfoot et al., 2007, 1994)• Balance tensions between individual development needs and those of the team (Leggat, 2007)• Promote individual development (CHSRF, 2006).• Establish training of all staff members (Grumbach and Bodenheimer, 2004)
<p>Autonomy</p> <ul style="list-style-type: none">• Balance autonomy and collaboration (Arcangelo, 1996, Cashman et al., 2004, Katzenbach and Smith, 2003).• Promote collaboration to enhance autonomous practice rather than diminish it (Arcangelo, 1996)• Share decision making to expand responsibilities and enrich roles (Alonso et al., 2006).
<p>Team size</p> <ul style="list-style-type: none">• Be aware of the impact of staff numbers on team dynamics and communication (Laiken et al., 2006).• Use large team size as a way of giving senior staff members more leadership responsibility, to promote communication (Shortell, 2005).• In smaller teams promote role flexibility and sharing to ensure adequate cover for care (Shortell, 2005).

Team working

- Focus colleagues on issues related to team development (Maister, 1993, McCallin, 2003)
- Create clear purpose, communication, coordination, protocols and procedures (CHSRF, 2006).
- Recognise the contributions of all team members (CHSRF, 2006)
- Promote interdependence ((CHSRF, 2006)
- Work to develop team working skills such as: supporting the work of others and building on it; interpersonal skills to get along with others; and; ability to manage conflict. (West and Slater, 1996)
- Promote appreciation of each other's skills and roles. (West and Slater, 1996)
- Develop and agree effective processes to manage conflict (Temkin-Greener et al., 2004, Borrill, 2000, West and Slater, 1996).

Team Integration

- Promote team spirit, trust, openness, close cooperation (Thylefors et al., 2005)
- Establish:
 - clear goals with measurable outcomes (Grumbach and Bodenheimer, 2004, Poulton and West, 1999)
 - effective clinical and administrative systems (Grumbach and Bodenheimer, 2004)
 - division of labour (Grumbach and Bodenheimer, 2004)
 - effective communication. Grumbach and Bodenheimer (Grumbach and Bodenheimer, 2004)
 - participation(Poulton and West, 1999) (Thylefors et al., 2005)
 - an emphasis on quality, (Poulton and West, 1999)
 - support for innovation with clarity (Poulton and West, 1999)
 - commitment to team objectives being key in predicting overall effectiveness (Poulton and West, 1999)
- Work to develop workforce continuity (Laiken et al., 2006)

Team Meetings

- Create dedicated time for team meetings (Cashman et al., 2004)
- Promote full participation at case conferences and the sharing of expertise (Gibbon, 1999) (Hoopes and Postrell, 1999, Baxter and Brumfitt, 2008).
- Discuss and promote group responses to organisational changes and initiatives (Gibbon, 1999).
- Use meetings as an opportunity to facilitate teambuilding (Laiken et al., 2006)
- Promote the value of meetings and the importance of attendance (Laiken et al., 2006)
- Book meetings into diaries well ahead to allow staff to plan (Laiken et al., 2006)

Innovation

- Focus on developing effective team based work processes
- Ensure clarity of leadership within the team
- Work to develop effective shared leadership processes (West et al., 2003b).

2.12 The Role of Leadership in Interdisciplinary Teams

Twenty-three papers were identified in this literature review that specifically proposed theoretical frameworks of interdisciplinary team leadership (IdTL), or discussed interdisciplinary team leadership in depth, from over 1410 papers and texts identified in the initial literature searches. The findings of the analysis of these papers is set out below and summarised in table 2.11).

2.12.1 Defining Interprofessional Team Leadership

According to McCallin (2003) interdisciplinary teams need an overall leader. The leader's main responsibility is to facilitate team development, by improving team functioning and practice, and ensuring that staff continually extract useful learning from situations that arise.

"...a clinical team is much more than the simple sum of individuals working together as a group: It is a complex entity of providers who are trained in different fields or professions, and who use different tools, frameworks, and approaches to the patient. As the team develops more experience in working together, transformations occur within members that reflect an internal change in the thought process and normative assumptions on which they base their behaviour and practice". (Drinka and Clark, 2000, p.85-86)

McAllin (2003) asserts that interprofessional team leadership is a vague concept, in particular because single, generic leadership theories are not adequate to describe it. Shared leadership models can work best between professionals, but the professionals will only be accepted into the shared leadership team if they prove their expertise first. In teaching hospitals, with a three-month rotation, leadership in interprofessional teams was found to be shared between the core of permanent professionals in the team. However, whilst particular qualities are required for leading clinical activities such as overall case management, diagnosis and prescription

support, team leaders need a different set of capabilities in order to stimulate, motivate and maximize the potential of all in multi-disciplinary teams (Black and John, 1996).

Abreu (1997) defines interprofessional team leadership as a collective process that rotates responsibilities among healthcare members according to a variety of factors, including: the experts and followers in the group; the specific type of group or organisational issues addressed; the mission of the person, group or organisation; the work environment; cultural environment; and emotional environment.

According to Mickan and Rodger (2000, p. 201)“ *healthcare teams often elude consistent definition because of the complexity of teamwork*”. They reported that what training existed for leaders was generally uniprofessional and provided little or no opportunities to engage with differing perspectives. Finally, leadership development programmes were disconnected from wider organization development strategies.

The literature reviewed in this section has been developed into a synthesised framework. It is discussed below and summarised in table 2.11.

2.12.1.1 Facilitate shared leadership

For interdisciplinary teams to work effectively, each team member must accept responsibility as a member-leader. This entails that team members step in and out of the leadership role when their professional expertise, particular knowledge of a client, or knowledge of contextual situation comes to the fore. The shifting dynamics of shared leadership in interdisciplinary teams is dependent on the problem at hand. To work effectively requires that all team members equally participate and take responsibility (McCallin, 1999a)..

Table 2.11 - Interdisciplinary Team Leadership Framework

<p>Facilitate Shared leadership</p> <ul style="list-style-type: none"> • Consciously share the leadership function (Mickan and Rodger, 2000, McCallin, 2003, Ovretveit, 1997); • Facilitate interaction processes of the team (Willumsen, 2006) • Empower team members (McRay, 2003) • Develop and maintain non-hierarchical structures (Ovretviet, 1997) • Share their own ideas (Mickan and Rodger, 2000) • Provide information that the team requires or might find useful (Mickan and Rodger, 2000) • Work to create agreement (Mickan and Rodger, 2000)
<p>Transformation and Change (McRay, 2003, Irizarry et al., 1993)</p> <ul style="list-style-type: none"> • Create a climate where staff are challenged, supported, motivated and rewarded. (Irizarry et al., 1993) • Respond to change in a flexible way (Suter et al., 2007) and • Facilitate or act as a catalyst for practice change (Willumsen, 2006).
<p>Personal qualities</p> <ul style="list-style-type: none"> • Act as a role model (Pollard, 2005) • Inspire other team members (West et al., 2003c) • Enthusiasm (Pollard, 2005) • Commitment (Abreu, 1997) • The ability to empathise (McRay, 2003) • Knowledge of people (Suter et al., 2007)
<p>Ensure goals are in line with the organization</p> <ul style="list-style-type: none"> • Influence the direction and climate of the group to ensure productivity and goals are in line with the organization (Cook and Leathard, 1992). • Provide feedback; (Mickan and Rodger, 2000), • Highlight important issues (Cook and Leathard, 1992),
<p>Creativity & Innovation</p> <ul style="list-style-type: none"> • Ensure a productive balance of harmony and debate to ensure creativity (Cook and Leathard, 1992) • develop innovations and new practice models (Suter et al., 2007)
<p>Communication</p> <ul style="list-style-type: none"> • Develop and sustain clear communication channels in the team (Ovretveit, 1997, Willumsen, 2006, Suter et al., 2007) • Listen to, support and trust team members (Mickan and Rodger, 2000, Cook and Leathard, 1992) • Create a climate of mutual respect; (Ovretveit, 1997, Cook and Leathard, 1992). • Manage conflict and maintain a productive balance between harmony and healthy debate (Mickan and Rodger, 2000, McRay, 2003)
<p>Teambuilding</p> <ul style="list-style-type: none"> • Set expectations for working together (Suter et al., 2007) • Ensure cohesion (Willumsen, 2006) • Develop the interpersonal skills of the team (Ovretveit, 1997) • Ensure the contextual socialization of new or inexperienced team members (McRay, 2003) • Promote interdisciplinary collaboration, through encouraging/giving permission for staff to interact with those outside their profession (Suter et al., 2007) • Promote collaboration by facilitating reflection on practice (Branowicki et al., 2001, McCallin, 2003)
<p>Clarity of Leadership</p> <ul style="list-style-type: none"> • Specific team leader in charge (Nancarrow et al., 2009, West et al., 2003) • Maintain an informal democratic atmosphere (Krueger, 1987) • Manage Processes (Maister, 1993) • Facilitate co-operation (Maister, 1993) • Coach colleagues in shared leadership (Maister, 1993)
<p>Setting Direction</p> <ul style="list-style-type: none"> • Coordinate tasks (Mickan and Rodger, 2000) • Ensure work is allocated work equally (Pollard, 2005). • Set clear tasks (Ross et al., 2000)

<p>External Team Management</p> <ul style="list-style-type: none"> • Exercise external responsibility for the team (Irizarry et al., 1993). • Develop strategies for promoting the work of the team (Irizarry et al., 1993) • Demonstrate effectiveness through data collection & evaluation (Irizarry et al., 1993); • Adopt a marketing orientation to ensure the team understands its customers and can exploit new opportunities (Willumsen, 2006).
<p>Ensuring the right skill mix and diversity in the team (Ross et al., 200)</p>
<p>Demonstrate Clinical and contextual expertise</p> <ul style="list-style-type: none"> • Possess “clinical prowess” (Irizarry et al., 1993, Branowicki et al., 2001). • Show knowledge of the professional role of others (MacDonald et al., 2010) • In-depth understanding of organisation mission, structure economics politics (Branowicki et al., 2001) and current development programmes (Irizarry et al., 1993). • Balance focus between the needs of patient, organisation and team (Branowicki et al., 2001) • Possess a sound historical perspective to facilitate understanding of context and ensure all perspectives are taken into account (Abreu, 1997) • Develop networks and linkages (Pollard, 2005)

Wilson and Gleason (2001) concur with this view, finding that all team members in interdisciplinary teams accept collective responsibility for team outcomes and processes and accept both informal and formal leadership responsibilities according to continually changing situations. According to an Institute for Innovation and Improvement report (2010b) shared leadership does require a formal leader who is responsible overall for the performance of the team, but the team shares responsibility for identifying problems, finding solutions and implementing them.

A key role of the leader is to facilitate the interaction processes of the team (Willumsen, 2006). The key mechanism for achieving this is empowerment (McRay, 2003). The leader needs to develop and maintain non-hierarchical structures. (Ovretveit, 1997) for decision making (Mickan and Rodger, 2000). The leader consciously shares the leadership function (Mickan and Rodger, 2000, McCallin, 2003, Ovretveit, 1997) sharing their own ideas and providing information that the team requires or might find useful (Mickan and Rodger, 2000) and works to create agreement.

2.12.1.2 Transformation and Change

Transformational leadership capability (McRay, 2003, Irizarry et al., 1993) is important in order to: create a climate in which staff are challenged, supported, motivated and rewarded (Irizarry et al., 1993); respond to change

in a flexible way (Suter et al., 2007); and facilitate or act as a catalyst for practice change (Willumsen, 2006).

2.12.1.3 Personal qualities

Finally, in order to be able to enact the above effectively the interprofessional team leader requires enthusiasm (Pollard, 2005), commitment (Abreu, 1997), the ability to empathise (McRay, 2003), and knowledge of people (Suter et al., 2007). They must act as a role model (Pollard, 2005) in order to inspire other team members (West et al., 2003c).

2.12.1.4 Ensure goals are in line with the organisation

The team leader influences the direction and climate of the group to ensure goals are in line with the organization and productivity (Cook and Leathard, 1992). They do this providing feedback (Mickan and Rodger, 2000) to highlight important issues (Cook and Leathard, 1992),

2.12.1.5 Creativity & Innovation

A balance of the above factors is vital to ensure creativity (Cook and Leathard, 1992) and development of innovations and new practice models (Suter et al., 2007). However, team based work processes and team leadership consistently predict team innovation and there is evidence that team processes mediate the relationship between the team and innovation (West et al., 2003b). For interprofessional healthcare teams in particular, and teams in general, leadership clarity needs to be ensured, especially where teams are required to produce innovative outcomes (West et al, 2003).

2.12.1.6 Communication

The leader must develop (Ovretveit, 1997) and sustain (Willumsen, 2006, Suter et al., 2007) clear communication channels in the team. Whilst sharing leadership within the group they also work to influence the direction and climate of the group to ensure goals are in line with the organization and

productivity (Cook and Leathard, 1992). They do this by providing feedback (Mickan and Rodger, 2000) to highlight important issues (Cook and Leathard, 1992). Within this it is vital to support, listen to and trust team members (Mickan and Rodger, 2000, Cook and Leathard, 1992) and work to create a climate of mutual respect (Ovretveit, 1997, Cook and Leathard, 1992).

A vital function of the leader is to manage conflict (Mickan and Rodger, 2000, McRay, 2003) ensuring that a productive balance between harmony and healthy debate is maintained. Liberman (2001) asserts that the effectiveness of communication between team members is largely determined by leadership.

2.12.1.7 Teambuilding

Teamwork is not a naturally occurring phenomenon, it requires development (West, 1994). The team leader must therefore invest time in teambuilding (Suter et al., 2007) setting expectations for working together (Suter et al., 2007) ensuring cohesion (Willumsen, 2006) developing the interpersonal skills of the team (Ovretveit, 1997) and ensuring the contextual socialization (McRay, 2003) of new or inexperienced team members.

An important part of building the team is promoting interprofessional collaboration, through encouraging/giving permission for staff to interact with those outside their profession (Suter et al., 2007). Encouraging collaboration is promoted by allowing enough time for discussion and facilitating reflection on practice (Branowicki et al., 2001, McCallin, 2003).

2.12.1.8 Clarity of leadership

Despite evidence supporting shared leadership models there is also evidence to suggest that interdisciplinary teams need an overall team leader to facilitate the shared leadership process and coach team members in developing the skills required (McCallin, 2003). Maister (1993) also

asserts that interdisciplinary teams need an overall leader to ensure that the team is represented and gains the resources it requires, and that it retains a focus on its priorities and goals and that individual team members maintain the correct focus.

Research findings by Nancarrow et al (2009) indicate that teams with a specific team leader had higher levels of staff satisfaction than teams where the leadership role was split. A study by West et al. (2003a) supports this, finding that within healthcare teams clarity of leadership is pivotal to high performance. Leadership clarity is associated with clear team objectives, high levels of participation, commitment to excellence, and support for innovation. (see p 70 for further details). In keeping with the above, a study by Rosen and Callaly (2005) found that primary healthcare team members rated their effectiveness more highly when they perceived they had strong leadership and high involvement amongst all team members.

According to Maister (1993) the leader should be an experienced clinician, who carries the professional respect of colleagues both in and outside the team, understands the difficulties and pressures of working in the particular context, and who has the interpersonal skills to develop relationships with colleagues and coach them effectively on their contribution to the team.

The conclusion seems somewhat paradoxical, in that it appears that shared leadership prospers best where there is a clear team leader whose goal is to “*maintain an informal, democratic atmosphere*” (Krueger, 1987 p. 203).

2.12.1.9 Setting Direction

Necessary internal responsibilities include setting clear tasks (Ross et al., 2000); coordinating tasks (Mickan and Rodger, 2000); and ensuring work is allocated work equally (Pollard, 2005).

2.12.1.10 External Team Management

The team leader must exercise external responsibility for the team (Irizarry et al., 1993). This requires the development of strategies for promoting work of the team (Irizarry et al., 1993); the ability to develop networks and linkages (Pollard, 2005); demonstrating effectiveness through data collection & evaluation (Irizarry et al., 1993); adopting a marketing orientation (Willumsen, 2006) to ensure the team understands its clients and can exploit new opportunities.

2.12.1.11 Ensuring the right skill mix and diversity in the team

The team leaders role is to ensure that the team contains the right skill mix and diversity to achieve its goals and tasks (Ross et al., 2000).

2.12.1.12 Demonstrate Clinical and contextual expertise

McAllin (2003) asserts that shared leadership models can work in interprofessional settings, but that professionals, and presumably other healthcare staff, will only be accepted into the shared leadership team if they prove their clinical expertise (Branowicki et al., 2001, Irizarry et al., 1993).

They must also have an in-depth understanding of the organisation's mission, structure, economics, politics (Branowicki et al., 2001) and current development programme (Irizarry et al., 1993). It is important that the team leader balances their focus between the needs of the patient, organisation and team (Branowicki et al., 2001). According to Abreu (1997) a sound historical perspective is also necessary to facilitate understanding of context and ensure all perspectives are taken into account. This requires the skills of metacognition (Irizarry et al., 1993) as well as the ability to develop networks and linkages (Pollard, 2005). A 2010 study by MacDonald et al. found that knowledge of the professional role of others was a key competency of interdisciplinary team leaders. See table 2.12 below.

Table 2.12 - Behavioural indicators for interprofessional competency ‘knowledge of the professional role of others’ (MacDonald et al., 2010).

1.	Describes where the scope of one’s own profession ends and another begins.
2.	Open to/seekes out the contributions of other team members.
3.	Addresses misconceptions/stereotypes among team members.
4.	Respects the roles, expertise, and unique contributions of other team members.
5.	Identifies common/overlapping professional skills amongst team members.
6.	Values the enhanced benefits of the collaborative efforts of the team.
7.	Describes the different perspectives and knowledge of other professions.

2.13 Summary and Conclusions

From the evidence that has been identified and reviewed three synthesised frameworks have been produced.

The first team leadership framework emerges from generic team working literature and is presented in table 2.6 (page 73). The second framework was developed from literature on factors that support interdisciplinary team working, as establishing these factors is the responsibility of the team leader (presented in table 2.10 (page 98-99)). The third framework is synthesised specifically from literature on interdisciplinary team leadership in health and social care and is presented in table 2.11 (page 102-103).

Both leadership specific frameworks have similarities. In each there seem to be distinct sets of person focused and task focused behaviours. Further, most of the factors that appear in the generic team leadership framework can also be seen in the interdisciplinary team leadership framework and the framework derived from factors effecting team working also supports many aspects of both frameworks. Both leadership frameworks include:

- A focus on achieving organisational goals.
- Managing performance
- Managing external relationships (boundary spanning activities)
- Demonstrating technical expertise

There are some differences between the frameworks. However, these often appear to be differences in emphasis.

The interdisciplinary team leadership framework specifically mentions leadership abilities that promote transformation and change, and creativity and innovation as key elements. The literature on generic team leadership does not overtly focus on transformation, change and innovation. The focus is more on the team's functional role in achieving wider organisational goals. However, some of the strongest research evidence on effective team leadership behaviours comes from the metaanalysis by (Burke et al., 2006) which show that transformational leadership behaviours can have a potent effect within teams.

Empowerment appears as a primary focus in the generic leadership framework as a mechanism for collaboration, but the focus in the interdisciplinary framework is more on shared leadership. Conceptually these factors possess distinctions, but in the ways that they are described they appear to have more similarities than differences. In the generic framework the team leader empowers and facilitates self-management, but within clearly defined parameters. The interdisciplinary team leadership literature talks more about shared leadership, particularly in relationship to professionals within the teams. However, there is a paradox in that there is good evidence that clarity of leadership (West et al., 2003a, Nancarrow et al., 2009a) also appears to be important. Other commentators clarify, that shared leadership in IdT's is facilitated by the team leader (Krueger, 1987,

Maister, 1993). It may be that shared leadership is a more palatable concept to professionals than empowerment as it appears to lend more status to professional expertise and allows for professional autonomy.

The interdisciplinary team leadership framework overtly mentions team building as a key activity of the team leader, whereas the generic team leadership framework does not. In some ways this is surprising as the generic literature on team working consistently points out the differences between a group and a team and the fact that it takes conscious effort for the former to become the latter (Stanniforth and West, 1995, Katzenbach and Smith, 2003, Hackman, 2002). However, within the generic literature the discussion is largely about established functional teams. Further this factor may be a result of the fact that there is an established history in organisational and behavioural sciences of studying the attributes of star performers, the thesis being that through the study of those who are exceptional at what they do, it is possible to identify the factors that are causal to effective performance (Boyatzis, 1982). In the interdisciplinary team literature, teamwork is still often an ideal that health and social care organisations are working to attain. This said, generic team leadership literature does assert the importance of building confidence and commitment to motivate team members.

Another key difference with the interdisciplinary team leadership framework is that it more overtly recognises the importance of communication. The generic literature of team leadership does recognise issues of communication within the context of “Ensuring a Collaborative Climate”.

Ensuring the correct mix and level of skills in the team appears in both the generic literature, and the interdisciplinary team leadership literature. However, within the IdTL framework the focus appears more on developing the dynamics within the team as a whole and increasing integrated practice, particularly amongst professionals. This may also explain why there is a

much stronger focus on setting priorities and managing performance in the generic literature on team working than in the literature on interdisciplinary team working in health and social care.

The literature review also raised some general questions about leadership in interdisciplinary teams. Both the generic and health and social care specific literature on teamwork states that teams become less effective as teams become larger. However the COOP study (Nancarrow et al., 2009a) found that larger interdisciplinary care teams providing intermediate and community care for older people produced better patient outcomes as they got larger, despite the fact that there was less satisfaction amongst team members and higher intention to leave in the team. However, it is not clear from these results whether there is a limit to this relationship. Is there a size reached where the economies of scale and enhanced workforce flexibility delivered by larger services, becomes offset by the impact on team working? A second issue is that whilst many of the services that took part in this study are called teams, it is unclear how much of them actually operate as teams in practice. As already discussed team seems to have become a term that is almost ubiquitously applied to work groups. Certainly, the size and structure of these teams are often outside the parameters put forward in the literature on teams.

Despite the differences in the two frameworks outlined above, there appears to be little evidence within the literature generally that there is a distinct form of leadership that is effective within interdisciplinary health and social care teams. In fact, it appears that health and social care organisations are largely subject to the same leadership qualities and behaviours as other organisations.

What is different about interdisciplinary team leadership in health and social care appears to be the unique context in which it is applied. The multidisciplinary nature of the workforce in health and social care, the public sector setting, their function, and the contexts that they operate

within, make the dynamics in interdisciplinary healthcare teams differ from the dynamics of work teams in other settings. Given this diversity the literature does indicate that there are some elements of leadership practice, which may be effective in interdisciplinary team settings. Perhaps the key issue highlighted in the literature is the fact that traditionally, the operational workforce within health and social care is predominantly multi-professional in nature. Though, this situation is changing, it is still the case that, certainly within health care, professionals still dominate the operational workforce. Increasingly these professionals, together with other disciplines, are working together in a more integrated fashion. The creation of interdisciplinary teams has therefore created a unique leadership context. Whereas traditionally professions would be functionally led (i.e. doctors by doctors, physios by physios) by the person from within their profession with most expertise, in IdT's these functional divisions are impossible to sustain in contemporary health services. The leader can at most be only from one profession or discipline and therefore cannot demonstrate greater professional expertise than colleagues from other professions. This makes IdT leadership much more demanding as the team leader, needs to find a way of leading this diverse workforce, without being able rely on professional credibility as a locus of authority. Further, the IdTL needs to be able to find ways to get a disparate interdisciplinary group, to give up some of their traditional autonomy, integrate their practices and operate as a team.

This literature review has examined literature on the mechanisms of IdTL and given some insight into what might constitute good leadership practice. However, it has also shown that there is a paucity of empirical research data on IdTL and that there is still much that is unknown about the IdTL process.

2.13.1 Final Integrated Framework

As the purpose of this PhD is to explore more fully what constitutes effective IdTL further and increase evidence based knowledge within this area, I have produced a final synthesised IdTL framework from the literature sources reviewed. It incorporates important elements of team leadership practice that appear to be absent from current understandings of Interdisciplinary Team Leadership.

Table 2.13 - Literature Review – Final IdTL Framework

PERSON FOCUSED LEADERSHIP	TASK-FOCUSED LEADERSHIP
<p>Transformation and Change (McRay, 2003, Irizarry et al., 1993)</p> <ul style="list-style-type: none"> • Create a climate where staff are challenged, supported, motivated and rewarded. (Irizarry et al., 1993). • Respond to change in a flexible way (Suter et al., 2007). • Facilitate or act as a catalyst for practice change (Willumsen, 2006). • Foster values that promote learning (Caley and Reid, 2003). <p>Personal qualities</p> <ul style="list-style-type: none"> • Act as a role model (Pollard, 2005) .. • Inspire other team members (West et al., 2003c). • Enthusiasm (Pollard, 2005) . • Commitment (Abreu, 1997). • The ability to empathise (McRay, 2003). • Knowledge of people (Suter et al., 2007). <p>Ensure goals are in line with the organization.</p> <ul style="list-style-type: none"> • Influence the direction and climate of the group to ensure goals are in line with the organization and productivity (Cook and Leathard, 1992, CHSRF, 2006). • Establish commitment to team objectives (Poulton and West, 1999). • Highlight important issues (Cook and Leathard, 1992). 	<p>Setting Direction (Coordinating Tasks)</p> <ul style="list-style-type: none"> • Coordinate tasks (Mickan and Rodger, 2000, CHSRF, 2006, Grumbach and Bodenheimer, 2004). • Ensure work is allocated equally, including to the leader (Pollard, 2005, Katzenbach and Smith, 2003). • Do not delegate difficult or nasty tasks to others (Katzenbach and Smith, 2003). • Establish clear goals with measurable outcomes (Grumbach and Bodenheimer, 2004, Poulton and West, 1999). • Promote full participation at case conferences and the sharing of expertise Gibbon (1999) (Hoopes and Postrell, 1999, Baxter and Brumfitt, 2008). • Match responsibilities and support to individual experience/expertise (Stoker, 2008).
<p>Creativity & Innovation</p> <ul style="list-style-type: none"> • Ensure a productive balance harmony and debate (Cook and Leathard, 1992). • Support and develop innovations and new practice models (Suter et al., 2007, Poulton and West, 1999). • Ensure team members are credited for their achievements (Katzenbach and Smith, 2003). • Focus on developing effective team based work processes (West et al., 2003b). 	<p>Manage Performance</p> <ul style="list-style-type: none"> • Create an enabling team structure with effective clinical and administrative systems (Hackman, 2002, Grumbach and Bodenheimer, 2004). • Establish an emphasis on quality (Poulton and West, 1999). • Provide feedback; (Mickan and Rodger, 2000). • Balance rate of work to meet organisational schedules. (Larssen and LaFasto, 1989). • Confront and resolve issues around inadequate performance (Larssen and LaFasto, 1989). • Encourage team responsibility for failures as well as successes (Katzenbach and Smith, 2003). • Use mistakes as opportunities for team learning (Katzenbach and Smith, 2003). • Foster constructive, collaborative problem-solving (Katzenbach and Smith, 2003).

<p>Communication</p> <ul style="list-style-type: none"> • Develop and sustain clear communication channels in the team (Ovretviet et al., 1997, CHSRF, 2006, Willumsen, 2006, Suter et al., 2007, Grumbach and Bodenheimer, 2004). • Listen to, support and trust team members (Mickan and Rodger, 2000, Cook and Leathard, 1992). • Create a climate of mutual respect; (Ovretveit, 1997, Cook and Leathard, 1992). • Develop and agree processes to manage conflict and maintain a productive balance between harmony and healthy debate (Mickan and Rodger, 2000, McRay, 2003, West and Slater, 1996, Temkin-Greener et al., 2004, Borrill et al., 2000). • Recognise the contributions of all team members and promote appreciation of each other's skills and roles. (West and Slater, 1996, CHSRF, 2006) . 	<p>Ensure the correct mix and level of skills in the team</p> <ul style="list-style-type: none"> • Ensure that the team is the right size and has appropriate skill mix (Hackman, 1990). • Recruit staff with appropriate technical skills and experiences to undertake team tasks. • Establish opportunities for training, learning and development for all staff members (Shackleton, 1995, Stanniforth and West, 1995, CHSRF, 2006, Grumbach and Bodenheimer, 2004). • Develop team working and leadership skills in the team (Stanniforth and West, 1995, Monaghan et al., 2005, Ouwens et al., 2007, Proudfoot et al., 2007, Currie, 1994). • Share opportunities that arise in the organisation with the team (Stanniforth and West, 1995). • Balance tensions between individual development needs and those of the team Leggat (2007). • Work to develop workforce continuity (Laiken et al., 2006).
<p>Empowerment and Shared leadership</p> <ul style="list-style-type: none"> • Consciously share the leadership function (Mickan and Rodger, 2000, McCallin, 2003, Ovretveit, 1997, Alonso et al., 2006). • Work to develop effective shared leadership processes (West et al., 2003b). • Share own ideas, (Mickan and Rodger, 2000). • Provide information that the team requires or might find useful (Mickan and Rodger, 2000). • Work to create agreement. (Mickan and Rodger, 2000). 	<p>External Team Management</p> <ul style="list-style-type: none"> • Exercise external responsibility for the team (Irizarry et al., 1993). • Develop strategies for promoting the work of the team (Irizarry et al., 1993). • Demonstrate effectiveness through data collection & evaluation (Irizarry et al., 1993). • Adopt a marketing orientation to ensure the team understands its customers and can exploit new opportunities (Willumsen, 2006).
<p>Teambuilding</p> <ul style="list-style-type: none"> • Focus colleagues on issues related to team development (Maister, 1993, McCallin, 2003). • Set expectations for working together (Suter et al., 2007) to ensure cohesion (Willumsen, 2006) and full participation (Poulton and West, 1999). • Develop the interpersonal skills of the team (Ovretveit, 1997, West and Slater, 1996). • Work to develop team working skills such as: supporting the work of others and building on it. (West and Slater, 1996). • Ensure the contextual socialization of new or inexperienced team members (McRay, 2003). • Promote interdisciplinary collaboration and interdependence, through encouraging/giving permission for staff to interact with those outside their 	<p>Demonstrate Clinical and contextual expertise</p> <ul style="list-style-type: none"> • Possess "clinical prowess" (Irizarry et al., 1993, Branowicki et al., 2001). • Show knowledge of the professional role of others (MacDonald et al., 2010). • In-depth understanding of organisation mission, structure economics politics (Branowicki et al., 2001) and current development programmes (Irizarry et al., 1993). • Balance focus between the needs of patient, organisation and team (Branowicki et al., 2001). • Possess a sound historical perspective to facilitate understanding of context and ensure all perspectives are taken into account (Abreu, 1997). • Develop networks and linkages (Pollard, 2005).

<p>autonomous professional practice (Suter et al., 2007, Arcangelo, 1996, Cashman et al., 2004, CHSRF, 2006).</p> <ul style="list-style-type: none"> • Coach and Facilitate reflection on learning situations that will improve team function and practice (Maister, 1993, Branowicki et al., 2001, McCallin, 2003). • Be aware of the impact of staff numbers on team dynamics and communication (Laiken et al., 2006). 	
	<p>Clarity of Leadership</p> <ul style="list-style-type: none"> • Specific team leader in charge (Nancarrow et al., 2009, West et al., 2003). • Maintain an informal democratic atmosphere (Krueger, 1987). • Manage Processes • Facilitate co-operation • Coach colleagues in shared leadership (Maister, 1993).

Chapter 3 Research Questions

3.1 Research Questions

3.1.1 Introduction

The review of the literature on leadership in interdisciplinary teams has identified a number of areas for further necessary research.

I will therefore outline in this section the overall research objectives and questions that have developed out of the literature review and will be the focus of this thesis.

3.1.2 Core themes and issues arising from the literature review

The reviews of the generic management and organizational literature illustrate that leadership is an important factor in facilitating high performance in organisations. However, there is still much debate regarding the impact of leadership in interdisciplinary CRAICS teams, what the constituent elements are, what relatively the most important of these are, and in what contexts.

In general, leadership research has moved from trying to identify a set of universal elements, towards an increasing recognition of both the complexity of organisational dynamics and the mediating role of context. What makes a leader successful in a particular context is now seen to be due to multiple factors, some within the control of the leader, but many that are not. However, despite the power of contextual factors, there is a good deal of evidence regarding the leadership factors that are important. It is the application of these factors, in measures appropriate to unique and constantly changing contexts, that makes the role of the leader so challenging. It may also be a key reason why a leader may succeed in one leadership role and not perform so well in another.

The literature on leadership in health and social care organizations shows a growing focus at policy level on leadership and also presents some convincing evidence of the importance of leadership. However, the

evidence about the impact of leadership generally is sparse and in relation to specific health and social care contexts is both patchy and relatively sparse.

Further, whilst there has been a good deal of research on team working, less research has been done around leadership in teams. Further, the evidence found about team leadership often comes from studies focused on team working, in which leadership is identified as one amongst a number of success factors. Despite some dissenting voices within the literature on team working, on both the impact of team working and leadership upon teams, there is clear consensus on the importance of leadership, backed up by some solid evidence of the impact of leadership on staff and team level variables, such as satisfaction, perceived effectiveness and learning. However, the amount of evidence about the effect of leadership on productivity, or in the case of health and social care, client/patient outcomes, is very sparse. There is also less research on what type of leadership is most effective in different types of teams. Finally, even though context is increasingly recognized as important, most major studies appear to be generic.

This is particularly so in relation to leadership in health and social care teams where, whilst there is a growing discourse that team working can have many benefits, particularly in systems that are increasingly systematized around patient/client pathways, there is often little conceptual stability particularly in relation to contexts. This may be as a result of the often-overriding preoccupation with the relationships between health professionals.

This is acutely evidenced by the literature on interdisciplinary healthcare teams, which displays a number of inconsistencies. Firstly, there is often little or no acknowledgement within this literature of the type of team under discussion (i.e. whether the teams being studied are functional, cross-functional, or inter-agency etc) even though team type can have a dramatic effect on the way that a team functions. Secondly, terminology such as:

interprofessional, multiprofessional, interdisciplinary, multidisciplinary; are used interchangeably, with little conceptual stability. Thirdly, articles that focus on interdisciplinary work do so in a wide variety of health and social care contexts from community-based services to acute care, often without acknowledging the influence that these contexts may have on findings. These issues mean that making sense of the literature as a unified body is particularly challenging.

However, attempts to address these issues by identifying papers on interdisciplinary working for a particular context such as, in this study, community rehabilitation and intermediate care services for older people, results in an evidence base that is extremely small, fragmented and inconsistent.

3.1.3 Research Aims and Objectives

The overall aim of this project is to develop a more sophisticated understanding of the dynamics of effective IdTL within CRAICS. The research in this thesis is part of a larger study (EEICC) that uses the current evidence base to build an Interprofessional Management Tool (IMT): an evidence-based, heuristic device which allows interdisciplinary teams to benchmark their team working practices against what research indicates is best practice. The IMT was implemented with 10 interdisciplinary CRAICS teams to discover if the approach improved team working, and led to improved outcomes for both staff and patients. The data from the EEICC project was analysed in conjunction with additional leadership data that was gathered in order to meet the aims of this PhD study.

3.1.4 Research Questions

In order to realize the overall aim of the project, this study will undertake to answer the following questions: -

Question 1: *What do staff in interdisciplinary teams believe are the key elements of effective interdisciplinary team leadership?*

Question 2: *What is the relationship between interdisciplinary health care team structure and working practices, and IdTL?*

Question 3: *What is the relationship between effective Interdisciplinary Team Leadership, and Staff and Team Level Dynamics in interdisciplinary health and social care teams?*

Question 4: *What is the relationship between Interdisciplinary Team Leadership and Patient Outcomes in interdisciplinary health and social care teams?*

Question 5: *What is the relationship between Staff and Team level Dynamics and Patient Outcomes in interdisciplinary health and social care teams?*

Question 6: *What is the relationship between Staff level Interdisciplinary Team Leadership outcomes and Team Level Dynamics?*

Chapter 4 Research Methods

4.1 Introduction

In this section, I will present the methods used in the study including the underpinning rationale for each of the methodologies utilised.

As already detailed in section 1.3 of the introduction; “Contribution and Differentiation”, this study is part of a larger research project; Enhancing the Effectiveness of Interprofessional Team working: Costs and Outcomes (EEICC). It is therefore important to understand how the methods described in this thesis relate to those utilised within the broader project.

4.2 Overall research design

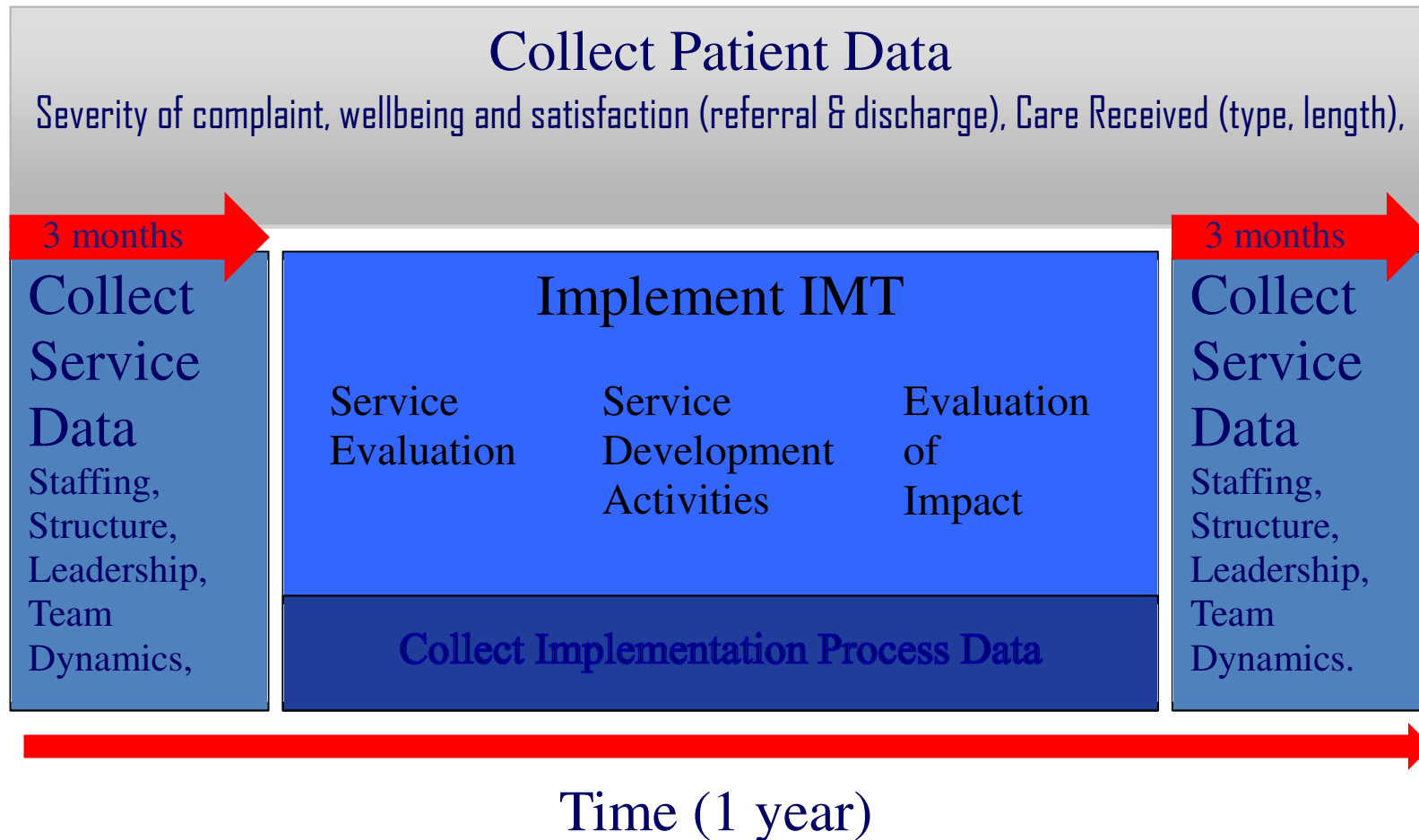
Barr et al, (2000) recommends that both qualitative and quantitative methods should be used when researching interdisciplinary working. This mixed methods health services workforce research utilised both quantitative and qualitative methods to answer the questions outlined in Chapter 3.

The design of the wider EEICC is illustrated in figure 1. The project had a complex mixed methods design, which included: 3 systematic literature reviews; the development and implementation of an evidence based tool - the IMT – which aimed at improving interdisciplinary team working with 10 teams; and gathering and analysing both qualitative and quantitative longitudinal evaluation data to evaluate the impact.

This PhD study gathered additional research data on interdisciplinary team leadership, utilising both quantitative and qualitative methods. This data, together with the data set gathered in the EEICC project was subjected to additional analysis in order to identify interdisciplinary team leadership factors and test whether leadership factors identified are significantly associated with; service structure and working patterns; Staff Outcomes, Team Level Dynamics and Patient Outcomes in IdT’s. A flow-chart for the analysis of the data for the PhD can be seen in figure 2. Figure 3. shows the analytic framework for the cross-sectional study.

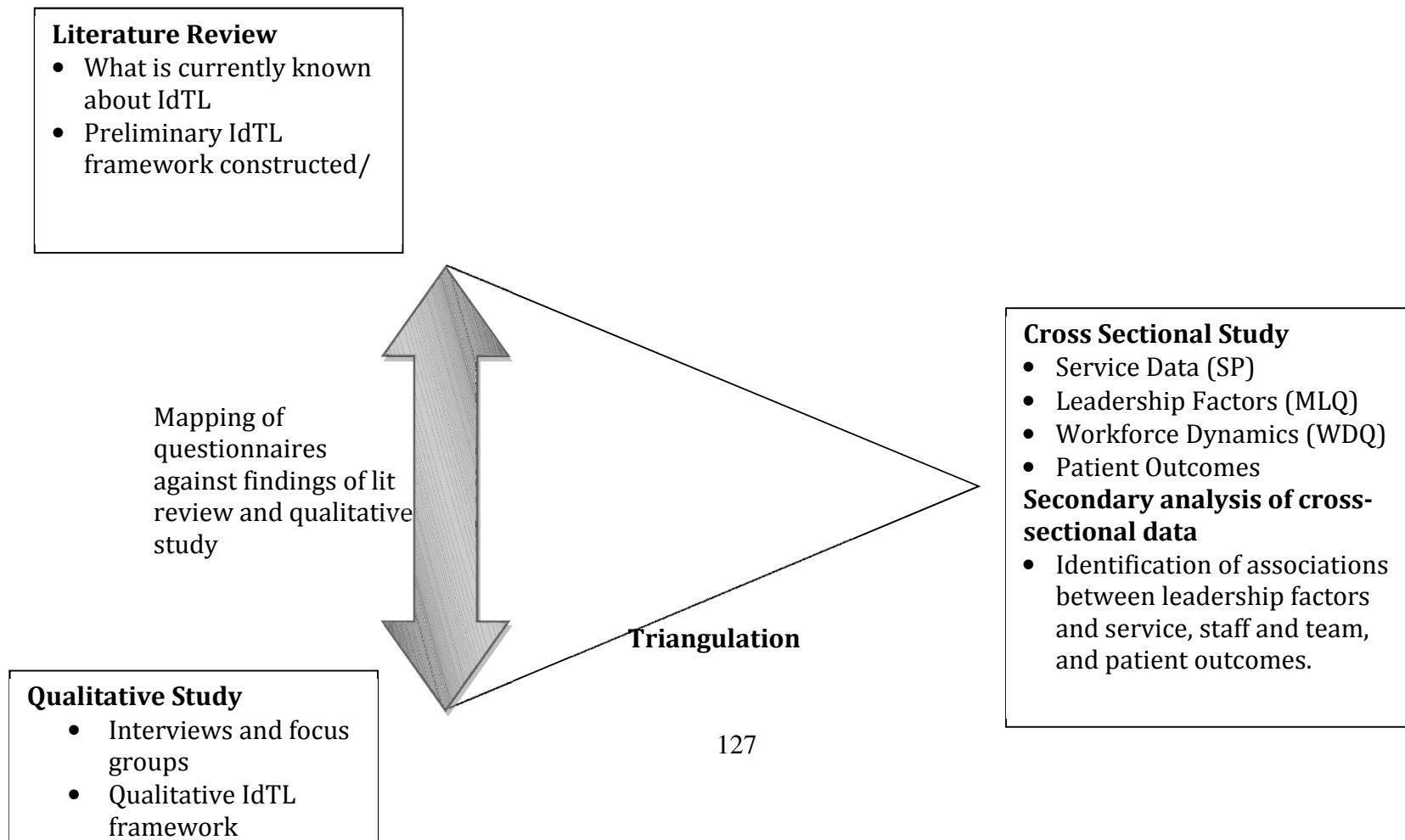
Figure 1. Diagramme of Overall Research Design (EEICC Project)

Service data was collected at two time points, before and after implementing the IMT. Patient data was collected throughout the period, but for 3 months before the IMT implementation and for three months after.

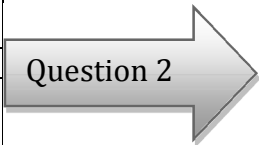


NB It is important to note that although this thesis is concerned primarily with identifying key elements of interdisciplinary team leadership, the project is part of a wider study that uses an action research design. Central to this design are attempts to implement an Interdisciplinary Management Tool with 10 CRAICS teams.

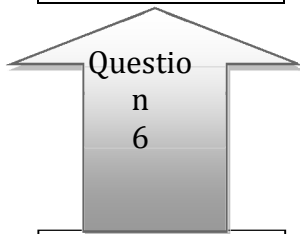
Figure 2. Flow chart of cross-sectional PhD study



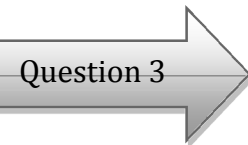
Service Structure and Working Practice Variables
Team size
Ratio Patients to staff
Frequency of team meetings
Ratio Team Members to Team Leader
Ratio Professionals to Team Leader
Ratio Professionals to non-professionals



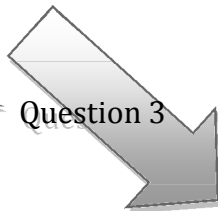
IdTL Variables
IdTL person-focused Transformational Leadership
IdTL task-focused (Transactional Leadership)
Non-Leadership (Passive Avoidance)



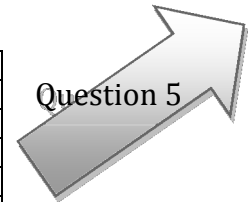
Qualitative IdTL Framework



Staff Level Dynamics
Leadership Outcomes
Uncertainty
Intention to leave employer
Intention to leave profession
Overall satisfaction



Team level dynamics
Autonomy
Role flexibility
Integration
Management
Clarity of Leadership
Team working
Sense of direction
Communication
Training/Career progression



Patient Outcomes Variables
EQ5D Change
TOMS change (summary)
TOMS impairment change
TOMS activity change
TOMS wellbeing change
TOMS participation change
Length of stay change

Framework for Cross-Sectional Study

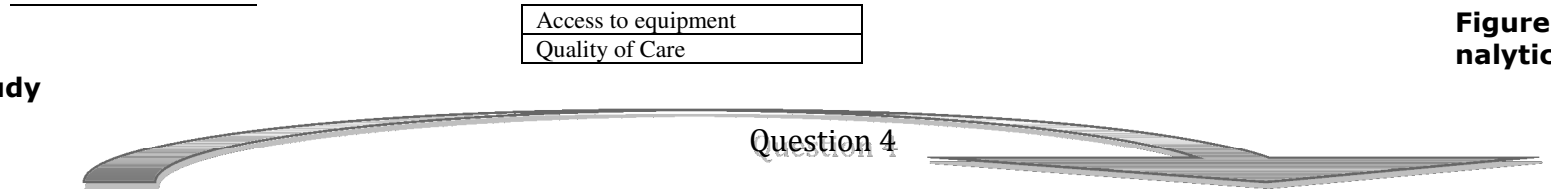


Figure 3.
analytic

4.3 Explanation of different study methods used

The term “mixed methods research” is used in a number of ways. It can be used to simply acknowledge that a number of different research methods were used in a particular study, for example focus groups and interviews. However, the term is generally applied to studies which combine both qualitative and quantitative research “approaches” into the methodology of a single or multiphase study (O’Cathian, 2008).

The approach is used advisedly, as data collection may employ only a single approach but data could be analysed utilizing both qualitative and quantitative methods (Greene et al., 1989). Some commentators assert that for research approaches to be defined as mixed methods, research methodologies must contain both qualitative and quantitative methods both for data gathering and analysis (Ritchie and Spencer, 1994).

This study utilized both qualitative and quantitative methods both for data gathering and data analysis. In terms of all the above definitions, it can therefore be considered as a mixed methods study.

4.4 Quantitative Methods

Quantitative research took place with a sample of 10 interdisciplinary CRAICS teams. Teams were invited to collect data using four forms. The Service Proforma explores organisational context and service structure and was completed by service managers. The Multi-Factor Leadership Questionnaire (MLQ) was used to explore IdTL variables and staff level leadership outcomes. The Workforce Dynamics Questionnaire was used to explore staff and team level variables, which within this study, are hypothesised to be influenced by IdTL. Team members completed both the MLQ and WDQ questionnaires. Client record packs (CRP's) record the health status of patients at initial assessment and discharge, utilising a number of validated instruments: EQ-5D, TOMS, and the Levels of Care questionnaires. The staff that assessed the patients at admission and discharge completed the TOMS and Levels of Care questionnaires. The EQ-5D questionnaire was completed by the patient, unless they were unable to do so themselves.

4.4.1 Recruitment of Teams

Data were collected from 10 teams participating within the wider EEICC study. The teams were identified from two different sources. The teams recruited had all participated in a previous NIHR SDO funded study (COOP SDO/95/2005), or were members of the Community Rehabilitation Team Network (CRT) which has 173 member services in the UK.

Sample size was determined by parsimony rather than calculation. The IMT intervention was labour intensive, and required the training of researchers to work as Organisation Development facilitators with each team for between 6 months and a year to implement the IMT. The sample size was therefore based on the number of teams that could be supported by the project team, and the amount of data that could be handled. Based on previous experience from a previous SDO funded study of CRAICS teams (COOP 08/1519/95) we estimated that recruitment of 10 teams would make

the intervention manageable and it was estimated that this would enable the project to recruit around 2,000 patients.

Care was taken to recruit a diverse mix of teams in terms of host organization, size and skill mix. To assess initial interest in participating in the study we contacted team leaders and/or service managers. If team leaders were interested in their team participating in the study we sent them more information on the study and asked that they discuss the possibility of participation at their next team meeting. The purpose of doing this was that we were keen that if teams were to participate then all members of the team should be committed. If after speaking to their team members team leaders reported that the team was enthusiastic to take part a letter of invitation, information sheet, consent form and a reply paid envelope were sent to each individual member of staff in the team. This allowed team members to consent into the project individually.

4.4.2 Eligibility

The criteria for eligibility placed on teams was that they were CRAICS teams primarily working with people over 65. Patients were included in the study if they were newly referred to the service in the baseline data-gathering period of the wider EEICC study and were over 65 years of age. Services were excluded from the study if they did not predominantly work with patients over 65 years of age. There were no specific exclusion criteria for patients. However, it was recognised that patients suffering from conditions such as dementia or alzheimer's disease may not always be able to complete the surveys and which could have resulted in incomplete records. It was left to the discretion of the team member(s) administering the patient record forms as to whether the patient was capable of completing them.

4.4.3 Participants

The participants of the study were all the staff in participating teams involved in delivering services, and patients recruited into the services within the first three months of the team's involvement in the study.

4.4.4 Patients

Team members recruited patients into the study. On admission to the service staff explained about the study, provided the patient with an information sheet, allowed them to ask questions and offered them the option of opting out. If the patient was happy to have their records included in the study an initial assessment of the patient's condition was made using the CRP (see appendix 7.), which includes the Levels of Care tool, TOMS and EQ-5D. If patients did not wish their data to be included in the study, CRP data was not collected. At discharge each participating patient's health status was assessed once again using the same tools.

4.4.5 Research Process

In the EEICC study, data were collected at two time points; pre and post the implementation of an Interdisciplinary Management Tool. However, for the purposes of this study only data from the first time point, or baseline, were used as a single cross-sectional data set. Further, patient outcome scores were calculated using the difference in health status between admission and discharge as measured by the tools used within the CRP. To achieve this health status change score, the score for each tool at initial assessment was subtracted from the score at discharge. Only patients admitted in the first 3 months of the study were included in the baseline data set.

4.4.5.1 Data collection methods

Data were collected for five discrete sets of variables in the evaluation study. Interdisciplinary Team Leadership; Service data (contextual,

structural, working practices and outcomes); team and staff level dynamics, and; patient outcomes.

- All participating team members completed the Multifactor Leadership, peer-review questionnaire in relation to their team leader. The questionnaire also gathers data regarding three staff level leadership outcome variables. (see Appendix 4.).
- Team managers or team leaders of all participating teams completed a Service Proforma, which explores contextual and structural aspects of the team (see Appendix 5).
- Team members also completed the Workforce Dynamics Questionnaire. The WDQ predominantly measures staff/team outcomes (see Appendix 6.).
- A Client Record Pack was completed for each new patient admitted to the service. All patients used in this study were admitted to the service in the three-month baseline period of the wider EEICC study. The CRP includes information about service use and changing patient health status (using the EQ-5D. and TOM questionnaires). (see Appendix 7.)

The tools used in this phase of the study and the data they were used to access are summarized in table 4.16.

4.4.6 Analysis

Analysis of quantitative data in the cross-sectional study used the same techniques for each of the questions. Data was entered into SPSS version 19 into separate databases for each proforma. After data cleaning, the data sets were aggregated to team level. Each data set was initially described using summary statistics and the results are presented in the cross-sectional study chapter. Different combinations of predictor and outcome variables were tested using both analysis of variance (ANOVA) and analysis of covariance

(ANCOVA) in the general linear models (GLM) section of SPSS to test specific hypotheses proposed in the methods section. Both ANOVA and ANCOVA are forms of regression analysis (Field, 2005). ANOVA is used when the predictor variable and categorical outcome variable are continuous. ANCOVA is used when there are additional predictor variables, which may be continuous or binary. It allows the examination of the combined effect of two or more predictor variables on a single outcome. In this case an independent factorial design was used as several independent variables had been measured using the different participants. Within the results and key findings sections the outputs from analyses in SPSS were summarised by the use of four key statistics for all questions.

The model used is expressed in the following equation.

$$Y = B_0 + B_1 \times X_1 + B_2 \times X_2 + \dots + B_p \times X_p$$

Where Y is the dependent (outcome variable;) $X_1 \dots X_p$ are the covariate predictors; $B_1 \dots B_p$ are the regression equations associated with $X_1 \dots X_p$; and B_0 is the intercept: the value of Y when X equals zero.

Statistical Significance; the p-value (p) is the probability that the statistical test results (or ones more extreme) could be observed if the null hypothesis is true (i.e. there is no observable relationship between the predictor and the outcome variable). If the p-value is less than the significance level (α), which for this study was set at 0.05 (5%) then the hypothesis is not rejected. With a p-value more than of 0.05 or below, the null-hypothesis is not rejected (i.e. the null hypothesis stands).

Standard Error (σ); sometimes referred to of the standard error of the mean, is the standard deviation between all sample means (Campbell et al., 2007). It is a measure of the how precise the sample estimate is and how far from the true value in the population the sample estimate is likely to be.

Adjusted R Squared (r^2_{adj}) is based on the Coefficient of Determination (r^2), which is a measure of the amount of variance in one variable that can be accounted for, or predicted, by another. However R squared only reveals how much of the variance is accounted for by the regression model. The adjusted R squared allows for the fact that the parameters are only estimates. It is therefore deemed a more accurate measure of the overall effect.

The Regression Coefficient (b) tells us about the relationship between each predictor variable and outcome variable. A positive value indicates that there is a positive relationship between the predictor and outcome variables. A negative value indicates there is a negative relationship between the predictor and outcome variables (Field, 2005).

4.5 Data Collection Tools

Five validated instruments were used to gather data. Together these tools enabled exploration of the relationship between leadership; service structure and working practices; staff level outcome variables such as satisfaction, effectiveness and extra-effort; team/workforce dynamics; and patient outcomes.

4.5.1 Service Structure data

4.5.1.1 Service Proforma

The Service Proforma was initially developed to undertake regional evaluations of intermediate care services in 2004 (Nancarrow, 2004). It was developed further through a comprehensive literature review (Nancarrow et al., 2009b). The Service Proforma gathers descriptive information on a wide range of factors that can impact service delivery and outcomes, such as the setting of care, host organisation, and the case mix of patients. Of particular relevance is the important descriptive information about the interdisciplinary mechanics of the team, including staff numbers and types and the nature of interdisciplinary working (e.g. frequency of team meetings, file sharing, joint patient visits etc).

The dimensions of the Service Proforma are listed below and the full questionnaire appears for further reference in the appendices (Appendix 5).

- Context
- Reason for the service
- Service Users
- Access to the service
- Service Structure
- Organisation of Care

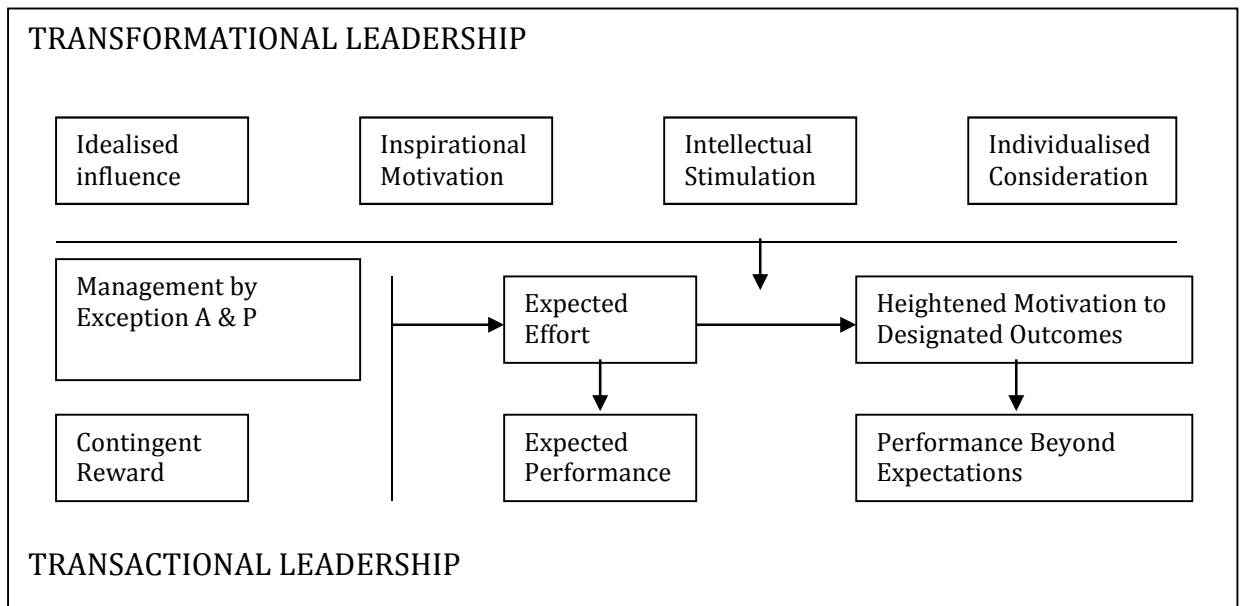
4.5.2 Leadership data

4.5.2.1 Multi-Factor Leadership Questionnaire (Bass and Avolio (2004)

The Multi-factor leadership questionnaire (MLQ): form 5x, peer rater version was used to elicit views from members of participating teams about the leadership styles of their respective team leaders.

The MLQ captures data about the level of leadership skills and the level of non-constructive behavioural styles being used by leaders, plus data on some outputs of leadership (satisfaction, extra-effort and effectiveness). The tool can therefore be used to provide information about development needs and also, when used before and after development initiatives, the impact of the programme on participants and their staff.

Figure 4. The relationship between Transformational and Transactional Leadership to Enhanced Motivation and Performance Beyond Expectation (Avolio & Bass: 1999)



The short form of the MLQ peer rater (form 5x) consists of 45 items, which refer to nine leadership dimensions and three scales measuring the outcomes of leadership. There are five Transformational (Person-focused) leadership dimensions: Idealised Influence attributes; Idealised Influence

behaviours; Inspirational Motivation, Intellectual Stimulation and Individualised Consideration. Contingent Reward and Management-By-Exception-Active make up the two Transactional (Task-focused) Leadership dimensions. Management-By-Exception Passive and Laissez Faire are the Passive-Avoidant dimensions. Three scales measure staff outcomes of leadership: Extra Effort, Effectiveness and Satisfaction. The questionnaire is also validated to produce 3 summary factors: Transformational (Person-focused) Leadership, Transactional (Task-focused) Leadership and Passive Avoidance (Avolio and Bass, 2004). The dimensions of the MLQ are described in full in table 4.1. A five-point Likert scale is used to rate all items: -

1 = "not at all,
2 = once in a while,
3 = sometimes,
4 = fairly often,
5 = frequently if not always."

The major reason for choosing to use the MLQ, is that, according to Carless (Carless, 1998, Alimo-Metcalfe and Alban-Metcalfe, 2003) it is probably the most used instrument for measuring leadership in the world. It has been used in numerous studies over 15 years, which provide growing evidence that transformational leadership behaviours are capable of motivating followers to exceed expected levels of performance. Further, because it is such a widely used, tested and validated instrument it is possible to compare and contrast project results with other research findings. In this PhD study the MLQ was used cross-sectionally, to explore the leadership factors related to effective leadership in interdisciplinary teams.

Peer reports were used as a data gathering method in this study for two reasons. Firstly, self-reports of leadership attributes utilising the MLQ have relatively low levels of validity and reliability compared to peer reports (Avolio and Bass, 2004) Secondly, a study by McEvoy & Beatty (1977)

found that anonymous peer ratings by subordinates had a higher predictive value of career performance two and four years later than assessment centre reports, which are generally accepted as providing the most valid data for predicting long-term, future managerial performance (Cook,1996; Riggio, Bronson & Mayes, 1997). Peer ratings can therefore be considered as highly predictive indicators of future managerial performance (Bass and Avolio, 1994).

Table 4.1 - Dimensions of the Multi-factor leadership questionnaire (Avolio and Bass, 2004)

Leadership Type	Dimensions	No. of Items	Description
Transformational (Person-focused) Leadership	<i>Idealised Influence Behaviours</i>	4	Leaders provide a role model for workers. They show themselves to be highly ethical. Through hard work and willingness to sacrifice their self-interest, and prior successes, co-workers trust them to overcome any obstacle.
	<i>Idealised Influence Attributes</i>	4	
	<i>Inspirational Motivation</i>	4	Leaders become a source of inspiration through the commitment they show to those who work with them, their perseverance in achieving goals, their willingness to take risks, and their strong desire to achieve.
	<i>Intellectual Stimulation</i>	4	The leader stimulates creativity and innovation, and questions norms, views and preconceptions
	<i>Individualised Consideration</i>	4	Consideration focuses on satisfying employee developmental needs by aligning them with organisational and team goals and creating opportunities for staff to attain their goals though constructively contributing to group ideas.
Transactional (Task-focused) Leadership	<i>Contingent Reward</i>	4	Leaders define expectations and offer recognition when goals are achieved. The clarification of goals and provision of recognition once goals are achieved results in individuals and groups achieving expected levels of performance.
	<i>Management by Exception – Active</i>	4	Leaders focus on specifying the standards for compliance, and what would constitute ineffective performance. This style involves closely monitoring for deviances, mistakes and errors and taking corrective action.
Passive-Avoidant (non-leadership behaviours)	<i>Management by Exception – Passive</i>	4	Leaders who prefer this style only intervene when procedures and standards for task accomplishment have not been met and problems have occurred. The term, “if it ain’t broke, don’t fix it” is what exemplifies this type of leader.
	<i>Laissez-Faire</i>	4	Involves leaving those charged with managing projects and completing tasks to their own devices. The laissez-faire leader avoids dealing with conflict and difficult issues until they get to a point where they cannot be ignored further.
Staff Level Leadership Outcomes	<i>Satisfaction</i>	2	The leader uses methods of leadership that are satisfying and works with others in a satisfactory way.
	<i>Effectiveness</i>	4	The leader is effective in meeting job related needs, organisational requirements, representing the team to higher authority and leads a group that is effective.
	<i>Extra-Effort</i>	3	The leader heightens the desire of others to succeed, increases willingness to try harder and gets others to do more than they expected to do.

NB MLQ results can be summarised into summary variables (Transformational Leadership, Transactional Leadership, Passive-Avoidance). A three factor model of the MLQ has been shown to be both reliable and valid (Avolio and Bass, 2004).

4.5.3 Team Outcome Data

4.5.3.1 Workforce Dynamics Questionnaire (Nancarrow et al., 2006)

The WDQ is a validated, 66 item, Likert scale questionnaire, which is self-completed by staff members. It explores 11 domains of workforce configuration and outcomes (see table 4.2 below). The WDQ was developed as a result of research to explore the impact of increasing workforce flexibility on CRAICS teams serving older people (Nancarrow et al., 2005, Nancarrow et al., 2009a). It attempts to quantify the degree of role flexibility within teams; identify factors affecting the degree of workforce flexibility, and; assess the impact of workforce flexibility on a range of intermediate staff outcomes. The WDQ also collects descriptive data on factors such as age, salary grade, length of service and contractual arrangements (e.g. full-time, part-time and temporary). The dimensions of the WDQ are shown below in Table 4.2.

Table 4.2 - Domains of the Workforce Dynamics Questionnaire

Domains	No of items	Description
Overall satisfaction	1	Overall level of satisfaction with the job.
Autonomy	4	The extent to which a practitioner has control over his / her own work or that of others.
Role perception	9	The way a practitioner perceives his/her role is understood and valued by other people (practitioners and the public).
Role flexibility	6	The extent to which a practitioner perceives they can alter his/her role to meet the needs of the team or service users.
Integration with peers and colleagues	3	The level of support available to the practitioner from a member of his / her own professional group.
Team working	10	The level of coherence and harmony within the team.
Management structures and styles	5	The overall extent of satisfaction with the management of the team.
Access to technology and equipment	4	Ability of the staff member to access necessary administrative support and equipment to do their job.
Training and career progression opportunities	8	Support for and satisfaction with the career development opportunities offered by the current post.
Quality of care	2	Staff perception of the quality of patient care provided by their team.
Uncertainty	4	Measures staff uncertainty about the future of their team and their role within the team.

4.5.4 Patient Outcome Data

Patient Outcome data were gathered utilizing a number of tools in the wider EEICC project. These were contained in a single proforma called the Client Record Pack (CRP), which also gathered descriptive data, such as length of stay. For the purpose of this cross-sectional study, two tools were used from the CRP.

Therapy Outcome Measure (TOMS)

The TOMS tool is a validated measure of outcomes of therapy treatment which originally began development in 1998 (Enderby et al., 2006) to reflect the World Health Organisation (WHO) disease classification system. Previous to the development of TOMS, outcome measurements were often based on the achievement of goals. However, according to Enderby et al., (1999) patients can achieve the same goal but have markedly different outcomes. The TOMS has four dimensions as can be seen in table 4.3 below.

Table 4.3 - Dimensions of the TOMS questionnaire

***Impairment;** is concerned with the integrity of body systems, and includes psychological and physiological structures and functioning. It reflects a degree of abnormality observed in terms of its variants from the norm for a human being.*

***Activity;** is concerned with the limitations on actions of functions for an individual, given his/her abilities/disabilities.*

***Participation;** is concerned with the disadvantage experienced by the individual, reflecting circumstances, social participation, interaction and autonomy.*

***Well-being;** is concerned with emotions, feelings, burden of upset, concern and anxiety and level of satisfaction with the condition (John et al., 2002)*

Each dimension of TOMS is rated on an 11-point ordinal rating scale. There are six full points on the scale: 0 representing maximum severity and 5 representing normal functioning (given age, sex and culture). To ensure maximum sensitivity half points are also used (See table 4.4 below).

Table 4.4 - Operational codes and descriptors for TOMS rating scale

RATING	DESCRIPTION
0 – 0.5	Profound
1.0 – 1.5	Severe
2.0 – 2.5	Severe/Moderate
3.0 – 3.5	Moderate
4.0 – 4.5	Mild
5	Normal
(Enderby et al., 1998)	

In order to ensure both face and content validity of TOMS an extensive range of condition specific scales were initially also developed through the use of the Delphi technique working with groups of therapists who specialize in specific client groups. The variety of scales generated were then amalgamated and these preliminary scales tested by therapists when rating cases to ensure that they captured the key elements of particular disorders. In a pilot study, TOMS data was collected on more than 1000 cases over a six-month period, both at referral and discharge. The results indicated that TOMS provided valid data on the outcomes of therapy interventions (Enderby et al., 1999) A substantive reliability trial conducted by John et al. (2002) found that therapists obtained good to almost perfect reliability on the TOMS after training. Training consisted of two, two hour training sessions; practice using TOMS on 10 of their patients, and; a reliability check in which they rated cases from case histories and from viewing a video clip.

Reasons for selection

TOMS was selected for both the broader study and to use in this PhD for a number of reasons. Firstly, CRAICS team clients often have complex health and social care needs which span professional and disciplinary boundaries. Consequently, CRAICS themselves are often complex and interdisciplinary; as they are required to deal with a wide range of health and social issues, which vary in severity from ‘mild’ to ‘profound’, as well as to work with wide range of agencies and professional groups in diverse settings (Enderby et al., 2006). This complexity is reflected within TOMS, which allows interdisciplinary staff groups to assess the social, health and psychological condition of patients/clients utilizing a robust measurement instrument.

European Quality of Life Indicator (EQ-5D) (EuroQol-Group, 1990)

Previously known as EuroQOL, EQ-5D is a generic (i.e. not age, disease, or treatment specific) measure of health-related quality of life that generates a single index score (Hayward et al., 2004). Developed and rigorously tested by the EuroQOL Group, it is based on a descriptive system that defines health in terms of 5 dimensions.

- Mobility
- Self-Care
- Usual activities
- Pain / Discomfort
- Anxiety / Depression

Each dimension has 3 response categories corresponding to, no problem / some problem / extreme problem. Single scores can be calculated for each dimension. However, a summary score is most often used (Cheung et al., 2009).

Box 4.5 - Sample Question from EQ-5D

By placing a tick in one box in each group below, please indicate which statements best describe your own health state today.

Mobility

- | | |
|---------------------------------------|--------------------------|
| I have no problems in walking about | <input type="checkbox"/> |
| I have some problems in walking about | <input type="checkbox"/> |
| I am confined to bed | <input type="checkbox"/> |

The descriptive system defines a total of 245 possible states. Its complex scoring system, ranges from 1 - full health, through to -0.59 dead (Cheung et al., 2009). The instrument is applicable to a range of health conditions and treatments and can be used both in clinical and economic evaluations of health services. It is generally used to calculate "quality adjusted life years" (QALYs) (EuroQol-Group, 2009).

Reliability & Validity

EQ-5D has become the most used standard measure of cost effectiveness analysis in the world. In their review of patient reported health instruments, Hayward et al. (2004) recommend the use of EQ-5D, in particular for patients where a substantive health change is expected. Higher levels of responsiveness were particularly reported in both elective and non-elective orthopaedic surgery groups.

The National Institute of Clinical Excellence also recommends use of the EQ-5D as a standard outcome measure in the UK (with appropriate weightings for the social preferences of the UK population).

4.6 Qualitative Methods

4.6.1 Data Collection

A series of 15 semi-structured face-to-face interviews were used to gather qualitative data on the perception of interdisciplinary team members and experienced leaders of interdisciplinary teams, as to the nature and process of effective interdisciplinary team leadership.

Within the wider EEICC project 30 semi-structured interviews were conducted with 15 team members. The interviews took place before (i.e. at baseline) and after the completion of the IMT intervention. The reason for this structure was that the post IMT intervention interviews were part of the evaluation of the IMT intervention. The 15 baseline interviews were used to explore perceptions of effective leadership within the interdisciplinary teams. The post IMT intervention interviews were not analysed with regard to leadership as it was felt that the intervention, which involved team members benchmarking factors supporting effective team working, and leadership against research evidence, could skew their views on the leadership and create bias.

The aim of gathering this data was to obtain an in-depth understanding of the nature and dynamics of leadership in the participating interdisciplinary healthcare teams. Based on the literature review an interview schedule was developed with open-ended questions and topics to elicit the views of individuals (see appendix 8.). In practice, the discussions were quite wide-ranging and over a period of up to an hour the subject was thoroughly explored.

4.6.2 Sampling & Recruitment

According to Guest et al. (2006) guidelines for nonprobabilistic sample sizes are virtually nonexistent and sample size typically relies on concept of saturation: the point at which no new information or themes are observable. In their study, which was designed to operationalise saturation, they found

that saturation occurred within the first 12 interviews and that basic metathemes were present as early as six interviews. A sample of 15 interviews was therefore deemed to be sufficient for the purposes of this mixed methods study.

Because participating teams were widely geographically dispersed, staff were recruited from a sample of three teams, which were deemed representative in type to the wider sample of CRAICS. This meant that the researcher could travel to a particular location and conduct a number of interviews.

Individual staff members in participating teams were initially contacted via a letter, which asked if they would be interested/willing to be interviewed as part of the project, and whether they would be available on the date that the researcher would travel to the teams. They were also provided with an information sheet and consent form (Appendices 9. & 10.). Team leaders acted as a point of contact for staff interested in participating in the interviews and took lists of volunteers who would be available on the day in question.

The researcher selected from the list of volunteers at each venue ensuring that the sample contained a representative range of disciplines from within participating IdT's.

4.6.3 Analysis

All interviews were digitally recorded and transcribed for analysis. The data were analysed using an approach that broadly followed the conventions of Template Analysis (King, 2008).

Template analysis involves the development of a coding "template" which summarises themes derived from data that are considered important. Template coding is generally hierarchical with broad themes containing narrower sub-themes. Analysis often starts with sub themes that are

strongly expected to be relevant to the data (King, 2004). In this case the literature review acted as an a priori framework for effective IdTL.

However, whilst having such a model for analysis can be extremely useful, as Cummings and Worley (2001) point out, all models simplify reality and therefore focus attention on certain aspects of phenomena at the expense of others. In short, they can provide a powerful perceptual grid, which can distort research findings as well as create barriers to holistic knowing. As the aim was to develop a distinct understanding of leadership in interdisciplinary healthcare teams the use of pre-determined categories could potentially determine both the nature of activities and their outcomes (Gill and Johnson, 2002). I was minded that although there is an intention within the inductive tradition to avoid a priori speculation (Jones, 1985) there is no such thing as presuppositionless research (Barton et al., 2005).

These factors in mind, the aim in the analysis was therefore to test whether findings of qualitative analysis concurred with previous research efforts, but not to let these a priori pre-understandings dominate and pre-determine the results of the analysis.

For these reasons, and as King (King, 2004) suggests, in the initial iterations of coding, whilst coding to the a priori template, I also stayed open to new ideas, concepts and information that may be present in the data to ensure that data was, inductively generated and theoretically grounded in the data (Hughes, 2003). This allowed that any unique aspects to IdTL identified in the qualitative data could be incorporated into the emerging framework. The process mirrored what Ritchie et al. (2005) describe as the indexing phase of Framework Analysis, where the draft thematic framework is applied back to raw data to examine the fit.

Analytical coding was undertaken utilising the qualitative data analysis programme NVivo 8. The software allows the coding of segments of text into themes, aided by search and retrieval operations; and the linking of

research notes to coding. It enables the researcher to work efficiently with large amounts of text and complex coding schemes and facilitates sophisticated, in-depth analysis of the data.

Text was coded in several stages. First stage coding involved coding the text into “free nodes” based on the general research questions asked. Once completed, more detailed secondary analysis took place to identify the specific elements of effective leadership in interdisciplinary health and social care teams, together with themes that emerged on related issues, such as how organisational structures impacted on interdisciplinary team leadership and the workings of the team. This resulted in a large number of free nodes. In the third stage analysis, these free nodes were first organised into broad themes and sub-themes using NVivo’s “tree node” facility. The themes also included negative leadership behaviours and leadership outputs.

At this stage a coding check was undertaken. Two members of staff on the wider project each independently coded two of the interviews. The results were compared to reach consensus coding labels and definitions.

In the fourth stage, themes and sub-themes were plotted into separate thematic charts and data in each theme re-viewed and, where necessary, re-sorted to refine (Paterson et al., 2001) and create the final template.

The final stage involved comparison of the results of the qualitative study with the earlier framework developed in the literature review.

Finally, the results were compared to the Multi-factor leadership questionnaire and the Workforce Dynamics Questionnaire, to identify which variables in these questionnaires were most relevant to interdisciplinary team leadership.

4.7 Outline of Methods used to answer each research question

4.7.1 Introduction

In order to realize the overall aim of the project, this study undertook to answer five questions. Within each question in the cross-sectional study a number of hypotheses were tested to explore relationships between relevant variables within the quantitative data set.

A literature review was undertaken prior to the start of the study and recounted in chapter two of this thesis. The literature review provided an understanding of what is currently known about interdisciplinary team leadership. The results were used to define research questions and methods for this study.

4.7.2 Question 1.

What do staff in interdisciplinary teams believe are the key elements of effective interdisciplinary team leadership?

This question required gathering data from primary sources. The first stage in developing any new theoretical constructs is generally inductive, qualitative research (Gill and Johnson, 2002).

A series of 15 semi-structured individual interviews were used to gather qualitative data on the perception of IdT members and experienced leaders of IdT's, as to the nature of effective interdisciplinary team leadership. The aim of gathering this data was to obtain an in-depth understanding of the nature and dynamics of leadership in the participating IdT's. A review of literature on qualitative research methods reveals that the primary method of gathering interview data is by electronic recording (Morgan, 2006). The data captured was then transcribed and analysed utilising template analysis (King, 2004).

The final stage in answering this question required comparison of the quantitative instruments to be used in the study: (i.e. the Multi-factor Leadership questionnaire and the Workforce Dynamics questionnaire) to identify which variables in these tools are relevant to interdisciplinary team leadership. The information from this qualitative study was also used to inform the discussion of the results of the quantitative study.

4.7.3 Question 2.

What is the relationship between interdisciplinary health care team structure and working practices, and IdTL?

The principle aim of this question was to understand if Interdisciplinary Team Leadership is affected by the configuration of services and working practices.

Methods

Teams recruited into the study were sent copies of the Service Proforma with a covering letter asking the team leader or manager to complete the questionnaire. Managers or team leaders of participating IdT's were invited to complete the Service Proforma. The Service Proforma requests service level data including service structure, staff numbers and disciplines/professions etc.

Copies of the Multi-factor leadership – peer review questionnaire form 5x (MLQ) and Workforce Dynamics Questionnaire (WDQ) were sent to individual IdT team members, together with a freepost envelope. Team members were asked to complete both questionnaires and return them. If MLQ or WDQ questionnaires were received from team members who had not completed a consent form, they were either asked to consent into the study or the data was eliminated from the database and not analysed.

The MLQ quantifies staff perceptions of the leadership style within their team and its impact on certain staff level variables that are hypothesised to be primary outcomes of leadership. To meet this objective the relationships between a number of service structure and working practice variables were of interest together with summary MLQ variables. Variables chosen were identified via both the literature review and qualitative study for the project. The variables of interest can be seen in table 4.6 below.

Table 4.6 - Variables used to answer Question 2.

Predictor Variables (Service Proforma)	Outcome Variables (MLQ)
<ul style="list-style-type: none"> • Size of team TS • Frequency Team Meetings FM • Ratio of CRP to Team Size CRPvsTS • Ratio of Team Size to Team Leader TSvsTL • Ratio of professional to non-professional staff PvsNP • Ratio of Professional staff to Team Leader PvsTL • Ratio of Nonprofessional staff to Team Leader NPvsTL 	Person-focused Interdisciplinary Team Leadership (Transformational Leadership) IdTLp Task focused Interdisciplinary Team Leadership (Transactional Leadership) IdTLtf Passive Avoidant Behaviours PA Clarity of Leadership (WDQ) CL

Analysis

Data from the three questionnaires was entered into SPSS version 18.0 and an inferential analysis of the data was undertaken. The analysis focused on identifying significant relationships between interdisciplinary team structure and working practice, and interdisciplinary team leadership variables. Summary variables from both questionnaires were examined using analysis on variance (ANOVA) and analysis of co-variance (ANCOVA) tests in the General Linear Model function of SPSS, by testing specific hypotheses that emerged from the literature review and qualitative study. Where significant relationships or non-hypothesised results were found using summary factors, further data exploration was undertaken, to examine issues more deeply. The analysis protocol for question two can be seen in table 4.7 below.

Table 4.7 - Analysis Protocol for Question 2

ID.	Primary Hypothesis	Predictor Variables	Outcome Variables
2a.	There is a negative correlation between the ratio of patients to staff and the ratio team leaders to staff and IdTL. (Combined Model)	CRPvsStaff PvsTL NPvsTL	IdTLp IdTLtf PA

4.7.4 Question 3.

What is the relationship between effective Interdisciplinary Team Leadership, and Staff and Team Level Dynamics in interdisciplinary health and social care teams?

A cross-sectional study design was used to explore relationships between staff and team level variables, and IdTL variables. The primary source of team outcome data was the WDQ. The primary source of both IdTL and staff outcome data was the MLQ.

Copies of the Multi-factor leadership – peer review questionnaire (MLQ) and Workforce Dynamics Questionnaire (WDQ) were sent to each IdT member, together with a freepost envelope. Individual members of the teams were asked to complete the MLQ and the WDQ. If MLQ or WDQ questionnaires were received from team members who had not completed a consent form, they were either asked to consent into the study or the data was eliminated from the database and not analysed.

The WDQ captures data on aspects of;

1. Workforce structures, such as staffing and skill mix;
2. Workforce dynamics, such as team working, integration and role flexibility;

3. Staff outcomes, such as autonomy, intention to leave employer in the next 12 months, intention to leave the profession in the next 12 months, uncertainty and job satisfaction.

For the purpose of this study, and based on the findings of the literature review and qualitative study, certain WDQ variables were hypothesised to be outcomes effective interdisciplinary team leadership.

The IdTL and Team dynamics variables used for testing hypotheses related to this question are shown in Table 4.8.

Table 4.8 - Variables used to answer Question 3.

Predictor Variables (MLQ)		Outcome Variables (WDQ Unless Specified)	
Person-focused Interdisciplinary Team Leadership (Transformational Leadership)	IdTLp	Staff Level Outcomes <ul style="list-style-type: none"> • Leadership Outcomes (MLQ) LO ○ Satisfaction, S ○ Effectiveness, E ○ Extra- Effort EE 	
Task focused Interdisciplinary Team Leadership (Transactional Leadership)	IdTLtf		
Passive Avoidant Behaviours	PA		
Clarity of Leadership (WDQ)	CL		
		<ul style="list-style-type: none"> • Overall Satisfaction Sw • Intention to leave (employer) [negative] ILe • Intention to leave (profession) [negative] ILp 	
		Team Level Outcomes <ul style="list-style-type: none"> • Integration I • Team working Tm • Management M • Training/career progression T/CP • Empowerment Em • Communication (communication) C • Clarity of Leadership (Management) CL • Sense of Direction SDw 	

Analysis

Selected staff and team outcome variables were analysed with IdTL variable data from the MLQ to identify interrelationships between these sets of variables. Summary variables from both questionnaires were examined using ANOVA and ANCOVA tests, to test specific hypotheses that emerged from the literature review and qualitative study. Where significant relationships or non-hypothesised results were found, further data

exploration of related variables was undertaken to more precisely understand relationships. The analysis protocol for question 3 can be seen in table 4.9 below.

Table 4.9 - Analysis Protocol for Question 3

ID.	Primary Question/Hypothesis	Predictor Variables	Outcome Variables
3a	Combined model. There is a positive association between IdTL Leadership Behaviours and Leadership outcomes (satisfaction, effectiveness and extra-effort).	IdTLp IdTLtf PA	LO

4.7.5 Question 4.

What is the relationship between Interdisciplinary Team Leadership and Patient Outcomes in interdisciplinary health and social care teams?

This question explores the relationship between interdisciplinary team leadership variables and patient outcomes. Data from the EEICC longitudinal study was again used to examine this question.

Client record data was collected for each patient admitted to the teams from three months prior to the implementation of the IMT to three months after completion of the IMT implementation (a period of approximately 12 months) in the EEICC study. However, for the purpose of this thesis, only client records for clients entering the services of participating team in the three months baseline period were included. This allowed cross sectional data analysis at one discrete time point.

EQ-5D and TOMS data were analysed to identify change over time in patient conditions between admission and discharge. MLQ data was analysed to give cross-sectional, team level scores. Data from the EQ-5D, and TOMS were analysed with leadership data from the MLQ to attempt to

identify associations between these two sets of variables. Variables of interest are shown in table 4.10 below.

Table 4.10 - Variables of interest to answer Question 4.

Predictor Variables (MLQ)		Outcome Variables (CRP)	
• Person-focused Interdisciplinary Team Leadership (Transformational Leadership)	IdTLp	• TOMS Summary Measure	TOMS
• Task focused Interdisciplinary Team Leadership (Transactional Leadership)	IdTLtf	• TOMS impairment change	Ti
• Passive Avoidant Behaviours	PA	• TOMS activity change	Ta
• Clarity of Leadership (WDQ)	CL	• TOMS wellbeing change	Tw
		• TOMS participation change	Tp
		• EQ-5D change	Eq
		• Length of Stay	LoS

Analysis

Selected patient outcome variables were analysed with IdTL variable data from the MLQ to identify interrelationships between these sets of variables. Summary variables from both questionnaires were examined using ANOVA and ANCOVA tests, to test specific hypotheses that emerged from the literature review and qualitative study. Where significant relationships or non-hypothesised results were found, further data exploration was undertaken to more precisely identify relationships. The analysis protocol for question 4 can be seen in table 4.11 below.

Table 4.11 - The analysis protocol for the primary hypothesis question 4.

ID.	Primary Hypotheses	Predictor Variables	Outcome Variables
4a1	There is an association between IdTL and change in quality of life throughout the episode of care.	IdTLp IdTLtf PA	Eq
4a2	There is an association between IdTL and therapy outcomes	IdTLp IdTLtf PA	TOMS

4.7.6 Question 5.

What is the relationship between Staff and Team Level Dynamics and Patient Outcomes in interdisciplinary health and social care teams?

A cross-sectional study design was used to explore relationships between staff and team outcomes and patient outcomes.

Selected staff and team outcome variables were analysed with patient output variable data to identify relationships between these sets of variables. Summary variables from both questionnaires were examined using ANOVA and ANCOVA tests, by testing specific hypotheses that emerged from the literature review and qualitative study. Variables of interest can be seen below in table 4.12. The analysis protocol for question 5 can be seen in table 4.13.

Table 4.12 - Predictor and Outcome variables used to answer Question 5

Predictor Variables (WDQ Unless Specified)	Outcome Variables (CRP)
<p>Staff Level Outcomes</p> <ul style="list-style-type: none"> • Leadership Outcomes (MLQ) LO <ul style="list-style-type: none"> ○ Satisfaction, S ○ Effectiveness, E ○ Extra- Effort EE <p>Team Level Outcomes</p> <ul style="list-style-type: none"> • Role Flexibility RF • Communication (communication) C • Clarity of Leadership (Management) CL • Access to technical equipment Ae • Quality of Care Qc 	<ul style="list-style-type: none"> • TOMS summary TOMS • TOMS impairment change Ti • TOMS activity change Ta • TOMS wellbeing change Tw • TOMS participation change Tp • EQ-5D change Eq • Length of Stay LoS

Table 4.13 - Analysis protocol for Question 5, Primary Hypothesis

ID.	Primary Hypotheses	Predictor Variables	Outcome Variables
5a	There is an association between Leadership Outcomes and change in patient quality of Life	LO	Eq
5b	There is an association between Leadership Outcomes and overall patient therapy outcomes	LO	TOMSS

4.7.7 Question 6.

What is the relationship between Staff level IdTL outcomes and Team Level Dynamics?

This question explored the relationship between staff level behaviours that are accepted as outcomes of effective leadership and team level dynamics. Data from the EEICC longitudinal study was again used cross-sectionally to examine this question. The variables of interest are shown in table 4.14.

Table 4.14 - Predictor and Outcome variables used to answer Question 6

Predictor Variables (WDQ Unless Specified)	Outcome Variables (CRP)
Staff Level Outcomes <ul style="list-style-type: none"> • Leadership Outcomes (MLQ) LO <ul style="list-style-type: none"> ○ Satisfaction, S ○ Effectiveness, E ○ Extra- Effort EE • Overall Satisfaction (revised) Sw • Uncertainty (negative) U • Intention to leave (employer) [negative] ILe • Intention to leave (profession) [negative] ILp 	Team Level Outcomes <ul style="list-style-type: none"> • Role Flexibility Rf • Team working Tm • Training/career progression T/CP • Communication Em • Sense of Direction C • SDw

Analysis

Selected staff level outcome variable and team level dynamics variables were analysed to identify relationships between these two sets of variables. Relevant variables were initially examined using ANOVA and ANCOVA tests. Specific hypotheses that emerged from the literature review and qualitative study were tested. Where significant relationships, or non-hypothesised results were found, further data exploration was undertaken. The analysis protocol for question five can be seen in table 4.15.

Table 4.15 - Analysis protocol for Question 5, Primary Hypothesis

ID.	Primary Hypotheses	Predictor Variables	Outcome Variables
H7a	There is a positive association between Leadership Outcomes and Team working	LO	Tm
H7b	There is a positive association between Overall Satisfaction and Team working	Sw	Tm

A summary of the data sources used in the quantitative analysis is shown in table below 4.16.

Table 4.16 - A summary of sources of data and tools used

Research Question/Objective	Required Data	Data Sources
1. <i>What do staff in interdisciplinary teams believe are the key elements of effective interdisciplinary team leadership?</i>	IdT staff perspectives on what are the qualities of effective leadership in interdisciplinary teams and how the leadership process works	15 semi-structured interviews
2. <i>What is the relationship between interdisciplinary health care team structure and working practices, and IdTL?</i>	Service and workforce configurations Interdisciplinary Team Leadership data	Service Proforma MLQ form 5x peer rater data
3. <i>What is the relationship between effective Interdisciplinary Team Leadership, and Staff and Team Level Dynamics in interdisciplinary health and social care teams?</i>	Staff/team Outcomes Data Interdisciplinary Team Leadership data	Workforce Dynamics Questionnaire + MLQ form 5x outputs data. MLQ form 5x peer rater data
4. <i>What is the relationship between Interdisciplinary Team Leadership and Patient Outcomes in interdisciplinary health and social care teams?</i>	Interdisciplinary Team Leadership data Change in Health Status data	MLQ form 5x peer rater data Therapy Outcome Measures, EuroQOL data
5. <i>What is the relationship between Staff and Team Level Dynamics, and Patient Outcomes in interdisciplinary health and social care teams?</i>	Staff outcomes/team dynamics Data	Workforce Dynamics Questionnaire + MLQ form 5x outputs data. Therapy Outcome Measures, EuroQOL data
6. <i>What is the relationship between Staff level IdTL outcomes and Team Level Dynamics?</i>	Staff outcomes/team dynamics Data	Workforce Dynamics Questionnaire + MLQ form 5x outputs data.

4.8 Methodological Rationale

4.8.1 Qualitative Study

Qualitative research was included in the methodology as it allows gathering of extremely rich data from which an in-depth understanding of the dynamics of interdisciplinary team leadership could be developed. To obtain a detailed picture of the dynamics of interdisciplinary team leadership it was important to explore the perceptions of the range of staff that work in interdisciplinary teams about what they perceive constitutes effective leadership within that context. Fifteen in-depth, semi-structured interviews were therefore conducted with a range of staff occupying both professional and nonprofessional roles within the teams, and from a range of hierarchical levels to ensure a broad overall perspective, which is not dominated by the views of a particular group.

An interview schedule was constructed based on the findings of the literature review, and in consultation with the research team of the EEICC study, service users and interdisciplinary team staff.

A broad template approach was used in the analysis of the data, as this method is useful in theory building from a range of different sources (King, 2004). In this piece of research the results of qualitative interviews needed to be related to an earlier literature review of the subject to refine and build on those findings. Initial thematic coding of the data was undertaken without direct reference to the findings of the literature review. However, once an inductive thematic framework was developed the framework from the literature review was introduced as a template to refine the qualitative framework.

The qualitative data generated by the interviews assisted with the analysis of the quantitative data generated, helping to identify and explore potential reasons for the results.

Overall, 15 in-depth interviews were conducted in the study to capture the views of staff about effective interdisciplinary team leadership and its effects. It was felt that this number was adequate to capture enough data for theoretical saturation of the subject. According to Guest et al. (2006) full saturation occurs in qualitative studies using semi-structured interview data within the first 12 interviews and metathemes are present as early as six.

4.8.2 Quantitative - Cross-sectional Study

Cross-sectional studies generally take a snapshot of a current situation to generate hypotheses based on the information captured. In this case the core purpose was to analyse the data collected at a single time point in the study cross-sectionally in order to generate hypotheses about the nature of effective interdisciplinary team leadership and to test which elements of leadership are associated with other contextual and workforce variables, including: service structure and work practices; staff level and team level dynamics; and patient outcomes.

According to Moran (2008) community rehabilitation and intermediate care services are particularly sensitive to policy and broader NHS changes which can influence outcomes. Therefore, it was important that the data analysed was gathered within tightly defined timeframes. Quantitative data in this study was gathered within a period of 6 months.

4.9 Ethical Considerations

4.9.1 Qualitative Study

Team members were asked if they would be interested in taking part in two in-depth face-to face interviews exploring the key elements of effective interdisciplinary healthcare team leadership. To ensure that staff did not feel compelled to take part all individual team members were mailed packs containing; a letter of invitation, information sheets, an interview schedule, a consent form and a prepaid reply envelope. Staff members who wished to take part gave their name to the team leader who acted as a point of contact for the researcher. Appointment slots were agreed between the researcher and the staff member, in consultation with the team leader. This was necessary, as the team members' workload on the day of the interviews had to be taken into consideration: interviews could not conflict with urgent patient needs or scheduled appointments. It was acknowledged within this that there was the possibility that a team leader could potentially, manipulate workloads, or the volunteer lists to prevent particular staff taking part in interviews. However, given that: team leaders had already been fully informed of the study goals; were aware of the strict confidentiality of any data generated; the interviews were about IdTL generally and not about them specifically; and they had consented into the study; the risk of manipulation was deemed low.

4.9.2 Cross-sectional Study

The cross-sectional study required conducting an analysis of the baseline data gathered within the EEICC project's longitudinal evaluation design, together with additional data on leadership again gathered at baseline.

As the wider project had an action research design, where teams participated in joint inquiry, evaluation and service development activities, each member of participating teams was individually consented into the study. It was felt that without consent of all individual team members, there was a danger that participants: -

a) could potentially be coerced into participating by team managers;

b) may not be committed fully to participating in the inquiry, evaluation and service development activities required in the study.

The letter of invitation gave detailed information about the activities required for participation in the longitudinal study. The letter and consent form were also accompanied by an information sheet, which gave a more detailed summary of activities and the time commitment required for participation in each. Invitation letters and information sheets were also distributed at least one week prior to all IMT intervention events reminding participants about the event and what would happen. Each of these informed participants of their right to withdraw from the study at any time and not attend project events.

Staff were also given individual prepaid mail envelopes to return the Workforce Dynamics and Multifactor Leadership questionnaires. This gave them the option of individually deciding not to return the anonymised questionnaire forms.

There was also a small risk that staff who did not want to participate in the study may have been required to complete the client record pack.

Perhaps the main ethical issue arising within this study was the approach in which patients were automatically 'opted in' to the research, and had to actively withdraw their consent if they did not want to participate. However, because there was no direct intervention to the patient and the data was fully anonymised, this approach complied with the PIAG guidelines.

To further ensure that patients' rights were not infringed in the study, service users were consulted about the proposed methods used in the research project. These service users did not identify any further ethical implications than those outlined above. Table 4.17 summarises the ethical arrangements for the study.

Table 4.17 - Summary of ethical arrangements for data gathering

Activity/Data Gathering Method	Brief Description	Ethical Arrangements
Service Proforma	The Service Proforma was developed from a systematic review as part of a larger SDO workforce study (Nancarrow, 2004). It elicits data on variables that can impact on service delivery outcomes including, the setting of care, host organization, and the case mix of patients.	A letter of invitation to participate in the study, information sheet, consent form and prepaid mail envelope was sent to every team member. Staff could opt out of the study, or particular activities at any stage.
Workforce Dynamics Questionnaire (WDQ)	The WDQ is a validated, 58 item, Likert scale questionnaire That is self completed by participating team members. It explores 11 workforce domains. It was developed and validated in a study of older people’s services (Nancarrow et al., 2008).	As above. Staff can elect not to return the questionnaire, or return it incomplete if they do not wish to participate.
Multifactor Leadership Questionnaire (MLQ) form 5x peer rater data	The MLQ short form is a validated,45 item, Likert scale questionnaire which explores nine leadership dimensions and three additional variables measuring the impact of leadership behaviours on staff outcomes (Avolio and Bass, 2004). It was completed by all staff members of participating teams, asking them to assess the level of leadership they receive.	As above. Staff can elect not to return the questionnaire, or return it incomplete if they do not wish to participate.
Therapy Outcome Measures	The TOMS scale is a therapist-rated rehabilitation outcome measure. It contains four dimensions: Impairment (degree of severity of disorder); Activity (degree of limitation); Social participation; and Wellbeing (effect on emotion/level of distress), with each dimension scored on an 11-point ordinal scale (0 to 5, including half-points). Lower scores indicate higher levels of impairment (Enderby et al., 2006).	Patients not required to be consented in, in accordance with PIAG guidelines. Patients receive information sheet on discharge and can elect to opt out of the study.

EQ-5D	The EQ-5D, formerly know as the EuroQol, is a generic measure used primarily by economists to calculate quality adjusted life years (QALYs). It uses a single question to assess each of five health domains; mobility, self-care, usual activities, pain/discomfort and anxiety/depression. The EQ-5D has a complex scoring system, which ranges from 1 which indicates full health, through to -0.59 (EuroQol-Group, 2009).	Patients not required to be consented in, in accordance with PIAG guidelines. Patients receive information sheet on discharge and can elect to opt out of the study.
Qualitative Interviews	Fifteen semi-structured interviews took place with 15 staff members and team leaders of participating team.	All team members were mailed a letter of invitation to take part in the interviews, an information sheet, consent form and an invitation schedule and prepaid mailing envelope. Participation was voluntary. Staff returned consent forms and made appointment for their interview.

Chapter 5 Qualitative Study

5.1 Introduction

The following chapter presents the findings of qualitative, semi-structured, one to one interviews with staff members from teams participating in the EEICC study:

5.2 Review of Research Objectives

The interviews were conducted to achieve the following objectives:

- To describe from staff perspectives the key elements and processes of effective team leadership in interdisciplinary health and social care teams, working with older people in community rehabilitation and intermediate care settings, and the processes by which these elements combine to ensure effective interdisciplinary team working.
- To understand how formal organizational structures impact on the effectiveness of interdisciplinary team leadership.
- To explore the staff perceptions of the impact of effective interdisciplinary team leadership on staff and patients.

5.3 Results

Fifteen team members took part in semi-structured interviews within this study to explore perceptions of effective leadership within the interdisciplinary teams. The interviews took place before the IMT intervention of the wider EEICC study (i.e. at Baseline). The timing of the interviews at baseline was important as it was felt that the IMT intervention, which facilitated team members benchmarking team working and leadership against research evidence, could skew their views on the leadership and create bias. For further information on methods see chapter 3.

The roles of the individuals that took part are summarized in table 5.1 below.

Table 5.1 - The profession/role of team members interviewed

Profession/Role	No.
Occupational Therapist	3
Social Worker	2
Speech and Language Therapist	2
Nurse	1
Physiotherapist	3
Rehabilitation Support Worker	1
Occupational Therapy Assistant	1
Dietician	1
Team Leader	3
Team Manager	1

NB Interviewees with a management/leadership role are also coded by their profession.

The analysis of data identified 11 key Interdisciplinary Team Leadership (IdTL) themes in Health and Social Care teams working with elderly patients. These are summarized in table 5.2 below. These themes are subdivided into three broader themes; Person Focused Leadership behaviours; Task Focused Leadership behaviours and Negative Leadership. Additional themes were also identified related to background issues and organizational factors that facilitate/support effective IdTL.

Table 5.2 - The final Interdisciplinary Team Leadership framework

PERSON-FOCUSED LEADERSHIP	TASK- FOCUSED LEADERSHIP
Transformational Leadership <ul style="list-style-type: none"> • Walking the talk - Idealised influence <ul style="list-style-type: none"> ○ Commitment Drive and enthusiasm ○ High standards ○ Strong , Confident Manner • Inspiring and motivating others <ul style="list-style-type: none"> ○ Vision ○ Positive attitude • Intellectual Stimulation <ul style="list-style-type: none"> ○ Change and Innovation - Developing the Service ○ Facilitating participation and discussion ○ Team learning • Person Centred Approach - Consideration <ul style="list-style-type: none"> ○ Appreciating and valuing team members ○ Positive feedback and encouragement ○ Fairness ○ Developing experience, skills, confidence ○ Coaching & Supervision 	Setting the direction of the team <ul style="list-style-type: none"> • Decisiveness-taking responsibility • Monitoring Performance • Allocating responsibilities • Approving-reviewing care plans
	Addressing skills gaps <ul style="list-style-type: none"> • Supervision and PPD • Ensuring access to required training • Recruitment and induction
Shared leadership <ul style="list-style-type: none"> • Facilitate Autonomy • Team problem-solving 	External Role <ul style="list-style-type: none"> • Representing the team to external stakeholders • Building Id networks • Winning resources for the team
Communication <ul style="list-style-type: none"> • Active Listening • Empathy • Approachable and Available 	
Teambuilding/Maintenance <ul style="list-style-type: none"> • Creating team identity • Facilitate full participation • Awareness of group dynamics • Managing conflict • Managing well being-stress 	
NEGATIVE LEADERSHIP BEHAVIOURS	
<ul style="list-style-type: none"> • Lack of interpersonal skills • Lack of intrapersonal skills • Laissez-Faire Leadership 	
BACKGROUND ISSUES	
Professional Responsibilities <ul style="list-style-type: none"> • Does the IdTL need to be a H&Sc professional? • Understanding the role of the disciplines within the team • Learning IdTL from experience Clarity of Leadership IdTL - Part-time vs. Full time Role Healthcare leadership vs. social care leadership - differences	

5.3.1 Person focused leadership behaviours

According to Salas et al. (1993) person focused leadership behaviours are those that facilitate attitudes, behaviour and interactions, and influence

how staff cognitively structure their work experience. Respondents identified a wide range of person focused leadership behaviours.

Walking the talk - Idealised influence

Respondents felt that effective IdTL's are excellent role models. They exhibit strong belief in the service and this belief manifests itself in enthusiasm for its mission, confidence that goals can be achieved and constructive action. Three factors were found to be related to Idealised Influence.

Commitment, Drive and Enthusiasm

It is vital that the IdTL shows commitment, drive and enthusiasm. However, it must be directed by a common vision and a commitment to the mission and goals of the team.

“... when I came to work on the team, the then manager had a real vision for reablement; a real drive for it and therefore she set the bar quite high for her staff to achieve.” (Speech and Language Therapist)

“I do think (my team leader) is really committed to rehabilitation - I think she believes in it just as much” (Social Worker)

High standards

The IdTL must consistently show that they have high standards, both for themselves and the team.

“She was hard work, because her bar was set very high – she had high standards across the board, including for herself.... And was extremely committed, extremely knowledgeable as well and completely drove it forward and push, push, push.... At times she could push a little too hard, but it was good leadership. You knew where you stood; you knew what was expected of you; you knew what the team was all about; we were involved! and I felt her motives were sound, she wasn’t just doing this as a career move, she was doing this because she really believed in what reablement could achieve for people. I felt she was totally driven by the concept of reablement...” (Social Worker)

Strong, Confident Manner

The IdTL is ideally both respected and liked. If the team manager does not seem phased by even the most challenging problems, this communicates to staff, making them in turn feel more confident. However they must be able to demonstrate authority when necessary. As one team member put it;

“You need to be quite strong don’t you if you have stroppy team members like me (laughs). You need to be well aware of what is going on and have your ear to the ground right across the whole board. We are on a smooth keel at the moment but we have been through some rocky patches.” (Occupational Therapist)

A team leader confirmed this perspective.

“Everybody’s up for it in any case, but I think you need a strong personality. I know how to confront people without it turning distasteful.” (Team Leader)

Inspiring and motivating others

The IdTL must inspire and motivate team members through developing a vision that is achievable and expressing confidence that it is attainable. Two factors were found to be related to inspiring and motivating others.

Vision

Effective IdTL's inspire and motivate team members. They do this by espousing a vision for development of the service that team members believe in and see as achievable.

“You need somebody at the helm, so to speak, that has got the vision to carry the rest of the team, because when you're working on the ground level, you haven't got the ability to do that – you need people in a different position to yourself, we go out and do the work, and do it to the best of our ability, but if you haven't got a good lead that's got the vision to take us forward then...” (Occupational Therapy Assistant)

The vision is both about the outcomes that interdisciplinary team working can deliver and also based on a belief and enthusiasm of interdisciplinary team working itself.

“I think you need a vision of what you're doing. I think you need somebody ... I think you do need your manager to be kind of inspired by the team, appreciative of the team's skills as well as looking at ways to address maybe our gaps.” (Speech and Language Therapist)

Community rehabilitation and intermediate care services for older people are a relatively new phenomenon and are still developing.

“Integration has been such a huge project that now we’re on the next stage – we’ve now got someone who is leading it, we’ve got meetings coming up about integrating social enablement and intermediate care – that’s the first part. And the person who began that had that wonderful vision.”
(Occupational Therapy Assistant)

“Many other managers have said you know X is regarded as being quite visionary. X’s got a lot of credibility and people respect X and so on. So you know if there is someone I look to it would be X really. And X’s got a lot of experience and.... an awful lot of knowledge because X’s a social worker, not only of social care but of health as well. X’s not afraid to learn things about health and talk to health in their language.” (Team Manager)

Positive attitude

The IdTL needs to display confidence that the goals of the team are achievable.

“I did have a very good manager and she had a can do attitude, always supportive of whatever you wanted to do.... We were never told, no we can’t afford that or you can’t do that, it was let’s see how you can do it and there was sort of, a very open nature and approachable and one of these people where you always felt quite upbeat after you’d met them.” (Physiotherapist)

Displaying a positive attitude about the team and its work seems key. This is particularly the case at times when teams become despondent and frustrated. At these times the IdTL expresses confidence, gives positive feedback and focuses on primary goals. One team leader expressed it like this.

“I think having a positive attitude towards what we do and what the team’s about and ... I suppose that’s quite a difficult question because the team’s so motivated and so positive that I don’t need to do it very often. But occasionally when they do get a bit despondent I suppose and a bit frustrated with things then you know I try to bring it back to what we’re all about. “This is what we’re all about. We’re here for the person. This is what we need to do. We need to work as a team. We’re good, we’ve been recognised, come on”, you know and giving them positive feedback, ... just having a positive manner, involving the team I think is the most important thing.” (Team Leader)

Intellectual Stimulation

Intellectual Stimulation emerged from qualitative data as an important area of focus for IdTL’s. Within IdT’s, intellectual stimulation has an operational rather than a strategic focus, challenging taken for granted assumptions and directing attention to improving operations and translating strategic imperatives into improved operational performance.

“X wasn’t only driven and had direction but she would support you in your decisions, she would also cross-examine you about the decisions. She left no stone unturned really; she was very thorough in whatever the situation was. She was hard work because her bar was set very high. She had high standards across the board, including for herself.... I thought I was a fairly good social worker before, but she made me raise my game. She made me pick up my pace and drive about what I could achieve and could do with people.” (Social Worker)

For professionals this type of behaviour can be challenging as it directly contests traditional perceptions of professional autonomy.

“Initially it was scary because I was so used to just being left alone to do it and all of a sudden I got somebody questioning, “well what are you doing that for? Do you not think that this would be better?” And having someone to guide you and lead you took some getting used to I suppose. But once you got used to it, it was actually very helpful.”(Team Leader)

Change and Innovation - Developing the Service

Health and social care services have been subject to continual reform. The development of CRAICS for older people has been an area of particular focus over the last decade and has been at the forefront of merging, or strengthening coordination between health and social care services. Alongside ensuring that IdT meets its everyday objectives, a key role of the IdTL is to ensure that the service continues to develop. One team member recounted experiences of a particularly effective leader she had worked with.

“I think that she had an aim to kind of expand the service and was quite logical about how she went about doing that so kind of building up data, getting us to prove what we did, doing lots of audits, things that you don’t necessarily want to do but because she had quite a strong vision, she carried you with her. Yeah and we did in fact increase the department quite significantly and did lots of rolling training programmes and she had us all involved in that. So that was very good and you could see where the team was going and the fact that there were very positive effects.” (Speech and Language Therapist)

It is important that even where change is initiated outside the IdT, that the IdTL works to ensure the team feel they are in control of operational change and innovation.

“I feel there’s room for growth and I can be myself. I don’t feel I’m treading on eggshells and there’s development going on, it’s not static. There’s a lot of development going on because it’s forced on us from outside as you probably appreciate with all these changes, but actually there are plenty of things that we want to change from grass roots up in the way that we work, so there are things that we want to make better because we want to work in a better way so it actually does come from us as well.” (Rehabilitation Support Worker)

“I don’t like change for change’s sake but I am somebody who keeps looking at other ways of doing things, particularly if ... because of the amount of paperwork I find myself repeating something I usually have an alarm bell go up and think, “is there a way of doing this that I don’t have to repeat myself”, and finding slicker ways of doing things. And I’ve found my team leader very positive in helping me try out different models.” (Occupational Therapy Assistant)

Facilitating participation and discussion

Because IdT is a collaborative and participative venture, change best occurs through involvement and participation strategies, which in turn foster ownership of change initiatives.

“Whatever changes, I ultimately do have the final say but (in practice) I try not to tell them what they’re going to do, I try and get them to look at it.... So the whole of the goal sheet and outcome measurements was their design and it makes perfect sense to me, that’s why I’m carrying on with it. It does everything that I need, that I asked them to do and it’s their design so they’re far more committed to using that because they did it rather than me saying well you’re going to be using this.” (Team Leader)

Team Learning

The facilitation of discussions both with individuals and with the team, leads to new ideas and solutions. It is essentially a team learning process.

“My team leader’s great because she listens and she takes on board things I bring, both positive and negative. She’s very encouraging ... so you really feel that you are not stuck in one place as a team, but that we are always trying to improve. I think she is very good at that.” (Senior Occupational Therapist)

Person-centred Approach - Consideration

The IdTL must be consistent; both in the messages about the work and the way that they treat people. The IdTL considers team members as individuals with different needs, abilities and development aspirations. The IdTL shows general consideration to staff and helps them to develop, but within the boundaries of the team by ensuring individual aspirations and goals are aligned with team and organisational goals.

Appreciating and valuing team members

Consideration behaviours by the IdTL enact to make team members appreciated and valued. This feeling of appreciation has the effect that team members show consideration to other team members. Generally being approachable is a key to making people feel valued.

“If something was bugging me I would have to go and find out and I would need an answer. And she’ll make a time, she’ll be like “I’ve got so and so to see...., but I’ll be free at 2 o’clock, come and see me then”. So it makes you feel appreciated.... when you talk to people, and they’re actually listening to you.” (Rehabilitation Support Worker)

Effective IdTL’s show an interest in IdT members not just in a transactional way; in relation to their role and tasks, but holistically as whole people; both inside and outside of work.

“I think just showing an interest in individuals, just makes them valued really and it might be just thinking about something they mention in their personal life, checking that’s ok as well as work life, because obviously the two do interact. So being aware, I think as I say my main role is trying to make the path or whatever we’ve decided we’re doing, as smooth as I can do really. (Team Leader)

Positive feedback and Encouragement

A key behaviour within this is in giving positive feedback to team members. This contributes to generating a positive atmosphere, though it does not preclude challenge. It is also helpful when staff lack experience and are still working to develop expertise and confidence

“I think it's about, supporting the staff, not just a criticism when things go wrong, but it's a praise when a praise is due, I think it's being completely fair and it's somebody to go to if there are any issues. And I do feel that we do have that on the team... I think giving them positive feedback... just having a positive manner, involving the team, I think is the most important thing.” (Team Leader)

“I wasn't long in the job and I was continually questioning as an assistant, I was quite naïve – how am I going to... have I made a mistake? And I was working with [a leader] who was really supportive who was able to encourage me and give me lots of ideas and advice. And I think to be honest she is the reason that I stayed – I did feel out of my depth at that time...” (Occupational Therapist)

Fairness

Being seen to be fair and even handed with all team members is viewed as important. This involves listening to all team members: treating both professional and non-professional staff with equal respect, and as equals.

“I try and be fair to everybody personally when I ... if it's a decision around annual leave or Christmas leave, that's often one of the little flash points so I try to be fair about how that's worked. So what I started to do when I came into post, which I've only been in for about 18 months actually, but what I have done is I've kept a list of who's been off at what time at Christmases and things so that if someone's booked in two Christmases in a row it's like well hang on a minute, you did this last year and someone else missed out so actually. Even though you're not popular with that person, everyone can see that you're being fair to everyone else, because I know what that's like being on the other side...” (Team Leader)

Developing experience, skills, confidence

The IdTL takes a person centred approach, facilitating the development of each team member according to their aspirations, and finding ways to align these with team and organisational goals. This is particularly important in teams containing health and social care professionals as professional development must be managed in a way that benefits both the IdT and service users and does not cause too much disruption. There is also strong link between these behaviours and task focused leadership behaviours related to development.

“If I had any problems I know I could go to her. You know, I don’t have any problems with that at all and she just makes sure that I’m up to date, ‘saying have you got this, have you got that’, When I was stuck I said to her, you know I’m having a bit of problems with the computers, with numbers and stuff. But I found that if there is anything, I can approach her and I find her helpful.” (Rehabilitation Support Worker)

Coaching & Supervision

The IdTL facilitates the learning and development of individuals and teams through, non-directive dialogue that allow emerging patterns and solutions to surface, related to specific goals identified by the coachee(s).

As the IdTL does not normally have the same specialist knowledge as the professional, they do not give clinical supervision. As they oversee the day-to-day activities of the IdT though they do give supervision and facilitate discussions with professionals about clinical issues and give a holistic perspective. Clinical supervision can be thought of as specialist mentoring – whereas IdT supervision is focused more on specific goals.

“I have got my Occupational Therapy leadership at the PCT that I know I can go to, who is very good and very supportive on a personal level. She can provide guidance on difficult cases she does things like pushes you to do your MSc. or further training. That is a professional lead, which I have found very valuable and I haven’t got anything similar in social services. Our case manager is very good at allowing you to talk through clients, giving you a bit of guidance, giving you the stuff to think through; an alternative way. But she doesn’t give you the occupational therapy side, I need that externally.” (Occupational Therapist)

Shared leadership

A vital component of effective IdTL is empowering the team through facilitating shared leadership. Staff within the team share leadership responsibilities, particularly those who are professionally qualified.

“Involving the team is the most important thing. We all make decisions. Obviously there are certain decisions that have to be made at a management level. But even when those decisions have been made at management meetings I come back and say, ‘oh right they’ve brought this new thing in that we’ve got to do now. So how shall we do it as a team’, so that they’re being involved because I just feel that they need to be.” (Team Leader)

In particular, professional staff take an active leadership role relating to individual patients whose case they have overall responsibility for. They often liaise directly with other staff within the team in developing and delivering care plans and more experienced staff often only liaise with the team leader when more challenging problems occur.

“I mean they will go to other professions to see if they’ve thought about it. If it’s something that wasn’t obvious then they usually come to me and then you know I’d say, ‘well go down that route or do this or ...’, but you know within the team they do talk to one another, they go over and chat, ‘I’ve got this you know...’ ‘I’ve been out seeing Mrs so and so, I’ve found out this and blah, blah, blah’, and then sometimes they’ll come and see me, because either they can’t agree on something or come up with a solution, so then we get more heads together and discuss it. And we usually come up with something.” (Team Leader)

Professionals also often directly supervise support workers and may hold formal supervisory responsibilities within the team. However, the IdTL maintains the overall leadership role and has a direct leadership relationship with all staff including support workers.

“I think that in some ways the art of good leadership is that not everyone is aware that you are the leader. It is not sitting up there on the platform. Our team leader does that very well. It still feels like she is one of us.” (Occupational Therapist)

Facilitating Autonomy

The effective IdTL facilitates autonomy, particularly amongst professionally qualified team members. This is distinctly different to Laissez-Faire leadership styles – which abdicate responsibility, avoid difficulty, or assume self-management and leadership behaviours, without providing appropriate support and structure. Availability and approachability are key, particularly when there are problems.

“I don’t think X is as hands on with regards to your caseload, X isn’t as involved and I interpret that as X wanting to show that X trusts us because equally we can go to her with any problem at all, any issue and X won’t shirk – X will make a decision.” (Social Worker)

“I think our team leader really does let us get on with it, but X is always here and is not divorced from the thing totally and knows exactly what’s happening ... and X knows her stuff. When you come to X and say, 'what do I do about this', X knows and if X doesn’t know exactly X finds it out quickly and you know ... you know X’s in charge!” (Speech and Language Therapist)

Team problem solving

The IdTL facilitates problem solving by the team. They do this by making themselves available to discuss problems and difficult issues with team members when they arise. They generally take a facilitative role in the discussions, but may challenge thinking and offer expert advice. If problems are externally located they take responsibility to sort them out and “smooth the path” of the team. If risks of the agreed action are high the team leader may formally take responsibility for the course of action, to ensure staff do not feel they are exposed to risks that might cause anxiety.

“So that’s me being here for the team as I see it and being able to make tough decisions and I guess I take that responsibility when I’ve made that decision. If there’s any come back I made that decision, I agreed that so you know that’s my head on the block if you like [laughs]”. (Team Leader)

Communication

It is important for the IdTL to possess a high level of, 2-way communication skills, as these facilitate participation, build empowerment, and promote effective communication throughout the team. These skills are more than about the giving and receiving information. A number of these capabilities relate directly to established theories of emotional intelligence.

“They have to be able to communicate well with all the different team members. I think because it’s different professions in the team there is a wider range of people. When you put a team together you’re going to get a mish-mash... workers from different educational and social backgrounds.” (Physiotherapist)

Active Listening

Within this active listening is a particularly important skill.

“Listening to everyone’s point of view and taking everyone’s point of view seriously is a very good step forward. Accepting that everyone does have a valid point of view and giving credence to that.” (Occupational Therapist)

Empathy

Effective IdTL’s not only display good clinical knowledge, but “*warmth and empathy*” are also important qualities. Taking the time to understand other people’s feelings and point of view makes them feel valued. There are also strong indications that if the IdTL models this type of behaviour then staff adopt these behavioural standards. The overall effect is to powerfully enhance both positive feelings about the team, and constructive behaviours by team members.

“... I think that makes a whole lot of difference you know, because I think if you feel sort of valued in yourself then you feel as though you want to value everyone else.... When I go to the ward sometimes I learn a lot and it's because I am listening to what people on the ward want and what their needs are.” (Rehabilitation Support Worker)

Approachable and Available

The effective IdTL needs to be both approachable and possess, “*an open nature*”. Team members need to feel they can discuss anything that is on their mind with the IdTL. This includes work related and non-related issues that can effect performance. Within this, honesty and directness are felt to be important attributes that create a climate of openness and trust in the team.

“... I find X very approachable and I find X ... X does praise you, as well. X will be like that, ‘oh you’ve done a good job there and stuff like that.’ And I don’t know ... I think to be approachable, you need to have that...” (Rehabilitation Support Worker)

Although much work in the IdT is self-directed and the IdTL has other responsibilities, it is vital that they makes themselves available to staff so that at the times when team members need support they can get it.

“Well as I said earlier, very accessible, very approachable, very down to earth, people don’t feel ... I don’t know, you can get a situation where people feel professionally embarrassed about having to ask somebody something or just to run through. We don’t have that. It’s very informal, I wouldn’t say it’s casual, but it’s a respectful relationship and you know I feel that the staff respect [our team leader] and [our team leader] respects them really. You know there is a lot of mutual support and respect really.” (Team Manager)

Teambuilding/Maintenance

Building and maintaining the team is vital to ensure its success. This can be achieved either practically by facilitating a team approach, or through formal and informal teambuilding activities. This requires a good understanding of group dynamics.

Creating team identity

The IdTL works to create team identity. Members feel they are part of a real team and often exhibit pride in membership.

“ Yeah, we go out every so often. We all head off to the indian and have tea after work and have a christmas do and stuff like that. So yeah, we try, because it just, I don’t know, it makes you more human I suppose and not just a team member. You are actually a person and I think that it.... it humanizes everything. So yeah, we do that. It’s a good team!” (Team Leader)

Facilitate full participation

Effective IdTL’s ensure the more assertive team members do not dominate proceedings; that quieter members are given enough airtime, that communication is open, and that nothing is left unsaid.

“ If somebody is quiet in a meeting you say “right, would you like to say something now”. Because you can often tell, you look at them and think ‘oh if you’re looking grumpy about that you say what you think instead of letting the same people do all the talking’, which often happens, doesn’t it?” (Team Leader)

Awareness of group dynamics

Effective IdTL's need a good awareness of group dynamics, monitoring the team closely and being aware of any changes.

“I think you have to be quite good at listening to people. There can be subtle changes sometimes in the mood and sort of finding out why that is, what's going on... you have to be trying to keep lots of people happy.” (Team Leader)

Facilitating negotiation and compromise (Managing conflict)

In teams where there is open-communication, there are bound to be differences of opinion amongst the team, which could possibly lead to conflict. The IdTL ensures that differences of opinion are resolved and do not develop into conflict. If conflicts do arise in the team the IdTL must resolve the conflict and ensure relationships are maintained. Asked how care plans and treatment objectives were developed one team leader said:

“I think the phrase is a full and frank discussion takes place (laughs). Not very often because I think over the years people have got to know each other's way of working and think about the goals and everybody's role, but occasionally there will be quite a big difference in opinion.... So normally I let them bandy that around for a bit and if they can't agree, I normally end up making the decision. On the whole they come to an agreement themselves, but sometimes they get quite passionate. One of the team in particular, has a blunt manner (laughs)... Sometimes the new people coming in, they are not quite sure and they get a little bit upset and take it personally. But actually it's not personal, X is very passionate about what they do and does feel deeply and it's just unfortunate the way that x sometimes puts it across. But when you get used to that, you realize that you can see their point. I totally agree with x usually, but how they said it is wrong.” (Team Leader)

Managing well being-stress

The IdTL must monitor the team for overall wellbeing, recognise signs of stress and burnout and act pro-actively to ensure the continued wellbeing of team members.

“I say who’s going to get what; there is some negotiation with it. If someone says, “I am absolutely chock-a-block, I really can’t take any more this week”, then you know I won’t force them to take it. I’ll look for someone that has got more capacity. Because obviously, stress is a big factor and you don’t want to overburden people.” (Team Leader)

5.3.2 Task focused Leadership (formal structuring behaviours)

Task focused leadership behaviours are related to formal structuring of team tasks and goals, often through defined organizational mechanisms (Burke et al., 2006). However, despite the formal nature of these activities, because of the nature of IdT’s, these tasks are generally achieved through participative techniques.

However, the team leader remains in charge overall and exercises authority when necessary. This generally occurs when complex issues are at hand and the team either cannot agree a way forward, or the team leader needs to resolve disagreements within the team. However, the preferred method of working for the IdTL is always through participation and negotiation. The team meeting is often the prime vehicle to facilitate many of these activities within the team.

“I think meetings are good and our team leader always turns up for those, so she’s there for any questions or any difficulties people are having etc. and I think things can be nipped in the bud then rather than them going on and on and on. If you didn’t have a meeting every week there wouldn’t be that sort of forum to be able to come and say ‘I’m not happy with this...’, so it keeps progress going, rather than things just sort of hanging around.” (Nurse)

Setting the direction of the team

The IdTL facilitates strategic thinking and action planning within the team. These aspects link to both "vision" and "empowerment". To do this the team leader must have a strong vision for the team and high standards for attainment. Whilst these activities are usually enacted in a participative way, the IdTL’s role is pivotal to ensure that the team does have a clear direction. Alongside the above, the IdTL needs to demonstrate that they are proactive and organized, from personal time management through to action planning. However these abilities must be used to complement empowered, participative ways of working rather than undermine them. When a plan is created the IdTL acts as the custodian of the plan and ensures it is kept to. A team member explains how important the IdTL’s role is.

“There was a phase when our team leader had left and (our team manager) was really busy doing everything he does now and trying to do a million other things as well and we felt like we were adrift, but once (our current team leader) stepped in to her current role, it felt like we had got direction again and it felt like we had got somebody at the helm.” (Social Worker)

Decisiveness-taking responsibility

Despite the team being largely self-directed and there being significant sharing of leadership roles, staff consistently said they appreciated a leader who was strong, decisive and prepared to take responsibility for difficult decisions. Even if staff disagreed with the team leader, if they had listened to all perspectives and their reasoning was sound their decision was respected. One member of staff recounted her experience of effective IdTL's she had worked with.

“I think some of the better ones have been people who, even if you don't agree with what they're saying, they have made that decision and they're sticking by it, so even if it's not a particularly popular decision, you can respect them for it. You feel like they believe in it. And also listen to what you know, your point of view. Even if they can't do anything about it, which is quite often in the NHS, if you can put your side of the argument and have that taken into account I think it makes a big difference to the final outcome but at least you've had a go. I think people need to know where they are.” (Physiotherapist)

When, after discussion and challenge, the IdT has reached an informed decision about what needs to happen, the team leader supports the team's decisions.

Monitoring Performance

The IdTL has responsibility for ensuring that work performance is monitored according to organisational and national priorities. However, as with other task focused leadership activities they facilitate shared responsibility for the monitoring of work performance with team members.

“I ultimately do have the final say but I don’t try and tell them what they’re going to do, I try and get them to look at it and so that the whole of the goal sheet and outcome measurements was their design and it makes perfect sense to me that’s why I’m carrying on with it. But it does everything that I need, that I ask them to do and it’s their design so they’re far more committed to using that because they did it rather than me saying well you’re going to be using this. And just really trying to keep positive [laughs] she says trying to be positive.” (Team Leader).

Allocating responsibilities

The IdTL has overall responsibility for providing responsibility, allocating cases and managing workload. The IdTL will facilitate this usually, but may allocate work/tasks according to situational factors, such as level of current workload, the complexity or specialized nature of a case, or the level of experience, confidence, or qualification of staff members. When it is necessary the IdTL can direct staff.

“... it’s good to have somebody who is strong, who can then make a decision and direct the team and not just be ok so we can try this or try that but listen to what we’re saying and then make a decision and go with that and lead it quite strongly. But I think, yeah I don’t get on with the autocratic kind [laughs]. It just doesn’t work I don’t think in these teams.” (Occupational Therapist)

Approving and reviewing care plans

In routine cases, IdT members, particularly those professionally qualified, in liaison with colleagues, develop care plans. In particular, with difficult or complex cases, the IdTL may review plans with staff and personally approve care plans, rather than leave staff to take the full

responsibility. These arrangements vary however, depending on where the IdT is located. In Social Care organisations the IdTL has to formally sign off plans. In health service based teams there is no formal requirement to sign-off, but there is overall responsibility nonetheless.

“And then they’re passing to me all the time, care plans to sign and sign off and agree which I have to for budgetary reasons. I also look at them and if I think. ‘Well why have you given that? Could you not try this? Would that not be better for this person,’ you know, because I do try to get to know the cases.... Then they send me ones that they’re closing, that they’ve finished... this is what they’re going to need if anything ongoing. And then I have to sign all that off, agree everything and make sure that all the boxes have been ticked that need to be ticked for our audits and our paper trails and our performance indicators and all that sort of thing.” (Team Leader)

Addressing skills gaps

The IdTL is responsible for addressing skills gaps within the team. This could be by recruitment of new team members or by ensuring current staff have access to the training they require to do their jobs most effectively and meet statutory obligations. This can require lobbying externally for necessary funding and resources, often by providing evidence that such training is necessary.

Ensuring access to required training

The IdTL also has responsibility to ensure that staff get access to the training they require to undertake their roles effectively. This includes both mandatory training as well as training focused on continuing professional development. Professional leads also often play a role in encouraging the

staff member to undertake further professional training. The IdTL has responsibility for facilitating access however.

“X also supports me in my wish to have more training and we’ve put in bids for a couple of things and X’s written a lot there in support so no, I feel that X’s supported me fully in what I want to do yeah ...” (Occupational therapist)

“I can’t fault the training actually at all. I know recently there’s been a lot of difficulty with financing so you have to have done all your mandatory things before they’ll finance anything new or anything that’s not mandatory, but no I think [my team leader] is pretty good actually. And I think that’s kept me up to speed with most of the things that I need to know.” (Nurse)

Supervision & PPD

IdT staff should ideally receive regular formal supervision. Staff receive an annual Appraisal/Personal and Professional Development Review. However, regular supervision sessions are desirable, which can be either structured or informal. Supervision has both task-focused and person-focused purposes. Topics can vary from discussing cases, reflecting back on individual performance, to developmental needs; discussing training needs and career development. Task-focused development behaviours are about ensuring that staff members develop in line with formal organisationally determined development objectives and that mandatory training issues are addressed. Person-focused behaviours ensure that staff aspirations for their development are taken into consideration, and where possible aligned with organizational goals to create motivational synergy. Often the formal leadership roles are shared between the IdTL and professionals in the team. The IdTL gives supervision to the senior professionals within the team. The senior professionals give supervision to support workers.

“[My team leader’s]... strengths in the role are encouraging people in the team to develop the experience and confidence to be more autonomous really, also to share and discuss any concerns that they do have. So again staff do have formal supervision once a month and we do go through all the cases and they’re logged but you know its just the informal things, X’s accessible to them and they feel supported and hopefully confident by that really.” (Team Manager)

“... it’s not even so much about what happens in the conversation but the fact that a manager has made the commitment to that member of staff to meet them once a month and discuss how they’re getting on and how they’re progressing and taking an interest in their work... I think that helps them to feel valued really.” (Team Leader)

Recruitment and Induction

The IdTL has responsibility for recruiting new members of staff to the team and when they arrive in the team ensures that they receive adequate induction. Effort is made to make them feel a valued team member and that they can ask for any help, info or assistance they need.

“... you don’t expect a new member of staff to dive straight in. You know we give them time to settle in.... I am quite strong about that. We give everyone a good four weeks or so induction, so they spend time with everybody gradually getting to know ... Again because of the team, everyone is just very welcoming and will chat and I think probably the best way to encapsulate it is that we’ve had students here who have come back once they’ve qualified to work.” (Team Leader)

External Role

Whilst the IdTL is an IdT member and their work is predominantly within the team, they also have a role outside the team. This requires the ability to develop networks and linkages and to promote and develop the team in a market oriented environment. Another part of this boundary spanning function is to keep staff fully informed of what is happening in the wider organization that will effect the IdT's work.

Representing the team to external stakeholders

The IdTL has a role in representing the team to external stakeholders including organizational management to both promote the team, but also to represent its interests. For the IdTL to be effective, IdT members need to be confident that the IdTL is on their side.

“... someone who's quite dynamic, who's going to represent your team as a positive entity really, who perhaps is going to go out there and sell it as we've got to now and isn't going to wait for people to come and ask her about the team. [They are] actually going to go out there and sell this team, how wonderful we are and perhaps get a bit more resources, expand it and take it ever forward, always moving forward, always you know.” (Nurse)

Building Id networks

The effective IdTL understands the importance of building networks across a range of health and social care agencies and providers to respond flexibly and offer bespoke care solutions.

“X is an excellent networker and she like brings people together and brings health colleagues and commissioners and directors and whoever X needs to get a piece of work or a project happening, X will bring them together round a table and you know, X has got a lot of credibility and people respect her and so on.” (Team Manager)

Winning resources for the teams

A key role for the team leader is to ensure that IdT members have the resources they require to do the job effectively.

“There was a bit of an issue with cars, because of course we spend a lot of time driving round this very pleasant countryside, seeing patients in their own homes. We also do home visits and one of the OT's was taking somebody on a home visit and they were sick or something happened in their car and that just highlighted a bit of an issue about taking people in your own car. So I managed to get us a pool car and you would have thought I'd given the team the crown jewels because they were so excited about having a pool car. So now we can use that to take patients on home visits and yeah it's been great. It's things like that, that make the difference.” (Team Leader)

5.3.3 Negative Leadership Behaviours

Interview participants described a number of negative leadership behaviours. These behaviours were not only damaging to the morale and motivation of individual staff, but also negatively affected team working.

Lack of Interpersonal Skills

If the team leader lacks interpersonal skills it has a negative effect upon the morale and motivation of staff.

“At one place where I worked, one of the sisters had, had a headache, went home and had a haemorrhage and died. The night staff found out about it so I came in the middle of the night to be with them. You can imagine they were completely devastated.... in the morning, her manager turned up and said, ‘what are you doing here?’ So I said, ‘well I’ve come to support the staff, it’s all right you don’t have to pay me.’ ‘That’s good’, she said ‘I want everyone together.’ So she got the whole staff on duty, and said, ‘right, this has happened, but I don’t want any of you gossiping in corners, I want you to go out and get on with your work.’ Over that year nearly every member of staff left.” (Nurse)

In particular poor communication skills were mentioned by participants as having a negative impact.

“They just thought that they were right. They never listened to anyone else’s point of view and also they’d be really grumpy. You’d come into work and you’d be like “morning” and they would just ignore you. What happens then is that it has a knock on effect. Some of the time, because you’re feeling as though it is still in your vein, you know so it takes the focus off your concentration... If somebody doesn’t listen to you, you just feel under valued like ... how can I put it ... you’re just another number and not worth bothering about.” (Rehabilitation support worker)

Lack of intrapersonal skills

Leaders who are unable to manage their own feelings and in particular are subject to stress and anxiety, often communicate the anxiety to team members, and can become critical, over-controlling and perceived to lack trust in team members. If the IdTL does become anxious and begins to exhibit stress type behaviours, staff can become anxious or lose confidence in the IdTL.

“I think we’re all quite fearful at the moment of our job security and who’s going to be... in charge of us. Because you hear this bandied about, somebody can provide the service cheaper than you... and we heard (our team leader) say it at the team meeting this morning how we may not have a job. And I don’t like scare tactics, I don’t think that’s very productive. I don’t know that that really helped... ... I think it’s anxiety really.... I think what happens is that because X has an unmanageable job with a limited time and X gets anxious over really small details that are a bit irrelevant. It’s absolutely understandable but I think you know, from an ideal manager I would expect slightly more.” (Speech and Language Therapist)

Laissez-faire leadership

IdTL’s who adopt a laissez-faire approach avoid responsibility and are often absent when staff need them. Their actions, or lack of them, can have a negative effect on both individual staff and team dynamics, and render them ineffective as leaders.

“I worked in another authority, I was fairly newly qualified then, the manager just wasn’t there. They did provide me with supervision but that was it, so unless you saw them between supervisions, you were really on your own and there was that feeling of being on your own with a lot of complex issues and feeling unsupported really. Although they were there formally, informally they just weren’t really what you’d think of as a team player, they just went off and did their own thing and you know, I don’t think they were performing very well anyway. They were missing a lot of the time.” (Social Worker)

Respondents reported a wide range of negative affects upon staff of the above behaviours. These include:

- Feeling undervalued
- Frustration, anxiety and stress
- Reduced confidence and self esteem
- Demotivation and demoralisation.

The most common solution reported by participants experiencing negative leadership behaviours, was to leave the employer.

5.3.4 Background Issues

Professional Expertise and Responsibilities

The following elements relate to issues around the appropriate background knowledge and expertise an effective IdTL must possess. Further, as an IdT member the IdTL must undertake real work within the IdT in combination with their leadership role.

Does an IdTL need to be from one of the Health or Social Care professions?

Most interviewees strongly felt that it the leader of an interprofessional care team should be a health or social care professional (Dr, Nurse, Therapist, Social Worker etc). The reasons for this were two-fold. Firstly, some professionals felt that the IdTL had to show high levels of expertise in a relevant professional area to the function of the team, to gain the respect of the professionals in the team.

“I think I would want somebody who had a vast amount of experience in the job that we were actually doing for me to be interested and respectful about what they were asking me to do. I think if someone was just a manager, who had managed Woolworths and then came in to manage the office, I wouldn’t respect what they have to say because they wouldn’t have a clue what I was doing.” (Occupational Therapist)

It wasn’t just the fact of gaining professional respect that was important. It was vital that that the leader of an IdT has a large amount of practical experience of the service that they are leading so that they understand intimately both the nature of the work and how best it can be achieved.

“If you’re going to lead a group of people you’ve got to have a really good understanding of what they’re dealing with on a day-to-day basis, the difficulties they experience and what they are trying to achieve. The head of social services should have been a social worker.” (Social Worker)

Practically, much of the IdTL’s time is spent facilitating discussions about particular cases and developing care plans. Therefore an in-depth professional expertise was felt to be *“a definite advantage”*.

Whilst it was recognised that the IdTL’s role is largely connected with facilitating case management and care planning, some respondents indicated they felt it was better for the IdTL to be directly involved in the delivery of

care. It was felt that being involved directly with a small number of patients could facilitate better understanding of patient issues and ensure professional skills remained honed.

However, this was not a universal opinion. One AHP had worked with a team leader from a professional management background and reported it as a very positive experience. Most respondents, despite the above opinion, did recognize that leadership required a distinctly different skill set to those required to be a health professional, particularly in a more market oriented, commissioning based health care system.

Understanding the role of the disciplines within the team

More important than having excellent clinical expertise in a particular profession, the IdTL has to “*have an understanding of everybody’s role in the team*” and how particular professionals can contribute in specific situations.

“I think you need to understand the team and understand the roles in the team. Another criticism of some past team leaders is that they haven’t really understood what a physiotherapist does, what an OT does because they come from completely different backgrounds and haven’t really worked with them. And that certainly I think helps to actually understand how ... what those professions do and their roles and how they work and have respect for that professional opinion. That makes a difference.” (Team Leader)

Learning IdTL from experience

This related directly to the above. Respondents felt it was vital that future IdTL’s gained experience of working in an IdT before taking up the role of team leader.

“... I always say it takes a person about a year to learn what we’d do properly and that’s gained through experience of learning what the team can do as a working unit together and what the team can import, what the physio can do, and how far we can get with particular people and different kinds of scenarios.” (Team Manager)

Clarity of IdTL

Most respondents were clear about who their team leader was. However in some teams there was confusion about who was in charge. Sometimes there was confusion between the boundaries of the team manager and the team leader role. The team manager generally exists outside of the team, may manage several teams and plays more of a strategic role in the hierarchy. The team leader, as already discussed, sits within the team and it has responsibility for day-to-day performance issues. Further, in IdT’s containing a range of Health and Social Care professionals/disciplines, the leadership is dispersed through the team. Senior staff often take case management responsibilities and formally supervise less senior/qualified staff. Senior staff were also sometimes supervised by the team manager rather than team leader. Health service staff usually also have professional leads which can further blur leadership roles.

There is sometimes evidence that these complex leadership arrangements can cause confusion amongst staff about who their leader actually is. This can occur because team leadership is weak, or the wider organization has not created a clear and workable leadership structure leaving staff confused. It can also occur if a leadership role is vacated and not immediately filled as staff will naturally seek the support they need elsewhere. In situations where there is confusion about the leadership role, respondents indicated increased feelings of anxiety.

Part time vs. Full-time role

An issue related to the above and which can impact on the staff is whether the IdTL is a full-time or part-time role. Despite the issue that much day-to-day leadership activity is dispersed within the team, it is vital that the IdTL is easily available when serious issues arise. In some teams where the IdTL worked part-time there was evidence that the lack of availability could at times be problematic, as team members could not quickly gain the support they required to deal with and resolve difficult issues. There was also evidence that being an IdTL part-time could be stressful for the IdTL, as they can struggle to meet all the responsibilities that the role requires in the time available.

There was no indication that part-time IdTL's were less skilled or effective leaders than others, but there was evidence to suggest that the IdTL role is a full-time one.

Healthcare leadership vs. social care leadership – differences

Respondents perceived that there were definite differences between leadership in the NHS and leadership in Social Care based IdT's. Leadership within healthcare was perceived as much more hierarchical than in Social Care based organizations. It is not that Social Care organizations do not have hierarchies but that the hierarchies are culturally different. Social care hierarchies are in some ways more formal. Staff receive regular supervision and *“people sign off your notes. I've never come across anything like that in the health service!”* In this way it appears that Leadership in healthcare can be quite laissez-faire at times. Lesser-qualified staff are given high amounts of responsibility in both health and social care organizations. But in Social care there is evidence of more structured support from team leaders. In healthcare, low team leader support can be and is balanced by support from professional leads and the professional

hierarchy is generally more pervasive. One healthcare professional described the difference as Social Care having a "*you can do it attitude*". Whereas in Healthcare, "*you can do it only if you are qualified to the right level*".

5.4 Key Findings

This qualitative study explored staff perspectives of the key elements of effective leadership in interdisciplinary health and social care teams working in community rehabilitation and intermediate care settings, predominantly with older people.

As can be seen in the table 5.3 below, the majority of the focus of comments on leadership were on Person-focused (223 comments) rather than Task-focused Leadership (67 comments) factors. The number of references found per item can be seen in table 5.3. These findings reflect those of the literature review. Person focused leadership factors have consistently been found to be associated with higher levels of staff satisfaction, extra-effort, and effectiveness (Avolio and Bass, 2004, Burke et al., 2006). Task-focused leadership behaviours whilst essential for structuring work, are generally not associated with higher than expected levels of performance (Avolio and Bass, 2004). These transactional approaches can, if they are the dominant form of leadership, result in relatively worse motivation (Bass, 1985).

Table 5.3 - The number of comments found for IdTL factors identified

Leadership Factor	Comments
<i>Person-Focused Leadership</i>	223
Inspiring and Motivating others	23
Walking the talk - idealised influence	23
Intellectual Stimulation	28
Person Centred approach	45
Shared Leadership	35
Communication	48
Teambuilding and maintenance	21
<i>Task-Focused Leadership</i>	67
Setting the direction of the team	27
External Role	25
Addressing Skills Gaps	15
<i>Negative Leadership</i>	36

Within Person-focused leadership, Communication (48), Person-centred approach (45) and Shared Leadership (35) were the most frequently referred

to factors. Within Task-focused leadership, Setting the direction of the team (27) and External role (25) were most frequently referred to.

These figures do give some indication of the relative importance that respondents place on particular types of leadership. However, I say so cautiously, as within qualitative research frequency of mention is not necessarily any indicator of the importance of an issue or factor. It does not illustrate the strength of feeling, or clarity with which particular issues are described or inferred. Finally, qualitative data is extremely rich and a single sentence or paragraph can raise several key issues.

Overall, the IdTL emerges as a person with excellent interpersonal skills. Someone who is able to lead with authority, structure and organise tasks and manage difficult issues when necessary, but who, for the most part, is accessible and available to support and facilitate team processes, particularly with regard to empowering team members and promoting shared leadership. The IdTL should ideally be from one of the professional disciplines within the team, and show a high level of professional expertise. They should also possess an excellent understanding of all the other disciplines within the team and what they contribute to client care. Finally, they should also be a skilled interdisciplinary team player; skills which they will have accrued from significant experience of working in an interdisciplinary team setting prior to becoming an IdTL.

5.4.1.1 Mapping the Qualitative Findings against the Literature Review Findings

Findings from the qualitative study were then compared to the findings from the literature review to create a final framework. The comparison can be viewed in table 5.4 below. The findings from the literature review and the qualitative study had a great many similarities. There were several significant differences in emphasis, however.

The personal qualities of the leader were deemed important by some commentators in the literature review. These personal qualities centre on being a role model. Within the qualitative study these role-modelling behaviours were also found, but labelled as walking the talk. The qualitative study found a focus on providing vision and inspiration. However in the literature review the focus was more upon ensuring that team goals were in line with organisational goals.

A Person-Centred Approach was found to be important in the qualitative study, but not found in the literature on interdisciplinary team leadership. Person-Centred Approaches are often referred to as Consideration ((Bass and Avolio, 1994, Avolio and Bass, 2004). They were found by Burke et al. (2006) to be a generic leadership factor that had statistically significant relationships with team effectiveness and team productivity accounting for 6% and 5% of variance respectively.

Both the literature review and qualitative study found an emphasis on shared leadership rather than empowerment, which is discussed more in the generic leadership literature. However, there are strong similarities in practice between these two concepts. Shared leadership may be a more palatable term in interdisciplinary teams that contain a range of professions, who share a culture of autonomy in practice.

The qualitative study also supported the findings of the literature review that there seems to be much less emphasis on managing performance within interdisciplinary health and social care teams. The emphasis overall is on person-focused factors and the integration of diverse interdisciplinary groups and finding ways to work effectively as a team whilst negotiating interdisciplinary boundaries, particularly those of the professionals in the team.

Concerns with addressing skills gaps are present within the findings of the qualitative study. These were present in the generic team leadership

literature, but not in the IdTL literature. It is not clear why this is the case. It may be that IdTL's have less input into staffing issues than team leaders in other organisations.

Demonstration of clinical and contextual expertise was found to be important, both in the literature review, and the qualitative study. However, there is a suggestion that this is less important in the teams participating in the study than the literature suggests.

Within the qualitative study there seems to be significantly less focus on task-focused leadership generally. In particular there is a specific gap within the findings of the literature around managing performance in particular, but not setting direction, allocating work or developing care plans.

Clarity of Leadership was found to be important in both the literature reviews and the qualitative study. However, the emphasis within the literature review was greater.

Finally, negative leadership factors were found to be important within this qualitative study, but were not discussed within the literature reviewed specifically relating to IdTL. They are however discussed in the generic leadership literature and the Multifactor Leadership questionnaire does provide metrics to measure certain negative factors. This might be accounted for by a bias in leadership literature generally, which focuses on leadership factors that are perceived to improve performance, rather than those that do not.

Table 5.4 - a comparison between the findings of the literature review and the qualitative study.

Literature Review Findings	IdTL Qualitative Study
PERSON FOCUSED LEADERSHIP	
<p>Transformation and Change (McRay, 2003, Irizarry et al., 1993).</p> <ul style="list-style-type: none"> • Create a climate where staff are challenged supported, motivated and rewarded. (Irizarry et al, 1993). • Respond to change in a flexible way (Suter et al., 2007). • Facilitate or act as a catalyst for practice change (Willumsen, 2006). • Foster values that promote learning (Caley and Reid, 2003). <p>Personal qualities</p> <ul style="list-style-type: none"> • Act as a role model (Pollard, 2005). • Inspire other team members (West et al., 2003c). • Enthusiasm (Pollard, 2005). • Commitment (Abreu, 1997). • The ability to empathise (McRay, 2003). • Knowledge of people (Suter et al., 2007). <p>Ensure goals are in line with the organization</p> <ul style="list-style-type: none"> • Influence the direction and climate of the group to ensure goals are in line with the organization and productivity (Cook and Leathard, 1992, CHSRF, 2006). • Establish commitment to team objectives (Poulton and West, 1999). • Highlight important issues (Cook and Leathard, 1992). 	<p>Walking the talk</p> <ul style="list-style-type: none"> • Commitment Drive and enthusiasm. • High standards. • Strong, confident manner. <p>Inspiring and motivating others</p> <ul style="list-style-type: none"> • Vision. • Positive attitude.
<p>Creativity & Innovation</p> <ul style="list-style-type: none"> • Ensure a productive balance harmony and debate (Cook and Leathard, 1992). • Support and develop innovation and new practice models (Suter et al., 2007, Poulton and West, 1999). • Ensure team members are credited for their achievements (Katzenbach and Smith, 2003). • Focus on developing effective team based work processes (West et al., 2003b). 	<p>Intellectual Stimulation</p> <ul style="list-style-type: none"> • Change and Innovation - Developing the Service. • Facilitating participation and discussion. • Openness to new ideas. • Team learning. • Breaking down professional barriers to Interdisciplinary Team working.
	<p>Person Centred Approach - Consideration</p> <ul style="list-style-type: none"> • Appreciating and valuing team members. • Positive Feedback and Encouragement. • Fairness. • Developing experience, skills, confidence. • Coaching & Supervision.

<p>Communication</p> <ul style="list-style-type: none"> • Develop and sustain clear communication channels in the team (Ovretviet et al., 1997, CHSRF, 2006, Willumsen, 2006, Suter et al., 2007, Grumbach and Bodenheimer, 2004). • Listen to, support and trust team members (Mickan and Rodger, 2000, Cook and Leathard, 1992). • Create a climate of mutual respect; (Ovretveit, 1997, Cook and Leathard, 1992). • Develop and agree processes to manage conflict and maintain a productive balance between harmony and healthy debate (Mickan and Rodger, 2000, McRay, 2003, West and Slater, 1996, Temkin-Greener et al., 2004, Borrill et al., 2000). • Recognise the contributions of all team members and promote appreciation of each others skills and roles. (West and Slater, 1996, CHSRF, 2006). 	<p>Communication</p> <ul style="list-style-type: none"> • Active Listening. • Empathy. • Approachability and availability.
<p>Empowerment and Shared leadership</p> <ul style="list-style-type: none"> • Consciously share the leadership function (Mickan and Rodger, 2000, McCallin, 2003, Ovretveit, 1997, Alonso et al., 2006). • Work to develop effective shared leadership processes (West et al., 2003b). • Share own ideas, (Mickan and Rodger, 2000). • Provide information that the team requires or might find useful (Mickan and Rodger, 2000). • Work to create agreement. (Mickan and Rodger, 2000). 	<p>Shared leadership</p> <ul style="list-style-type: none"> • Facilitate Autonomy. • Team problem-solving.
<p>Teambuilding</p> <ul style="list-style-type: none"> • Focus colleagues on issues related to team development (Maister, 1993). • Set expectations for working together (Suter et al., 2007) to ensure cohesion (Willumsen, 2006) and full participation (Poulton and West, 1999). • Develop the interpersonal skills of the team (Ovretveit, 1997, West and Slater, 1996). • Work to develop team working skills such as: supporting the work of others and building on it. (West and Slater, 1996). • Ensure the contextual socialization of new or inexperienced team members (McRay, 2003). • Promote interdisciplinary collaboration and interdependence, through encouraging/giving permission for staff to interact with those outside their autonomous professional practice (Suter et al., 2007, Arcangelo, 1996, Cashman et al., 2004, CHSRF, 2006). • Coach and Facilitate reflection on learning situations that will improve team function and practice (Maister, 1993, Branowicki et al., 2001, McCallin, 2003). • Be aware of the impact of staff numbers on team dynamics and communication (Laiken et al., 2006). 	<p>Teambuilding/Maintenance</p> <ul style="list-style-type: none"> • Creating team identity. • Facilitate full participation. • Awareness of group dynamics. • Facilitating negotiation and compromise (Managing conflict). • Managing well being-stress.

TASK-FOCUSED LEADERSHIP	
<p>Setting Direction (Coordinating Tasks)</p> <ul style="list-style-type: none"> • Coordinate tasks (Mickan and Rodger, 2000, CHSRF, 2006, Grumbach and Bodenheimer, 2004). • Ensure work is allocated work equally, including to the leader (Pollard, 2005, Katzenbach and Smith, 2003). • Do not delegate difficult or nasty tasks to others (Katzenbach and Smith, 2003). • Establish clear goals with measurable outcomes (Grumbach and Bodenheimer, 2004, Poulton and West, 1999). • Promote full participation at case conferences and the sharing of expertise Gibbon (1999) (Hoopes and Postrell, 1999, Baxter and Brumfitt, 2008). • Match responsibilities and support to individual experience/expertise (Stoker, 2008). 	<p>Setting the direction of the team</p> <ul style="list-style-type: none"> • Decisiveness-taking responsibility. • Allocating responsibilities. • Managing Performance. • Approving-reviewing care plans.
<p>Manage Performance</p> <ul style="list-style-type: none"> • Create an enabling team structure with effective clinical and administrative systems (Hackman, 2002, Grumbach and Bodenheimer, 2004). • Establish an emphasis on quality (Poulton and West, 1999). • Provide feedback; (Mickan and Rodger, 2000). • Balance rate of work to meet organisational schedules. (Larssen and LaFasto, 1989). • Confront and resolve issues around inadequate performance (Larssen and LaFasto, 1989). • Encourage team responsibility for failures as well as successes (Katzenbach and Smith, 2003). • Use mistakes as opportunities for team learning (Katzenbach and Smith, 2003). • Foster constructive, collaborative problem-solving (Katzenbach and Smith, 2003). 	
<p>Ensure the correct mix and level of skills in the team</p> <ul style="list-style-type: none"> • Ensure that the team is the right size and has appropriate skill mix (Hackman, 1990). • Recruit staff with appropriate technical skills and experiences to undertake team tasks. • Establish opportunities for training, learning and development for all staff members (Shackleton, 1995, Stanniforth and West, 1995, CHSRF, 2006, Grumbach and Bodenheimer, 2004). • Develop team working and leadership skills in the team (Stanniforth and West, 1995, Monaghan et al., 2005, Ouwens et al., 2007, Proudfoot et al., 2007, Currie, 1994). • Share opportunities that arise in the organisation with the team (Stanniforth and West, 1995). • Balance tensions between individual development needs and those of the team (Leggat, 2007) • Work to develop workforce continuity (Laiken et al., 2006). 	<p>Addressing skills gaps</p> <ul style="list-style-type: none"> • Supervision and PPD. • Ensuring access to required training. • Recruitment and Induction.

<p>External Team Management</p> <ul style="list-style-type: none"> • Exercise external responsibility for the team (Irizarry et al., 1993). • Develop strategies for promoting the work of the team (Irizarry et al., 1993). • Demonstrate effectiveness through data collection & evaluation (Irizarry et al., 1993). • Adopt a marketing orientation to ensure the team understands its customers and can exploit new opportunities (Willumsen, 2006). 	<p>External Role</p> <ul style="list-style-type: none"> • Representing the team to external stakeholders. • Entrepreneurial ability. • Building Id networks. • Winning resources for the teams.
<p>Demonstrate Clinical and contextual expertise</p> <ul style="list-style-type: none"> • Possess “clinical prowess” (Irizarry et al., 1993, Branowicki et al., 2001). • Show knowledge of the professional role of others (MacDonald et al., 2010). • In-depth understanding of organisation mission, structure economics politics (Branowicki et al., 2001) and current development programmes (Irizarry et al., 1993). • Balance focus between the needs of patient, organisation and team (Branowicki et al., 2001). • Possess a sound historical perspective to facilitate understanding of context and ensure all perspectives are taken into account (Abreu, 1997). • Develop networks and linkages (Pollard, 2005). 	<p>Professional Responsibilities & Background</p> <ul style="list-style-type: none"> • Does the IdTL need to be a H&Sc professional. • Understanding the role of the disciplines within the team. • Learning IdTL from experience.
<p>Clarity of Leadership</p> <ul style="list-style-type: none"> • Specific team leader in charge (Nancarrow et al., 2009, West et al., 2003). • Maintain an informal democratic atmosphere (Krueger, 1987). • Manage Processes . • Facilitate co-operation. • Coach colleagues in shared leadership (Maister, 1993). 	<p>Clarity of Leadership</p>
	<p>Negative Leadership</p> <ul style="list-style-type: none"> • Lack of Interpersonal skills. • Lack of Intrapersonal skills. • Laissez-faire leadership.

5.4.2 Mapping the final IdTL framework and MLQ

The final part of this section of the study involved mapping the MLQ against the final framework to allow elements of leadership within participating teams to be to be measured. The results can be seen in the table 5.5 below.

Table 5.5 - The Final IdTL framework mapped against the Multifactor Leadership Questionnaire

Integrated Final IdTL Framework	Multi-Factor Leadership Questionnaire Dimensions
PERSON FOCUSED LEADERSHIP	
<p>TRANSFORMATIONAL LEADERSHIP</p> <p>Idealised influence</p> <ul style="list-style-type: none"> • Commitment Drive and enthusiasm. • High standards. • Strong, confident manner. <p>Inspiring and motivating others</p> <ul style="list-style-type: none"> • Vision. • Positive attitude. <p>Intellectual Stimulation</p> <ul style="list-style-type: none"> • Change and Innovation - Developing the service. • Facilitating participation and discussion. • Openness to new ideas. • Team learning. • Breaking down professional barriers to IdT. <p>Consideration</p> <ul style="list-style-type: none"> • Appreciating and valuing the team members. • Positive Feedback and Encouragement. • Fairness. • Developing experience, skills, confidence. • Coaching & Supervision. 	<p>TRANSFORMATIONAL LEADERSHIP</p> <p>Idealised influence</p> <p>3. Instils pride in me for being associated with him/her.</p> <p>17. Goes beyond self-interest for the good of the group.</p> <p>20. Acts in ways that builds my respect</p> <p>24. Displays a sense of power and confidence.</p> <p>33. Emphasizes the importance of having a collective sense of mission.</p> <p>9. Specifies the importance of having a strong sense of purpose.</p> <p>22. Considers the moral and ethical consequences of decisions.</p> <p>14. Talks about his/her most important values and beliefs.</p> <p>Inspirational Motivation</p> <p>2. Talks optimistically about the future.</p> <p>8. Talks enthusiastically about what needs to be accomplished.</p> <p>25. Articulates a compelling vision of the future.</p> <p>36. Expresses confidence that goals will be achieved.</p> <p>Intellectual Stimulation</p> <p>1. Seeks differing perspectives when solving problems.</p> <p>10. Re-examines critical assumptions to question whether they are appropriate.</p> <p>29. Gets me to look at problems from many different angles.</p> <p>31. Suggests new ways of looking at how to complete assignments.</p> <p>Individualised Consideration</p> <p>12. Spends time teaching and coaching.</p> <p>18. Treats me as an individual rather than just as a member of a group.</p> <p>28. Considers me as having different needs, abilities and aspirations from others.</p> <p>30. Helps me to develop my strengths.</p>
<p>Communication</p> <ul style="list-style-type: none"> • Active Listening. • Empathy. • Approachability and availability. 	<p>(Proxy measure COMMUNICATION from available from WDQ)</p>
<p>Shared leadership</p> <ul style="list-style-type: none"> • Facilitate Autonomy. • Facilitating Team problem-solving. 	

<p>Teambuilding/Maintenance</p> <ul style="list-style-type: none"> • Creating team identity. • Facilitate full participation. • Awareness of group dynamics. • Facilitating negotiation and compromise (Managing conflict). • Managing well being-stress. 	<p>Proxy measure TEAMWORKING available from WDQ</p>
<p>Task focused Leadership (formal structuring behaviours)</p>	
<p>Setting the direction of the team</p> <ul style="list-style-type: none"> • Decisiveness-taking responsibility. • Allocating responsibilities. • Approving-reviewing care plans. 	<p>Proxy measure SETTING DIRECTION available from WDQ</p> <p>Contingent Reward</p> <p>4. Discusses in specific terms who is responsible for achieving performance targets.</p> <p>11. Provides me with assistance in exchange for my efforts.</p> <p>15. Makes clear what one can expect to receive when performance goals are achieved.</p> <p>34. Expresses satisfaction when I meet expectations.</p>
<ul style="list-style-type: none"> • Managing Performance. 	<p>Management-by-exception-active</p> <p>6. Focuses attention on irregularities, mistakes, exceptions, and deviations from standards.</p> <p>21. Concentrates his/her full attention on dealing with mistakes, complaints, and failures.</p> <p>23. Keeps track of all mistakes.</p> <p>26. Directs my attention toward failures to meet standards .</p>
<p>Addressing skills gaps</p> <ul style="list-style-type: none"> • Supervision and PPD. • Ensuring access to required training. • Recruitment and Induction. 	<p>Proxy measure TRAINING/CAREER PROGRESSION available from WDQ</p>
<p>Boundary Spanning</p> <ul style="list-style-type: none"> • Representing the team to external stakeholders. • Entrepreneurial ability. • Building Id networks. • Winning resources for the teams. 	
<p>Professional Responsibilities & Background</p> <ul style="list-style-type: none"> • Does the IdTL need to be a H&Sc professional. • Understanding the role of the disciplines within the team. • Learning IdTL from experience. 	
<p>Clarity of Leadership</p>	<p>Proxy measure CLARITY OF LEADERSHIP available from WDQ</p>

<p>Negative Leadership</p> <ul style="list-style-type: none"> • Lack of Interpersonal skills. • Lack of Intrapersonal skills. • Laissez-faire leadership. 	<p>Management By – Exception Passive</p> <p>5. Fails to interfere until problems become serious.</p> <p>7. Waits for things to go wrong before taking action.</p> <p>16. Shows that he/she is a firm believer in ‘if it ain’t broke, don’t fix it’.</p> <p>19. Demonstrates that problems must become chronic before taking action.</p> <hr/> <p>Laissez-Faire</p> <p>13. Avoids getting involved when important issues arise.</p> <p>27. Avoids making decisions.</p> <p>32. Delays responding to urgent questions.</p> <p>35. Is absent when needed.</p>
---	--

The MLQ does provide a validated measure for a number of variables that are important to IdTL. However, the above also shows that MLQ does not cover several key IdTL variables.

Whilst some of these missing variables, such as Setting Direction are not present in the MLQ, the WDQ does contain these dimensions and makes it possible to measure them. This does not provide a direct measure of these dimensions directly within the leader, but one can theorise that their presence within the IdT is good indicator that they are present within the IdTL.

Chapter 6 Cross-Sectional Study

6.1 Review of Research Objectives

The data collection for the study took place between February 2009 and February 2011. The principle task was to obtain information on the following sets of variables:

- Organisational context and service structure
- Interdisciplinary Team Leadership (IdTL)
- Staff level outcomes (also hypothesised as leadership outcomes)
- Team level dynamics
- Patient Outcomes

These data were used to explore the following questions about IdTL in intermediate care teams working with older people.

Question 2: *What is the relationship between interdisciplinary health care team structure and working practices and Interdisciplinary Team Leadership?*

Question 3: *What is the relationship between effective Interdisciplinary Team Leadership, and Staff and Team Level Dynamics in interdisciplinary health and social care teams?*

Question 4: *What is the relationship between Interdisciplinary Team Leadership and Patient Outcomes in interdisciplinary health and social care teams?*

Question 5: *What is the relationship between Staff and Team level Dynamics, and Patient Outcomes in interdisciplinary health and social care teams?*

Question 6: *What is the relationship between Staff level Interdisciplinary Team Leadership outcomes and Team Level Dynamics?*

Each of these broad questions was explored through testing a number of specific hypotheses based on the findings of the literature review. After primary hypotheses were tested, more in depth data exploration took place to establish a greater understanding of associations between key variables. For detailed information on methods used in the cross-sectional study see Chapter 4: Research Methods (pp 121-163).

6.2 Results

6.2.1 Introduction

This section presents the results of the cross-sectional study and explores the following elements.

- Participants and response rates.
- The results from the analysis of quantitative data to answer research question 2-6 about the effects of leadership.

6.2.2 Participants and Response Rates

Ten teams containing 274 staff members participated in the study. Table 6.1 shows the range of professions within the teams as a whole. Table 6.2 provides a summary of the characteristics of participating teams. The teams were predominantly set up to deal with adults; mostly patients aged over 65. Most provided care in the patients' home: seven were NHS intermediate care teams; two were local authority based; one team was jointly located in the NHS and local authority. Of the seven NHS teams, one was ward based, and one was a dedicated stroke outreach team. The average length of care for individual teams ranged from 21 to 101 days. Team goals were focused on preventing admission, facilitating (early) discharge from hospital, and prevention of readmission. Referrals ranged from 38 to 8000 per year.

A Service Proforma questionnaire was completed for each team before the IMT intervention of the larger study. MLQ and WDQ questionnaires

were completed by 205 and 184 staff members respectively, at the same time point.

Six thousand three hundred and (6327) client record packs were completed over the EEICC project intervention period. However, because only data from the baseline time point of the EEICC project was being tested in this study, only Client Record Packs for admissions during the first three months of the EEICC study were used in this analysis. This equated to 2210 client records.

Overall responses were as follows: -

- Service Proforma Data was received from all 10 teams.
- Multifactor Leadership Questionnaires were received from 205 staff members from 10 teams.
- Workforce Dynamics Questionnaires were received from 184 staff members from 10 teams.
- Client Record Packs were received for 2210 clients from 10 teams.

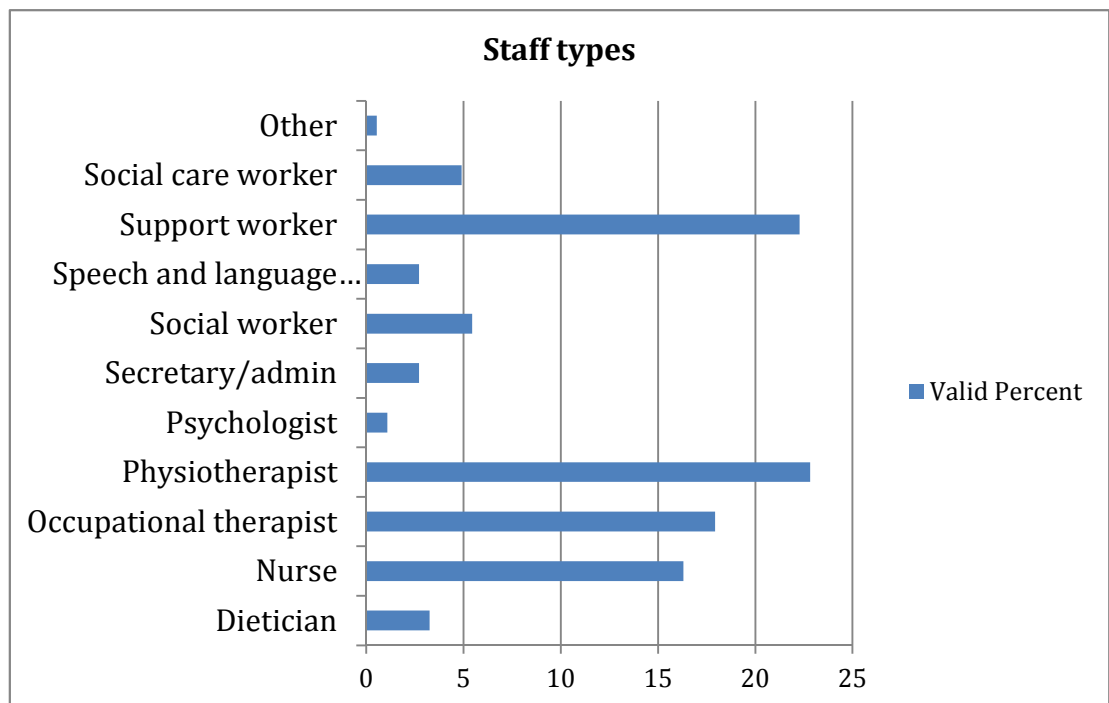
Table 6.1 - Number of Team Responses

Team	No. Staff	Completed Service Proforma	MLQ	MLQ response rate	WDQ	WDQ Response Rate	Client Record Packs
B	27	yes	21	79%	23	85%	103
D	15	yes	13	87%	13	87%	60
DO	19	yes	12	63%	12	63%	58
E	13	yes	11	85%	12	92%	92
F	12	yes	10	83%	12	100%	32
MY	112	yes	70	63%	46	41%	1,601*
PB	23	yes	17	74%	20	87%	35
Q	15	yes	15	100%	15	100%	56
R	29	yes	27	93%	22	76%	115
U	9	yes	9	100%	9	100%	58
Total	274	10	205	83%	184	83%	2210

NB In this table numbers of staff were calculated based on number of staff members in team at start of EEICC study and not whole time equivalent staff.

* Three of the original teams participating in the study (G, H and I) underwent a service restructure during the period of the study. Their results are therefore aggregated as a single team MY. The much larger size of this team accounts for the much larger number of MLQ, WDQ and client record packs.

Figure 5. WTE staff involved in the IMT intervention shown by discipline/profession as a percentage (n=253)



Figures in this graph show that two hundred and fifty-three WTE staff took part in the study. Support workers, Physiotherapists and Occupational Therapists were the predominant roles within participating teams.

Table 6.2 - Characteristics of participating teams

ID	Service goal	Primary Location of Care	Referrals / year	Av duration of care	Pop'n type	Funding provider	Target population	No qual staff (WTE)	No support staff (WTE)	Total staff (WTE)
B	Rehabilitation focus for preventing admission and facilitating discharge; Maintenance of patients at home to prevent long term residential or nursing home care	Home	1650	21 weeks	Mixed	75% PCT, 25% SS	Prevention of admission and facilitation of discharge	14.82	10.82	26.64
D	Prevent Hospital admissions, early discharge from hospital	Home	358	45 days	Rural	PCT	Adults	4.14	3.51	7.65
DO	Community stroke specific rehabilitation	Home	225	101 days	Urban	PCT, some social services	> 18s who have suffered a stroke	8.8	10	18.8
E	Community rehabilitation facilitating early discharge and/or hospital avoidance	Home	350	41 days	Rural	PCT	>18 (majority over 65)	8	4	12
F	Prevent admissions to hospital and community rehabilitation as well as facilitate hospital discharges	Resource Centre	135	Enablement – 30 days; Rehab unit - 32.5 days	Mixed	Adult Services and PCT	Over 65s	2	7	9.3
MY	Prevent admissions to hospital and community rehabilitation as well as facilitate hospital discharges	Home	8000	Unknown	Mixed	PCT	Mostly over 65s, falls & generic rehabilitation patients; >18	54	35	90.6
Pb	Facilitate early discharge from acute hospital and to prevent admission to hospital	Community Hospital	160	35 days	Urban	PCT	>18 with a rehabilitation need	26.88	12.72	40.6

Characteristics of participating teams (Continued)

ID	Service goal	Primary Location of Care	Referrals / year	Av duration of care	Pop'n type	Funding provider	Target population	No qual staff	No support staff	Total staff
Q	Prevent avoidable admission to hospital or institutional care settings; facilitate earlier discharges to home or appropriate community settings; to minimise as far as safely possible dependence	Home	38	49 days	Mixed	PCT & SC	Generic, mainly >65.	8.8	4.4	14.2
R	Rehabilitation focus for preventing admission and facilitating discharge; Maintenance of patients at home to prevent long term residential or nursing home care	Home	1650	21 days	Mixed	75% PCT, 25% Social Care		16.39	10.66	28.05
U	Prevent admission to hospital, facilitate discharge from hospital and prevent admission to long term care		280	28-42 days	Urban	PCT & SS	>18s	5	0.8	7.8

6.2.2.1 Multifactor Leadership Questionnaire (MLQ)

The team scores for the MLQ are summarised below in table 6.3. Scores for all dimensions of the questionnaire are reported in three previously validated summary factors (Avolio and Bass, 2004).

Table 6.3 - Multifactor Leadership Questionnaire Summary Team Scores

Team	Person-Focused IdTL (Transformational Leadership)		Task-Focused IdTL (Transactional Leadership)		Negative Leadership (Passive Avoidance)	
	Mean	SD	Mean	SD	Mean	SD
B	2.15	0.77	1.83	1.09	1.08	0.70
D	2.39	0.71	1.92	1.00	1.63	0.96
DO	2.80	0.54	1.85	0.72	1.17	1.05
E	2.39	0.53	2.12	0.70	0.78	0.58
F	3.07	0.50	2.00	1.15	0.51	0.50
MY	2.62	0.50	2.20	0.93	0.87	0.74
PB	3.01	0.54	2.33	0.99	0.73	0.51
Q	3.02	0.47	1.53	0.98	1.53	0.35
R	2.39	0.71	1.67	0.73	1.27	0.92
U	3.28	0.42	1.92	0.94	0.61	0.78
Total	2.61	0.79	2.04	0.95	1.00	0.79

NB For Person-focused and Task-focused IdTL higher scores indicate more effective leadership. For Negative Leadership higher scores indicate less effective leadership.

Team MLQ scores showed a range of means. Person Focused IdTL ranged from 2.15 (SD 0.77) to 3.07 (SD 0.50) with a mean of 2.61 (SD 0.79). Task-focused IdTL scores were lower overall; ranging from 1.53 (SD 0.98) to 2.33 (SD 0.99) with an overall mean of 2.04 (SD 0.95). Scores for Negative Factors ranged from 1.63 (SD 0.96) to 0.61 (SD 0.78) with an overall mean of 1.00 (SD 0.79).

6.2.2.2 Workforce Dynamics Questionnaire

Table 6.4 below shows the WDQ scores for all 10 teams included in this study at T1 of the EEICC study. Only variables used in this study are included in the table.

Table 6.4 – WDQ scores for participating teams

VARIABLE \ TEAM	B	D	DO	E	F	MY	PB	Q	R	U	Mean
Role flexibility	77	79	79	81	79	78	72	85	78	90	80
Integration	68	78	69	74	90	80	87	82	76	72	78
Team working	63	82	73	80	89	78	78	83	70	85	78
Management	78	76	75	84	91	82	87	88	74	89	82
Access To Tech Equip	79	76	78	72	75	76	84	78	77	90	79
Training & career progression	48	62	61	55	80	63	69	60	58	71	63
Quality	90	91	86	84	95	85	93	87	85	97	89
Overall Satisfaction	66	78	73	76	77	69	74	77	65	84	74
Empowerment	77	75	85	72	82	72	72	75	67	79	76
Communication	78	79	75	83	88	80	85	85	78	89	82
Clarity of Leadership	82	87	88	93	94	90	88	88	79	97	89
Sense of Direction	67	79	68	79	93	77	81	88	73	93	80
MEAN POSITIVE	73	79	76	78	86	78	81	81	73	86	*79
Intent to leave employer	50	20	30	20	30	30	20	20	50	10	28
Intent to leave profession	30	10	30	20	20	20	20	20	30	10	21
Uncertainty	59	61	69	70	66	62	74	61	64	73	66
MEAN NEGATIVE	46	30	43	37	39	37	38	34	48	31	**38

NB Intention to Leave Employer, Intention To Leave Profession, and Uncertainty are negative factors (i.e. the higher the score the higher the intention to leave, or uncertainty). All other factors are positive and a higher score would generally be considered constructive.

WDQ scores showed a range of means. It can be seen generally that teams with mean positive scores higher than the total team mean positive score (* italics) tend to have lower mean negative scores lower than total team mean negative score (** italics).

6.2.2.3 Patient Data

Table 6.5 below shows the change in EQ-5D and TOMS scores achieved, the duration of care; and Length of Stay in the service.

Table 6.5 Summary of Patient Outcome Data by team

TEAM ID		EQ_5D Change	Length of Stay	Change TOMS Impairment	Change TOMS Activity	Change TOMS Participation	Change TOMS Wellbeing	Change TOMS Summary
B	Mean	22.3	27.9	0.7	0.7	0.5	0.4	0.6
	(SD)	(28.9)	(22.7)	(0.9)	(0.8)	(0.9)	(0.8)	(0.9)
D	Mean	19.5	40.8	0.6	0.6	0.5	0.4	0.5
	(SD)	(26.9)	(48.2)	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)
DO	Mean	13.9	128.1	0.3	0.3	0.2	0.2	0.3
	(SD)	(24.8)	(98.6)	(0.7)	(0.8)	(0.7)	(0.8)	(0.8)
E	Mean	18.9	44.5	0.5	0.5	0.4	0.4	0.5
	(SD)	(28.4)	(48.0)	(0.6)	(0.6)	(0.7)	(0.7)	(0.7)
F	Mean	28.9	37.1	0.4	0.6	0.5	0.4	0.5
	(SD)	(29.9)	(33.9)	(0.5)	(0.5)	(0.6)	(0.6)	(0.6)
G	Mean	13.5	38.3	0.3	0.3	0.3	0.2	0.3
	(SD)	(27.0)	(44.2)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
H	Mean	15.0	40.2	0.4	0.3	0.2	0.2	0.3
	(SD)	(24.5)	(39.9)	(0.6)	(0.6)	(0.5)	(0.5)	(0.6)
I	Mean	15.4	47.7	0.4	0.5	0.4	0.3	0.4
	(SD)	(24.5)	(48.1)	(0.6)	(0.7)	(0.6)	(0.6)	(0.6)
PB	Mean	39.8	39.6	1.3	1.2	1.1	0.9	1.1
	(SD)	(35.4)	28.6	(1.0)	(0.9)	(0.9)	(1.0)	(1.0)
Q	Mean	12.4	42.9	0.3	0.5	0.4	0.4	0.4
	(SD)	(24.6)	(23.4)	(0.5)	(0.7)	(0.7)	(0.7)	(0.7)
R	Mean	25.0	22.0	0.6	0.7	0.5	0.3	0.5
	(SD)	(29.5)	(29.3)	(0.7)	(0.8)	(0.8)	(0.7)	(0.8)
U	Mean	22.2	23.4	0.6	0.7	0.7	0.6	0.7
	(SD)	(34.0)	(27.7)	(0.7)	(0.9)	(0.9)	(0.7)	(0.8)
TOTAL	Mean	18.1	41.8	0.5	0.5	0.4	0.3	0.4
	(SD)	(27.9)	(48.7)	(0.7)	(0.7)	(0.7)	(0.6)	(0.7)

There was a great deal of variation in Length of Stay from a minimum of 23.4(27.7) days to a maximum of 128.1(98.6). Mean EQ-5D change scores varied from 12.4(24.6) to 39.8(35.4). Mean TOMS scores did show more consistency overall ranging from a minimum of 0.3(0.5) to a

maximum of 1.1(1.0). Overall, teams did achieve significant improvements health status as measured by EQ-5D and TOMS.

6.2.3 Question 2

What is the relationship between interdisciplinary health care team structure and working practices and Interdisciplinary Team Leadership?

6.2.3.1 Analysis Strategy

The principle aim of this question was to understand if Interdisciplinary Team Leadership effectiveness is affected by the structure/configuration of services. More specifically if variance in service configuration factors influences the effectiveness of interdisciplinary team leadership.

A number of variables were extracted from the Service Proforma for each team. These included: team size, frequency of team meetings, numbers of professional and non-professional staff, number of team leaders (some services had more than one) and numbers of completed client records. These data were used to calculate a number of ratios, which are listed in table 6.6 below. The reason ratios were calculated was that the raw data extracted were of less interest alone. For example, the number of Client Record Packs completed by the team indicates how many patients the team treated. However, it is far more informative to know the ratio of patients to staff as this gives a broad indication of the workload of staff in the teams. Another example is, that it is relatively unhelpful to simply know how many team leaders there are, but more useful to know the ratio of staff to team leader(s) in teams as this gives a basic indicator of the breadth of responsibilities of the leader. Three summary Leadership variables and one leadership output variable were used as outcome variables to answer this question.

The full list of predictor and outcome variables used in this part of the study can be seen in table 6.6 below.

Table 6.6 - Variables used to answer this question

Predictor Variables (Service Proforma)	Outcome Variables (MLQ & WDQ)
<ul style="list-style-type: none"> • Size of team TS • Frequency Team Meetings FM • Ratio of CRP to Team Size CRPvsTS • Ratio of Team Size to Team Leader TSvsTL • Ratio of professional to non-professional staff PvsNP • Ratio of Professional staff to Team Leader PvsTL • Ratio of Professional staff to Team Leader NPvsTL 	Person-focused Interdisciplinary Team Leadership (Transformational Leadership) IdTLp Task focused Interdisciplinary Team Leadership (Transactional Leadership) IdTLtf Passive Avoidant Behaviours PA Clarity of Leadership CL

Primary Hypothesis (2a). There is a negative association between the ratio of patients to team members and team member to team leaders and Interdisciplinary Team Leadership.

To test this hypothesis the ratio of client record packs completed in the study to the number of staff (CRPvsStaff), and the ratio of Team members to Team Leader (TSvsTL) were tested in an ANCOVA model to ascertain their combined variability predicted individual variability in the summary leadership variables Person-Focused IdTL (IdTLp), Task-Focused IdTL (IdTLtf) and Passive Avoidance (PA). The analysis protocol and the results are summarised in the table 6.7 below.

The analysis had mixed results. The combined predictor variables significantly predicted variance in IdTLp ($p=.026$, $r^2_{adj}=.544$). Further, the regression coefficients for both CRPvsStaff ($B = -.020$) and TSvsTL ($B = -.019$) were negative indicating a negative relationship with IdTLp. Overall, CRPvsStaff and TSvsTL combined, accounted for 54.4% of variance of IdTLp within the model.

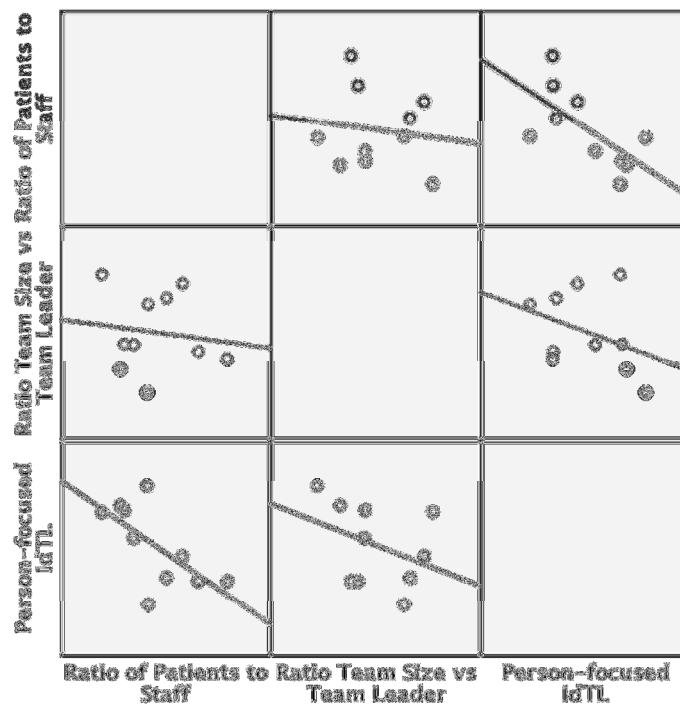
Individually CRPvsStaff significantly predicted IdTLp by 36% ($r^2_{adj} = .360$, $p = .039$), but TSvsTL only predicted IdTLp by 3.1% ($r^2_{adj} = .031$, $p = .290$) and the relationship was not significant. The matrix scatter plot below illustrates these negative relationships (Figure 6.).

The relationships between the predictor variables CRPvsStaff and TSvsTL and IdTLf ($p=.389$) and PA ($p=.335$) were not significant.

Table 6.7 - The analysis protocol and results for hypothesis 2a

ID.	Primary Hypothesis	Predictor Variable	Outcome Variables	IStd. Std. Error	B	r ² _{adj}	Sig.
2a	There is a negative association between the ratio of patients to team members and team member to team leaders and team leadership. Combined Model.	CRPvsStaff TSvTL	IdTLp	.006 .009	-.020 -.019	.544	.026*
			IdTLf	.006 .009	-.008 -.007	.018	.389
			PA	.009 .013	.013 .011	.060	.340

Figure 6. Matrix scatter plot showing the relationship between the ratio of patients to staff and the ratio of team members to team leader, and person-focused IdTL with lines of best fit.



As can be seen in the graph, as both the ratio of Patients to Staff and the ratio of Team Size to Team Leader increase, Person-focused IdTL falls.

Question 2 Data Exploration

A number of other relationships were also tested to explore question 2 more fully. These relationships are summarised as a set of hypotheses and presented with the results in table 6.8 below.

Table 6.8. – Summary of the analysis protocol and results for the secondary exploration of data Question 2

ID.	Secondary Hypotheses	Predictor Variable	Outcome Variables	Std. Error	B	r ² _{adj}	Sig.
2b	There is a negative association between increasing team size and IdTL.	TS	IdTLp	.005	.052	-.070	.572
			IdTLtf	.003	.004	-.103	.799
			PA	.005	.006	-.107	.978
2c	There is a positive association between frequency of team meetings and effective IdTL	FM	IdTLp	.098	.024	-.155	.815
			IdTLtf	.052	.030	-.080	.557
			PA	.078	.008	-.124	.924
2d	There is a negative association between the ratio of professional to non-professional staff and Clarity of Leadership.	PvsNP	CL	.062	.014	-.118	.823
2e	There is a negative association between a high ratio of team members to team leaders and Clarity of Leadership.	TSvsTL	CL	.016	-.038	.349	.042*
2f	There is a negative association between the ratio of professional staff to team leaders and Clarity of Leadership.	PvsTL	CL	.024	-.054	.322	.051
2g	There is a negative association between the ratio of nonprofessional staff to team leaders and Clarity of Leadership.	NPvsTL	CL	.034	-.042	.051	.258

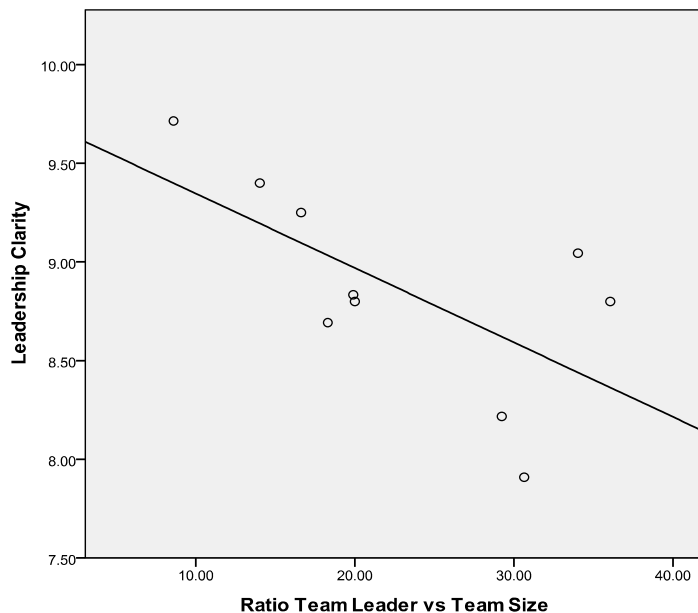
No significant relationships were found when testing the secondary hypotheses 2b, 2c, 2d, or 2g.

A significant relationship was identified when testing hypothesis 2e., and hypothesis 2f was very close to significant. However, in view of the number of tests made, these results should be treated with caution.

2e. There is a negative association between the ratio of team members to team leaders and Clarity of Leadership.

A significant relationship ($p = .042$) was found between the variables; the ratio of team members to team leaders (TSvsTL) and the variable Clarity of Leadership (CL). The adjusted r squared indicates that up to 34.9% ($r^2_{adj} = 0.349$) of the variance in Clarity of Leadership was accounted for by the ratio of team members to team leaders. The regression coefficient ($B = -.038$) is a negative value, indicating a negative relationship. This relationship is illustrated in figure 7.

Figure 7. The relationship between the Ratio of Team Members to Team Leader and Clarity of Leadership with best-fit line



As can be seen in the above scatter plot, as the ratio of team size to team leader increase, Leadership Clarity decreases.

2f. There is a negative association between a high ratio of team leaders to professional staff and Clarity of Leadership.

The relationship between the ratio of professional staff to team leader (PvsTL) and clarity of leadership (CL) was almost significant ($p=.051$). The model accounted for 32% of the variance in CL, which could be accounted for by PvsTL. ($r^2_{adj} = 0.322$, $B = -.054$).

6.2.3.2 Key Findings Question 2: What is the relationship between interdisciplinary health care team structure and working practices and Interdisciplinary Team Leadership?

There does seem to be an association between team configuration and team leadership. The relationship between the ratios TSvsTL and CRPvsStaff and IdTLp within the multivariate model was significant. Further, the ratio of patients to staff (CRPvsStaff) significantly predicted variance in person-focused leadership behaviours (IdTLp).

The relationships between IdTLtf and PA were not significant, although the r^2_{adj} did indicate that a small amount of variance in these outcomes could be accounted for by variance within the predictor variables. Further, the negative relationships between the predictor variables and both IdTLp and IdTLtf and the positive relationship between PA and the predictor variables, does lend the primary hypothesis some credibility.

When these leadership variables were tested against the predictor variable team size (TS) no significant relationship was observed. This leads one to theorise that whilst team size does not affect leadership performance directly, increasing the ratio of team members to the team leader and the ratio of patients to staff may have a negative effect on leadership.

No relationship could be established between the frequency of team meetings and leadership variables in this study. Similarly no relationship could be observed between the ratio of professional to non-professional staff and Clarity of Leadership.

There was a significant association between the ratio of professional staff to team leader and clarity of leadership. The association between the ratio of nonprofessional staff to team leader and clarity of leadership was not significant within the data set. Overall, this leads to the conclusion that the ratio of team members, particularly professionals, to team leadership can have a significant affect on IdTLp and in particular on clarity of leadership within the team.

6.2.4 Question 3

What is the relationship between effective Interdisciplinary Team Leadership, and Staff and Team Level Dynamics in interdisciplinary health and social care teams?

The aim of this question was to understand if and how Interdisciplinary team leadership affects behavioural dynamics within the team. Specifically, whether variance in interdisciplinary team leadership variables influences variance of staff and team level variables was examined .

Three summary leadership variables were used as predictor variables: IdTLp, IdTLtf and PA to explore this question. Staff and Team level variables were extracted from the Workforce Dynamics Questionnaire (WDQ). However the existing variables were supplemented by a number of additional variables that were created by recoding questions within the WDQ. These new variables were based on outcomes of leadership identified in the qualitative study. Three leadership outcome variables taken from the MLQ: Satisfaction, Effectiveness and Extra-Effort; were summarised in a single output variable Leadership Outcomes (LO). The full list of predictor and outcome variables used to answer this question are listed below in table 6.9.

These variables were used to test a number of hypotheses using both analysis of variance and covariance in the general linear models section of SPSS (ANOVA & ANCOVA (GLM)).

Table 6.9 - Variables Used to Answer Question 3

Predictor Variables (MLQ)		Outcome Variables (WDQ Unless Specified)	
Person-focused Interdisciplinary Team Leadership (Transformational Leadership)	IdTLp	Staff Level Outcomes	
Task focused Interdisciplinary Team Leadership (Transactional Leadership)	IdTLtf	• Leadership Outcomes (MLQ)	LO
Passive Avoidant Behaviours	PA	○ Satisfaction,	S
Clarity of Leadership (WDQ)	CL	○ Effectiveness,	E
		○ Extra- Effort	EE
		• Overall Satisfaction	Sw
		• Intention to leave (employer) [negative]	ILe
		• Intention to leave (profession) [negative]	ILp
		Team Level Outcomes	
		• Integration	I
		• Team working	Tm
		• Management	M
		• Training/career progression	T/CP
		• Empowerment	Em
		• Communication (communication)	C
		• Clarity of Leadership (Management)	CL
		• Sense of Direction	SDw

6.2.4.1 Primary Hypotheses (3a.) There is a positive association between IdTL Leadership Behaviours and Staff Leadership Outcomes

To test this hypothesis summary leadership variables Person Focused IdTL (IdTLp), Task Focused IdTL (IdTLtf) and Negative Leadership Behaviours (PA) were tested to ascertain if there was any relationship between them and the summary variable Leadership Outcomes. The protocol for the analysis and results can be seen in table 6.10 below.

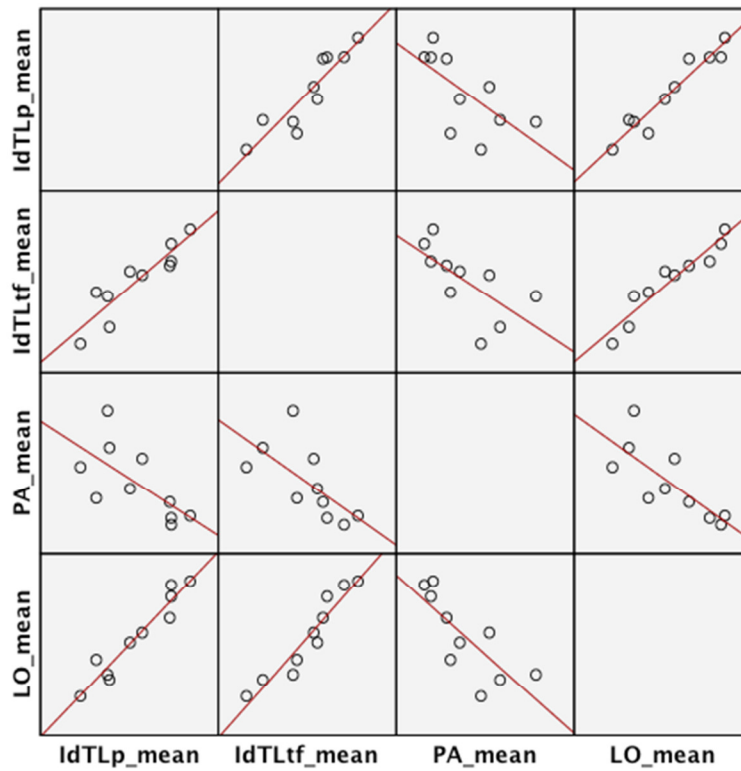
Table 6.10 - Analysis protocol and results for question 3., primary hypothesis

ID.	Primary Question/Hypothesis	Predictor Variables	Outcome Variables	Std. Error	B	r2adj	Sig.
3a	There is a positive association between IdTL Leadership Behaviours and Leadership outcomes (satisfaction, effectiveness and extra-effort).	IdTLp IdTLtf PA	LO	.099	1.247	.946	.000**
				.416	1.565	.595	.006**
				.298	-1.041	.555	.008**
3b	There is a positive association between IdTL and overall satisfaction within the team.	IdTLp IdTLtf PA	Sw	.370	1.071	.425	.018*
				.650	1.532	.312	.043*
				.467	-.700	.111	.168

The analysis yielded highly significant results. Variance in IdTLp predicted variance in LO by 94.6% ($r^2_{adj} = .946$, $p = .000^{**}$). Variance in IdTLtf predicted variance in LO by 59.5% ($r^2_{adj} = .595$, $p = .006^{**}$). Finally, variance in PA predicted variance in LO by 55.5% ($r^2_{adj} = .555$, $p = .008^{**}$).

The regression coefficients (B) show positive values for IdTLp (B = 1.247) and IdTLtf (B = 1.565) and a negative value for PA (B = -1.041). The matrix scatter plot below (figure 8.) illustrates these relationships.

Figure 8. Scatter plot matrix demonstrating the relationship between IdTL variables and Leadership Outcomes (Satisfaction, Effectiveness and Extra-Effort) with lines of best fit



The scatter plot illustrates strong positive relationships between Person-focused and Task-focused IdTL and Leadership Outcomes and a strong negative relationship between Passive Avoidance and Leadership Outcomes.

Data Exploration Question 3.

A number of other relationships were also tested to explore question 3. These relationships are summarised as a set of hypotheses and presented with the results of the analysis in the table below.

Table 6.11 - Analysis protocol and results for question 3. data exploration

ID.	Secondary Hypotheses	Predictor Variables	Outcome Variables	Std. Error	B	r2adj	Sig.
3c	There is a positive association between IdTL Leadership Behaviours and Team working within the team.	IdTLp IdTLtf PA	Tm	5.249	14.863	.438	.022*
				8.405	21.703	.386	.033*
				6.710	-11.147	.164	.135
3d	There is an association between IdTL behaviours and level of integration of professionals within the team.	IdTLp IdTLtf PA	I	7.004	-.576	-.124	.937
				10.472	-6.705	.070	.450
				7.297	-2.262	-.112	.765
3e	There is an association between IdTL Leadership Behaviours and Clarity of Leadership within the team.	IdTLp IdTLtf PA	CL	.380	.924	.353	.041*
				.480	1.695	.560	.008**
				.406	-.942	.327	.049*
3f.	There is a positive association between IdTL and Management the team	IdTLp IdTLtf PA	M	3.921	13.396	.542	.009**
				7.028	17.751	.374	.035*
				2.341	-16.976	.851	.000**
3g	There is an association between IdTL and Training/Career Progression within the team	IdTLp IdTLtf PA	T/Cp	6.759	15.971	.337	.046*
				10.340	24.529	.340	.045*
				9.069	-4.814	-.087	.610
3h	There is an association with IdTL and empowerment within the team	IdTLp IdTLtf PA	Em	3.770	6.226	.071	.230
				6.307	8.579	.078	.207
				3.914	-5.822	.108	.171
3i	There is a positive association between IdTL and Sense of Direction within the team.	IdTLp IdTLtf PA	SD	5.256	17.271	.495	.009**
				10.330	21.345	.246	.069
				6.185	-14.807	.321	.040*
3j	There is a positive association between IdTL and communication within the team	IdTLp IdTLtf PA	C	2.611	9.941	.574	.004**
				5.311	12.683	.320	.041*
				2.394	-10.653	.653	.002**
3k	There is a negative association between IdTL and Intention to leave the employer in the next 12 months.	IdTLp IdTLtf PA	ILe	.905	-1.970	.272	.057
				1.339	-3.601	.384	.025*
				1.034	1.398	.076	.210
3l	There is a negative association between IdTL and Intention to leave the profession in the next 12 months.	IdTLp IdTLtf PA	ILp	.534	-816	.118	.161
				.757	-1.787	.313	.043*
				.585	.491	-.031	.423

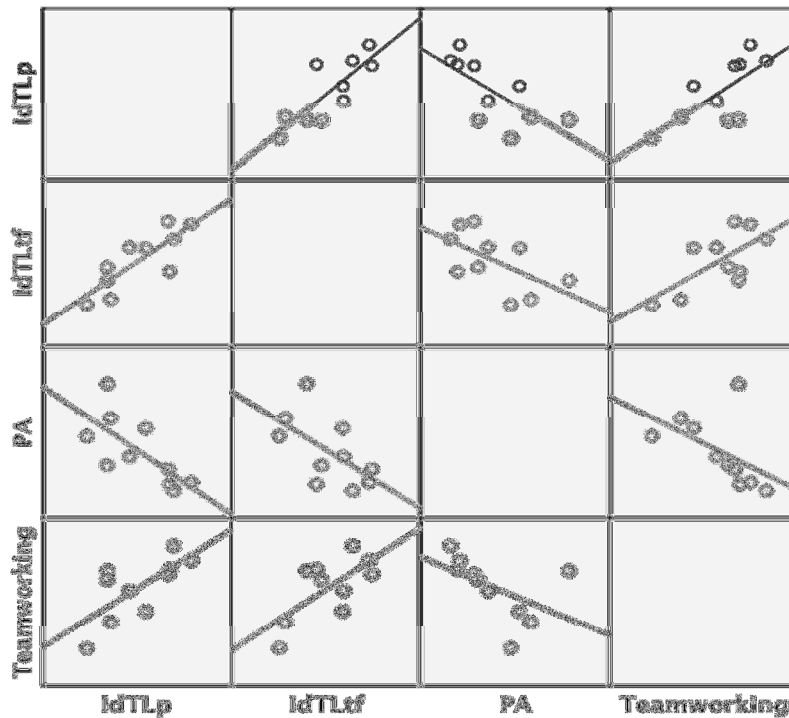
No significant relationships were found when testing the secondary hypotheses 3d and 3h. However all other secondary hypotheses for question 3. were supported by the analysis many strongly.

3c. There is a positive association between IdTL behaviours and Team working within the team.

To test this hypothesis summary leadership variables Person Focused IdTL (IdTLp), Task Focused IdTL (IdTLtf) and Negative Leadership Behaviours (PA) were tested to ascertain if there was any relationship between them and the WDQ variable Team working.

The effects of IdTLp and IdTLtf were both significant accounting for 44% ($r^2_{adj} = .438$, $p = .022$), and 39% ($r^2_{adj} = .386$, $p = .033$) of the variance in team working. The effect of the PA was not significant, however it did account for 16% ($r^2_{adj} = .164$) of the variance in the model. These relationships can be seen in the scatter plot matrix below.

Figure 9. Scatter plot matrix demonstrating the relationship between IdTL variables and Team working with lines of best fit



The above matrix scatter plot shows strong positive relationships between Person-focused and task-focused IdTL and Team working; and a strong negative relationship between Negative Leadership Behaviours (PA) and Team working.

3e. There is an association between IdTL Leadership and Clarity of Leadership within the team.

To test this hypothesis summary leadership variables Person Focused IdTL (IdTLp), Task Focused IdTL (IdTLtf) and Negative Leadership Behaviours (PA) were tested to ascertain if there was any relationship between them on the WDQ variable Clarity of Leadership.

The effect of the IdTLp was significant ($p = 0.041$) accounting for 35% ($r^2_{adj} = .353$) of the variance in CL. The effect of IdTLtf was highly significant ($p = .008$) accounting for 56% ($r^2_{adj} = .560$) of the variance of CL in the model. The effect of PA was significant ($p = .049$) negatively accounting for 33% ($B = -16.976$, $r^2_{adj} = .353$) of CL in the model. These relationships can be seen in the scatter plot matrix below.

Figure 10. Scatter plot matrix demonstrating the relationship between IdTL variables and Clarity of Leadership with lines of best fit

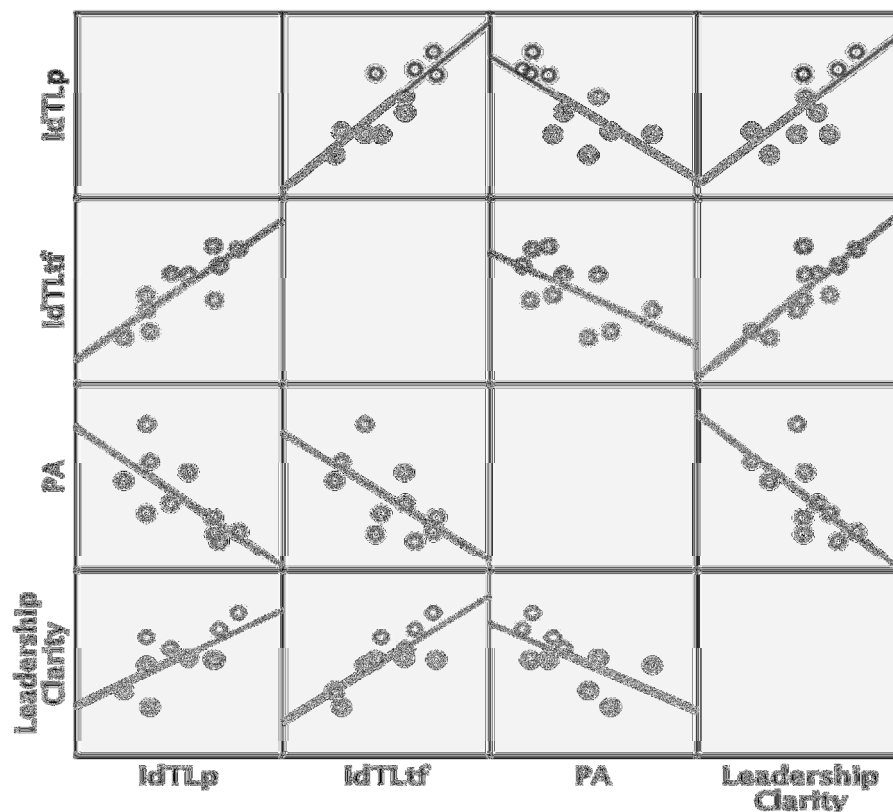


Figure 9. illustrates the relationship between predictor and outcome variables. As both IdTLp and IdTLtf rise, Clarity of Leadership increases.

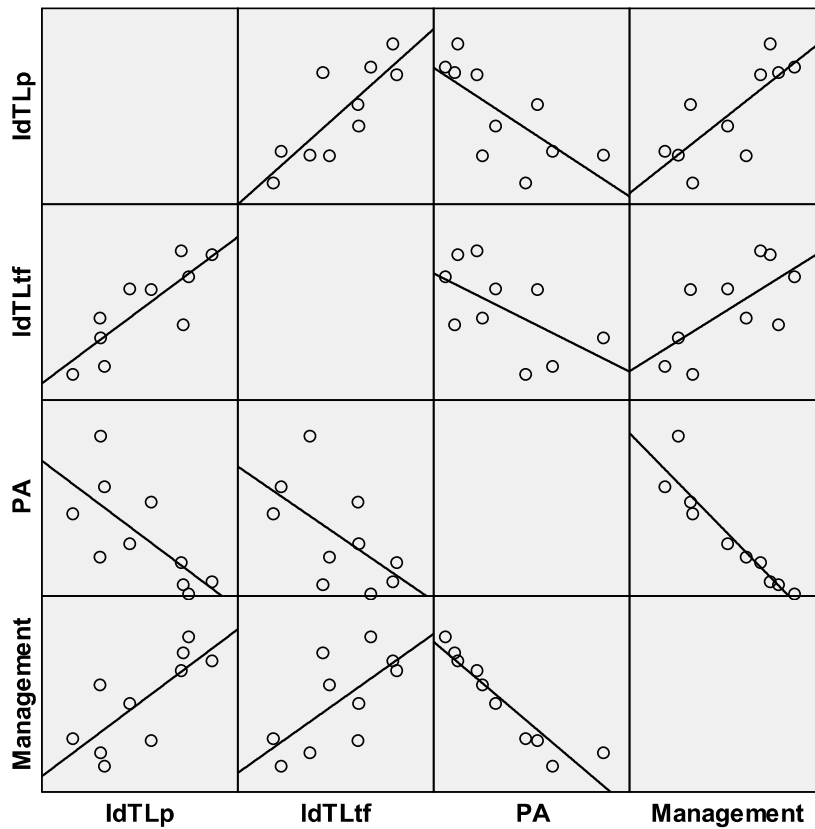
As Negative leadership or passive avoidant behaviours increase Leadership Clarity is seen to fall.

3f. There is a positive association between IdTL and WDQ Management

The relationships between the three IdTL predictor variables and the WDQ variable management were all statistically significant.

IdTLp ($p=.009$) positively accounted for 54% ($r^2_{adj} = .542$) of variance of Management, IdTLtf ($p=.035$) accounted for 37% ($r^2_{adj} = .374$) of variance of Management. PA ($p=.000$) accounted for 85% ($r^2_{adj} = .851$) of variance, with the regression coefficient ($B = -.942$) indicating a negative relationship. However, these results should be expected as these variables, although from two different questionnaires, essentially measure behaviours that are very closely related. In particular Task-focused leadership behaviours can be considered as core management behaviours. Further Passive Avoidant behaviours are those that result in lack of structure and direction for workers. These results lend further assurance of both leadership theory and of construct validity of both questionnaires. The scatter plots below illustrate these relationships.

Figure 11. Scatter plot matrix demonstrating the relationship between IdTL variables and WDQ Management with lines of best



fit

Figure 11. illustrates the relationships between the predictor variables IdTLp, IdTLtf and PA, and the outcome variable Management. As the level of both IdTLp and IdTLtf rises the perceived effectiveness of Management within the teams rise. As the level of Negative Passive Avoidant Leadership increases the perceived effectiveness of Management within the teams falls.

3g. *There is an association between IdTL and Training/Career progression*

To test this hypothesis summary leadership variables Person Focused IdTL (IdTLp), Task Focused IdTL (IdTLtf) and Negative Leadership Behaviours (PA) were tested to ascertain if there was any relationship between them on the WDQ variable Training/Career Progression.

The effect of the IdTLp was significant ($p = .046$) accounting for 34% ($r^2_{adj} = .337$) of the variance in Training/Career Progression. The effect of the IdTLtf was also significant ($p = .045$) accounting for 34% ($r^2_{adj} = .340$) of the variance in Training/Career Progression. No significant effect was found for PA ($p = .610$).

These relationships can be seen in the scatter plot matrix below.

Figure 12. Scatter plot matrix demonstrating the relationship between IdTL variables and WDQ Training/Career Progression with lines of best fit

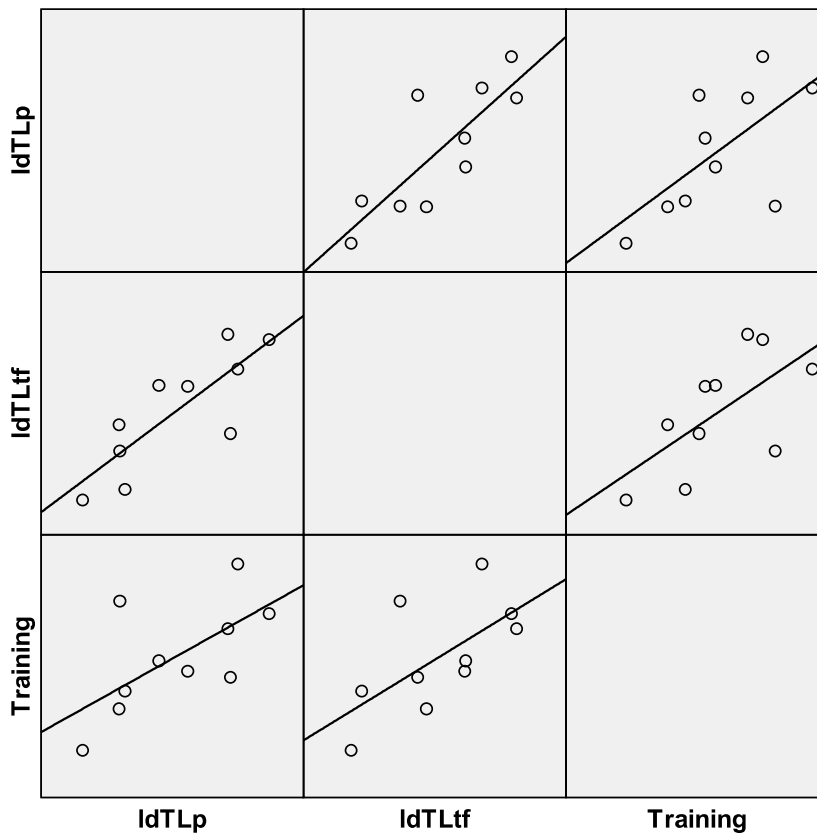


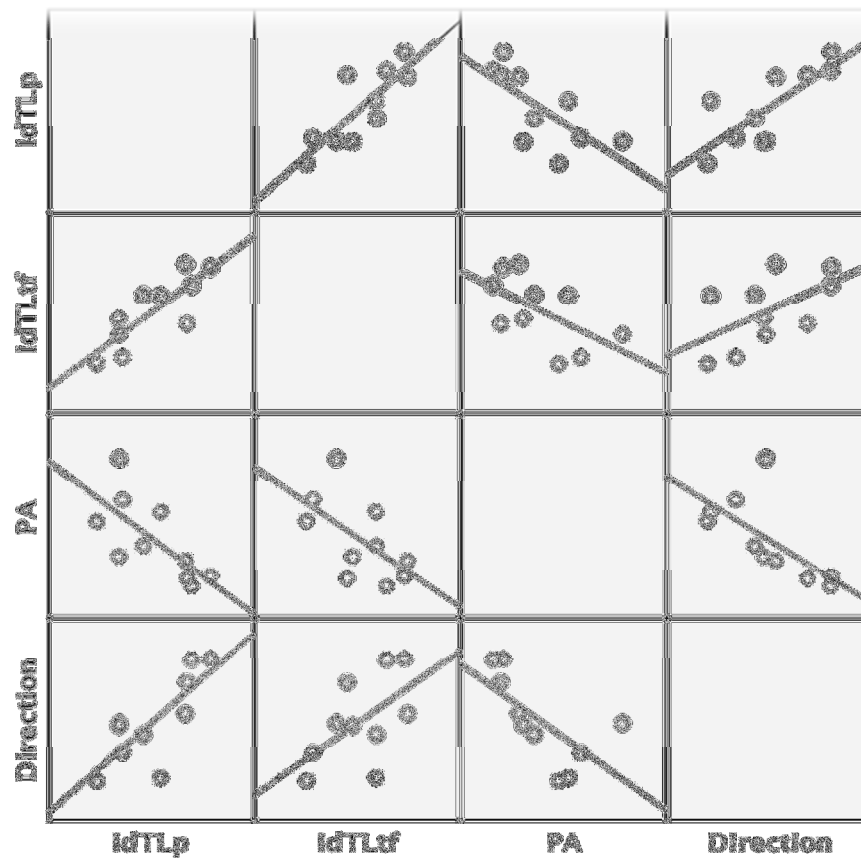
Figure 12. illustrates the relationships between the predictor variables IdTLp and IdTLtf and the outcome variable Training/Career Progression. As both IdTLp and IdTLtf rise then perceived support for and satisfaction with the career development opportunities offered by the current post increase.

3i. There is a positive association between IdTL and Sense of Direction within the team.

To test this hypothesis summary leadership variables Person Focused IdTL (IdTLp), Task Focused IdTL (IdTLtf) and Negative Leadership Behaviours (PA) were tested to ascertain if there was any observable relationship between them and the WDQ variable Sense of Direction (SD).

The effect of the IdTLp was significant ($p= 0.009$) positively accounting for 50% ($r^2_{adj} = .495$) of the variance in Sense of Direction. The effect of Task-Focused IdTL was close to significant ($p = .069$), positively accounting for 25% ($r^2_{adj} = .246$) of the variance in the model. The effect of PA was also significant ($p = .040$) accounting for 32% ($r^2_{adj} = .321$) of variance in Sense of Direction, with the regression coefficient ($B= -14.807$) indicating this to be a negative relationship. These relationships are illustrated in figure 13. below.

Figure 13. Matrix Scatter plot demonstrating the relationship between IdTL variables and Sense of Direction with lines of best fit



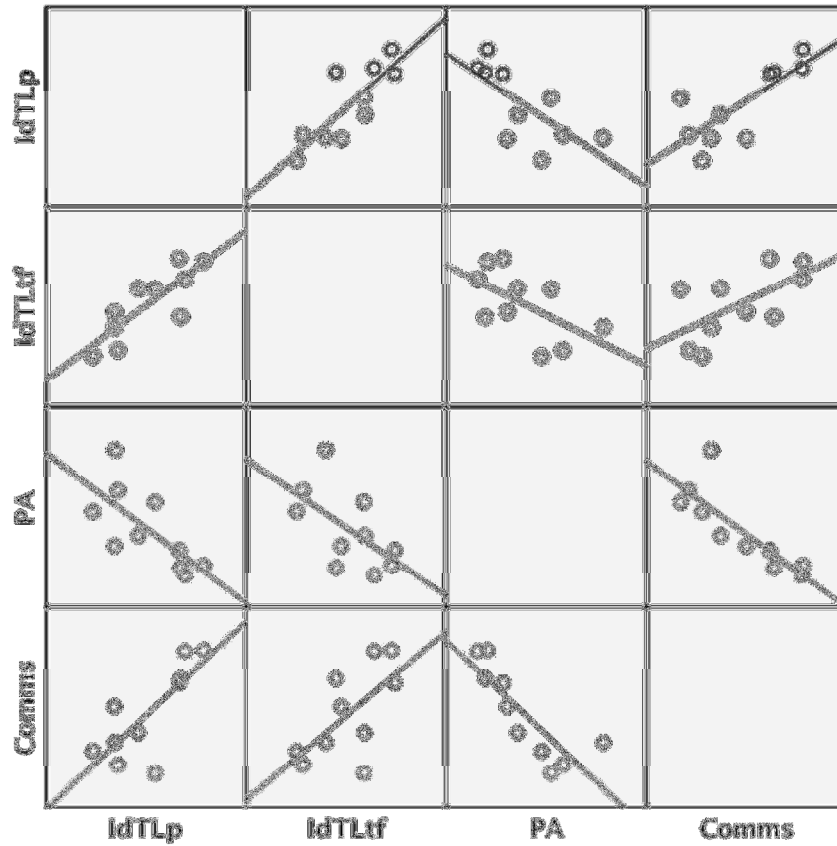
The above scatter plots illustrate the relationships between the predictor variables IdTLp, IdTLtf and PA, and the target variable Sense of Direction. As IdTLp and IdTLtf increase the Sense of Direction in teams increases. As Negative, Passive Avoidant Leadership, Sense of Direction decreases.

3j. There is a positive association between IdTL and Communication within the team.

To test this hypothesis summary leadership variables Person Focused IdTL (IdTLp), Task Focused IdTL (IdTLtf) and Passive Avoidance (PA) were tested to ascertain if there was any relationship between them on the WDQ variable Communication.

The effect of IdTLp was highly significant ($p = 0.004$) accounting for 57% ($r^2_{adj} = .574$) of the variance in Communication. The effect of IdTLtf was also significant ($p = .041$) accounting for 32% ($r^2_{adj} = .320$) of the variance in Communication. The effect of PA was also highly significant ($p = .002$) accounting for 65% ($r^2_{adj} = .653$) of Communication, with the regression coefficient ($B = -10.653$) indicating that this is a negative relationship. These relationships can be seen in figure 14. below.

Figure 14. Scatter plot matrix showing the relationship between IdTL variables and Sense of Direction with lines of best fit



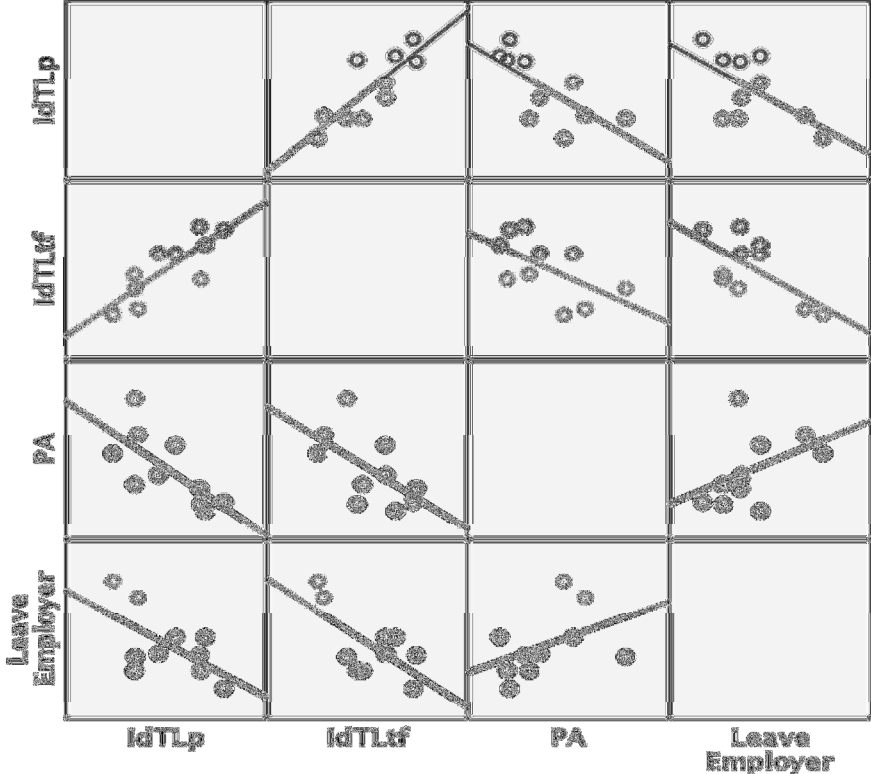
The above scatter plots illustrates the relationships between the predictor variables IdTLp, IdTLtf and PA, and Communication within the team. As IdTLp and IdTLtf increase the perceived effectiveness of Communication within the team increases. As Negative, Passive Avoidant Leadership increases the perceived effectiveness of Communication within the team decreases.

3k. There is a negative association between IdTL and Intention to leave the employer in the next 12 months.

To test this hypothesis summary leadership variables Person-focused IdTL (IdTLp), Task-focused IdTL (IdTLtf) and Passive Avoidance (PA) were tested to ascertain if there was any relationship between them on the WDQ variable Intention to Leave the Employer in the next 12 months (ILe).

The result of IdTLp was close to significant ($p = .057$) and accounted for 27% ($r^2_{\text{adj}} = .272$) of variance of ILe, The results for IdTLtf was significant ($p = .025$) and accounted for 38% ($r^2_{\text{adj}} = .384$) of variance in ILe. The regression coefficient for both these variables was negative (IdTLp $B = -1.970$), (IdTLtf $B = -3.601$). No significant relationship was found between PA and ILe ($p = .210$), but PA did account for 7.6% ($r^2_{\text{adj}} = .076$) of variance within the model. In keeping with the overall hypothesis the regression coefficient ($B = 1.398$) indicated that the relationship between PA and ILe is positive (i.e. for every unit increase in PA, ILe increases by 7.6%). The matrix scatter plot below illustrates these relationships (figure 15).

Figure 15. Scatter plot matrix demonstrating the relationship between IdTL variables and Intention to leave employer within the next 12 months with lines of best fit



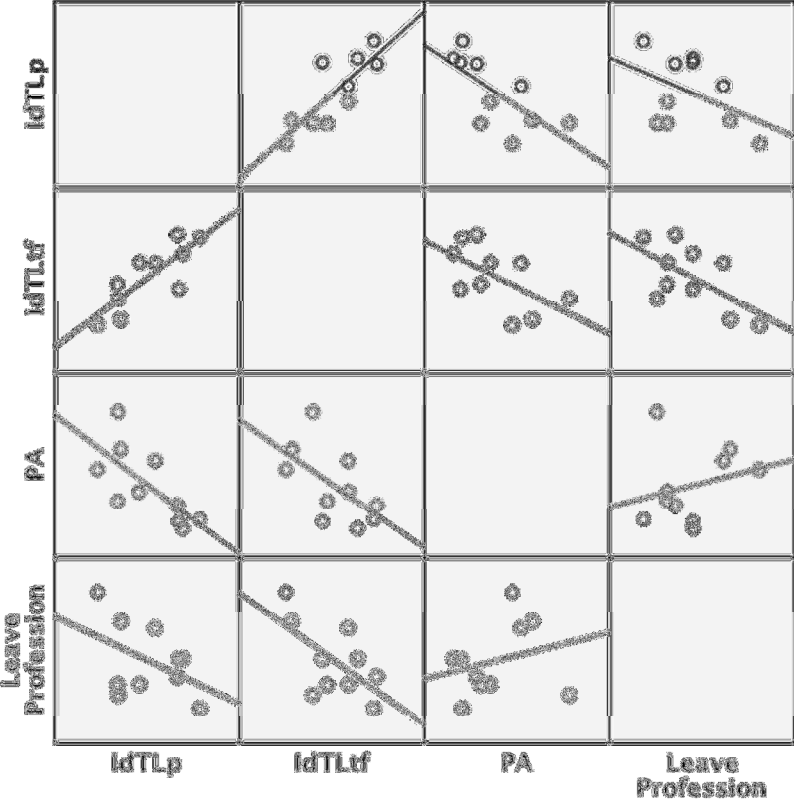
The above scatter plots illustrate the relationships between the predictor variables IdTLp, IdTLtf and PA, and the outcome variable Intention to Leave the Employer in the next 12 months. As IdTLp and IdTLtf increase Intention to Leave the Employer in the next 12 months decreases. As Negative, Passive Avoidant Leadership increases Intention to Leave the Employer in the next 12 months decreases.

31. There is a negative association between IdTL and Intention to leave the profession in the next 12 months.

To test this hypothesis summary leadership variables Person-Focused IdTL (IdTLp), Task-Focused IdTL (IdTLtf) and Passive Avoidance (PA) were tested to ascertain if there was any relationship between them and the WDJ variable Intention to leave the leave the profession in the next 12 months (ILp).

Of the three predictor variables only the relationship between IdTLtf and ILp was found to be significant ($p=.043$) accounting for 31% of the variance in the outcome variable ILp. IdTLp did account for 11.8% ($r^2_{adj} = .118$) of variance in ILp however. The regression coefficients for both of these variables (IdTLp $B = -.816$, IdTLtf $B = -1.787$) indicate negative relationships with the outcome variable (see figure 15.).

Figure 16. Scatter plot matrix demonstrating the relationship between IdTL variables and Intention to Leave the Profession in the next 12 months



The above scatter plots illustrate the relationships between the predictor variables IdTLp, IdTLtf and PA, and the outcome variable Intention to Leave the Profession in the next 12 months. As IdTLp and IdTLtf increase Intention to Leave the Employer in the next 12 months decreases. As Passive Avoidant Leadership increases Intention to Leave the Profession in the next 12 months increase.

6.2.4.2 Key Findings Question 3: What is the relationship between effective Interdisciplinary Team Leadership, and Staff and Team Level Dynamics in interdisciplinary health and social care teams?

The primary hypothesis for question 3. is supported. There appears to be a strong relationship between IdTL behaviours and both staff leadership outcomes and team level dynamics. IdTL summary variables, IdTLp and IdTLtf, show strong positive associations with proposed Leadership Outcomes, whilst Negative IdTL behaviours (PA) show a significant negative association with Leadership Outcomes.

Several of the secondary hypotheses in the data exploration were also supported. There were significant relationships between IdTL and Team working; Clarity of Leadership; Management; Training/Career Progression; Overall Satisfaction; Sense of Direction; Communication, Intention to Leave Employer within the next 12 months, Intention to Leave Profession within the next 12 months.

Significantly, Task-Focused leadership (IdTLtf) behaviours aimed at providing structure for staff appear to account for more variance in Clarity of Leadership; Intention to Leave the employer (Ile), and; Intention to Leave the profession (ILp), than Person-Focused leadership behaviours (IdTLp) or Passive Avoidance (PA).

6.2.5 Question 4.

What is the relationship between Interdisciplinary Team Leadership and Patient Outcomes in interdisciplinary health and social care teams?

The aim of this question was to understand if Patient Outcomes are directly affected by Interdisciplinary Team Leadership; more specifically, if Interdisciplinary Team Leadership influences Patient Outcomes.

To answer this question, a range of Interdisciplinary Team Leadership variables were explored by the testing of a number of hypotheses relating to potential leadership effects on patient outcomes.

6.2.5.1 Analysis Strategy

A range of outcome variables were extracted from Client Record Pack data. These related to the core measures from the TOMS and EQ-5D instruments on change in patient health status as a result of the episode of care. Three summary Leadership variables were again used as predictor variables to answer this question.

The full list of predictor and outcome variables used in this part of the study can be seen in table 6.12 below.

Table 6.12 - Predictor and Outcome variables used to answer Question 4

Predictor Variables (MLQ)		Outcome Variables (CRP)	
Person-focused Interdisciplinary Team Leadership (Transformational Leadership)	IdTLp	• TOMS impairment change	Ti
Task focused Interdisciplinary Team Leadership (Transactional Leadership)	IdTLtf	• TOMS activity change	Ta
Passive Avoidant Behaviours	PA	• TOMS wellbeing change	Tw
Clarity of Leadership (WDQ)	CL	• TOMS participation change	Tp
		• EQ-5D change	Eq
		• Length of Stay	LoS

These variables were used to test a number of hypotheses using an analysis of covariance in the general linear models section of SPSS (ANCOVA (GLM)). These hypotheses are listed in table 6.13 below.

Table 6.13 - The analysis protocol and results for Question 4 primary hypothesis

ID.	Primary Hypothesis	Predictor Variables	Outcome Variables	Std. Error	B	r ² _{adj}	Sig.
4a1	There is an association between IdTL and change in quality of life throughout the episode of care.	IdTLp IdTLtf PA	EQ	9.735	3.891	-.103	.700
				14.597	10.546	-.056	.491
				10.098	-5.764	-.081	.584
4a2	There is an association between IdTL and therapy outcomes	IdTLp IdTLtf PA	TOMS	.270	.136	-.090	.627
				.403	.344	-.036	.432
				.285	-.107	-.106	.718

Primary Hypotheses

4a1. There is an association between IdTL and change in quality of life throughout the episode of care.

To test this hypothesis summary leadership variables Person-Focused IdTL (IdTLp), Task Focused IdTL (IdTLtf) and Passive Avoidance (PA) were tested to ascertain if there was any relationship between them and client EQ-5D change scores.

4a2. There is an association between IdTL and therapy outcomes.

To test this hypothesis summary leadership variables Person Focused IdTL (IdTLp), Task Focused IdTL (IdTLtf) and Passive Avoidance (PA) were tested to ascertain if there was any relationship between them and client summary Therapy Outcome change scores (TOMS).

No significant relationships were found when testing these hypotheses.

Data Exploration Question 4

Other hypotheses were also tested to further explore this question. These are listed together with the results in the table 6.14 below. No significant relationships were found.

Table 6.14 - The analysis protocol and results for Question 4 primary hypothesis

ID.	Secondary Hypotheses	Predictor Variables	Outcome Variables	Std. Error	B	r ² _{adj}	Sig.
4b	There is an association between effective IdTL behaviours and TOMS impairment change.	IdTLp IdTLtf PA	Ti	.365	-.021	-.125	.956
				.554	.257	-.062	.534
				.382	.022	-.110	.935
4c	There is an association between effective IdTL behaviours and TOMS activity change.	IdTLp IdTLtf PA	Ta	.298	.087	-.092	.704
				.451	.254	-.050	.487
				.317	-.008	-.111	.971
4d	There is an association between effective IdTL behaviours and TOMS Wellbeing change.	IdTLp IdTLtf PA	Tw	.174	.174	.000	.347
				.250	.376	.122	.172
				.191	-.099	-.088	.617
4e	There is an association between effective IdTL behaviours and TOMS participation change.	IdTLp IdTLtf PA	Tp	.291	.174	-.041	.457
				.440	.418	-.011	.370
				.300	-.294	-.004	.354
4f.	There is an association between effective IdTL behaviours and Length of Stay change.	IdTLp IdTLtf PA	LoS	69.454	13.342	-.120	.852
				67.317	24.963	-.111	.552
				44.138	38.172	-.030	.414

6.2.5.2 Key Findings Question 4: What is the relationship between Interdisciplinary Team Leadership and Patient Outcomes in interdisciplinary health and social care teams?

No direct relationship between could be found between leadership variables and patient outcome variables in this data set. The null hypothesis is therefore not rejected.

There is no direct relationship between Interdisciplinary Team Leadership and Patient Outcomes in interdisciplinary health and social care teams.

In some ways this is surprising. Theoretically, via having a positive effect on both team and individual staff dynamics, leadership should have an indirect effect on patient outcomes and therefore it may have been reasonable to hypothesise that some association, albeit weak, might have been observed between leadership variables and patient outcomes. However, team leaders generally work directly with the members of the teams they lead, rather than with patients, so leadership is unlikely to have a direct effect on patients.

6.2.6 Question 5.

What is the relationship between Staff and Team level Dynamics, and Patient Outcomes in interdisciplinary health and social care teams?

The aim of this question was to understand if Staff and Team Level Dynamics (which are strongly affected by Interdisciplinary Team Leadership) are associated with Patient Outcomes. More specifically if variance in staff and team dynamics factors influences of variance in patient outcome factors.

To answer this question, a range of staff and team level variables previously identified in this study were explored by testing a number of hypotheses relating to potential effects on Patient Outcomes.

6.2.6.1 Analysis Strategy

As previously discussed number of variables were extracted from the Workforce Dynamics Questionnaire (WDQ). To answer this particular question, these were used as predictor variables. Patient Outcome variables were again used as outcome variables to answer this question.

The full list of predictor and outcome variables used in this part of the study can be seen in table 6.15 below.

Table 6.15 - Predictor and Outcome variables used to answer Question 5

Predictor Variables (WDQ Unless Specified)		Outcome Variables (CRP)
Staff Level Outcomes		
• Leadership Outcomes (MLQ)	LO	• TOMS summary TOMS
○ Satisfaction,	S	• TOMS impairment change Ti
○ Effectiveness,	E	• TOMS activity change Ta
○ Extra- Effort	EE	• TOMS wellbeing change Tw
Team Level Dynamics		• TOMS participation change Tp
• Role Flexibility	RF	• EQ-5D change Eq
• Communication (communication)	C	
• Clarity of Leadership (Management)	CL	
• Access to technical equipment	Ae	
• Quality of Care	Qc	

These variables were used to test a number of hypotheses using an analysis of variance in the general linear models section of SPSS (ANOVA (GLM)). These hypotheses are listed in table 6.16 below.

Table 6.16 - Analysis protocol and results for Question 5, Primary Hypothesis

ID.	Primary Hypotheses	Predictor Variables	Outcome Variables	Std. Error	B	r ² _{adj}	Sig.
5a	There is an association between Leadership Outcomes and change in patient quality of Life	LO	Eq	7.674	1.531	-.119	.847
5b	There is an association between Leadership Outcomes and overall patient therapy outcomes	LO	TOMs	.214	.031	-.122	.888

Primary Hypotheses

5a. There is an association between Leadership Outcomes and change in patient Quality of Life.

5b. There is an association between Leadership Outcomes and overall patient Therapy Outcomes.

Neither primary hypotheses yielded statistically significant results in this analysis.

Data Exploration Question 5.

To further explore this question a number of other staff and team level variables were also tested to assess if they had any relationship with patient outcomes. These are expressed as a set of hypotheses and presented with the results of the analysis in table 6.17.

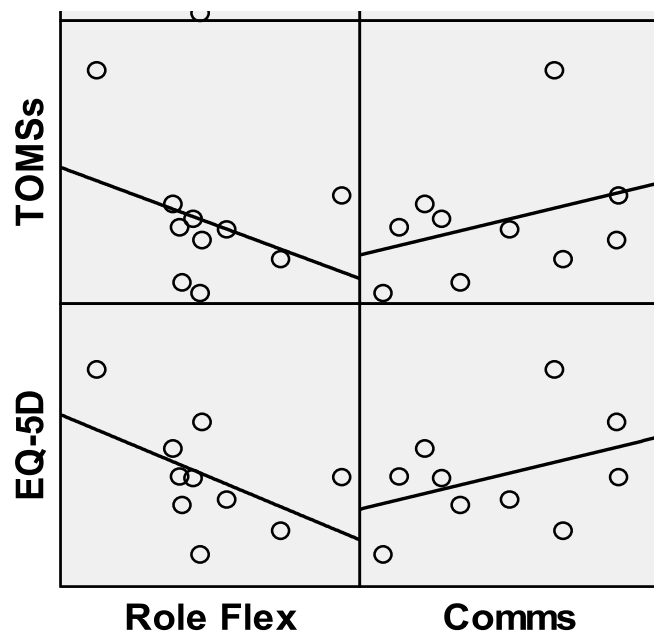
Table 6.17 - Protocol for data exploration and results of the analysis for Question 5.

ID.	Secondary Hypotheses	Predictor Variables	Outcome Variables	Std. Error	B	r ² _{adj}	Sig.
5c	There is an association between Leadership Outcomes and change in patient impairment	LO	Ti	.282	-.121	-.100	.681
5d	There is an association between Leadership Outcomes and change in patient activity	LO	Ta	.237	.058	-.117	.813
5e	There is an association between Leadership Outcomes and change in patient wellbeing	LO	Tw	.141	.091	-.070	.539
5f.	There is an association between Leadership Outcomes and change in patient participation	LO	Tp	.233	.112	-.093	.644
5g	There is an association between team communication and change patient quality of life	C	Eq	.696	.853	.053	.255
5h	There is an association between team communication and change patient therapy outcomes	C	TOMSs	.020	.020	-.005	.337
5i	There is an association between role flexibility and change in patient quality of life	Rf	Eq	.649	-1.107	.175	.126
5j	There is an association between role flexibility and change in overall therapy outcomes	Rf	TOMSs	0.19	-.024	.050	.259
5k	There is an association between clarity of leadership and change in patient quality of life	CL	Eq	6.936	-.323	-.125	.964
5l	There is an association between clarity of leadership and change in overall therapy outcomes	CL	TOMS	.193	-.024	-.123	.903
5m	There is an association between access to technical equipment and change in patient quality of life	Ae	Eq	.675	.588	-.027	.409
5n	There is an association between access to technical equipment and change in overall therapy outcomes	Ae	TOMS	017	.030	.198	.110
5o	There is an association between perceived quality of care and change in patient quality of life	Qc	Eq	.652	1.375	.277	.068
5p	There is an association between perceived quality of care and change in overall therapy outcomes	Qc	TOMS	020	.031	.219	.083

None of the hypotheses tested during data exploration achieved significant results.

Communication accounted for 5% of EQ-5D scores ($r^2_{adj} = .050$). Role Flexibility accounted for 18% of EQ-5D scores ($r^2_{adj} = .175$) and 5% ($r^2_{adj} = .050$) of TOMS summary scores, but counter to as is theorised the relationship was negative. These relationships can be seen in the scatter plot matrix below.

Figure 17. Scatter plot matrix showing the relationship between Role Flexibility and Communication, and Eq-5D and TOMS change scores



The scatter plots show the relationship between the predictor variables Role Flexibility and Communication with the outcome variables TOMSs and EQ-5D. As perceived levels of Role Flexibility increase overall TOMS and EQ-5D change scores decrease. As the perceived effectiveness of communication within the team increases TOMSs and EQ-5D scores increase.

Access to Technical Equipment did account for 20% ($r^2_{adj} = .198$) of variance in TOMS change scores. Team members perceptions of the quality

of service they provide (Qc) also accounted for 27% ($r^2_{adj} = .277$) and 22% ($r^2_{adj} = .219$) of the variance in EQ-5D and TOMS change scores respectively. Again however the scores for quality were not significant.

6.2.6.2 Key Findings Question 5: What is the relationship between Staff and Team level Dynamics, and Patient Outcomes in interdisciplinary health and social care teams?

No significant relationship could be found between the team level variables and patient outcome variables tested. The null hypothesis is therefore supported for this study.

There is no direct relationship between Staff Outcomes, Team Level Dynamics and Patient Outcomes.

However, as has been illustrated, some predictor variables did predict low levels of variance in patient outcomes within the models tested. These include: Role Flexibility; Communication, Access to Equipment and Quality of Care. Against expectations, the relationship between Role flexibility and both EQ-5D and TOMSs scores was negative ($B = -1.107$ and $B = -.024$) Rf accounting for 18% of variance in EQ-5D and 5% of TOMSs.

6.2.7 Question 6

What is the relationship between Staff level Interdisciplinary Team Leadership outcomes and Team Level Dynamics?

The aim of this question was to understand if team level dynamics are directly affected by staff level variables. More specifically if staff level variables that have been shown repeatedly in other studies to be the outcomes of effective leadership, predict variables that are associated with effective interdisciplinary team working.

To answer the question, a range of staff level leadership outcome variables previously identified in this study were explored by testing of a number of hypotheses relating to potential relationships with team level dynamics.

6.2.7.1 Analysis Strategy

As previously discussed, a number of staff level and team level variables were extracted from both the Multifactor Leadership Questionnaire (MLQ) and the Workforce Dynamics Questionnaire (WDQ). To answer this particular question, staff level variables were used as predictor variables and team level variables were used as outcome variables.

The full list of predictor and outcome variables used in this part of the study can be seen in table 6.18 below.

Table 6.18 - Predictor and Outcome variables used to answer Question 6.

Predictor Variables (WDQ Unless Specified)		Outcome Variables (CRP)	
Staff Level Outcomes		Team Level Outcomes	
• Leadership Outcomes (MLQ)	LO	• Role Flexibility	Rf
○ Satisfaction,	S	• Team working	Tm
○ Effectiveness,	E	• Training/career progression	T/CP
○ Extra- Effort	EE	• Communication (communication)	C
• Overall Satisfaction (revised)	Sw	• Sense of Direction	SDw
• Uncertainty (negative)	U		
• Intention to leave (employer) [negative]	ILe		
• Intention to leave (profession) [negative]	ILp		

These variables were used to test a number of hypotheses using both analysis of variance and covariance in the general linear models section of SPSS (ANOVA (GLM)), (ANCOVA (GLM)). For a summary listing of the hypotheses and results, please see table 6.19 below.

Table 6.19 - Analysis protocol and results for Question 6, Primary Hypothesis

ID.	Primary Hypotheses	Predictor Variables	Outcome Variables	Std. Error	B	r ² _{adj}	Sig.
H7a	There is a positive association between Leadership Outcomes and Team working	LO	Tm	3.706	12.661	.542	.009**
H7b	There is a positive association Overall Satisfaction and Team working	Sw	Tm	2.597	10.951	.651	.003**

Primary Hypotheses

H7a. There is a positive association between Leadership Outcomes and Team working

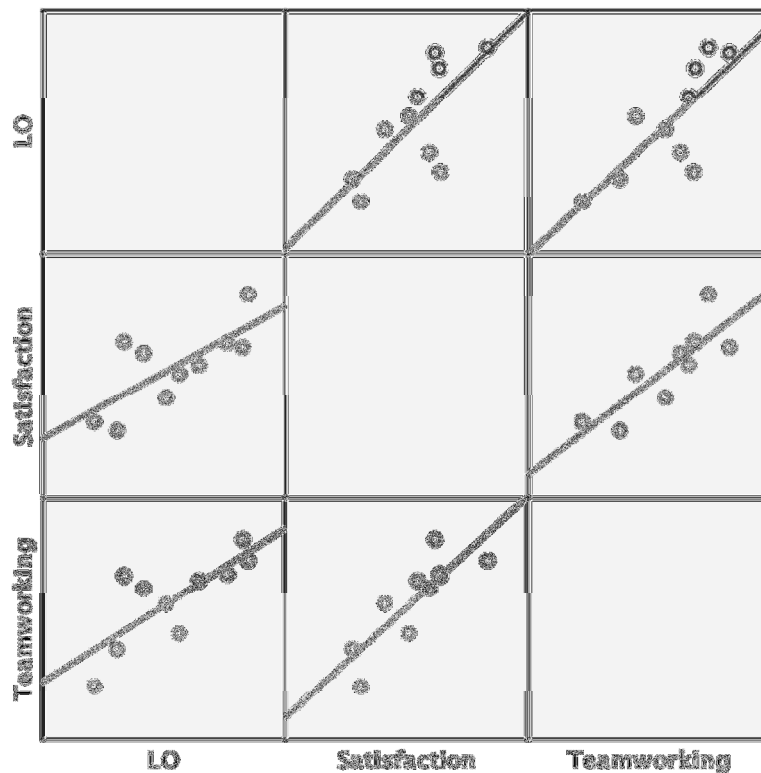
To test this hypothesis the summary variable Leadership Outcomes (a combination of Satisfaction, Effectiveness and Extra-Effort) was tested to ascertain if there was any relationship between it and the variable Team working (Tm).

The analysis had highly significant results. Variance in LO predicted variance in Tm by 54% ($r^2_{adj} = .542$, $p = .009$). The regression coefficient ($B = 12.661$) indicates that this is a positive association.

H7b. There is a positive association between Overall Satisfaction and Team working

As a further cross validation, the relationship between the WDQ variable Overall Satisfaction (Sw) and Team working was explored. Again the results were highly significant ($p = .003$), overall satisfaction predicting 65% ($r^2_{adj} = .651$) of variance in Team working with the regression coefficient ($B = 10.951$) indicating a positive relationship. The scatter plot matrix below illustrates these relationships.

Figure 18. Scatter plot matrix demonstrating the relationship between Leadership Outcomes, Satisfaction and Team working with lines of best fit.



The scatter plots above illustrate the relationship between the predictor variables LO and Sw and the outcome variable Team working. As LO and Sw increase Team working increases.

Data Exploration Question 6

A range of other hypotheses were also tested to further explore this question. These are listed together with the results in table 6.20 below.

Table 6.20 - Protocol for data exploration and results of the analysis for Question 5.

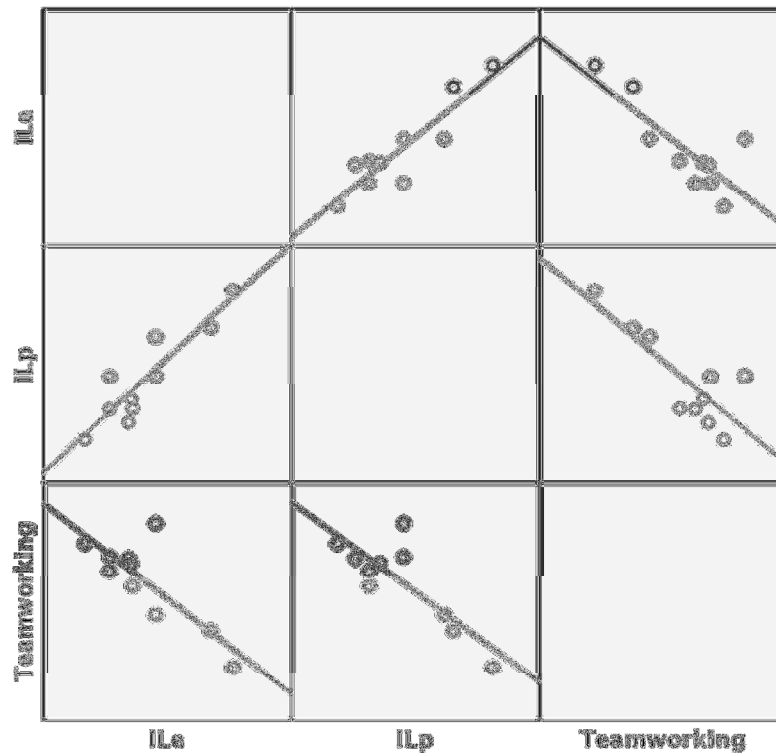
ID.	Secondary Hypotheses	Predictor Variables	Outcome Variables	Std. Error	B	r ² _{adj}	Sig.
H7c	There is a negative association between negative staff outcomes and team working (Combined Model)	Ile ILp U	Tm	3.181 6.022 .147	-2.408 -5.445 -.041	.535	.057
H7c1	There is a negative association between negative staff outcomes and team working	Ile ILp U	Tm	1.254	-4.802	.603	.005**
				2.312	-9.077	.616	.004**
				.177	.213	.047	.264
H7d	There is a positive association Leadership Outcomes and Role Flexibility	LO	Rf	3.160	4.821	.129	.166
H7e	There is a positive association negative staff outcomes and Role Flexibility (Combined Model).	Ile ILp U	Rf	2.808	-4.276	.096	.333
				5.316	4.365		
				.130	-.045		
H7f.	There is a positive association between Leadership Outcomes and Communication.	LO	C	2.017	8.390	.644	.003**
H7g	There is a positive association between Leadership Outcomes and Training/career progression	LO	T/CP	5.315	12.409	.331	.048*
H7h	There is a positive association between Leadership Outcomes and Sense of Direction	LO	SD	3.843	15.847	.640	.003**

H7c, There is a negative association between negative staff outcomes and team working.

To test this hypothesis three negative staff outcome variables: Intention to Leave Employer in next 12 months (ILe); Intention to Leave Profession in next 12 months (ILp); and Uncertainty (U) were tested in a combined ANCOVA model to ascertain if there was any relationship between them and Team working (Tw).

The result of the analysis was close to significant ($p = 0.57$), the combined model accounting for 54% ($r^2_{\text{adj}} = .535$) of variance of Team working. The regression coefficients for all three variables were negative (ILe $B = -2.408$), (ILp $B = -5.445$), (U $B = -.041$). When tested individually in an ANOVA (GLM) model against Tw, the results for both ILe ($p = .005^{**}$) and ILp ($p = .004^{**}$) were highly significant, accounting for 60% ($r^2_{\text{adj}} = .603$) and 62% ($r^2_{\text{adj}} = .616$) of the variance in Tw respectively. The results for U were not significant ($p = .236$) and only accounted for 6% ($r^2_{\text{adj}} = .057$) of the variance. Again the regression coefficients indicated that, if anything these were negative relationships. The matrix scatter plot below illustrates these relationships.

Figure 19. Scatter plot matrix demonstrating the relationship between Intention to leave employer in the next 12 months and intention to leave profession in the next 12 months, and Team working, with lines of best fit



The matrix scatter plot illustrates the relationships between the predictor variables ILe and ILp and the outcome variable Team working. As ILe and ILp increase, Team working decreases.

H7d, There is a positive association between Leadership Outcomes and Role Flexibility.

No significant relationship was found in this test ($p = .176$), although LO did account for 10.4% of Rf in the model ($r^2_{adj} = .104$).

H7e. There is a positive association between negative staff outcomes and Role Flexibility.

As in H7c., three negative staff outcome variables: Intention to Leave Employer in next 12 months (ILe); Intention to Leave Profession in next 12 months (ILp); and Uncertainty (U) were tested to ascertain if there was any relationship between them and the outcome variable Role Flexibility (Rf).

The results were not significant ($p = .333$) though the combined model did account for 9.6% ($r^2_{\text{adj}} = .096$) of the variance in Rf.

H7f. There is a positive association between Leadership Outcomes and Communication.

The results of this test were highly significant ($p = .003$). LO predicted 64% ($r^2_{\text{adj}} = .644$) of variance in C. The regression coefficient indicated that this was a positive association ($B = 8.347$). This relationship can be seen in figure 18.

H7g. There is a positive association between Leadership Outcomes and Training/career progression

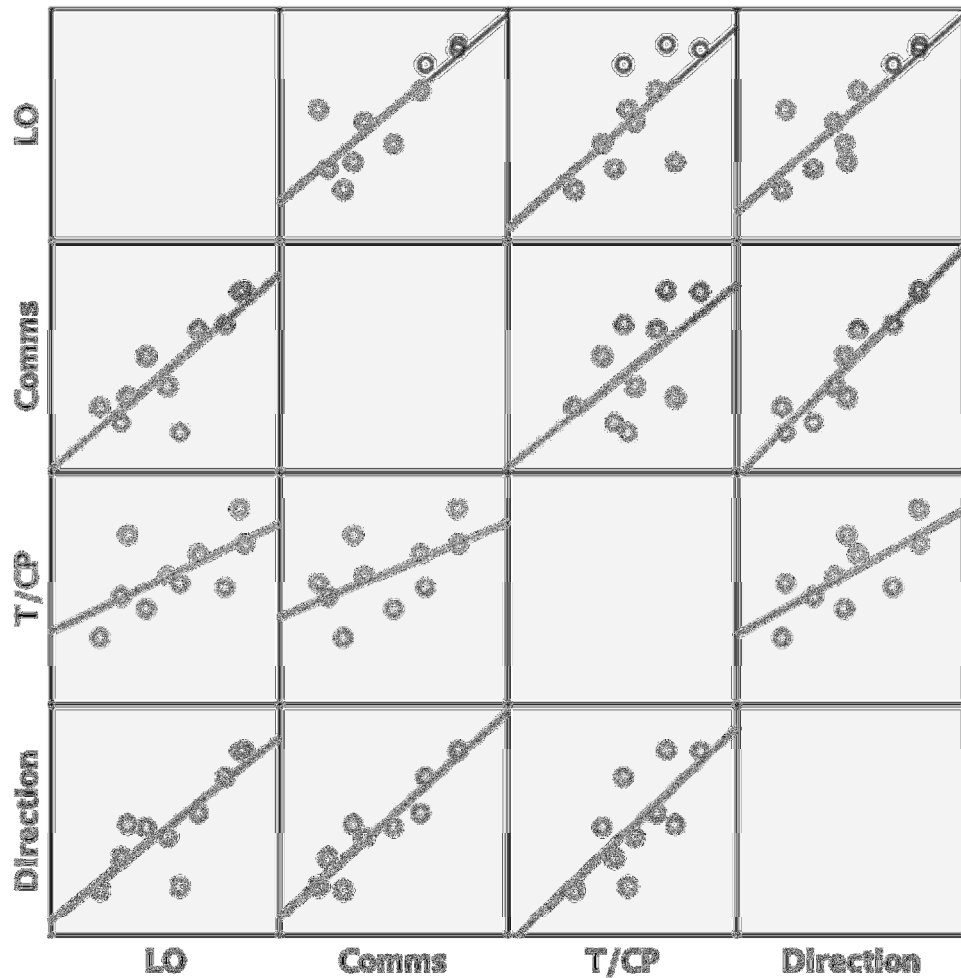
The results of this test were also significant ($p = .048$). LO predicted 33% ($r^2_{\text{adj}} = .331$) of variance in T/Cp. The regression coefficient indicated that this was a positive association ($B = 12.409$). See figure 18.

H7h. There is a positive association between Leadership Outcomes and Sense of Direction.

The results of this final test were highly significant ($p = .003$) with LO accounting for 64% ($r^2_{\text{adj}} = .640$) of the variance in SD. The regression coefficient ($B = 15.847$) indicates that this is a positive relationship.

The relationships found in H7f, H7g and H7h are illustrated in the scatter plot matrix below.

Figure 20. Scatter plot matrix demonstrating the relationship between Leadership Outcomes, Communication, Training/Career Progression and Sense of Direction



The scatter plots above illustrate the relationship between the predictor variable LO and the outcome variables Communication, Training and Career Progression and Sense of Direction. As LO increases the three outcome variables also increase.

6.2.7.2 Key findings Question 6: What is the relationship between Staff Outcomes and Team Level Dynamics?

The primary hypothesis for question 7 is supported. There is a strong association between Leadership Outcomes (Satisfaction, Extra-effort and Effectiveness) and Team working. This association with satisfaction was

lent further validity by the fact that the WDQ variable overall satisfaction (Sw) also had a significant association with Team working.

Several of the secondary hypotheses were also supported. Combined negative staff variables: Intention to leave employer; intention to leave profession and uncertainty were found to have a negative association with Team working. There were significant associations between IdTL and Team working; Clarity of Leadership; Management; Training/Career Progression; Overall Satisfaction; and Sense of Direction.

6.3 Overall Findings of the Cross-Sectional Study

The cross-sectional study did identify a number of statistically significant findings.

Significant negative relationships were found between a number of team structure variables and Interdisciplinary team leadership. As ratios of patients to staff and team members to team leader increase, Interdisciplinary team leadership effectiveness seems to decrease.

There were significant positive relationships between person-focused interdisciplinary team leadership, task-focused interdisciplinary team leadership and staff and team behavioural variables. As Interdisciplinary Team Leadership variables increased staff level outcome variables increased significantly. A number of team level variables also saw significant increases. These included: Team working, Management, Training/Career Progression, Sense of Direction, Communication. Passive Avoidant leadership behaviours were consistently negatively associated with many of these staff and team variables. Task-focused interdisciplinary team leadership in particular was significantly negatively associated with Intention to leave both the employer and the profession during the next 12 months.

No direct relationship could be found between Interdisciplinary team leadership variables and Patient Outcomes. There were also no significant relationships found between Staff and Team variables and Patient Outcomes. However, some staff and team variables did seem to predict low levels of variance in patient outcomes.

A strong and consistent relationship was found between staff variables, which have consistently been found in other studies to be outcomes of effective leadership, and team level variables measured by the Workforce Dynamics Questionnaire. The overall findings of the cross-sectional study are listed in the table below.

Table 6.21 - Summary of findings from Cross Sectional Study

Question	Predictor	Outcome	Association
2. What is the relationship between leadership and interdisciplinary health care team structure and working practices?	Team Structure	Interdisciplinary Team Leadership	<ul style="list-style-type: none"> • Significant negative association between the Ratio of Patients to Staff and the Ratio of Team Members to Team Leader and Person-focused IdTL ($p=.026^*$, $r^2_{adj} = .544$). • Significant negative association between the Ratio of Patients to Staff and Person-focused IdTL ($p = .039^*$, $r^2_{adj} = .360$). • Significant negative Relationship between the Ratio of Team Members to Team Leader ($p=.042^*$, $r^2_{adj} = .349$) and ratio of professional staff to team leader ($p=.051$, $r^2_{adj} = .322$) and Clarity of Leadership. • No association found between Team Size or Frequency of Team Meetings, and IdTL. • No relationship found between the ratio of professional to nonprofessional staff and Clarity of Leadership
3. What is the relationship between effective IdTL and staff and team level outcome behaviours in interdisciplinary health and social care teams?	Interdisciplinary Team Leadership	Staff and Team Level Variables	<ul style="list-style-type: none"> • Strongly significant positive association between IdTLp and Leadership Outcome variables ($p= .000^{**}$, $r^2_{adj} = .946$). • Strongly significant positive association between IdTLtf and Leadership Outcome variables ($p= .005^{**}$, $r^2_{adj} = .595$). • Strongly significant negative association between PA and Leadership outcomes ($p= .008^{**}$, $r^2_{adj} = .555$). • Significant positive associations between IdTLp ($p=.022^*$, $r^2_{adj} = .438$) and IdTLtf ($p=.033^*$, $r^2_{adj} = .386$), and Team

			<p>working.</p> <ul style="list-style-type: none"> • Significant positive association between IdTLp and Clarity of Leadership ($p=.041^* r^2_{adj} = .353$). • Strongly significant positive association between IdTLtf and Clarity of Leadership ($p=.008^{**} r^2_{adj} = .560$). • Significant negative association between PA and Clarity of Leadership ($p=.049^* r^2_{adj} = .327$). • Strongly significant positive association between IdTLp ($p=.004^{**} r^2_{adj} = .589$) and Management • Significant positive association between and IdTLtf ($p=.045^* r^2_{adj} = .307$) and Management. • Strongly significant negative association between PA and management ($p=.000^{**} r^2_{adj} = .875$). • Significant positive associations between IdTLp ($p=.046^* r^2_{adj} = .337$) and IdTLtf ($p=.045^* r^2_{adj} = .340$) and Training/Career progression. • Strongly significant positive association between IdTLp ($p=.009^{**} r^2_{adj} = .495$) and Sense of Direction. • Significant negative association between PA and Sense of Direction ($p=.040^* r^2_{adj} = .321$). • Strongly significant positive association between IdTLp ($p=.004^{**} r^2_{adj} = .574$) and Communication • Significant positive association between IdTLtf ($p=.041^* r^2_{adj} = .320$) and Communication. • Strongly significant negative association between PA and Communication ($p=.002^{**} r^2_{adj} = .653$). • Significant negative association between IdTLtf and Ile ($p=.025^* r^2_{adj} = .384$). • Significant negative association between IdTLtf and ILp
--	--	--	---

			($p=.043^*$ $r^2_{adj} = .313$).
4. What is the relationship between Interdisciplinary Team Leadership and patient outcomes in interdisciplinary health and social care teams?	Interdisciplinary Team Leadership	Patient Outcomes	<ul style="list-style-type: none"> No significant relationships were identified
5. What is the relationship between staff and team dynamics and patient outcomes?	Staff and Team Level Variables	Patient Outcomes	<ul style="list-style-type: none"> No significant relationships were identified. Some staff and team variables did predict low levels of variance in patient outcomes within the models tested. These include: Communication (EQ-5D only); Role Flexibility; Access to Equipment (TOMS only); and Quality of Care.
6. What is the relationship between effective IdTL team output behaviours and staff behavioural outcomes?	Staff level variables	Team Level variables	<ul style="list-style-type: none"> Strongly significant positive relationship between Leadership Outcomes ($p=.009^{**}$, $r^2_{adj} = .495$) and Overall Satisfaction ($p=.003^{**}$, $r^2_{adj} = .651$) and Team working. Strongly significant negative relationship between Intention to Leave Employer ($p=.005^{**}$, $r^2_{adj} = .603$) Intention to leave Profession ($p=.004^{**}$, $r^2_{adj} = .616$) and Team working. Significant positive relationships between Leadership Outcomes and: <ul style="list-style-type: none"> Communication ($p=.003^{**}$, $r^2_{adj} = .644$); Training/Career Progression ($p=.048^*$, $r^2_{adj} = .331$); Sense of direction ($p=.003^{**}$, $r^2_{adj} = .640$)

Chapter 7 Discussion

7.1 Introduction

Both leadership research and health services research share a common complexity, in that they both attempt to understand how the behaviour of both individuals and groups within organisations work together to coordinate tasks and achieve desired outcomes most effectively. This is no easy undertaking. There are a plethora of factors to take into account. The way organisations are configured, the established work routines, the individuals who work in them, the resources they have available, the way they utilise them, and; the outputs they aim to achieve, all often differ and are configured differently. As a researcher this complexity is extended by the range of research methods available as well as the number of potential factors that could be studied. In this piece of research I have attempted to identify both the elements of effective leadership within interdisciplinary health and social care teams working in intermediate care settings, predominantly with older patients; how they are impacted by service organisation and working practices, and their impact on individual staff, team dynamics and patient outcomes.

These teams are as diverse in their structure, role and function as the settings in which they work. To add further complexity leadership is often shared within the teams. Perhaps understandably this has meant that designing, implementing, analysing and interpreting the results of this study has been challenging. Unsurprisingly, it has not been possible to investigate all factors that link the acts of leadership with patient outcomes, or impact the leaders' ability to affect outcomes for patients. It has however, improved understanding of the leadership process in interdisciplinary health and social care teams and how it contributes to patient outcomes.

Over recent years both effective leadership and interdisciplinary team working have been promoted as mechanisms to achieve successful implementation of policy change, higher standards of care and better outcomes for patients. Whilst I would not seek to dismiss these claims, I do

believe that they are over simplistic in their assumptions. Certainly it is questionable whether despite the increased focus and funding for leadership development these lofty claims have been achieved. This said, I do believe there is enough evidence to show that Leadership is influential in improving outcomes for staff and patients. However, it is only one of a wide range of factors that can influence organisational effectiveness. This study has attempted to explore both the nature and effect of leadership in interdisciplinary health and social care teams, but also some of the structural variables that affect the ability of leaders to maximise outputs. In doing so it challenges some of the common assumptions about leadership and how it contributes to the delivery and outcomes of care.

With these matters in mind, this chapter of the thesis brings together the information from the literature review, qualitative and quantitative studies, and discusses the findings in relation to the objectives of the research and the specific questions asked.

The challenges encountered in the research, the limitations and their implications for further research are also discussed.

7.2 Summary of the research

This study aimed to identify the key elements and facilitators of effective leadership in interdisciplinary health and social care teams providing community rehabilitation and intermediate care services in England, and to identify their impact on services and staff.

The study used a range of methods, including a literature review, qualitative study and a cross sectional study. The literature review reviewed the current evidence base on interdisciplinary team leadership in health and social care teams working in intermediate care or community based settings with older people, and how these theories differed from generic theories of team leadership. The outcomes were a preliminary theoretical understanding of what factors might constitute effective leadership in these

types of teams. What also became clear in the literature review, however, was the paucity of research in this particular area of leadership. This led to the development of six research questions aimed at developing a stronger evidence base in this area than previously existed. These research questions were as follows: -

1. What do staff in interdisciplinary health and social care teams believe are the key elements of effective interdisciplinary team leadership (IdTL) and how is the process enacted?
2. What is the relationship between leadership and interdisciplinary health care team structure and working practices?
3. What is the relationship between effective IdTL and Staff Outcomes and Team Level Dynamics in interdisciplinary health and social care teams?
4. What is the relationship between Interdisciplinary Team Leadership and Patient Outcomes in interdisciplinary health and social care teams?
5. What is the relationship between Staff Outcomes, Team Level Dynamics and Patient Outcomes?
6. What is the relationship between Staff Outcomes and Team Level Dynamics?

To answer these questions a comprehensive literature review and two separate studies were undertaken.

The literature review explored what was known about effective leadership in interdisciplinary health and social care teams? This resulted in the development of a preliminary theoretical understanding of interdisciplinary team leadership.

A qualitative study involved 15 interviews with staff members from teams participating in the wider EEICC study. The data was used to develop an interdisciplinary team leadership framework based on the views of those who work in these teams. During this process factors were allowed to develop as far as possible inductively, however, the preliminary findings were then compared to the template developed from the literature review and from this comparison a modified framework was developed. Finally, the resulting framework was mapped against the two validated questionnaire instruments that were being used in the wider EEICC study to explore both leadership and team working within participating teams. The qualitative study answered research question one.

The cross-sectional study generated empirical data from 10 teams. It included data at four levels. Data about service structure and working practices was provided by the completion of a Service Proforma by service managers of each team. Data on leadership were gained by 205 staff from participating teams completing the Multi-factor leadership questionnaire (MLQ). Data on team working was gained by 184 staff from each team completing the Workforce Dynamics Questionnaire (WDQ). Data on patient outcomes was gained by staff in participating teams completing 2210 Client Record Packs (CRP) during the study period. These CRP's both gathered descriptive data and included a number of validated outcome measures, including Therapy Outcome Measures (TOMS) and European Quality of Life indicator (EQ-5D). These data were then analysed to answer questions 2 to 6.

7.3 Research Findings

7.3.1 Question 1.

What do staff in interdisciplinary health and social care teams believe are the key elements of effective interdisciplinary team leadership (IdTL) and how is the process enacted?

The qualitative study yielded a comprehensive understanding of IdTL from the perspective of both staff and team leaders in health and social care teams. These are listed in table 5.2 (p.167). When compared with the template framework from the literature review it was notable that many of the elements identified during the research, compared directly with elements previously identified by researchers. In keeping with the findings of the literature review, the key elements of effective IdTL can be divided into three broad categories. Person-focused leadership behaviours are those behaviours by which leaders facilitate team interaction and development. Task-focused leadership behaviours are focused on accomplishing work tasks. Negative leadership behaviours are those passive and avoidant behaviours where the leader fails to take responsibility for either team interaction and development, or task accomplishment.

Despite sharing many of the same elements as generic leadership theories, the uniqueness of IdTL stems from the unique work context it inhabits. Interdisciplinary team working is a relatively new phenomenon in health and social care and much attention of the leader is on actively promoting and developing this way of working as well as achieving tasks and goals. This is not easy as it often challenges older professional cultures and established ways of working. The IdTL therefore often finds her/himself having to balance the goal of increasing integrated working practices within the team, with respecting professional boundaries and established practice norms. This process does not just take place within the team, but as part of the leaders boundary-spanning roles. In representing the team to other stakeholders, such as more senior management, or referring organisations, the IdTL is constantly working to break down barriers to IdT

and promote its effectiveness. This is a complex task it requires a wide range of skills.

In order to bridge the cultural gap between discipline specific working practices, it is essential that many interdisciplinary team leadership responsibilities are shared. Decisions within the team should be taken participatively where possible. Professional disciplines within the team, in particular, share both formal and informal leadership responsibilities. Senior staff may be allocated formal supervisory responsibility for less senior staff and also particular responsibilities for leading particular disciplines, as well as having key worker responsibility for a caseload of patients, and contributing to the care of others for whom they have not been allocated key worker responsibilities.

As all members of the team deliver care, from experienced professionals to support workers and administrators, shared leadership must extend to all members of the team. This is particularly important given the fact that non-professional staff often have most contact with patients and deliver most rehabilitation treatment and there are times when they will have knowledge about the patient that other team members do not.

Shared/democratic leadership styles are paradoxical in nature however. Empowering team members to fully participate in decision-making requires high levels of emotional maturity and self-confidence in the leader. Leaders who lack confidence can attempt to mask it by adopting more autocratic and controlling styles (Shakleton 1995). Further, empowerment does not mean abdicating leadership responsibilities and leaving staff to their own devices (Staniforth and West,1995). Where IdTL's abdicate responsibility, or show weakness, staff can lose confidence in the leader and lack of clarity of leadership can cause anxiety and uncertainty in the team (West et al., 2003a). This can be exacerbated if other staff act to fill the void, or challenge the authority of the leader. The IdTL must therefore be clearly in charge: for team members to be confident to make decisions, they need to

feel safe. The IdTL provides that safety, by managing conflict in the team and by making the final decision where differences in opinion cannot be resolved, or where treatment strategies are perceived to be risky.

The qualitative study also yielded important information about, what type of background and technical skills the IdTL should ideally possess. Participants felt strongly that the IdTL should come from one of the professions in the team, as they had to be able to show high levels of professional expertise and be able to understand the roles and expertise of all the other professionals in the team. Participants did recognise, however that management and leadership were areas of expertise within themselves, which were required by the team leader. There was no agreement about any specific professional background being the most appropriate for the role of IdTL. Participants did feel though that it was essential that an IdTL had spent time working in an IdT setting before becoming a leader. It was also felt to be beneficial if the team leader still carried some professional workload.

Finally, participants identified some key issues around how IdT's are structured and supported by the wider organisations that host them. There was sometimes lack of clarity in teams about who was the team leader, or the boundaries between different leadership and management roles. Whether the IdTL was part time or full-time also seemed to have an effect on staff. Participants felt that the IdTL needed to be easily available in case serious issues arose. If the IdTL was only part-time and/or spent disproportionate amounts of time away from the team, it could provide problems as the support that staff needed was not available to deal with difficult issues. There was also evidence that part-time leaders could struggle to meet the multiple demands placed on them. There was no indication however, that part-time leaders were perceived as personally less skilled or effective.

7.3.2 Question 2.

What is the relationship between interdisciplinary health care team structure and working practices, and IdTL?

The evidence indicated that there were some significant associations between IdTL effectiveness and team structure and working practices. The combined ratio of team members to team leader (TSvsTL) and the ratio of patients to staff (CRPvsStaff) were found have a negative relationship with Person-focused IdTL. Within the statistical model, for every unit increase in these combined predictor variables IdTLp declined by 0.54 (54%). Of the two variables the Ratio of Patients to Staff seemed to have the largest individual effect predicting 36% of variance in IdTLp.

No significant affect on IdTL could be detected for team size alone or frequency of team meetings.

Further exploration of the data revealed that TSvsTL had a significant negative association with Clarity of Leadership within the team, predicting 35% of variance. The ratios of professional staff to team leader (PvsTL) had a negative effect on Clarity of Leadership within participating teams, accounting for 32% of variance . The p value at $p=.051$ was very close to significant. However, the ratio of Non-professionals to Team Leader had no significant effect on Clarity of leadership.

7.3.2.1 Potential reasons for these results

In both generic literature and health and social care literature on team working, team size is mentioned as important, with approximately 8 mentioned as optimum and below 4 and more than 15 becoming problematic (Shortell, 2005, Mullins, Katzenbach and Smith, 2003, Lencioni, 2002). However, the findings in this study do not altogether support these assertions. Team sizes in the study varied from 7.8 to 90.6 wte staff members, with an average of 25.6, but team size alone had little discernable impact on leadership. What did seem to effect leadership

particularly was the effect of the ratios TSvsTL and CRPvsStaff, which had a combined negative effect of 54% on Person-focused IdTL in particular. However, CRPvsStaff individually accounted for the majority of this effect (36%). When tested alone TSvsTL had no significant effect on IdTL, accounting for only 3.1%. This finding is important, as Person-focused leadership has consistently been found to have most impact at both staff and team level (Avolio, 1997, Avolio and Bass, 2004, Carless, 1998, Yukl, 1999).

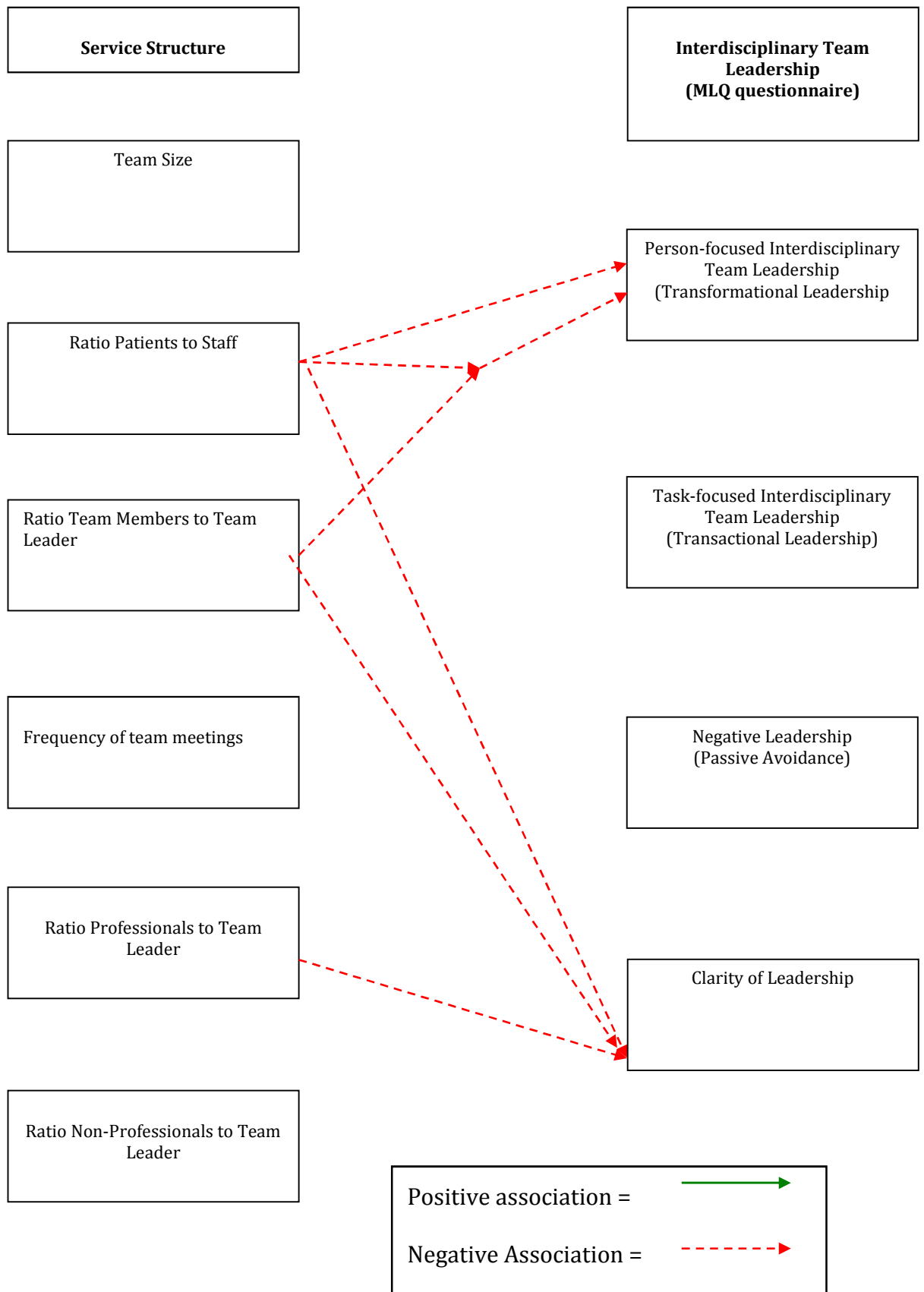
In this study IdTLpf had the strongest positive effects over constructive staff and team factors. Burke et al. (2006) in a meta-analysis of the types of leadership behaviours that are functional in teams found that Person-focused leadership factors accounted for 13% of perceived team effectiveness, 8% of team productivity and 31% of team learning. It would seem from this study that patient/staff ratios has a more significant negative affect on Person-focused IdTL than the ratio of team members to team leader. However, when these two factors are combined together their effect is greater than either in isolation. In reality the combining of effects is probably more realistic to assume; cause and effect in the social world are multiple and interlinked.

Another interesting finding in relation to the issue of team size is that the ratio of team members to team leader had a significant negative affect on Clarity of Leadership within participating teams. Within this, increasing ratios of professionals to team leader also had a significant negative effect, but increasing ratios of non-professional staff to team leader did not. It would seem reasonable to assert that as ratios of team members to team leaders increase, staff within the team will have less contact with the IdTL and consequently are subject to less direct leadership influence. There could be a number of reasons why as ratios of professionals to team leader grow the effectiveness of the team leader seems to diminish. Firstly, professionals could take up more airtime of the team leader than staff members. Another

explanation is that leading professionals could be more demanding and their more autonomous behaviour may act within the team to negate the IdTL's efforts. A third explanation however could be in the limitations of the empirical research design, which asked team members to rate the leadership of their team leader, rather than rating the collective/shared leadership efforts within the team (i.e. professional staff may be contributing significant amounts of leadership behaviour to the team overall, but this has not been picked up in the study). As both the literature review and qualitative study identified, much day to day leadership activity is shared within IdT's (2001).

The above could also account for the fact that increasing the ratio of non-professional staff did not seem to impact perceived leader influence. It may be that non-professionals within the team receive a good deal of leadership informally from the professionals within the team. The significant relationships between service structure and configuration variables and Interdisciplinary Team Leadership variables are illustrated in Figure 21.

Figure 21. Logic Model - the significant relationships observed in Question 2



7.3.3 Question 3.

What is the relationship between effective Interdisciplinary Team Leadership, and Staff and Team Level Dynamics in interdisciplinary health and social care teams?

A strong and consistent relationship was found between IdTL and staff outcomes and team level dynamics. Variance in Person-focused IdTL, Task-focused IdTL and Negative Leadership Behaviours (i.e. Passive Avoidance) significantly predicted variance in the combined leadership outcomes, Satisfaction, Effectiveness and Extra-effort. They also significantly predicted a range of team dynamics variables. These significant relationships are set out in table 7.1 below.

Table 7.1 - The significant relationships between predictor and outcome variables found for question 3, with the amount of variation explained by each model and whether the association was positive or negative

Outcome Variables	Predictor Variables		
	Person-focused IdTL	Task-focused IdTL	Passive Avoidance
Leadership Outcomes	+ 95% (p=.000**).	+ 60% (p=.005**).	- 56% (p=.003**).
Team working	+ 44% (p=.022*)	+ 37% (p=.033*)	
Clarity of Leadership	+ 35% (p=.041*)	+ 56% (p=.008**)	- 33% (p=.049*)
Management	+ 59% (p=.004**)	+ 31% (p=.045*)	- 88% (p=.000**)
Training/Career progression	+ 34% (p=.046*)	+ 34% (p=.045*)	
Sense of Direction	+ 50% (p=.009**)		- 32% (p=.040*)
Communication	+ 57% (p=.004**)	+ 32% (p=.041*)	- 65% (p=.002**)
Intention to leave employer		- 38% (p=.025*)	
Intention to leave employer		- 31% (p=.043*).	

+ = positive relationship - = negative relationship

* = significant at .05 level

** = significant at .01 level

7.3.3.1 Potential reasons for these results

The significant effect of Leadership behaviours on Leadership Outcomes such as Satisfaction, Effectiveness, and Extra-Effort is well documented. It is in many ways the pivotal relationship underpinning leadership theories in general and in particular the full range leadership theory, which underpins the MLQ questionnaire (Avolio, 1997). The results of this study clearly illustrate that these relationships are just as applicable in interdisciplinary CRAICS teams as in other work teams. However, it is interesting that in this study the amount of variance associated with leadership factors is much higher than in the meta-analysis conducted by Burke et al (2002) (see literature review p.80). One possible explanation is it that interdisciplinary health and social care teams respond more to leadership behaviours than teams in other studies. This seems unlikely however. Another possible explanation is that these outcome measures, which are part of the MLQ questionnaire, are subject to an amount of covariance (i.e. the leadership variables and the outcome variables are essentially measuring the same thing, or there is an inbuilt bias in the MLQ. However, this again seems unlikely, the MLQ is the most used and highly validated leadership questionnaire in the world.

The data exploration also revealed strong positive relationships with several other variables related to staff and team dynamics. Person-focused IdTL and Task-focused IdTL accounted for 44% and 39% of variation in Team working scores respectively. Again, this is in keeping with the fundamental principles of theories of team leadership (Larssen and LaFasto, 1989, Hackman, 1990, LaFasto and Larssen, 2002, Katzenbach and Smith, 2003, Stanniforth and West, 1995, Hayes, 2002, Stoker, 2008, Hackman, 2002).

No significant relationship was found between Integration, a variable heavily associated with effective interdisciplinary Team working (Thylefors et al., 2005) within health and social care literature. However, within the

WDQ the variable Integration, is specifically concerned with how integrated within the team staff feel, rather than to what extent they feel that they work in an integrated way in executing work tasks. Within this context this result is less surprising.

Strong relationships were found between both IdTLp, IdTLtf and PA and Clarity of Leadership within the teams, accounting for +35%, +56% and -51% of variance respectively. This observed relationship is generally congruent with leadership theory and research (West et al., 2003a) (i.e. for leadership to be effective team members must be clear about who the leader is). Similarly, the strong and consistent relationships found between IdTL variables and team member perceptions of the effectiveness of Management are predicted by theory: Shared leadership does require a team leader with formal managerial responsibility (Institute-for-innovation-and-improvement, 2010b). Further, Task-focused leadership behaviours in particular are essentially related to management activities (Avolio, 1997, Bass, 1996). Creating a Sense of Direction amongst team members is also central to leadership (Stanniforth and West, 1995) with Person-focused leadership factors supplying the overall vision, mission and encouragement; and Task-focused factors giving structure to the work and operationalising vision and wider goals into manageable tasks. It is interesting that Person-focused IdTL is more strongly, positively associated with Sense of Direction than Task-focused IdTL for which the results are not significant ($p = .069$). This may mean that establishing a clear vision is more important than the operationalisation of goals into work tasks, in ensuring IdT members have a strong Sense of Direction. Perhaps in IdT's where leadership is to a large extent shared, the operationalisation is ably conducted by team members without as much need for direct supervision.

Communication within the team was also found to be significantly associated with IdTL behaviours. Again this is to be expected. A key role of effective IdTL's is not simply to be effective communicators themselves,

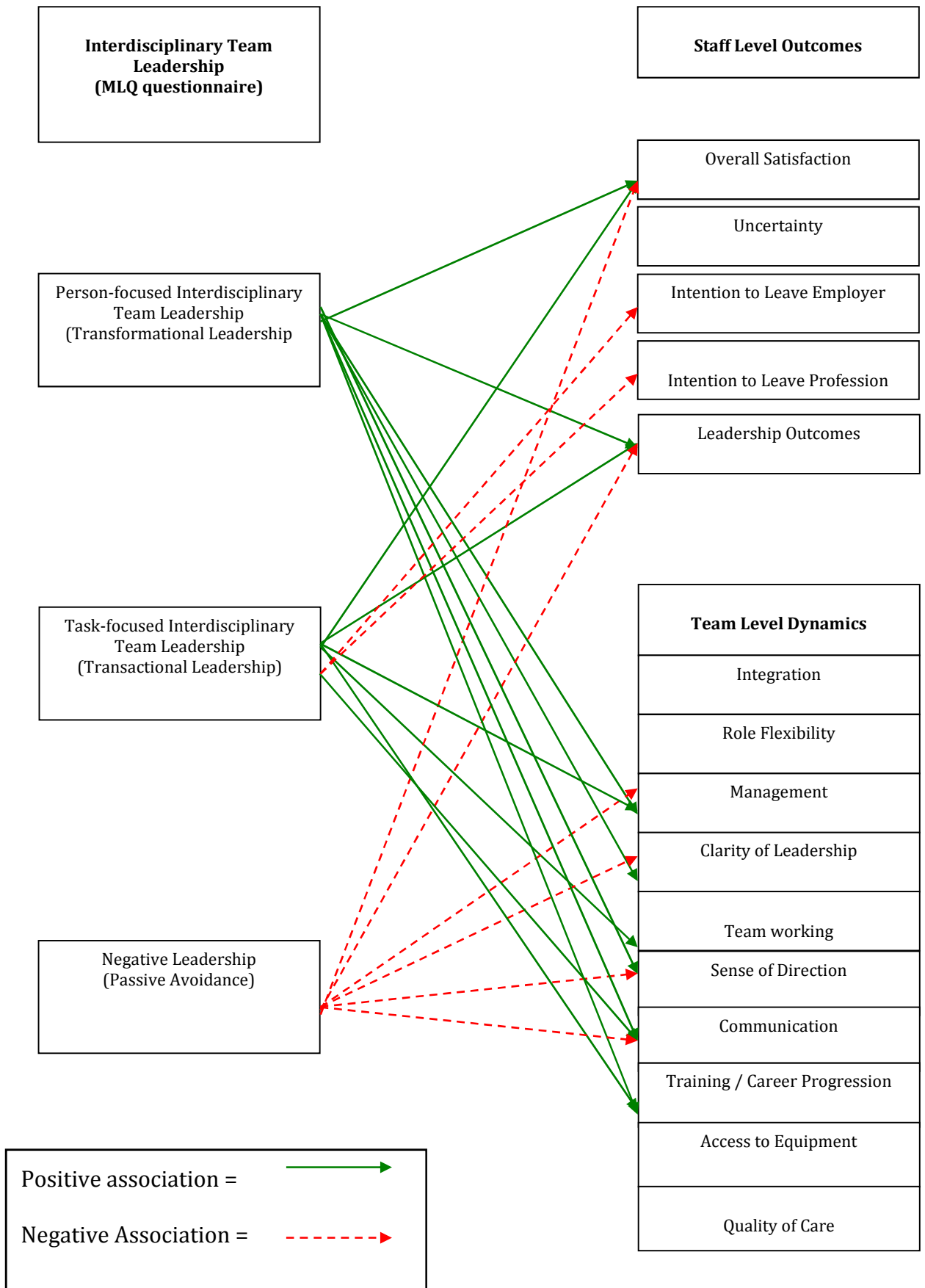
but to facilitate open and effective communication within the team (Ovretveit, 1997, Willumsen, 2006, Suter et al., 2007, Mickan and Rodger, 2000, Cook and Leathard, 1992).

An interesting finding was that of the three leadership variables only Task-focused IdTL was significantly negatively associated ($p = .025$) with Intention to Leave the Employer (ILe) in the next 12 months accounting for -38% of variance. The result for Person-focused IdTL was close to significant however ($p = .057$) accounting for -27% of variance in ILe. Perhaps a well structured work environment where staff are clear what operational tasks they should be doing is more important than having a clear vision of the team's mission, in maintaining team member's commitment to continuing to work in a team.

A similar pattern was found with Intention to Leave the Profession (ILp) in the next 12 months. Again only the relationship between Task-focused IdTL and ILp was significant ($p = .043$) negatively accounting for - 31% of ILp. Again, staff being clear what their role is and what tasks they should be doing is important in preventing ILp. Another explanation, particularly with this dimension that it is perhaps far more likely that non-professional staff such as administrators and support workers would leave their “profession” (and maybe their “employer”) than professional staff: as already discussed, non-professional staff may require more direction than professional staff.

Figure 22 illustrates the significant positive and negative relationships identified in answering this question.

Figure 22. Logic Model - the significant relationships observed in Question 3



7.3.4 Question 4.

What is the relationship between Interdisciplinary Team Leadership and Patient Outcomes in interdisciplinary health and social care teams?

This question aimed to find out if variation in IdTL directly accounted for any variance in Patient Outcomes. However, after testing of the primary hypotheses and further data exploration, no evidence of any direct relationships could be found. The null hypothesis was therefore supported:

There is no direct relationship between Interdisciplinary team leadership and Patient outcomes in interdisciplinary health and social care teams.

7.3.4.1 Potential reasons for these results

Given the results to the analysis of data for previous questions these findings are a little surprising. However, it is important to consider that fact that Interdisciplinary Team Leaders work directly with the team and its individual members. They do not work directly with patients in a leadership capacity (though they may work with some in a professional capacity). This provides a convincing rationale why there appears to be no direct causal relationship between leadership behaviours and patient outcomes. Indirectly, these findings are given support by leadership literature, the meta-analysis by Burke et al. (2006) found from included studies that leadership impacts team performance, perceived effectiveness, satisfaction and productivity (in terms of quantity). Caley and Reid (2003) did find significant associations between interdisciplinary team working and patient mortality. Other than this, no studies were found in the literature reviews that have observed a direct association between leadership and patient outcome variables.

This said given the strength of some of the relationships that have been found in this study between IdTL, staff outcomes and team dynamics, it was reasonable to hypothesise that some indirect effect on outcomes might be in

evidence. One reason for this might be limitations of the sample size of only ten teams. Another potential reason why this result could have been found is that the methods utilised were not sophisticated enough to identify any relationships.

7.3.5 Question 5.

What is the relationship between Staff and Team level Dynamics, and Patient Outcomes in interdisciplinary health and social care teams?

The aim of this question was to find out if variation in Staff Outcomes and Team Level dynamics accounted for any variance in Patient Outcomes. Testing of the primary hypotheses and further data exploration revealed no significant relationships however, and the null hypothesis is therefore supported.

There is no direct relationship between Staff Outcomes, Team Level Dynamics and Patient Outcomes.

7.3.5.1 Potential reasons for these results

Despite the lack of significant results Further data exploration found that Communication positively accounted for 5% of EQ-5D scores. Role Flexibility accounted for -18% of EQ-5D scores and -5% of TOMS summary scores. This somewhat confounds assertions in interdisciplinary teamwork literature, where role flexibility, an important component of integrated interdisciplinary team working is, central to achieving better outcomes for patients (Thylefors et al., 2005).

There was no detectable relationship between Clarity of Leadership and Patient Outcomes. Access to Technical Equipment did positively account for +14% of overall TOMS change, but less than +1% of EQ-5D scores ($p = .110$). It would make sense that access to rehabilitation equipment would assist in achieving positive therapy outcomes, but there seems to be less evidence of effect on quality of life.

Finally, team member perceptions of the Quality of the care they provide positively accounted for +27% of EQ-5D and +22% of TOMS change scores . The p values for these tests were both close to significant (EQ-5D p= .068, TOMSs p = .083). This indicates that staff may be able to assess the quality of the service they are providing with some degree of accuracy.

Overall, despite a lack of significant results, these findings are encouraging as they do indicate that staff and team dynamics are associated with variance in patient outcomes.

7.3.6 Question 6.

What is the relationship between Staff level Interdisciplinary Team Leadership outcomes and Team Level Dynamics?

In this final question, I explored whether there was any relationship between staff level factors, which in particular transformational (Burns, 1978, Bass, 1985) and full-range leadership (Avolio, 1997, Avolio and Bass, 2004) theories purport are the major outcomes of effective leadership, predict variation in team level dynamics.

Overall it was found that there was a strong relationship between Staff Outcomes level and Team Level Dynamics. These significant relationships are set out in table 7.2 below.

7.3.6.1 Potential reasons for these results

In the primary hypotheses combined Leadership Outcomes positively accounted for + 54% of variance in the variable Team working. When the WDQ variable Overall Satisfaction was tested, as a further validation measure, it positively accounted for more than +65% of variation in Team working. Leadership Outcomes were also significantly associated with Communication (+64%), Training/Career Progression (+33%), and Sense of Direction (+64%).

When negative Staff Outcome variables: Intention to Leave Employer in the next 12 months, Intention to Leave Profession in the next 12 months and Uncertainty were tested in a combined ANCOVA model they negatively accounted for -53% of Team working. When tested individually the results for ILe and ILp were even stronger both individually negatively accounting for -60% and -62% of variance in Team working. Against expectations uncertainty positively accounted for +5% of variation in Team working. This result was not significant however.

Overall, these results clearly suggest that Staff Outcomes are strongly related to Team Level Dynamics in interdisciplinary health and social care teams. Again these results generally support the assertions of generic leadership theories (Bass and Avolio, 1994, Avolio and Bass, 2004). Staff Outcomes such as satisfaction, extra-effort, effectiveness and lower levels of intention to leave (i.e. commitment to continue working in the team) are related to better Team Level Dynamics.

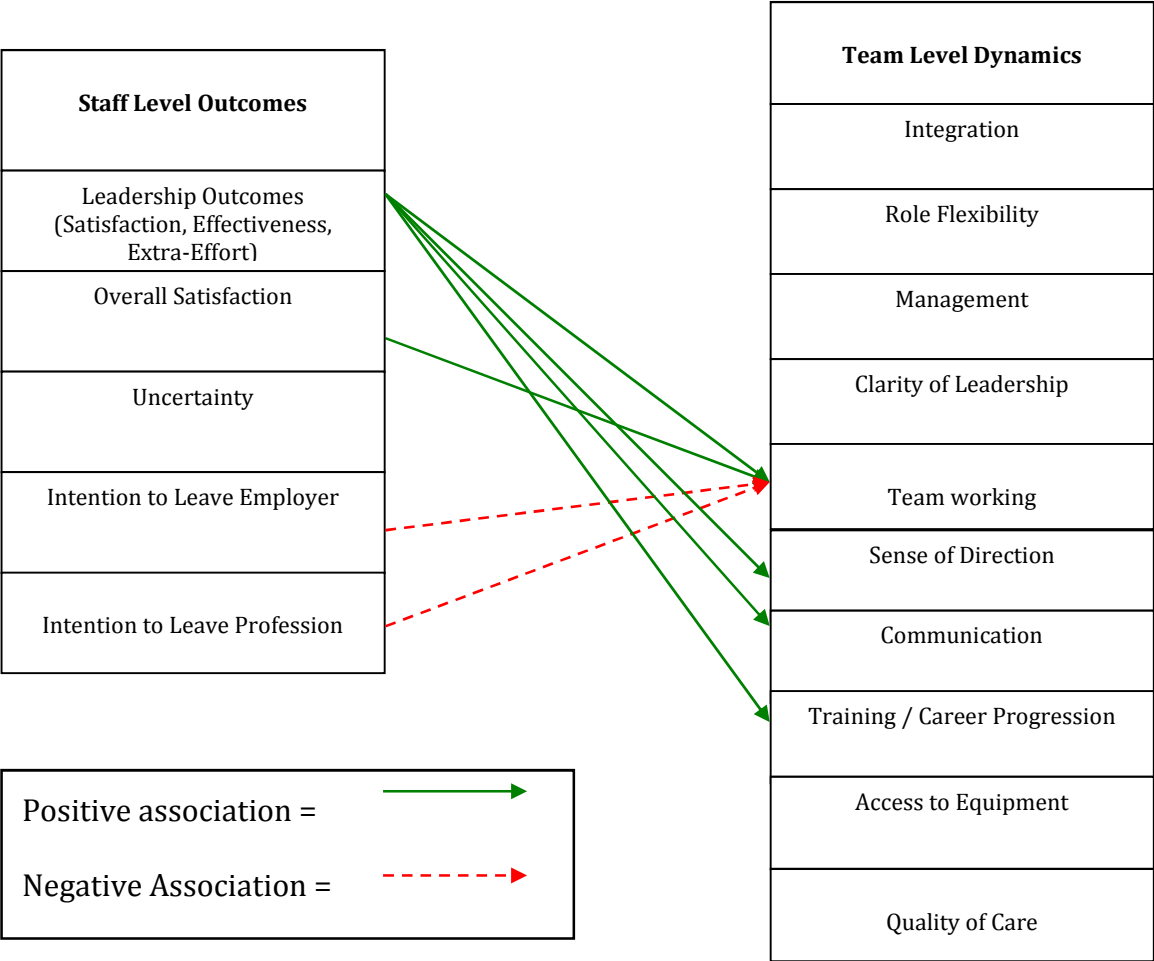
Figure 23 illustrates the significant relationships observed when answering question 6.

Table 7.2 showing the significant relationships between predictor and outcome variables found for question 6, with the amount of variation explained by each model and whether the association was positive or negative/

Outcome Variables	Predictor Variables					
	Leadership Outcomes	Overall Satisfaction (WDQ)	Intention to leave employer, Intention to leave profession, Uncertainty	Intention to leave employer	Intention to leave profession	Uncertainty
Team working	+ 54% (p= .009**)	+ 65% (p=.003**)	- 54% (p= .057)	- 60% (p= .005**)	- 62% (p= .004**)	5%
Role Flexibility	+ 13%		- 10%			
Communication	+ 64% (p=.003**)					
Training/Career progression	+ 33% (p=.048*)					
Sense of Direction	+ 64% (p=.003**)					

+ = positive relationship - = negative relationship * = significant at .05 level ** = significant at .01 level

Figure 23. Logic Model - the significant relationships observed in Question 6



7.4 Research Limitations

Like all research projects there were a number of limitations to this project.

7.4.1 Is there such a thing as Intermediate Care?

At the beginning of this study and the wider EEICC study it was proposed to study interdisciplinary team leadership in teams working in intermediate care settings. There was an assumption within this that the intermediate care teams recruited would have many uniform characteristics; if the teams were similar in set up and structure, then differences in leadership and team work practices would be clearly observable. In practice though there were large variations between the structure, setting and approach of all the teams. Such was the diversity that at times in the wider study, the research team discussed whether there was such thing as intermediate care. The goals of the teams were similar, and they were all facing broadly similar issues, despite the fact that the way that intermediate care is set up and operationalised differed markedly from area to area and team to team.

7.4.2 Literature Review

A significant issue that arose from the literature was the paucity of information on Interdisciplinary Team Leadership. Because of these limitations, it was necessary to forensically search out relevant information about IdTL from literature on interdisciplinary team working, and to rely heavily on generic literature on team leadership. These literatures were both more substantial. However, there are still relatively few high quality empirical studies in any of these areas. Further, even fewer of the papers identified specifically related to intermediate care settings. The literature retrieved about working in interdisciplinary teams came from across all care settings. These issues combined to ensure that results of the literature review were more generally focused on interdisciplinary team leadership

than specifically focused on team leadership working in community rehabilitation and intermediate care settings.

Usually, literature reviews benefit from the input of a number of researchers, which improves objectivity and limits potential for bias. In this study, the author alone did the search and review of the literature on interdisciplinary team leadership. Whilst this is a necessary for the PhD process, it could mean that the review is less impartial. In order to minimise possibility of bias however, I have rigorously documented the steps of the literature search and review processes.

Given the paucity of evidence available the literature review includes both qualitative and quantitative studies. Whilst data was quality checked for methodological rigour and some papers were excluded, overall the nature of the research was not used as inclusion or exclusion criteria, as there was so little relevant literature available.

7.4.3 Qualitative study limitations

In order to minimise the potential effects of internal group dynamics on the study, the decision was taken to undertake semi-structured interviews with individual team members. Because of time and resource constraints, and the requirements of the wider study, it was not possible to interview team members from all participating teams. The interview respondents came from 3 of the participating teams, and each was interviewed twice, pre and post the IMT intervention of the wider study. However, for the purposes of this PhD only interviews from the before the IMT intervention were used. The reason for this was that the IMT process, which involved exploring issues within the team reflectively, might have influenced participant's views on IdTL.

Further to the above, the selection of interview participants was not randomised. Recruitment for interview was based on staff members from selected teams volunteering to participate in interviews and their availability

on the dates when I visited the teams to conduct the interviews. Within this efforts were made to ensure that the range of disciplines and team roles within intermediate care teams participating in the study were represented in the sample.

Conducting qualitative research interviews is a highly skilled activity. Further, every interaction between people creates a unique set of dynamics. Whilst the researcher has received training in qualitative interviewing and has previous professional experience, the fact that all interviews and analysis of the transcripts was done by the researcher alone, means that judgements are those of this researcher alone rather than members of a research team.

Finally, a wider issue affecting social research generally also needs to be mentioned. Theory, particularly in the field of organisations and management, is often popularised. Books based on research, or just as often anecdote, are published in their thousands, for a general audience. In this way, a host of management and organisational theories and their related terminology and logic are aggressively marketed. In this way many theories, which might be unique at inception become a part of the wider public consciousness. This phenomenon, which Giddens (1987) refers to as the double hermeneutic presents, a difficult challenge for organisational researchers generally as it is almost impossible to assess whether the knowledge/understanding of a respondent regarding a particular issue, such as leadership, is based directly on personal experience, or whether the knowledge is simply based on information received from other sources. In this particular piece of research it was clear that many respondents are already acquainted with leadership as a theoretical concept, and it is unclear as to whether or how much this received knowledge influenced the discourse of research participants, within the interviews.

7.4.4 Quantitative study limitations

For issues of parsimony, only a relatively small number of teams could be recruited within the larger study. The sample size within this study was therefore limited to ten (n=10) teams. Whilst these teams were made of over 274 staff members who both individually submitted data (83%) and who captured data records of the 2210 patients included in the study, the unit of analysis was the team, and the sample size was limited to 10.

At the beginning of both the wider study and PhD, questionnaires were selected to measure service structure and working practices, leadership and workforce dynamics within participating teams. Choices needed to be made at an early stage so preparations for ethics submissions could be made, in order to gain approval for the both the wider study and the PhD to take place within the funding window. The Multi-factor leadership questionnaire (MLQ) (Avolio and Bass, 2004) was chosen because it is the most highly validated and used leadership questionnaire available. However, it must be noted that the MLQ is neither a team leadership questionnaire nor related to any health and social care leadership framework. Whilst all of its variables are relevant to team working, many important dimensions of interdisciplinary team leadership identified are not represented in the questionnaire.

As with the MLQ, the Workforce Dynamics Questionnaire (WDQ) (Nancarrow et al., 2008) was selected at the start of the study as the method of collecting data on team dynamics for the wider EEICC study. The reasons were that it is well validated and had been used in previous intermediate care studies by the wider research team, which gave the possibility of comparison and meta-analysis at a later stage. However, though many of its variables can be theorised as directly relevant to interdisciplinary team working as it was developed in intermediate care team settings, the WDQ is not a team working questionnaire per se. As with

the MLQ, many relevant variables identified in the literature reviews as relevant to interdisciplinary team working are missing.

In an attempt to compensate for these omissions, attempts were made to make both the WDQ and MLQ more specifically relevant, by partially recoding to create more focused interdisciplinary team working variables. In the end however, attempts to recode the MLQ were abandoned, as they appeared to exaggerate the significance and associated effect of results. Some additional variables created within the WDQ questionnaire were included because of their importance: namely communication, empowerment, and sense of direction. Whilst those included have good face validity, however, and respond in ways predicted by hypotheses developed from the literature review they have not been subject to deeper factor exploration.

What has become apparent in the study is that much leadership activity within interdisciplinary teams is shared and occurs through participative processes. However, the research process only collected data on the team leader within each team. There were two reasons for this. The first was that there is not a satisfactory empirical research method that can test informal leadership behaviours within a team. The second is that it was also apparent that shared leadership requires effective team leader to facilitate it. However, the issue still stands, that the methods used did not capture informal leadership within the teams.

In relation to the above, although team members were given a clear description of the role of team leader in the instructions for completing the MLQ, some were unclear about who their team leader was. In a small number of cases this led to staff in teams completing forms about different people within the team. However, such instances were minimal.

A final issue is that leadership variables and some leadership outcome variables were summarised in the study. For example, leadership was

summarised into three variables from a possible 9. However it must be noted that a three factor based analysis protocol for the MLQ has been validated (Avolio and Bass, 2004). Within this study, the main reason for using summary variables was to make the analysis more manageable. A wide range of variables were available for analysis from the questionnaires. It was therefore both impractical and unwise to have explored all possible combinations supported by leadership theory. Impractical in that there were more than 3600 possible variable combinations possible within the data set. Unwise in that this would have resulted in data dredging – by chance at 95% confidence over 175 relationships were likely to have been inappropriately identified as significant when they were not, or vice versa. Instead specific hypotheses were proposed based on the findings of the literature review for each question, with some limited data exploration to explore the dimensions of relationships a little more fully.

Client record packs, which captured patient outcome data consisted of statistical tools such as TOMS (Enderby et al., 2006), and EQ-5D (EuroQol-Group, 1990) that have been shown through previous research to be both reliable and valid. The tools in the CRP were completed both on admission and discharge. Whilst some training was available in using the TOMS, there are no guarantees as to the accuracy of their responses. Patients completed the EQ-5D questionnaire where possible. This provided somewhat of a balance against staff completing other elements of the questionnaire. However, again there is no guarantee as to the accuracy of their responses.

Finally, in this study, patient groups who may have particular unique characteristics were treated by teams who were unique in their workforce, structure and culture. The teams themselves existed within organisational settings that are also unique in their nature, structure, culture and operationalisation of goal achievement. In general the analysis, did not take into account this hierarchical structure. It may be that more sophisticated

and highly specialised statistical analysis such as multi-level modelling could have yielded more detailed insight into the data.

7.5 Implications for further research

Although this study has successfully contributed to developing a better understanding in leadership in interdisciplinary health and social care teams working with older people in intermediate and community based settings, it has also highlighted the need for further research.

The study has shown generally that structural factors are important in supporting effective IdTL. However, further work is needed to gather more detailed evidence about which systems and structures can best support IdTL to maximise team performance and ensure optimum patient outcomes.

This study provided empirical evidence of the effects of IdTL on both individual staff satisfaction, and team dynamics, however, the validated tools used to gather data, were not tailored to IdTL specifically and therefore did not gather data on all elements that the qualitative study had indicated were important to both IdTL or IdT. From what has been learned about the nature of IdTL in this study and IdT in the wider EEICC study, it would be possible to develop a more sophisticated research design, utilising other more appropriate tools in combination that would further enhance the existing evidence base. Given the importance of interdisciplinary team working generally in health and social care, it may also be desirable to develop a bespoke Interdisciplinary Team Leadership instrument to measure IdTL more precisely.

Further to above, the fact that IdTL is a form of shared leadership provides a methodological challenge for the effective measurement of IdTL in teams. Research is therefore needed to develop an effective methodology for researching shared leadership and its effects within interdisciplinary teams.

Whilst this study did find evidence of leader effects on both individual staff and team dynamics, investigations of the effect of leadership on patient outcomes proved not to be significant. Further to the above, and perhaps

more significantly, the evidence generated on the effect of staff and team dynamics on patient outcomes, whilst more substantial than the above, were also inconclusive. It must be noted that the results gained in the cross-sectional research were achieved with data from only 10 teams. Further research is therefore required to explore these issues further, utilising both larger data sets and more sophisticated statistical methods, such as multi-level modelling.

Finally, a cornerstone of interdisciplinary team working is the notion that increasing levels of role integration and blurring of disciplinary boundaries leads to both higher satisfaction for staff (i.e. from role enrichment/multi-skilling) and better patient outcomes. The findings of this study on this issue were ambiguous. However, in saying this it must be noted that no satisfactory measures of integration were included in this study. There is therefore a need for research to both develop valid and reliable metrics to measure team integration, and to measure its effects on patient outcomes.

7.6 Implications for Policy

The Wanless report (Wanless, 2002) concluded that there needed to be a substantial increase in the healthcare workforce, in particular nurses, allied health professionals and support workers as well as an expansion of their roles. These conclusions were operationalised in policy documents such as the NHS improvement plan 2004 (Department-of-Health, 2004b). The driver of these changes was to deal with the needs of a rapidly ageing population. The aim was to transfer acute medical and GP workload to nurses and allied health professionals, and pass much day to day responsibility for delivering care to support workers (Department-of-Health, 2002a). The location of these new workers would be in the community, in roles designed to provide more streamlined care for the elderly (Department-of-Health, 2006b). How much these workforce and service transitions have been achieved to date and how current policy changes will affect them, are questionable.

A 2007 NHS Confederation report acknowledged that: leaders have a short term, “upwards” focus on targets and DoH policy rather than within their trusts; and, the disempowerment of leaders at lower levels of the organisation “*who are often sandwiched between senior clinicians and senior managers*” (NHS Confederation, 2007, p3). As a result, there has been an increasing focus on clinical leadership and strengthening the working relationships between NHS management and clinicians, over the last few years. A key driver of reform since 2009 has been the increased financial pressures on the NHS. This has led to calls for leadership of innovation that is bottom up, rather than utilising the national machinery of policy and targets (NHS Confederation, 2009). According to a more recent King’s Fund study though (2011) NHS Leadership thinking still appears to be predicated on a heroic model and focused on upping the strategic game of senior leaders. The report calls for an extension of leadership development at all levels and replacement of the heroic leadership model with an increased focus on shared leadership.

The findings of this study resonate with those of these findings. Leadership needs to be understood as something that all staff are engaged in and not simply a set of competencies for senior managers, and more emphasis needs to be placed upon developing leaders who can facilitate shared leadership within interdisciplinary settings.

At a more specific level, developing intermediate care services that are delivered by high performing interdisciplinary teams is pivotal to the NHS meeting the future demands of an aging population. If interdisciplinary community rehabilitation and intermediate care services are to continue to expand, attention needs to be paid to the fact that interdisciplinary team leadership requires highly able team leaders who are able to deliver effective leadership in the unique context of interdisciplinary teams. The NHS therefore needs to promote the development of effective interdisciplinary team leaders, who are able to facilitate shared leadership effectively, whilst still maintaining clarity of leadership.

Whilst the importance of leadership is without question, more realisation has to be given that in the most effective organisations, and particularly in interdisciplinary teams, many leadership tasks, at least informally, are shared. This issue is paradoxical in nature, as only when there is absolute clarity of leadership can the circumstances occur for real empowerment and the sharing of leadership. Further, only the most emotionally mature, self-assured and un-self-centred people have the emotional robustness to entrust power to those below them. Again, attempts to strategically strengthen leadership in the UK health and social care system must give focus to these issues.

7.7 Implications for Services

The findings of this study have a number of implications for interdisciplinary team-based intermediate care services.

If organisations are to reap the full benefits of interdisciplinary team working they must fully take into account structural issues in order to ensure that teams are effective. Of fundamental importance is that understanding that there are big differences between functional interdisciplinary teams, and cross-functional or interagency interdisciplinary teams.

Steps must be taken to ensure there is a clear leadership structure within interdisciplinary teams. The team leader must sit within the team. Managers of services should sit outside the team. Their role must be distinct and complementary to the team leader, to ensure absolute clarity within the team about who the team leader is.

The team leader must have ultimate authority within the team, but must be committed to empowering the team and sharing leadership and decision making within the team.

There should also be a clear team structure within intermediate care services, and each team should have a designated team leader. These team leader posts should ideally be full-time to maximise availability and accessibility of the leader to the team. Whilst the team leader will represent the team externally, they should spend the majority of time working within the team.

Ensuring that there is a reasonable ratio of team leaders to team size and that leader workloads are manageable is also important. In larger services, where there may be more than one person in a leadership role, care must be taken to ensure who is responsible for what is clearly defined and that there can be no confusion about it from team members. It is probably better to

divide larger services into smaller sub-teams, so the benefits of both having a larger service and of integrated team working can be maximised.

Alongside this, more emphasis should be placed on structural leadership issues. That is, structuring intermediate care services in a way that leadership can prosper. Specifically, in order to ensure realistic ratios of team leaders to team members, there probably needs to be a leadership hierarchy in larger services with the service split into smaller interdisciplinary team units within the larger service, to ensure that leadership within the team is available and accessible at all times.

There also needs to be acknowledgement that interdisciplinary team working and interdisciplinary team leadership are specialised areas of practice. Effective IdTL requires a real understanding of both how interdisciplinary teams work as well as how interdisciplinary team leadership directs, supports and facilitates team processes. Much of the understanding of how effective interdisciplinary teams work and how to lead them can only be gained by working in such teams. Taking the above into consideration it is desirable that the interdisciplinary team leader has previously worked for some time in an interdisciplinary team setting to gain appropriate experience prior to taking on the role, otherwise it will be unlikely that they will understand the demands of the leadership role in interdisciplinary team settings.

It is also important that the team leader be from one of the professions within the team. Whilst it is acknowledged that leadership and management are specialist skills within themselves, having a good understanding the work that the different disciplines undertake within the team is very important.

Finally, to fully reap the benefits of an interdisciplinary team approach there needs to be workforce continuity within teams. Often in health service organisations, individual professional development seems to take primacy

over the need to have stable team membership. Whilst, developing the skills of health and social care professionals is obviously vital and beneficial to patients, teams in the study often had up to a third of staff members rotating at 6 monthly intervals. This unquestionably affects interdisciplinary team working, and there is a big question over whether the current culture of rotation best serves patients overall.

7.8 Overall Conclusions

The findings of this study indicate that Interdisciplinary Team Leadership incorporates many of the same factors as generic leadership and team leadership. However, the fact that interdisciplinary teams contain a number of different disciplines and operate in particular unique contexts means that the way the leadership process is enacted differs. In this study the context was intermediate and community care based services dealing with older patients/clients. In these particular teams leadership was informally shared through democratic processes, facilitated by a formal team leader. In order for this process to work effectively however, the team leader facilitates this sharing, empowering the team members to participate in sharing leadership. However, there must be absolute clarity about who is the team leader within the team for it to work at maximum effectiveness, and when necessary the team leader is prepared to take ultimate responsibility and make difficult decisions. They also work to build team spirit and resolve conflicts that threaten it.

Service structure and work patterns were found to affect leadership within Interdisciplinary teams. As the ratio of patients to staff increased, and the ratio of team members to team leader increased, IdTL effectiveness tended to decrease. Similarly as the ratio of team members to team leader, increased clarity of leadership within the teams tended to decrease. This relationship was more pronounced as the ratio of professional staff to the team leader increased.

Effective IdTL has a significant positive association with both staff level and team level dynamics. Person-focused leadership behaviours have a much stronger association generally than Task-focused leadership behaviours though both are important. Staff subject to higher levels of Person-focused IdTL report higher levels of Satisfaction, Effectiveness, Extra-effort, Team working, Clarity of Leadership, Management, Training/career progression, Sense of direction, and Communication. Staff

subject to higher levels of Task-focused leadership report higher levels of: Satisfaction, Effectiveness, Extra-effort, Team working, Management, Training/career progression, and Communication. Staff subject to lower levels of Task-focused leadership report higher: Intention to leave the employer in the next 12 months, and Intention to leave the profession in the next 12 months. Conversely, Passive Avoidant behavioural styles have a highly significant negative affects on both staff and team level dynamics. Staff subjected to higher levels of Passive Avoidant behaviours from their team leader report lower: Satisfaction, Effectiveness, Extra-effort, Clarity of leadership, Management, Sense of direction, Communication and Training/career progression.

Further to the above these Staff level outcomes have a significant positive association with: Team working, Communication, and Sense of direction.

No direct association was observed in this study between IdTL factors and Patient Outcomes. Further, no significant association was observed between Staff and Team Level Dynamics and Patient Outcomes. However, in turn, some staff and team level variables did seem to positively for account for variance in Patient Outcomes. These include: Satisfaction, Effectiveness, Extra-Effort, Access to Equipment and Quality of Care. Contrary to expectations, Role flexibility seemed to have a negative affect on patient outcomes.

These research findings have both policy and practice implications. The research has highlighted that although there is support for interdisciplinary team working and more effective leadership and the potential benefits they can bring, organisational structures and practices do not always support effective interdisciplinary team leadership or team working. Further, leadership development policy and practice does not promote the importance of effective interdisciplinary team leadership, or support its development. Policy makers and those who manage services must therefore

ensure that they move the focus away from heroic leadership models and ensure there is training and support to develop more effective interdisciplinary team leadership within health and social care organisations. They must also ensure that services are structured in ways that both support the effectiveness of interdisciplinary team leadership and maximise the potential for interdisciplinary teams to work most productively.

Bibliography

- ABREU, B. C. 1997. Interdisciplinary leadership: the future is now. *OT Practice*, 2, 20-23.
- ADAIR, J. 2005. *The Action-Centred Leader*, Mumbai, Jaico Publishing.
- ALIMO-METCALFE, B. 2002. Leadership and Gender; A masculine past; a feminine future *Thematic paper*. London: CERFE Project.
- ALIMO-METCALFE, B. & ALBAN-METCALFE, J. 2003. Leadership. Stamp of greatness. *Health Service Journal*, 113, 28-32.
- ALIMO-METCALFE, B. & ALBAN-METCALFE, R. J. 2001. The development of a new Transformational Leadership Questionnaire. *JOURNAL OF OCCUPATIONAL AND ORGANIZATIONAL PSYCHOLOGY*, 74, 1-27.
- ALONSO, A., BAKER, D. P., DAY, R., HOLTZMAN, A., KING, H., TOOMEY, L. & SALAS, E. 2006. Reducing Medical Error in the Military Health System: How can team training help? *Human Resources Management Review*, 16, 396-415.
- ANDERSON, N. & WEST, M. A. 1994. *Team Climate Inventory - Revised (TCI-R)*, ASE.
- ARCANGELO, V., FITZGERALD, M., CARROLL, D., PRUMB, J. D. 1996. Collaborative care between nurse practitioners and primary care physicians. *Primary Care*, 23, 13-113.
- ARGYRIS, C. & SCHON, D. 1978. *Organizational learning*, Reading, MA, Addison Wesley.
- ATWAL, A. & CALDWELL, K. 2002. Do multidisciplinary integrated care pathways improve interprofessional collaboration? *Scandinavian Journal of Caring Sciences*; 16 (4) Dec 2002, pp.360-367.
- AVOLIO, B. 1997. The Great Leadership Migration to a Full Range Leadership Development System. *KLSP: Transformational Leadership, Working Papers*. Academy of Leadership Press.
- AVOLIO, B. & BASS, B. 1997. *The Full Range Leadership Development Manual for the Multifactor Leadership Questionnaire* Redwood City, CA, Mindgarden Inc
- AVOLIO, B. & BASS, B. 2004. *Multifactor Leadership Questionnaire: Manual and Sampler set 3rd edition*, Redwood City, CA, Mind Garden Inc
- BARR, H. 2000. New NHS, new collaboration, new agenda for education. *Journal of Interprofessional Care*, 2, 81-86.
- BARR, H., FREETH, D., HAMMICK, M., KOPPEL, I. & REEVES, S. 2000. Evaluations of interprofessional education: a United Kingdom review for health and social care. London: The UK Centre for the advancement of interprofessional education (CAIPE) and British educational research Association (BERA).

- BARTON, P., STIRLING, B., GLASBY, J., HEWITT, G., JAGGER, C. & KAAMBWA, B. 2005. A National Evaluation of the Costs and Outcomes of Intermediate Care for Older People. Birmingham & Leicester: The University of Birmingham and The University of Leicester.
- BASS, B. M. 1985. *Leadership and Performance Beyond Expectation*, New York:, Free Press.
- BASS, B. M. 1996. *A new paradigm of leadership: an inquiry into transformational leadership*, Alexandria, VA: U.S., Army Research Institute for the Behavioral and Social Sciences.
- BASS, B. M. & AVOLIO, B. J. 1994. *Improving Organisational Effectiveness through Transformational Leadership*, London, Sage.
- BASS, B. M. & STOGDILL, R. M. 1990. *Handbook of Leadership: A Survey of Theory and Research*, New York and London, The Free Press.
- BAXTER, S. K. & BRUMFITT, S. M. 2008. Benefits and losses: a qualitative study exploring healthcare staff perceptions of teamworking. *Quality and Safety in Health Care*, 17, 127-130.
- BENNIS, W. & BIEDERMAN, P. W. 1997. *Organising Genius: The secrets of creative collaboration.*, Reading MA, Addison-Wesley Publishing.
- BENNIS, W. & NANUS, B. 1985. *Leaders: The strategies for taking charge*, New York:, Harper & Row.
- BENTZ, V. J. 1985. A view from the top: A thirty year perspective of research devoted to discovery description, and prediction of executive behavior. *93rd Annual Convention of the American Psychological Association*. Los Angeles.
- BLACK, E. & JOHN, W. G. 1996. Leadership of the multi-disciplinary team in psychiatry -- a nursing perspective. *Nursing Practice*, 1986; 1, 177-182.
- BLOCK, P. 1996. *Stewardship: Choosing Service Over Self-interest*, Berrett-Kohler, San Francisco, USA.
- BORGSTEEDE, S. D., DELIENS, L., VAN DER, W. G., FRANCKE, A. L., STALMAN, W. A. & VAN EIJK, J. T. 2007. Interdisciplinary cooperation of GPs in palliative care at home: a nationwide survey in The Netherlands. *Scandinavian Journal of Primary Health Care*, 25, 226-231.
- BORRILL, C. A. & WEST, M. A. 2004. Effective human resource management and patient mortality: a toolkit for use by HR professionals in the NHS. Birmingham (Aston Business School): Department of Health, NHS Leadership Centre.
- BORRILL, C. A., WEST, M. A., CARLETTA, J., CARTER, A. J., DAWSON, J. F., GARROD, S., REES, A., RICHARDS, A. & SHAPIRO, D. 2000. The effectiveness of health care teams in the national health service. *SDO Programme*. DOH SDO Programme.
- BORRILL, C. A., WEST, M., DAWSON, J., SHAPIRO, D., REES, A., RICHARDS, A., GARROD, S. CARLETTA, J., CARTER, A. 2000. Teamworking and Effectiveness in Healthcare. *SDO Programme*.

- Birmingham: University of Aston, Centre of Health Service Organisation Research.
- BOYATZIS, R. E. 1982. *The Competent Manager: a Model for Effective Performance*, New York, Riley.
- BRANOWICKI, P. A., SHERMONT, H., ROGERS, J. & MELCHIONO, M. 2001. Improving systems related to clinical practice: an interdisciplinary team approach. *Seminars for Nurse Managers*, 9, 110-114.
- BURKE, C. S., STAGL, K. C., KLEIN, C., GOODWIN, G. F., SALAS, E. & HALPIN, S. M. 2006. What type of leadership behaviors are functional in teams? A meta-analysis *Leadership Quarterly*, 17, 288-307.
- BURNES, B. 1996. *Managing Change: A strategic approach to organisational dynamics; 2 edition*, London, Financial Times/Prentice Hall.
- BURNS, J. M. 1978. *Leadership*, New York:, Harper & Row.
- CALEY, L. & REID, S. 2003. Key influencing factors of work-related learning, NHS Leadership Centre [University of Cambridge Programme for Industry]: NHS Leadership Centre.
- CAMPBELL, M. J., MACHIN, D. & WALTERS, S. J. 2007. *Medical Statistics: A Textbook for the Health Sciences*, Chicester, John Wiley.
- CANE, S. 1996. *Kaizen Strategies for winning through people*, London, Financial Times/Prentice Hall.
- CARLESS, S. A. 1998. Assessing the discriminant validity of transformational leader behaviour as measured by the MLQ. *Journal of Occupational and Organizational Psychology*, 71.
- CASHMAN, S. B., REIDY, P., CODY, K. & LEMAY, C. A. 2004. Developing and measuring progress toward collaborative, integrated, interdisciplinary health care teams, . *Journal of Interprofessional Care*, 18, 183-196.
- CHEUNG, K., OEMAR, M., OPPE, M. & RABIN, R. 2009. EQ-5D User Guide: Basic Information on how to use EQ-5D. EuroQol Group.
- CHSRF 2006. *Teamwork in Healthcare: Promoting Effective Teamwork in Healthcare in Canada*. Ottawa, Canada: Canadian Health Services Research Foundation.
- CMS 2001. *Learning from Bristol: the Report of the Public Inquiry into Bristol Royal Infirmary Inquiry* Bristol: CMS207.
- COHEN, S. G. & BAILEY, D. E. 1997. What makes teams work: group effectiveness work from the shopfloor. *Journal of management*, 23, 239-290.
- CONGER, J. 1989. Leadership: The art of empowering others. Academy of Management Executive. *Academy of Management Executive*, 3.
- CONGER, J. A. & KANUNGO, R. N. 1987. Toward a behavioral theory of charismatic leadership in organizational settings. *Academy of Management Review*,:, 12, 637-647.

- COOK, G., GERRISH K & C., C. 2001. Decision-making in teams: issues arising from two UK evaluations. *Journal of interprofessional care*, 15, 141-151.
- COOK, M. J. & LEATHARD, H. L. 1992. Learning for clinical leadership. *Journal of Nursing Management*, 2004 Nov; 12, 436-444.
- CUMMINGS, T. G. & WORLEY, C. G. 2001. *Organisation Development and Change: seventh edition*, Cincinnati, South Western College Publishing.
- CURRIE, G. 1994. Teambuilding training in a clinical environment. *Journal of Managerial Psychology*, 9, 8-12.
- CURRIE, V. L. & HARVEY, G. 2000. The use of care pathways as tools to support the implementation of evidence based practice. *Journal of Interprofessional Care*, 14, 311-324.
- DAY, D. W. 1981. Perspectives on Care: The interdisciplinary team approach. *Otolaryngologic clinics of north america*, 14, 769 - 775.
- DEPARTMENT-OF-HEALTH 1997. Better services for vulnerable people. *In: DOH (ed.)*. UK: Department of Health.
- DEPARTMENT-OF-HEALTH 1998. Better services for vulnerable people: Maintaining the momentum. UK: Department of Health.
- DEPARTMENT-OF-HEALTH 2000a. A Health Service of All the Talents: Developing the NHS workforce. Consultation document on the Review of Workforce Planning London: RCGP Royal College of General Practitioners.
- DEPARTMENT-OF-HEALTH 2000b. HSC 2000/011: LAC 2000/10 Implementation of the Health Act Partnership Arrangements. London: Department of Health.
- DEPARTMENT-OF-HEALTH 2000c. Meeting the Challenge: A Strategy for the Allied Health Professions. London,. London: Department of Health.
- DEPARTMENT-OF-HEALTH 2000d. The NHS Plan: A plan for investment, a plan for reform. London HMSO.
- DEPARTMENT-OF-HEALTH 2001a. Building Capacity and Partnership in Care. London: Department of Health.
- DEPARTMENT-OF-HEALTH 2001b. Investment and reform for NHS staff - Taking forward the NHS Plan London: HMSO.
- DEPARTMENT-OF-HEALTH 2002a. HR in the NHS Plan: More Staff Working Differently. London: HMSO.
- DEPARTMENT-OF-HEALTH 2002b. Shifting the balance of power: the next steps. London: HMSO.
- DEPARTMENT-OF-HEALTH 2004a. NHS Improvement Plan: Putting people at the heart of public services London: HMSO.
- DEPARTMENT-OF-HEALTH 2004b. NHS Improvement Plan: Putting People at the Heart of Public Services. London: HMSO.

- DEPARTMENT-OF-HEALTH 2004c. NHS reference costs 2003 and National tariff 2004 (Payment by results core tools 2004). London: HMSO.
- DEPARTMENT-OF-HEALTH 2005a. The National Service Framework for Long Term Conditions. London: Department of Health.
- DEPARTMENT-OF-HEALTH 2005b. NHS leaders : a career development and succession planning scheme. London: HMSO.
- DEPARTMENT-OF-HEALTH 2006a. Choice matters: increasing choice improves patients' experience. London: HMSO.
- DEPARTMENT-OF-HEALTH 2006b. White Paper: Our Health, our care, our say: A new direction for community services. *In: HEALTH, D. O. (ed.)*. London: HMSO.
- DEPARTMENT-OF-HEALTH 2008a. Delivering care closer to home: meeting the challenge. London: Department of Health.
- DEPARTMENT-OF-HEALTH 2008b. NHS next stage review: A high quality workforce. London: HMSO.
- DEPARTMENT-OF-HEALTH 2008c. Using the Commissioning for Quality and Innovation (CQUIN) payment framework. *In: HEALTH, D. O. (ed.)*. London: Crown Publishers.
- DEPARTMENT-OF-HEALTH 2010. NHS Outcomes Framework. *In: HEALTH, D. O. (ed.)*. London: Crown Publications.
- DEPARTMENT-OF-HEALTH 2001c. Investment and reform for NHS staff - taking forward the NHS plan In London. London: HMSO.
- DRINKA, J. & CLARK, P. 2000. *Health Care Teamwork: Interdisciplinary Practice and Teaching.*, Westport, CT, Auburn House.
- DRUCKER, P. F. 1998. Management's new paradigms (cover story). *Forbes*. New York: Forbes Publishing.
- EASTERBY-SMITH, M., THORPE, R., JACKSON, P. & LOWE, A. 2008. Searching the Management Literature. . *Management Research: An Introduction*. London: Sage.
- ENDERBY, P., JOHN, A., HUGHES, A. & PETHERHAM, B. 1999. Therapy Outcome Measures Benchmarking Report Sheffield: The University of Sheffield.
- ENDERBY, P., JOHN, A. & PETHERHAM, B. 1998. *Therapy Outcome Measures for Physiotherapists, Occupational Therapists & Rehabilitation Nurses*, London, Singular Publications.
- ENDERBY, P., JOHN, A. & PETHERHAM, B. 2006. *Therapy outcome measures for rehabilitation professionals*, Chicester, John Wiley and Sons Ltd.
- EUROQOL-GROUP, T. 1990. EuroQol-a new facility for the measurement of health-related quality of life. . *Health Policy*, 16, 199-208.
- EUROQOL-GROUP, T. 2009. *What is EQ-5D* [Online]. EuroQol-Group, The. Available: <http://www.euroqol.org/eq-5d/what-is-eq-5d.html>.

- FEIGER, S. M. & SCHMITT, M. H. 1979. Collegiality in interdisciplinary health teams: its measurement and its effects. *Social Science & Medicine*, 31a, 217-229.
- FIEDLER, F. E. 2002. The curious role of cognitive resources in leadership. In R. E. Riggio, S. E. Murphy, & F. J. Pirozzolo (Eds.), *Multiple intelligences and leadership* (pp. 91-104). Mahwah, NJ: Erlbaum.
- FIEDLER, F. E. & BERKOWITZ, L. 1964. A contingency model of leadership effectiveness. *Advances in Experimental Social Psychology, Vol.1*. New York: Academic Press.
- FIEDLER, F. E., HOUSE, R. J., COOPER, C. L. & ROBERTSON, I. T. 1994. Leadership theory and research: A report of progress. *Key Reviews in Managerial Psychology: 97-116*. Chichester, U.K: Wiley.
- FIELD, A. 2005. *Discovering Statistics Using SPSS*, London, Sage Publications.
- FINN, R. 2008. The language of teamwork: Reproducing professional divisions in the operating theatre. *Human Relations*, 61, 103-130.
- FINN, R., LEARMOUTH, M. & REEDY, P. 2010. Some unintended effects of teamwork in healthcare. *Social Science and Medicine*, IN PRESS, 1-7.
- FLEISHMAN, E. A. & HARRIS, E. F. 1962. Patterns of leadership behaviour related to employee grievance and turnover. *Personnel Psychology*, 15, 43-56.
- FLETCHER, J. K. 2004. The paradox of postheroic leadership: An essay on gender, power, and transformational change. *The Leadership Quarterly*, 647-661.
- FRIED, B. J., TOPPING, S. & G., R. T. 2000. Groups and teams in health service organisations. In: SHORTELL, S. M. & KALUZNY, A. D. (eds.) *Health care management: Organisation, design and behaviour*. Albany, New York: Delmar.
- GIBBON, B. 1999. An investigation of interprofessional collaboration in stroke rehabilitation team conferences. *Journal of Clinical Nursing*, 8, 246-252.
- GIDDENS, A. 1987. *Social Theory and Modern Sociology*, Oxford, Polity Press.
- GILL, J. & JOHNSON, P. 2002. *Research Methods for Managers*, London, Sage Publications.
- GOLEMAN, D. 2004. What makes a great leader. *Harvard Business Review*, January.
- GOLEMAN, D. 2006. *Emotional Intelligence: 10th Anniversary Edition*, New York, Bantam Dell.
- GOLEMAN, D., BOYATZIS, R. & MCKEE, A. 2002. *Primal Leadership*, Boston MA, Harvard Business School Press.
- GOODWIN, N. 1998. Leadership in the UK NHS: where are we now? . *Journal of Management in Medicine*, 12.

- GRANT, R. W. & FINNOCCHIO, L. J. 1995. Interdisciplinary collaborative teams in primary care: a model curriculum and resource guide. *In: COMMISSION, P. H. P. (ed.)*. San Francisco, California: California Primary Care Consortium subcommittee on interdisciplinary collaboration.
- GREENE, J. C., CARACELI, V. J. & GRAHAM, W. F. 1989. Toward a conceptual method for mixed-method evaluation designs. *Educational evaluation and policy analysis*, 11, 255-274.
- GREENLEAF, R. K. 1977. *Servant leadership: a journey into the nature of legitimate power and greatness*, New York:, Paulist Press.
- GRIFFITHS, J., AUSTIN, L. & LUKER, K. 2004. Interdisciplinary teamwork in the community rehabilitation of older adults: an example of flexible working in primary care. *Primary Health Care Research and Development* 5, 228-239.
- GRUMBACH, K. & BODENHEIMER, T. 2004. Can health care teams improve primary health care practice. *Journal of the American Medical Association*, 291, 1246-1251.
- GUEST, D. 1987. Human Resource Management and Industrial Relations. *Journal of Management Studies*, 24, 503-521.
- GUEST, G., BUNCE, A. & JOHNSON, L. 2006. How many interviews are enough? *Field Methods*, 18, 59-82.
- HACKMAN, J. R. 2002. *Leading teams: Setting the stage for great performance*, Boston MA, Harvard Business School Press.
- HACKMAN, J. R., (ED) 1990. *Groups that work (and those that don't) conditions for effective teamwork*, San Francisco, Jossey- Bass.
- HALL, P. & WEAVER, L. 2001. Interdisciplinary education and teamwork: a long and winding road. *Medical Education*, 35, 867-875.
- HALPIN, A. W., WINER, B. J. & R.M.STOGDILL, A. A. E. C. 1957. A factorial study of the Leader Behavior Descriptions. *Leader Behavior: Its Description and Measurement*. Columbus:. The Ohio State University: Bureau of Business Research.
- HALVERSON, S. K., MURPHY, S. E. & RIGGIO, R. E. 2004. Charismatic Leadership in Crisis Situations: A Laboratory Investigation of Stress and Crisis. *Small Group Research*, 35, 495-514.
- HARRIS, G. & HOGAN, J. Perceptions and personality correlates of managerial effectiveness. 13th annual Psychology in the Department of Defense Symposium, 1992/04// 1992 Colorado Springs, CO.
- HARRIS, M. M. & SCHAUBROEK, J. 1988. A meta-analysis of self-supervisor, self-peer and peer-supervisor ratings. *Personnel Psychology*, 41, 43-62.
- HARRISON, S., POLLITT, C. 1994. *Controlling Health Professionals: the future of work and organisation In the NHS.*, Bury St Edmunds, St Edmundsbury Press.

- HAYES, N. 2002. *Managing Teams: A Strategy for success*, Cengage Learning EMEA.
- HAYWARD, K. L., GARRATT, A., SCHMIDT, L., MACINTOSH, A. & FITZPATRICK, R. 2004. Status and quality of life in older people. A structured review of patient reported health instruments. Oxford: National Centre for Health Outcomes Development (Oxford Site), University of Oxford.
- HEALTH-COMMITTEE 2007. Workforce Planning: Fourth Report of Session 2006-07. London: House of Commons.
- HEIFITZ, R. & LAURIE, D. 1999. Mobilizing adaptive work: Beyond visionary leadership. In: CONGER, J., SPREITZER, G. & LAWLER, E. (eds.) *The leader's change handbook*. San Francisco: Jossey-Bass.
- HERSEY, P. & BLANCHARD, K. 1984. *Managing Organizational Behavior*, Englewood Cliffs, N.J.: Prentice-Hall.
- HOGAN, R., CURPHY, G. J. & HOGAN, J. 1994. What we know about leadership: effectiveness and personality. *American Psychologist*, 49, 493-504.
- HOOPEs, D. & POSTRELL, S. 1999. Shared knowledge, "glitches" and product development performance. *Strategic Management Journal*, 20.
- HOUSE, R. J. 1971. A path-goal theory of leader effectiveness. *Administrative Science Quarterly*, 16, 321-339.
- HOUSE, R. J., J.G.HUNT.SC & L.L.LARSON 1977. A 1976 theory of charismatic leadership. *Leadership: The cutting edge*. Carbondale, IL:: Southern Illinois University Press.
- HU, J. & LIDEN, R. C. 2011. Antecedents of Team Potency and Team Effectiveness: An Examination of Goal and Process Clarity and Servant Leadership. *Journal of Applied Psychology*, 96, 851-862.
- HUGHES, O. 2003. *Public Management and Administration: An Introduction (3rd edition)*, London, Palgrave Macmillan.
- HUNT, L. keynote speech. Nursing, midwifery and health visiting conference, 2000 London.
<http://www.wise.nhs.uk/cmsWISE/aboutUs/AboutMA.html>.
- INSTITUTE-FOR-INNOVATION-AND-IMPROVEMENT 2010a. Medical Leadership Competency Framework. Coventry: NHS Institute for Innovation and Improvement.
- INSTITUTE-FOR-INNOVATION-AND-IMPROVEMENT 2010b. Shared Leadership: Underpinning of the MLCF. London: Institute for innovation and improvement and Academy of Royal Colleges.
- INSTITUTE-FOR-INNOVATION-AND-IMPROVEMENT. 2011. *Leadership Qualities Framework* [Online]. In. Available: <http://www.nhsleadershipqualities.nhs.uk/> [Accessed 22 September` 2011].

- IRIZARRY, C., GAMEAU, B. & WALTER, R. 1993. Social work leadership development through international exchange. *Social Work in Health Care*, 18, 35-46.
- JENNINGS, E. E. 1960. *The Anatomy of Leadership: Princes, Heroes, and Supermen*, New York, Harper Brothers.
- JOHN, A., HUGHES, A. & ENDERBY, P. 2002. Establishing clinician reliability using the Therapy Outcome Measure for the purpose of benchmarking services. . *Advances in Speech-Language Pathology*, 4, 79-87.
- JOHNSON, P. & GILL, D. 1993. *Management control and organisational behaviour*, Sage London, Sage.
- JONES, S. 1985. The Analysis of Depth Interviews. In: WALKER, R. (ed.) *Applied Qualitative Research*. London: Gower.
- JUDGE, T. A., COLBERT, A. E. & ILIES, R. 2004. Intelligence and Leadership: A quantitative review and test of theoretical propositions. *Journal of Applied Psychology*, 89, 342-552.
- KANTER, R. M. 2001. *E-volve!*, Cambridge, MA, Harvard Business School.
- KATZENBACH, J. R. & SMITH, D. K. 2003. *The Wisdom of Teams: Creating the High-Performance Organisation*, New York, Harper Collins Business.
- KAWALEK, J. P. 2004. Systems thinking and knowledge management: positional assertions and preliminary observations. *Systems Research and Behavioural Science*, 21, 17-36.
- KING, N. 2004. Using Templates in the thematic analysis of texts. In: SYMON, G. C., C. (ed.) *Essential Guide to Qualitative Methods in Organizational Research*. London: Sage Publications.
- KING, N. 2008. *Template Analysis Website* [Online]. Huddersfield, UK: University of Huddersfield. Available: http://www.hud.ac.uk/hhs/research/template_analysis/whatis.htm [Accessed 9 July 2010 2010].
- KORNER, M. 2010. Interprofessional teamwork in medical rehabilitation: a comparison of multidisciplinary and interdisciplinary team approach. *Clinical Rehabilitation*, 24, 745-745-755.
- KOUZES, J. M. & POSNER, B. Z. 1987. *The Leadership Challenge* San Francisco CA, Jossey-Bass.
- KRUEGER, M. 1987. Making the team approach work in residential group care. *Child Welfare*, 447-457.
- LAFASTO, F. M. J. & LARSEN, C. E. 2002. *When Teams Work Best: 6,000 Team Members Tell What it Takes to Succeed*, London, Sage Publications.
- LAIKEN, M. 1994. Conflict in Teams: Problem or Opportunity? . *Lectures in Health Promotion Series 4*. Centre for Health Promotion, University of Toronto.

- LAIKEN, M. E., CHATALASINGH, C., BICKFORD, J., BELLE-BROWN, J., GILLIS, L. & MOSS, K. 2006. Organizational Support for Interdisciplinary Teams in Primary Health Care L'Association Canadienne pour l'Étude de l'Éducation des Adultes (ACÉÉA) Canadian Association for the Study of Adult Education (CASAE)
- LAMING, L. 2003. The Victoria Climbié Inquiry. Report of an inquiry by Lord Laming London, UK: Home Office.
- LARSEN, C. E. & LAFASTO, F. M. J. 1989. *Teamwork: What Must Go Right, What Can Go Wrong*, London, Sage Publications.
- LEARMONTH, M. 2005. Doing Things With Words: The Case Of 'Management' And 'Administration'. *Public Administration*, 83, 617-637.
- LEATHARD, A. 2003. *Interprofessional Collaboration: From Policy to Practice in Health and Social Care*, London, Brunner-Routledge.
- LEGGAT, S. G. 2007. Effective healthcare teams require effective team members: defining teamwork competencies. *BMC Health Services Research*, 7-17.
- LEMIEUX-CHARLES, L. & MCGUIRE, W. L. 2006. What do we know about healthcare team effectiveness: A review of the literature. *Medical Care Research and Review*, 63, 263-300.
- LENCIONI, P. M. 2002. *The five dysfunctions of a team: A leadership fable*, San Francisco, Jossey Bass.
- LEWIN, K., R., L. & WHITE, R. K. 1939. Patterns of aggressive behavior in experimentally created social climates. *Journal of Social Psychology*, 10, 271-301.
- LIBERMAN, R. P., HILTY, D. M., DRAKE, R. E. & TSANG, H. W. 2001. Requirements for multidisciplinary teamwork in psychiatric rehabilitation. *Psychiatric Services*, 52, 1331-1342.
- LIKERT, R. 1967. *The Human Organization: Its Management and Value*, New York:, McGraw-Hill.
- LOWE, K. B., KROECK, K. G. & SIVASUBRAMANIAM, N. 1996. Effectiveness correlates of transformational and transactional leadership: A meta-analytic review. *Leadership Quarterly*, 7 385-425.
- LOXLEY, A. 1997. *Collaboration in Health and Welfare*, London, Jessica Kingsley Publishers, .
- MACDONALD, M. B., BALLY, J. M., FERGUSON, L. M., MURRAY, B. L., FOWLER-KERRY, S. E. & ANONSON, J. M. S. 2010. Knowledge of the professional role of others: A key interprofessional competency. *Nurse Education in Practice*, 238-238-242.
- MACKIE, L. 1987. The Leadership Challenge... General Management in the NHS. *Senior Nurse*, 6, 10-11.
- MAISTER, D. H. 1993. *Managing the Professional Service Firm*, New York, Free Press.

- MANZ, C. C. 1986. Self leadership: toward an expanded theory of self-influence processes in organizations. *Academy of Management Review*, 11, 585-600.
- MANZ, C. C. 1992. Self-leading work teams: moving beyond self-management myths", . *Human Relations*, Vol. 45 No.11, pp.1119-40., 45, 1119-1140.
- MANZ, C. C., BASTIEN, D. T., HOSTAGER, T. J., SHAPIRO, G. L., H., A., VAN DE VEN, L., A. H. & POOLE, M. S. 1989. Leadership and Innovation: A Longitudinal Process View *Research on the Management of Innovation: The Minnesota Studies* New York:: Harper & Row.
- MANZ, C. C. & SIMS, H. P. 1987. Leading workers to lead themselves: the external leadership of self-managed teams. *Administrative Science Quarterly*, 32, 106-128.
- MANZ, C. C. & SIMS, H. P. 2001. *The New Superleadership: Leading Others to Lead Themselves*, San Francisco, CA, Berrett-Koehler.
- MASON, S., LOCKER, T., CARTER, A., WALTERS, S., STRIDE, C. & CASSON, J. 2006. What are the organisational factors that influence waiting times in Emergency Departments? . National Co-ordinating Centre for NHS Service Delivery and Organisation R & D (NCCSDO)
- MASTERSON, A. & MASTERSON, A. 2007. Community matrons: inter-professional and inter-agency working (part five). [Review] [13 refs]. *Nursing Older People*, 19, 38-40.
- MCCALLIN, A. 1999a. *Revolution in Healthcare: Altering Systems, Changing Behaviour*. PhD, Gaithersburg.
- MCCALLIN, A. 2003. Interdisciplinary team leadership: a revisionist approach for an old problem?. [Review] [45 refs]. *Journal of Nursing Management*, 11, 364-370.
- MCCALLIN, A. M. 1999b. Pluralistic dialogue: A grounded theory of interdisciplinary practice. *The Australian Journal of Rehabilitation Counselling*. 5, 2, 78-85.
- MCRAY, J. 2003. Leading interprofessional practice: a conceptual framework to support practitioners in the field of learning disability. *Journal of Nursing Management*, 11.
- MEANS, R., RICHARDS, S., SMITH, R. 2003. *Community care: policy and practice*, Basingstoke, Palgrave.
- MEINDL, J. R. 1990. On Leadership: An alternative to the conventional wisdom. *Research in organisational behaviour*, 12, 329-341.
- MICKAN, S. M. & RODGER, S. A. 2000. Characteristics of effective teams: a literature review. *Australian Health Review*, 23, 201-208.
- MILLER, C., ROSS, N. & FREEMAN, M. 1999. The role of collaborative/shared learning in pre- and post-registration education in nursing, midwifery and health visiting. *English National Board for Nursing, Midwifery and Health Visiting*.

- MONAGHAN, J., CHANNELL, K. & MCDOWELL, D. 2005. Improving patient and carer communication, multidisciplinary team working and goal setting in stroke rehabilitation. . *Clinical rehabilitation*, 19, 194-199.
- MORAN, A. M. 2008. *A study to examine the contribution of support workers to the delivery and outcomes of community rehabilitation and intermediate care services in England*. Doctor of Philosophy, University of Sheffield.
- MORGAN, G. 2006. *Images of Organisation*, Thousand Oaks, Sage Publications.
- MULLINS, L. J. 2008. *Management and Organisational Behaviour*, London, Financial Times, Prentice Hall.
- MUNRO, C. R. & LAIKEN, M. 2003. Developing & Sustaining High Performance Teams. *OD Practitioner*, 35.
- NANCARROW, S. 2004. Dynamic role boundaries in intermediate care services. *Journal of Interprofessional Care*, 18, 141-151.
- NANCARROW, S., ENDERBY, P., ARISS, A., SMITH, T., BOOTH, A. & CAMPBELL, M. 2011. Enhancing the Effectiveness of Interprofessional Working: Costs and Outcomes. Southampton: NIHR Service Delivery and Organisation Programme.
- NANCARROW, S., ENDERBY, P., JOHNS, A., FREEMAN, J. & COOK, J. 2005. Evaluation report for the Wakefield Intermediate Care services. . Sheffield: The University of Sheffield.
- NANCARROW, S., MORAN, A. M., ENDERBY, P. & JONES, G. 2008. Validation of a Workforce Dynamics Questionnaire in Community Rehabilitation and Intermediate Care Teams in the United Kingdom. . *In press*.
- NANCARROW, S., MORAN, A. M., ENDERBY, P., PARKER, S., DIXON, S., MITCHELL, C., BRADBURN, M., MCCLIMENS, A., GIBSON, C., JOHN, A., BORTHWICK, A. & BUCHAN, J. 2009a. The impact of workforce flexibility on the costs and outcomes of older peoples' services. London: National Co-ordinating Centre for NHS Service Delivery and Organisation.
- NANCARROW, S., MORAN, A. M. & PARKER, S. 2009b. Understanding service context: Development of a service proforma to describe and measure older peoples community and intermediate care services. . *Health & Social Care in the Community*.
- NANCARROW, S. A., MORAN, A. M., BORTHWICK, A. & BUCHAN, J. 2006. The impact of workforce flexibility on the costs and outcomes of older peoples' services. A literature and policy review. Sheffield: School of Health and Related Research, University of Sheffield.
- NEILL, M., HAYWARD, K. S. & PETERSON, T. 2007. Students' perceptions of the interprofessional team in practice through the application of servant leadership principles. *J Interprof Care*, 21, 425-32.

- NHS-CONFEDERATION 2007. *The Challenges of Leadership in the NHS*. London: The NHS Confederation.
- NHS-EMPLOYERS 2011. *Quality and Outcomes Framework guidance for GMS contract 2011/12*. London: NHS Confederation Company Ltd and British Medical Association.
- NHS-INSTITUTE-FOR-INNOVATION-AND-IMPROVEMENT 2005. *NHS Leadership Qualities Framework*. NHS Institute for Innovation and Improvement.
- O'CATHIAN, A. 2008. *The Use of Mixed Methods in Health Services Research (working title)*. PhD Doctoral, University of Sheffield.
- Ouwens, M., Marres, H. & Hermens, R. 2007. Quality of integrated care for patients with head and neck cancer: development and measurement of clinical indicators. *Head and neck*, 29, 378-386.
- Ovretveit, J. 1997. How to describe interprofessional working. . In: Ovretveit, J., Mathias, P., Thompson, T, (ed.) *Interprofessional working for Health and Social Care*. London: Palgrave.
- Ovretviet, J., Mathias, P. & Thompson, T. 1997. *Interprofessional Working in Health and Social Care (Community Health Care)*, London, Palgrave Macmillan.
- PATERSON, B., THORNE, S. E., CANAM, C. & JILLINGS, C. 2001. *The Meta-study of qualitative health research: a practical guide to meta-analysis and meta-synthesis*, California, Sage Publications.
- PATTERSON, M., RICK, J., WOOD, S., CARROLL, C., BALAIN, S. & BOOTH, A. 2007. Systematic review of the links between human resource management practices and performance. London: NIHR SDO.
- PEARCE, C. & CONGER, J. 2000. *Shared leadership*, London, Sage.
- POLLARD, K. C., MIERS, M. E. & GILCHRIST, M. 2005. collaborative learning for collaborative working? Initial findings from a longitudinal study of health and social care students. *Journal of interprofessional care*, 12, 67-81.
- POLLARD, K. C. R. 2005. Nurse leadership, interprofessionalism and the modernisation agenda. *OVID British Nursing Index*.
- POULTON, B. C. & WEST, M. A. 1999. The determinants of effectiveness in primary health care teams. *Journal of Interprofessional Care*, 13, 303-327.
- PRITCHARD, P. & PRITCHARD, J. 1994. *Teamwork for primary and shared care: a practical workbook. - 2nd ed*, Oxford, Oxford University Press.
- PROUDFOOT, J., UPALI, W. J., HOLTON, C., GRIMM, J., BUBNER, T., AMOROSO, C., BEILBY, J. & HARRIS, M. F. 2007. Teen climate for innovation: what difference does it make in general practice? *International journal for quality in health care. International journal for quality in health care.*, 1-6.
- RANADE, W. 1997. *A Future for the NHS? Healthcare for the Millennium*, London, Longman.

- REILLY, C. 2001. Transdisciplinary approach: an atypical strategy for improving outcomes in rehabilitative and long-term acute care settings. *Rehabilitation Nursing*, 26, 216 - 220.
- RITCHIE, J. & SPENCER, L. 1994. Qualitative data analysis for applied policy research
. In: BRYMAN, A. & BURGESS, R. (eds.) *Analyzing Qualitative Data*. London: Routledge.
- ROSEN, A. & CALLALY, T. 2005. Interdisciplinary teamwork and leadership: issues for psychiatrists. *Australasian Psychiatry*, 3, 234-240.
- ROSS, F., RINK, P. & FURNE, A. 2000. Integration or pragmatic coalition. An evaluation of nursing teams in primary care. *Journal of Interprofessional Care*, 14, 259-267.
- ROYAL-COLLEGE-OF-GENERAL-PRACTITIONERS 1995. The Nature of General Medical Practice. London: Royal College of General Practitioners.
- RUBENSTEIN, L., JOSEPHSON, K., WIELAND, G., ENGLISH, D. A., SAYRE, J. A. & KANE, R. L. 1984. Evaluation of a geriatric evaluation unit. *The New England Journal of Medicine*, 311, 1664-1670.
- SALAS, E., DICKINSON, T. L., CONVERSE, S. A. & TANNENBAUM, S. L. 1993. Toward an Understanding of Team Performance and Training. In: SWEZEY, R. W. & SALAS, E. (eds.) *Teams their Training and Performance*. Norward, NJ: ABLEX.
- SALOVEY, P. & MAYER, J. D. 1990. Emotional Intelligence. *Imagination, Cognition & Personality*, 9, 185-211.
- SAVIC, B. S., PAGON, M. & ROBIDA, A. 2007. Predictors of the level of personal involvement in an organization: a study of Slovene hospitals. *Health Care Management Review*, 2007 Jul-Sep; 32, 271-283.
- SCHAUBROECK, J., LAM, S., S. & PENG, A. C. 2011. Cognition-Based and Affect-Based Trust as Mediators of Leader Behavior Influences on Team Performance. *Journal of Applied Psychology*, 96.
- SENGE, P. 1997. *The Fifth Discipline: The Art & Practice of The Learning Organization*, Santa Fe, Doubleday.
- SENNETT, R. 1998. *The corrosion of character: The personal consequences of work in the new capitalism*, New York, W.W. Norton.
- SHACKLETON, V. J. 1995. *Business leadership*, London, Routledge.
- SHAMIR, B., R.J.HOUSE & M.B.ARTHUR 1993. The Motivational Effects of Charismatic Leadership: A Self-Concept Based Theory. *Organization Science*, 4, 577-594.
- SHORTELL, S. M. 2005. "Effective" health care teams have a greater ability to improve patient care.: Robert Wood Johnson Foundation.

- SICOTTE, C., D'AMOUR, D. & MOREAULT, M.-P. 2002. Interdisciplinary collaboration within Quebec community health care centres. . *Social Science & Medicine*, 55, 991-1003.
- SMITH, T., YIU, M. & KAUTSCH, M. 2009. A systematic review and metasynthesis of effective nursing leadership. *Polish review of health sciences*, 4.
- SORRELS-JONES, J. 1997. The challenge of making it real: Interdisciplinary practice in a seamless organisation. *Nursing Administration Quarterly*, 21, 20 - 30.
- SPEARS, L. C. 2005. The Understanding and Practice of Servant Leadership. *Servant Leadership Research Roundtable*. USA.
- STANNIFORTH, D. & WEST, M. A. 1995. Leading and managing teams. *Team performance management an international journal*, 1, 28-33.
- STOGDILL, R. M. 1948. Personal factors associated with leadership: A survey of the literature. *Journal of Psychology*, , 25, 35-71.
- STOGDILL, R. M. 1974. *Handbook of Leadership: A Survey of the Literature*, New York, Free Press.
- STOKER, J. J. 2008. Effects of team tenuous and leadership in self managing teams. *Personnel review*, 37, 564-582.
- STRASSER, D. C., FALCONER, J. A., STEVENS, A. B., UOMOTO, J. M., HERRIN, J., BOWEN, S. E. & B., B. A. 2008. Team training and stroke rehabilitation outcomes: a cluster randomized trial. *Archive of Physical and Medical Rehabilitation*, 89, 10-15.
- SUTER, E., ARNDT, J., LAIT, J., JACKSON, K., KIPP, J., TAYLOR, E., ARTHUR, N., SUTER, E., ARNDT, J., LAIT, J., JACKSON, K., KIPP, J., TAYLOR, E. & ARTHUR, N. 2007. How can frontline managers demonstrate leadership in enabling interprofessional practice? *Healthcare Management Forum*, 20, 38-43.
- TANNENBAUM, R. & SCHMIDT, W. H. 1958. How to choose a leadership pattern. *Harvard Business Review*, 36, 95-101.
- TASHAKORIE, A. & TEDDLIE, C. 1998. *Mixed Methodology: combining qualitative and quantitative approaches*, London, Sage Publications.
- TEMKIN-GREENER, H., GROSS, D., KUNITZ, S. J. & MUKAMEL, D. 2004. Measuring Interdisciplinary Team Performance in a Long-Term Care Setting. [References]. *Medical Care*, 42, 472-481.
- THE-KINGS-FUND 2011. *The Future of Leadership and Management in the NHS - No More Heroes*. London: The Kings Fund.
- THE-NHS-CONFEDERATION 2009. *The Future of Leadership - Leading innovation*. London: The NHS Confederation.
- THYLEFORS, I., PERSSON, O. & HELLSTROM, D. 2005. Team types, perceived efficiency and team climate in Swedish cross-professional teamwork. *Journal of Interprofessional Care*, 19, 102 - 114.

- TICHY, N. M. & DEVANNA, M. A. 1986. The transformational leader. *Training and Development Journal*, 27-32.
- TRANFIELD, D., DENYER, D. & SMART, P. 2003. Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management*, 14, 207-222.
- UHL-BIEN, M., MARION, R. & MCKELVEY, B. 2007. Complexity Leadership Theory: Shifting leadership from the industrial age to the knowledge era. *The Leadership Quarterly*, 18, 298-313.
- VINOKUR-KAPLAN, D. 1995. Treatment teams that work (and those that don't): an application of Hackman's group effectiveness model to interdisciplinary teams in psychiatric hospitals. *Journal of applied behavioural science*, 31, 303-327.
- VROOM, V. H. & YETTON, P. W. 1973. *Leadership and Decision-Making*, Pittsburgh, PA.; University of Pittsburgh Press.
- WALSHE, D. & DOWNE, S. 2005. Metasynthesis for Qualitative Research: A Literature Review. *Journal of Advanced Nursing*, 50, 204-211.
- WANLESS, D. 2002. *Securing our future health: Taking a long-term view*. London: HM Treasury.
- WEST, M. A. 1994. *Effective Teamwork*, Leicester, British Psychological Society.
- WEST, M. A., BORRILL, C., DAWSON, J., BRODBECK, F., SHAPIRO, D. A. & HAWARD, B. 2003a. Leadership clarity and team innovation in health care. *The Leadership Quarterly*, 14, 393-410.
- WEST, M. A., BORRILL, C., DAWSON, J. F., SCULLY, J. W., CARTER, M., ANELAY, S., PATTERSON, M. & WARING, J. 2002. The link between the management of employees and patient mortality in acute hospitals. *International Journal for Human Resource Management*, 13, 1299-1310.
- WEST, M. A., BORRILL, C. A. & DAWSON, J. F. 2003b. Leadership clarity and team innovation in health care. *The Leadership Quarterly*, 14, 393-410.
- WEST, M. A., BORRILL, C. S., DAWSON, J. F., BRODBECK, F., SHAPIRO, D. A. & HAYWARD, B. 2003c. Leadership clarity and team innovation in health care. *The Leadership Quarterly*, 14, 393-410.
- WEST, M. A. & SLATER, J. 1996. *The Effectiveness of Teamworking in Primary Health Care*. London.: The Health Education Authority.
- WHEATLEY, M. 1999. *Leadership and the New Science: Discovering Order in a Chaotic World*, San Francisco, Berrett-Koehler.
- WILLIAMS, S. 2005. *Evidence of the contribution of leadership development for professional groups makes in driving their organisations forward*. London: Department of Health, Modernisation Agency.

- WILLUMSEN, E. 2006. Leadership in interprofessional collaboration - the case of childcare in Norway. *Journal of Interprofessional Care*, 20, 403-413.
- WILSON, N. L. & GLEASON, M. 2001. *Team roles and leadership* [Online]. Available: <http://gitt.org/nursing.htm> [Accessed 2 March 2009].
- WOOD-DAUPHINE, S., SHAPIRO, S., BASS, E., FLETCHER, C., GEORGES, P., HENSBY, V. & MENDELSON, B. 1984. A randomized trial of team care following stroke. *Stroke*, 15.
- XYRICHIS, A. & LOWTON, K. 2008. What fosters or prevents interprofessional teamworking in primary or community care? A literature review. *Journal of Nursing Studies*, 45, 140-143.
- YUKL, G. 1998. *Leadership in organizations*, Englewood Cliffs, NJ, Prentice-Hall.
- YUKL, G. 1999. An evaluation of conceptual weaknesses in transformational and charismatic leadership theories. *Leadership Quarterly*, 10, 285-305.
- YUKL, G. 2006. *Leadership in Organisations*, Upper Saddle River, Jn., Pearson Prentice Hall.
- ZACCARO, S. J., RITTMAN, A. L. & MARKS, M. A. 2001. Team Leadership. *The Leadership Quarterly*, 12, 451-483.
- ZALEZNIK, A. 1977. Managers and Leaders: Are they different? *Harvard Business Review*, 55, 67-78.
- ZEISS, A. M. & STEFFEN, A. M. 1996. Interdisciplinary health care team: The basic unit of geriatric care. In: CARSTENSEN, L. L., EDELSTEIN, B. A. & L., D. (eds.) *The practical handbook of clinical gerontology*. Thousand Oaks: Sage Publications.

Appendices

Appendix 1 – Ethics Approval Letters



National Research Ethics Service Salford & Trafford Local Research Ethics Committee

Room 181
Gateway House
Piccadilly South
Manchester
M60 7LP

Telephone: 0161 237 2392
Facsimile: 0161 237 2383

11 September 2008

Professor Pamela Enderby
Professor of Rehabilitation
School of Health and Related Research (SchARR)
Regent Court
30 Regent Street
Sheffield
S1 4DA

Dear Professor Enderby

Full title of study: Enhancing the Effectiveness of Interprofessional
working: costs and outcomes
REC reference number: 08/H1004/124

Thank you for your letter of 8 September 2008, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Vice-Chair.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

The Vice-Chair also commented that we accept the issues that you have raised with regards to the difficulty associated with using the EQ5D in any other way than described by the researchers. We also accept that the use of the EQ5D is used in normal practice in some areas and in others is merely summing up information which is collected in other ways. Therefore as long as the patient has the information sheet and is aware that they can send back the satisfaction questionnaire, or not, when convenient to them, we are happy with the arrangements they are making.

Ethical review of research sites

The Committee has designated this study as exempt from site-specific assessment (SSA). The favourable opinion for the study applies to all sites involved in the research. There is no requirement for other Local Research Ethics Committees to be informed or SSA to be carried out at each site.

This Research Ethics Committee is an advisory committee to North West Strategic Health Authority

The National Research Ethics Service (NRES) represents the NRES Directorate within the National Patient Safety Agency and Research Ethics Committees in England

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission at NHS sites ("R&D approval") should be obtained from the relevant care organisation(s) in accordance with NHS research governance arrangements. Guidance on applying for NHS permission is available in the Integrated Research Application System or at <http://www.rdforum.nhs.uk>.

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	Version	Date
Application	5.6	23 July 2008
Investigator CV		
Protocol	1	23 July 2008
Covering Letter		23 July 2008
Covering Letter		08 September 2008
Letter from Sponsor	1	30 June 2008
Peer Review	1	14 January 2008
Interview Schedules/Topic Guides	1 - Interview Proforma	23 July 2008
Interview Schedules/Topic Guides	v1 - Focus Groups	23 July 2008
Questionnaire: Patient/Service User	1	23 July 2008
Questionnaire: Multifactor Leadership Questionnaire (MLQ)	1	21 July 2008
Questionnaire: Workforce Dynamics Questionnaire (WDQ)	1	21 July 2008
Questionnaire: EQ-5D Health Survey		01 September 2008
Letter of invitation to participant	1	22 July 2008
Letter of invitation to participant	v1 - Focus Groups	23 July 2008
Letter of invitation to participant	V1 - SEC	23 July 2008
Letter of invitation to participant	v1 - Learning Set	23 July 2008
Letter of invitation to participant	v1 - Final SEC	23 July 2008
Letter of invitation to participant	v1 - Interviews	23 July 2008
Participant Information Sheet: Interviews	1	23 July 2008
Participant Information Sheet: Final Learning Set	1	23 July 2008
Participant Information Sheet: Learning Set	1	23 July 2008
Participant Information Sheet: Focus Groups	1	23 July 2008
Participant Information Sheet: Service Evaluation Conference	1	23 July 2008
Participant Information Sheet: WDQ & MLQ	1	23 July 2008
Participant Information Sheet	2	01 September 2008
Participant Information Sheet: Staff Information Sheet - Implementation	2	01 September 2008

Participant Consent Form: Staff Consent - Implementation	1	23 July 2008
Participant Consent Form: Focus Groups	1	23 July 2008
Participant Consent Form: Interviews	1	23 July 2008
Response to Request for Further Information		
Service Proforma	1	23 July 2008
Letter from funder	1	20 February 2008
Indemnity arrangements	1	23 July 2008
Research Summary Diagramme	1	24 June 2008
Resource Pack		23 July 2008

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Now that you have completed the application process please visit the National Research Ethics Website > After Review

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

The attached document "After ethical review – guidance for researchers" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

Appendix 2. -Literature review Decision Rules

Interprofessional Healthcare Team leadership –

Literature Review: - Explore quantitatively the outcomes of team leadership dimensions on staff and patients.

Start by screening all papers together. If a paper does not describe an empirical study, consider for review 1.

1. Is the FOCUS of the paper on interdisciplinary team leadership?	Yes – Go to 2	No – Exclude Code as XIDT	Can't Tell - Exclude				
2. Does the paper describe an empirical research study or evaluation?	Yes – Go to 5	No – Consider for Review 1 (See Below)	Can't Tell – Consider for Review 1 (See Below)				
3. Is it a narrative review?	Yes – Consider for Review 1 (See Below)	No – Go to 4	Can't Tell – Consider for Review 1 (See Below)				
4. Is it a systematic review?	Yes – Go to 5	No – Consider for Review 1 (See Below)	Can't Tell – Consider for Review 1 (See Below)				
5. Context							
Does the study describe an Intervention aimed at introducing interprofessional team leadership? OR	Yes – Code as IT	No - Consider for Review 1 (See Below)	Can't Tell – Get full paper				
Does the study describe an Intervention aimed at changing methods of interprofessional team leadership.	Yes – Code as CT	No - Consider for Review 1 (See Below)	Can't Tell – Get full paper				
6. Outcomes							
Does study measure change in staff/provider behaviour?	Yes – Code as CPB	No - Consider for Review 1 (See Below)	Can't Tell – Get full paper				
Does study measure change in patient outcome(s)?	Yes – Code as CPO	No - Consider for Review 1 (See Below)	Can't Tell – Get full paper				
7. Population							
Does study examine care in community based service settings for older adults (60 onwards)?	Yes – Code as "Priority 1"	No – Code as "Priority 2"	Can't Tell – Get full paper				
8. Geographical location							
In which of the following contexts has the study been conducted? (<i>add in brackets after coding</i>)	UK	EUR (Excluding UK)	AUS/ NZ	USA/ Canada	Other	ALL (e.g. Review)	Can't Tell (CT)

Please note that codes are not designed to be mutually exclusive but are aggregative e.g. IT/CPB/[P1] (EUR)

Review part 1: - Explore qualitatively the different dimensions of interprofessional team leadership and to develop a typology.

Papers presenting different approaches to interprofessional team leadership to develop typology of interprofessional team leadership practice – Secondary Screen (For papers coded as “Consider for Review 1” above)

1. Is the FOCUS of the paper on interdisciplinary team leadership?	Yes – Go to 2	No - XIDT
2. Does the paper describe a model(s) of interdisciplinary team leadership?	No – Go to 3	Yes – Code as MOD – Go to 3
3. Does the paper provide definitions of interdisciplinary team leadership?	No – Go to 4	Yes – Code as DEF – Go to 4
4. Does the paper provide descriptions of roles/tasks of the interdisciplinary team leader?	No – Go to 5	Yes – code as ROLE – Go to 5
5. Does the paper describe facilitators/barriers (e.g. communication) to interdisciplinary team leadership?	No – Go to 6	Yes – code as F&B – Go to 6
6. Have you coded the paper with one or more of the above codes?	Yes – Go to 7	No – Exclude – Code as XREV1
7. Does the paper examine interdisciplinary working in primary or community care?	Yes – Code as Priority 1	No – Code as Priority 2

NB. Codes are not designed to be mutually exclusive. Assign all codes as relevant to Review 1 e.g, a paper with a model, a definition and a description of roles in community care would be coded as MOD/DEF/ROLE/Priority1. [If no codes then Exclude and code as XREV1]

Appendix 3 - Literature Review Quality Assessment Criteria

Screening questions				
1	Problem statement	Yes	Cannot tell	No
	Does the statement of the phenomenon lead directly to the purpose of the study and the research questions?			
2	Purpose of the research			
	Is the purpose of the research clearly expressed?			
3	Research questions			
	Are the research questions explicitly expressed?			
Detailed questions				
4	Literature review	Yes	Cannot tell	No
	Is the literature related to the research problem and point towards the research purpose?			
6	Sampling and participants			
	Is there description of type of sampling procedure?			
	Is there identification of inclusion criteria?			
	Does the sample size and configuration fit the purpose and sampling strategy?			
	Are features of the sample critical to the understanding of the findings described?			
	Do sites of recruitment fit the evolving needs of the study?			
7	Data gathering strategies			
	Is there clear description of data gathering procedures?			
	Is there discussion of time frame of data gathering?			
8	Data management and analysis strategies			
	Are methods used described?			
	Is there identification of categories or common elements found?			
9	Findings			
	Are interpretations of data demonstrably plausible and/or sufficiently substantiated with data?			
	Are concepts or ideas well-developed and linked to each other?			
	Are concepts used precisely?			
	Is there provision of evidence as to how representative in the sample the various findings were?			
10	Conclusions, discussion, implications, suggestions for future study			
	Does the discussion pertain to all significant findings?			
	Do the interpretive statements correspond to the findings?			
	Are the study findings linked to the findings of other studies, or to other relevant literatures?			
11	Validity			
	Is there evidence that researcher has considered the effect of his/her presence on the research findings?			
	Is there evidence that researcher has considered possibility of research bias or misinterpretation?			
	Are validation techniques used that fit the purpose, methods, sample, data and findings of the study?			

Appendix 4. The Multifactor Leadership Questionnaire – Peer Rater Version - Form 5X

MULTI-FACTOR LEADERSHIP QUESTIONNAIRE – LEADERSHIP STYLE – PEER RATING FORM

The aim of this questionnaire is to discover the most effective leadership styles in interprofessional care teams and how they influence the motivation, satisfaction and effort of staff. We would like you to complete this questionnaire to describe the leadership style of your team leader. Please try to answer all items. **If an item is irrelevant, or if you are unsure, or do not know the answer, leave the answer blank.**

Team:

Work Address:

Forty five descriptive statements are listed on the following pages. Judge how frequently each statement fits the person you are describing. Indicate your answer clearly using the following rating scale:

<i>The person I am rating.....</i>	Not at all	Once in a while	Some-times	Fairly Often	Frequently if not always
1. Provides me with assistance in exchange for my efforts	0	1	2	3	4
2. Re-examines critical assumptions to question whether they are appropriate	0	1	2	3	4
3. Fails to interfere until problems become serious	0	1	2	3	
4. Focuses attention on irregularities, mistakes, exceptions, and deviations from standards	0	1	2	3	4
5. Avoids getting involved when important issues arise	0	1	2	3	4

NB In keeping with copyright agreements only 5 elements of the MLQ can be shown in any publication.

Appendix 5. – Service Proforma

THE EEICC STUDY

ENHANCING THE EFFECTIVENESS OF INTERPROFESSIONAL
TEAMWORKING:
COST AND OUTCOMES

Service Proforma

For managers / team leaders to complete

Team Number

What is the name of your team or service?	
How long has your service existed?	
What is your role within your service?	

Reason for the service

Why was your service set up? e.g. unmet needs in the community, acute ward closure	
What is the primary goal of your service? e.g. prevent admissions to hospital, early discharge, community rehabilitation, etc.	

Access to your service

Who refers into your service? (circle all that apply)	GP Self / informal / friend / family Community nurse Social worker Accident and Emergency Ward in acute hospital Community hospital 99. Other 1 (please specify) 99. Other 2 (please specify)
How do clients access your service? e.g. single point of entry, telephone triage, discharge liaison nurse, assessment by team member	
What are the eligibility criteria for your service? e.g. medically stable, rehabilitation potential	
Are there any explicit exclusion criteria for your service? e.g. mental health status, age	

Service structure and organisation

What is the main location of your service provision? (circle one only)	The client's home Hospital – inpatient Hospital – outpatient Accident and emergency Nursing home Resource centre General practice Community hospital Community health service 99. Other (please specify)
If services are provided in more than one location, please specify the other locations (circle all that apply)	The client's home Hospital – inpatient Hospital – outpatient Accident and emergency Nursing home Resource centre General practice Community hospital Community health service 99. Other (please specify)
How would you describe your service? e.g. step-down facility, nurse-led unit	
What facilities are available? e.g. gym, office, kitchen, equipment	
How many referrals does your service take per year?	
What is the average duration of an episode of care for interventions provided by your service?	
What is the maximum duration of an episode of care for interventions provided by your service?	
What are the hours of operation of your service? e.g. 7 days a week, 24 hour support, on-call support, 9am-5pm, weekdays only	
What agencies do you work with? (Circle all that apply)	Social Services Voluntary sector (Age concern etc) Community mental health Domiciliary therapy/nursing services GP 99. Other (please specify)
Do clients pay for your service?	01. Yes 02. No 03. Sometimes
What is the professional background of the team leader?	

Is a single client file / client record used by all providers?	01. Yes	02. No
Do social services have a separate file / client record to health?	01. Yes	02. No
Do different professions have separate files / client records?	01. Yes	02. No
Is there a common physical base for the team?	01. Yes	02. No
How often does the whole team meet for operational meetings?		
How often does the whole team meet for case conferencing?		
What is the management structure in your service? (circle one only)	Split management Team leader is responsible for team management; service / professional heads responsible for clinical issues Specific team manager Single person responsible for both clinical and management issues Individual profession management Each individual is managed by their service/professional head Distant management Team is responsible to a manager in the organisation but the manager does not participate in the team actively Other (please specify)	

Your team

Staff member	Number in team? (WTE)	Casual / session only staff (please tick ✓)	Agency that finances this staff member e.g. PCT, social services
Clinical staff			
01 Physiotherapist			
02 Occupational therapist			
03 Social worker			
04 Podiatrist			
05 Speech and language therapist			
06 Nurse			
07 Dietician			
08 Psychologist			
08 Other			

Staff member	Number in team? (WTE)	Casual / session only staff (please tick)	Agency that finances this staff member e.g. PCT, social services
09 Doctor			
10 Geriatrician / consultant			
11 Counsellor			

12 Community Psychiatric Nurse			
13 Mental Health Nurse			
14 Pharmacist			
99 Other (please specify)			
Clinical support staff e.g. assistants, technical instructors, home care staff (please specify)			
Social care staff e.g. social care assessors, community care workers etc (please specify)			
Staff member	Number in team? (WTE)	Casual / session only staff (please tick)	Agency that finances this staff member e.g. PCT, social services
Management staff			
01 Manager			
02 Team leader			
03 Community care officer			
99 Other (please specify)			
Non clinical support staff (please specify)			
01 Administration / secretary			
99 Other (please specify)			
Domiciliary support staff e.g. cleaners, cooks etc. (please specify)			
Other staff (please specify)			

Context

What is the size of the population you serve?	
What type of population do you serve? (circle one only)	Urban Rural Sub-urban Mixed
What proportion of the population in your area are over 65 years old?	
What is the nature of your funding? e.g. recurrent / fixed term	
Who funds your service?	

e.g. PCT, voluntary sector, independent sector	
What is your annual budget?	
Who makes decisions about the direction of the service?	
Do you have an operational plan / strategy	01. Yes 02. No
What is the organisational setting or host institution for the service? (select all that apply)	Primary Care Trust Acute Trust Mental Health Trust Social Services Care Trust Other (please specify).....

Service users

What are the casemix / diagnostic groupings of those utilising your service? e.g. stroke, falls, orthopaedic	
What is the demographic profile of your service users? e.g. age, sex, ethnicity	
What is your service's target population? e.g. over 65's, stroke	

What is the most common level of care your clients/patients require?		
Please rank from 1-9, with 1 being the most common level of care required		
Rank	Level of care required	Aim of this level of care
	Level 0 : Patient does not need any intervention or Patient does not accept any intervention	
	Level 1 : Patient needs prevention / maintenance programme	Prevent physical and psychological deterioration Prevent loss of independence Promote psychological well-being Prevent physical and psychological deterioration Prevent loss of independence Promote psychological wellbeing Encourage healthy living Promote positive attitude to independence
	Level 2: Patient needs	Encourage improvement and/or maintenance of

	convalescence	independence Improve recuperation Wait for aids adaptations Wait for family adjustment support Adjust to new circumstances
	Level 3: Patient needs slow stream rehabilitation	Provide watchful waiting Provide assessment/observation Provide non-intensive rehabilitation/mobilisation Provide confidence Actively encourage, extend and facilitate increased speed of recovery Provide support programme which is being carried out by patient and carers
	Level 4: Patient needs regular rehabilitation programme	Provide rehabilitation to maintain steady and measurable progress. Improve expected recovery trajectory.
	Level 5: Patient needs intensive rehabilitation	Change from dependent to independence Reduce level of dependency on carers Achieve maximum level of function Resolve acute disabling conditions
	Level 6: Patient needs specific treatment for individual acute disabling condition	Target specific treatment by one profession. Alleviate or reduce specific Impairment/Activity.
	Level 7: Patient needs medical care and rehabilitation	Actively treat medical condition in order to prevent/modify deterioration or secondary sequelae whilst enabling patient to improve/maintain independence. Appropriately manage medical condition whilst patient undergoing multidisciplinary rehabilitation
	Level 8: Patient needs rehabilitation for complex profound disabling condition	Provide rehabilitation as part of long term management of condition. Maximise level of function, prevent secondary disabling condition. and improve quality of life. Provide particular provision of services related to those with low incidence specialised cognitive and physical disorders.

Thank you for completing this survey

Please return the completed survey in the enclosed reply paid envelope or address to:

EEICC Project Team
ScHARR
FREEPOST SF 1314
Sheffield
S1 1AY

Or fax to the attention of Tony Smith - EEICC Study
on 0114 272 4095

Or return by email to tony.smith@sheffield.ac.uk

Appendix 6. Workforce Dynamics Questionnaire
Workforce Dynamics Questionnaire – For Staff

This survey is to be completed by each team member

This survey examines a range of issues around your experiences of working in your current job, including your job satisfaction, team working, and role overlap with other practitioners.

Please answer every question.

To which team do you belong?

What is your professional group or discipline? Dietician General practitioner Geriatrician Nurse Occupational therapist Physiotherapist Podiatrist Psychologist Secretary / admin Social worker Speech and language therapist Support worker Social care worker Other
--	--

What is your current grade / designation (eg Agenda for Change grading)?

Are you in a team leader / management role?	0 No 1 Yes
---	---------------

What is the nature of your work (circle all that apply)

- Full time
- Part time
- Annualised hours
- Set shifts each week
- Locum
- Other (please specify).....

Gender	0 Female 1 Male
--------	--------------------

What is your year of birth?

19...

How many hours are you contracted to work each week in your current job?Hours per week
--	---------------------

How long have you worked in your current job?

.....Months

Role overlap

This question relates to the amount of role overlap you have with other practitioners. In column B, indicate how closely you work with the listed practitioners (even if they are not a regular part of your team). In column C, indicate *how much* your role overlaps with the selected workers by circling the number that corresponds with your estimate of the amount of role overlap. For instance, a score of '5' would indicate complete overlap of roles, whereas a score of '1' indicates no overlap of roles. If you work with a practitioner that is not listed, please write their profession into the 'other' box and complete as above.

Type of worker	Column B How closely do you work with the following practitioners?						Column C How much do your roles overlap					
	Do not work with at all			I work closely with			No overlap at all			A great deal of overlap		
	0	1	2	3	4	5	0	1	2	3	4	5
Dietician	0	1	2	3	4	5	0	1	2	3	4	5
Geriatrician	0	1	2	3	4	5	0	1	2	3	4	5
General practitioner	0	1	2	3	4	5	0	1	2	3	4	5
Nurse	0	1	2	3	4	5	0	1	2	3	4	5
Occupational therapist	0	1	2	3	4	5	0	1	2	3	4	5
Physiotherapist	0	1	2	3	4	5	0	1	2	3	4	5
Podiatrist	0	1	2	3	4	5	0	1	2	3	4	5
Psychologist	0	1	2	3	4	5	0	1	2	3	4	5
Social worker	0	1	2	3	4	5	0	1	2	3	4	5
Speech and language therapist	0	1	2	3	4	5	0	1	2	3	4	5
Secretary / admin	0	1	2	3	4	5	0	1	2	3	4	5
Support worker	0	1	2	3	4	5	0	1	2	3	4	5
Other 1...	0	1	2	3	4	5	0	1	2	3	4	5
Other 2...	0	1	2	3	4	5	0	1	2	3	4	5

*support worker can include therapy assistant, generic worker etc

**include any practitioner that you work with whether or not they are a core member of your team

Please circle the most correct answer

Overall satisfaction

**Extremely
dissatisfied** **Extremely
satisfied**

1. Overall, how satisfied are you with your current job?		1	2	3	4	5	6	7	8	9	10
--	--	---	---	---	---	---	---	---	---	---	----

applicable *n/a = not* **Strongly
disagree** **Strongly
agree**

Autonomy and role perception

2. Most of my work involves following instructions given by other people	n/a	1	2	3	4	5	6	7	8	9	10
--	-----	---	---	---	---	---	---	---	---	---	----

3. I am responsible for delegating work to my colleagues	n/a	1	2	3	4	5	6	7	8	9	10
--	-----	---	---	---	---	---	---	---	---	---	----

4. I am responsible for deciding what care the patient needs	n/a	1	2	3	4	5	6	7	8	9	10
--	-----	---	---	---	---	---	---	---	---	---	----

5. I make important decisions that influence the direction of my team	n/a	1	2	3	4	5	6	7	8	9	10
---	-----	---	---	---	---	---	---	---	---	---	----

6. I am often placed in a position of having to do things that are against my professional judgement	n/a	1	2	3	4	5	6	7	8	9	10
--	-----	---	---	---	---	---	---	---	---	---	----

7. I am proud of my profession / discipline	n/a	1	2	3	4	5	6	7	8	9	10
---	-----	---	---	---	---	---	---	---	---	---	----

8. My profession is well understood by the people I work with	n/a	1	2	3	4	5	6	7	8	9	10
---	-----	---	---	---	---	---	---	---	---	---	----

9. My profession is well understood by the general public	n/a	1	2	3	4	5	6	7	8	9	10
---	-----	---	---	---	---	---	---	---	---	---	----

10. My role is valued as highly as that of the other members of my team	n/a	1	2	3	4	5	6	7	8	9	10
---	-----	---	---	---	---	---	---	---	---	---	----

11. If I could, I would change my profession	n/a	1	2	3	4	5	6	7	8	9	10
--	-----	---	---	---	---	---	---	---	---	---	----

Role overlap

12. I am confident in my own role in my current job	n/a	1	2	3	4	5	6	7	8	9	10
---	-----	---	---	---	---	---	---	---	---	---	----

13. I sometimes feel threatened by the amount that other's roles overlaps with mine	n/a	1	2	3	4	5	6	7	8	9	10
---	-----	---	---	---	---	---	---	---	---	---	----

14. I have learnt a lot about the roles of other staff by working in this team	n/a	1	2	3	4	5	6	7	8	9	10
--	-----	---	---	---	---	---	---	---	---	---	----

15. I undertake joint patient visits with	n/a	1	2	3	4	5	6	7	8	9	10
---	-----	---	---	---	---	---	---	---	---	---	----

other members of my team

16. I have learnt a lot of new skills working in my current job	n/a	1	2	3	4	5	6	7	8	9	10
17. I am at risk of losing skills by working in my current job	n/a	1	2	3	4	5	6	7	8	9	10
18. My job requires that I am flexible in my role	n/a	1	2	3	4	5	6	7	8	9	10
Uncertainty											
19. I am unclear about the future direction of my team	n/a	1	2	3	4	5	6	7	8	9	10
20. I am clear of my role within the team	n/a	1	2	3	4	5	6	7	8	9	10
21. I have a clear idea of how my team will look one year from now.	n/a	1	2	3	4	5	6	7	8	9	10
22. I feel secure in my current job	n/a	1	2	3	4	5	6	7	8	9	10

Strongly disagree

Strongly agree

Workload

23. The workload in my current job is too high	n/a	1	2	3	4	5	6	7	8	9	10
24. I am satisfied with the hours I am required to work (eg shift work etc)	n/a	1	2	3	4	5	6	7	8	9	10
25. I would like to have more flexibility in my hours	n/a	1	2	3	4	5	6	7	8	9	10
26. I am not paid enough to reflect the level of experience and responsibility my job requires	n/a	1	2	3	4	5	6	7	8	9	10

Innovation

27. Much of my work is governed by care protocols or clinical pathways	n/a	1	2	3	4	5	6	7	8	9	10
28. I have to be innovative to work in my current job	n/a	1	2	3	4	5	6	7	8	9	10
29. My current job enables me to be innovative in my role	n/a	1	2	3	4	5	6	7	8	9	10

Integration with peers and colleagues

30. I have access to peer support from members of my own profession	n/a	1	2	3	4	5	6	7	8	9	10
31. I have formal management support from a member of my own profession	n/a	1	2	3	4	5	6	7	8	9	10

Access to technology and equipment

50. I have access to the <i>type</i> of equipment I need to do my job (eg equipment, aides)	n/a	1	2	3	4	5	6	7	8	9	10
51. I can access appropriate equipment <i>when</i> I need it	n/a	1	2	3	4	5	6	7	8	9	10
52. I have access to administrative support when I need it	n/a	1	2	3	4	5	6	7	8	9	10
53. I have access to a computer at work	n/a	1	2	3	4	5	6	7	8	9	10

Training and career progression opportunities

54. I have clear career opportunities in my current job	n/a	1	2	3	4	5	6	7	8	9	10
55. I have access to training if I need it	n/a	1	2	3	4	5	6	7	8	9	10
56. I am satisfied with the career development opportunities offered by my current job	n/a	1	2	3	4	5	6	7	8	9	10
57. I am more satisfied working in my current job than in other places I have worked	n/a	1	2	3	4	5	6	7	8	9	10
58. If I want to progress professionally, I will have to leave my current job	n/a	1	2	3	4	5	6	7	8	9	10
59. I cannot see a clear direction for my future in my current job	n/a	1	2	3	4	5	6	7	8	9	10
60. I can take time off work for training if I need to	n/a	1	2	3	4	5	6	7	8	9	10
61. I have the opportunity to specialise in my current job	n/a	1	2	3	4	5	6	7	8	9	10
62. I am planning to leave my current employer in the next twelve months	n/a	1	2	3	4	5	6	7	8	9	10
63. I am planning to change my profession in the next twelve months	n/a	1	2	3	4	5	6	7	8	9	10

Feeling prepared and trained for the role

64. I have the skills necessary to do my job	n/a	1	2	3	4	5	6	7	8	9	10
65. If I am uncertain about an aspect of patient / client care, I can always access someone who can help me	n/a	1	2	3	4	5	6	7	8	9	10
66. The quality of the care provided where I work is good	n/a	1	2	3	4	5	6	7	8	9	10
67. My service benefits the patients / clients	n/a	1	2	3	4	5	6	7	8	9	10
68. My team has clear systems for resolving disputes or workplace problems	n/a	1	2	3	4	5	6	7	8	9	10

Any other comments.....

Please return this in the prepaid envelope provided to:
 EEICC Workforce Project
 SchARR
 FREEPOST – SF1314
 Sheffield S1 1AY

Appendix 7. Client Record Pack

CONFIDENTIAL

The EEICC Study

**ENHANCING THE EFFECTIVENESS OF
INTERPROFESSIONAL TEAMWORKING:
COST AND OUTCOMES**

**CLIENT / SERVICE USER
RECORD PACK**

- Please use this pack to record information about the client/service user at entry to the service and discharge/end of service provision.
- Do not separate pages from each other.
- Where indicated, give the whole pack to the client/service user to complete the EQ-5D (quality of life measure) under supervision.
- Please ensure that the information recorded in this pack cannot identify the client in any way.

Many thanks for your help



INSTRUCTIONS ON ADMISSION

Please complete the following:

- Record of staff contact Page 3
- Details of Admission Pages 4-5

Now please turn to the EQ-5D form on pages 6-7 and pass the booklet to the client / service user, asking them to complete the survey *themselves*.

INSTRUCTIONS ON DISCHARGE

Please complete the following:

- Details of Discharge Pages 8-9

Now please turn to the EQ-5D form on pages 10-11 and pass the booklet to the client / service user, asking them to complete the survey *themselves*.

Please give the client / service user the satisfaction questionnaire attached to this booklet and ask them to complete it as soon as possible and to return it in the prepaid envelope. **Please stress that no-one on the scheme will see the completed satisfaction questionnaire.**

RECORD OF STAFF CONTACT

01 Please indicate the type of staff involved in delivering this client's care by placing ticks in the appropriate boxes.

	Tick ✓	
Nurse	<input type="checkbox"/>	01
Occupational Therapist	<input type="checkbox"/>	02
Physiotherapist	<input type="checkbox"/>	03
Social Worker	<input type="checkbox"/>	04
Speech & language therapist	<input type="checkbox"/>	05
Podiatrist	<input type="checkbox"/>	06
Dietitian	<input type="checkbox"/>	07
Pharmacist	<input type="checkbox"/>	08
Psychologist	<input type="checkbox"/>	09
Support worker*	<input type="checkbox"/>	10
Geriatrician / consultant	<input type="checkbox"/>	11
General Practitioner	<input type="checkbox"/>	12
Administrative personnel	<input type="checkbox"/>	13
Social care worker**	<input type="checkbox"/>	14
Other (please specify type below)	<input type="checkbox"/>	99

* Support worker = therapy assistant, social care assistant, generic worker etc.

** Social care worker = community care officer, social care assessor, etc.

DETAILS OF ADMISSION

02	Year of <u>birth</u>	<input style="width: 100%;" type="text"/>																																	
03	Sex	Male <input type="checkbox"/> 01 Female <input type="checkbox"/> 02																																	
04	Date of <u>admission</u> / start date of service provision	<input style="width: 100%;" type="text"/>																																	
05	Reason for referral (and diagnosis if applicable)	<input style="width: 100%; height: 40px;" type="text"/>																																	
06	Who made the referral? (Please tick one)	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 80%;">GP</td><td style="width: 5%;"><input type="checkbox"/></td><td style="width: 15%; text-align: right;">01</td></tr> <tr><td>Self/informal carer/friend/family</td><td><input type="checkbox"/></td><td style="text-align: right;">02</td></tr> <tr><td>Community nurse</td><td><input type="checkbox"/></td><td style="text-align: right;">03</td></tr> <tr><td>Social worker</td><td><input type="checkbox"/></td><td style="text-align: right;">04</td></tr> <tr><td>Allied Health Professional</td><td><input type="checkbox"/></td><td style="text-align: right;">05</td></tr> <tr><td>Accident and Emergency</td><td><input type="checkbox"/></td><td style="text-align: right;">06</td></tr> <tr><td>Ward in acute hospital</td><td><input type="checkbox"/></td><td style="text-align: right;">07</td></tr> <tr><td>Community hospital</td><td><input type="checkbox"/></td><td style="text-align: right;">08</td></tr> <tr><td>Patient recruited from ward by scheme staff</td><td><input type="checkbox"/></td><td style="text-align: right;">09</td></tr> <tr><td>Other (please specify below)</td><td><input type="checkbox"/></td><td style="text-align: right;">99</td></tr> </table> <input style="width: 100%; height: 30px;" type="text"/>	GP	<input type="checkbox"/>	01	Self/informal carer/friend/family	<input type="checkbox"/>	02	Community nurse	<input type="checkbox"/>	03	Social worker	<input type="checkbox"/>	04	Allied Health Professional	<input type="checkbox"/>	05	Accident and Emergency	<input type="checkbox"/>	06	Ward in acute hospital	<input type="checkbox"/>	07	Community hospital	<input type="checkbox"/>	08	Patient recruited from ward by scheme staff	<input type="checkbox"/>	09	Other (please specify below)	<input type="checkbox"/>	99			
GP	<input type="checkbox"/>	01																																	
Self/informal carer/friend/family	<input type="checkbox"/>	02																																	
Community nurse	<input type="checkbox"/>	03																																	
Social worker	<input type="checkbox"/>	04																																	
Allied Health Professional	<input type="checkbox"/>	05																																	
Accident and Emergency	<input type="checkbox"/>	06																																	
Ward in acute hospital	<input type="checkbox"/>	07																																	
Community hospital	<input type="checkbox"/>	08																																	
Patient recruited from ward by scheme staff	<input type="checkbox"/>	09																																	
Other (please specify below)	<input type="checkbox"/>	99																																	
07	What are the patient/user's normal living arrangements? (Please tick one)	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 80%;">Lives alone in own home (owned or rented)</td><td style="width: 5%;"><input type="checkbox"/></td><td style="width: 15%; text-align: right;">01</td></tr> <tr><td>Lives with other(s) in own home (owned or rented)</td><td><input type="checkbox"/></td><td style="text-align: right;">02</td></tr> <tr><td>Lives in relative's home</td><td><input type="checkbox"/></td><td style="text-align: right;">03</td></tr> <tr><td>Lives in residential/nursing home</td><td><input type="checkbox"/></td><td style="text-align: right;">04</td></tr> <tr><td>Lives in sheltered housing</td><td><input type="checkbox"/></td><td style="text-align: right;">05</td></tr> <tr><td>Other (please specify below)</td><td><input type="checkbox"/></td><td style="text-align: right;">99</td></tr> </table> <input style="width: 100%; height: 30px;" type="text"/>	Lives alone in own home (owned or rented)	<input type="checkbox"/>	01	Lives with other(s) in own home (owned or rented)	<input type="checkbox"/>	02	Lives in relative's home	<input type="checkbox"/>	03	Lives in residential/nursing home	<input type="checkbox"/>	04	Lives in sheltered housing	<input type="checkbox"/>	05	Other (please specify below)	<input type="checkbox"/>	99															
Lives alone in own home (owned or rented)	<input type="checkbox"/>	01																																	
Lives with other(s) in own home (owned or rented)	<input type="checkbox"/>	02																																	
Lives in relative's home	<input type="checkbox"/>	03																																	
Lives in residential/nursing home	<input type="checkbox"/>	04																																	
Lives in sheltered housing	<input type="checkbox"/>	05																																	
Other (please specify below)	<input type="checkbox"/>	99																																	
08	Where is the patient receiving their care/input from your service? (Please tick one)	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 80%;">Own home</td><td style="width: 5%;"><input type="checkbox"/></td><td style="width: 15%; text-align: right;">01</td></tr> <tr><td>Relative's home</td><td><input type="checkbox"/></td><td style="text-align: right;">02</td></tr> <tr><td>Residential/nursing home</td><td><input type="checkbox"/></td><td style="text-align: right;">03</td></tr> <tr><td>Sheltered housing</td><td><input type="checkbox"/></td><td style="text-align: right;">04</td></tr> <tr><td>Acute hospital</td><td><input type="checkbox"/></td><td style="text-align: right;">05</td></tr> <tr><td>Accident and emergency</td><td><input type="checkbox"/></td><td style="text-align: right;">06</td></tr> <tr><td>Intermediate care facility</td><td><input type="checkbox"/></td><td style="text-align: right;">07</td></tr> <tr><td>Day hospital</td><td><input type="checkbox"/></td><td style="text-align: right;">08</td></tr> <tr><td>Resource centre</td><td><input type="checkbox"/></td><td style="text-align: right;">09</td></tr> <tr><td>Community hospital</td><td><input type="checkbox"/></td><td style="text-align: right;">10</td></tr> <tr><td>Other (please specify below)</td><td><input type="checkbox"/></td><td style="text-align: right;">99</td></tr> </table> <input style="width: 100%; height: 30px;" type="text"/>	Own home	<input type="checkbox"/>	01	Relative's home	<input type="checkbox"/>	02	Residential/nursing home	<input type="checkbox"/>	03	Sheltered housing	<input type="checkbox"/>	04	Acute hospital	<input type="checkbox"/>	05	Accident and emergency	<input type="checkbox"/>	06	Intermediate care facility	<input type="checkbox"/>	07	Day hospital	<input type="checkbox"/>	08	Resource centre	<input type="checkbox"/>	09	Community hospital	<input type="checkbox"/>	10	Other (please specify below)	<input type="checkbox"/>	99
Own home	<input type="checkbox"/>	01																																	
Relative's home	<input type="checkbox"/>	02																																	
Residential/nursing home	<input type="checkbox"/>	03																																	
Sheltered housing	<input type="checkbox"/>	04																																	
Acute hospital	<input type="checkbox"/>	05																																	
Accident and emergency	<input type="checkbox"/>	06																																	
Intermediate care facility	<input type="checkbox"/>	07																																	
Day hospital	<input type="checkbox"/>	08																																	
Resource centre	<input type="checkbox"/>	09																																	
Community hospital	<input type="checkbox"/>	10																																	
Other (please specify below)	<input type="checkbox"/>	99																																	

Level of Care: Please tick the level that best describes the client's needs (**tick only one**)

09	0 Client does not need any intervention		00
	1 Client needs prevention / maintenance programme		01
	2 Client needs convalescence / respite		02
	3 Client needs slow stream rehabilitation		03
	4 Client needs regular rehabilitation programme		04
	5 Client needs intensive rehabilitation		05
	6 Client needs specific treatment for individual acute disabling condition		06
	7 Client needs medical care and rehabilitation		07
	8 Client needs rehabilitation for complex disabling condition		08

Enderby P & Stevenson J (2000). What is Intermediate Care? Looking at Needs. *Managing Community Care* 8(6): 35-40

TOMs: Please enter a score from 0 – 5 for each category in the box to the right (you may use half points if necessary if the category is not quite appropriate)

Score eg
1.5

10	Impairment	0 The most severe presentation of this impairment 1 Severe presentation of this impairment 2 Severe/moderate presentation 3 Moderate presentation 4 Just below normal/mild presentation 5 No impairment	
11	Activity	0 Totally dependent unable to function 1 Assists/Co-operates but burden of task falls on professional carer 2 Can undertake some part of task but needs a high level of support to complete 3 Can undertake task function in familiar situation but requires some verbal/physical assistance 4 Requires some minor assistance occasionally or extra time to complete the task 5 Independent/able to function	
12	Participation	0 No autonomy, isolated, no social/family role 1 Very limited choices, contact mainly with professionals, no social or family role, little control over life 2 Some integration, value and autonomy in one setting 3 Integrated, valued and autonomous in limited number of settings 4 Occasionally some restriction in autonomy, integration or role 5 Integrated, valued, occupies appropriate role	

13 Wellbeing	<ul style="list-style-type: none"> 0 High & constant levels of concern/anger/severe depression or apathy, unable to express or control emotions appropriately 1 Moderate concern, becomes concerned easily, requires constant reassurance/support, needs clear/tight limits and structure, loses emotional control easily 2 Concern in unfamiliar situations, frequent emotional encouragement and support required 3 Controls emotions with assistance, emotionally dependent on some occasions, vulnerable to change in routine, spontaneously uses methods to assist emotional control 4 Able to control feelings in most situations, generally well adjusted/stable (most of the time/most situations), occasional emotional support/encouragement needed 5 Well adjusted, stable and able to cope with most situations, opportunity to self-analyse, accepts and understands own limitations 	
---------------------	---	--

Enderby P, John A & Petherham B (2006). *Therapy Outcome Measures for speech and language therapists, physiotherapists, occupational therapists and rehabilitation nursing* (2nd Edition). Wileys, UK.

Refer to manual for specific rating scales and more information.

EQ-5D HEALTH SURVEY (ADMISSION)

We are interested in how well you feel and how your health affects the way you carry out your daily activities. We would be grateful if you could answer these questions.

Place a tick in ***one box*** in each group below to indicate which statement best describes your own health state ***today***.

7.8.1.1 Mobility

Please tick one

- | | | |
|---------------------------------------|--------------------------|-------|
| I have no problems in walking about | <input type="checkbox"/> | 14 01 |
| I have some problems in walking about | <input type="checkbox"/> | 14 02 |
| I am confined to bed | <input type="checkbox"/> | 14 03 |

7.8.1.2 Self-care

7.8.1.2.1.1.1 Please tick one

- | | | |
|---|--------------------------|-------|
| I have no problems with self-care | <input type="checkbox"/> | 15 01 |
| I have some problems washing or dressing myself | <input type="checkbox"/> | 15 02 |
| I am unable to wash or dress myself | <input type="checkbox"/> | 15 03 |

Usual activities (e.g. work, study, housework, family or leisure)

7.8.1.2.1.1.2 Please tick one

- | | | |
|--|--------------------------|-------|
| I have no problems with performing my usual activities | <input type="checkbox"/> | 16 01 |
| I have some problems with performing my usual activities | <input type="checkbox"/> | 16 02 |
| I am unable to perform my usual activities | <input type="checkbox"/> | 16 03 |

7.8.1.3 Pain / discomfort

I have no pain or discomfort

I have moderate pain or discomfort

7.8.1.3.1.1.2 I HAVE EXTREME PAIN OR DISCOMFORT

7.8.1.3.1.1.1 Please
tick one

17 01

17 02

17 03

7.8.1.3.2 Anxiety / depression

7.8.1.3.2.2 I am not anxious or depressed

I am moderately anxious or depressed

I am extremely anxious or depressed

7.8.1.3.2.1.1 Please
tick one

18 01

18 02

18 03

Remember, these questions are about how you feel **TODAY**.

Thank you for your help in this survey.

Please hand this booklet back to the member of staff who gave it to you.

If the client/service user is unable to complete the questions, please read out the questions and possible answers and fill in the responses they give.

Please remember to complete the section below when the client / service user hands you back the booklet

19 Date of completion of EQ-5D health survey (Admission)

20 If not completed, please indicate why
Client/Service user refused
Other (please specify clearly below)

01
 99

DETAILS OF DISCHARGE

2 Date of discharge or end of service provision
1

2 Outcome for **this** episode of care: please complete **either** A, B, C, D **or** E
2

A **Not accepted onto scheme:**

- | | | |
|--------------------------|-------------------------------|----|
| <input type="checkbox"/> | Inappropriate referral | 01 |
| <input type="checkbox"/> | Client refused / declined | 02 |
| <input type="checkbox"/> | Referred to different service | 03 |
| <input type="checkbox"/> | Required home care only | 04 |
| <input type="checkbox"/> | Other (please specify below) | 96 |

B **Episode of care completed on scheme:**

Where is client to live
or where was he/she
discharged to?

- | | | |
|--------------------------|--|----|
| <input type="checkbox"/> | Own home | 05 |
| <input type="checkbox"/> | Relative's home | 06 |
| <input type="checkbox"/> | Temporary residential or nursing home care | 07 |
| <input type="checkbox"/> | Permanent residential or nursing home care | 08 |
| <input type="checkbox"/> | Other (please specify below) | 97 |

C **Transferred before end of episode of care:**

- | | | |
|--------------------------|--|----|
| <input type="checkbox"/> | Transferred to acute hospital | 09 |
| <input type="checkbox"/> | Transferred to community hospital | 10 |
| <input type="checkbox"/> | Transferred to other intermediate care setting | 11 |
| <input type="checkbox"/> | Transferred to temporary residential/nursing home care | 12 |
| <input type="checkbox"/> | Transferred to another setting (please specify below) | 98 |

Please record why transferred

D **Patient/user died:**

Date of death

Cause of death (if known)

E **Other outcome not covered above** (e.g. user withdrew from service): 99
 Please give detail

23 Support services in place if client to live at home (or relative's home). 01
Indicate whether visits are per day or per week

Home care	<input style="width: 40px; height: 20px;" type="text"/>	visits per	<input style="width: 40px; height: 20px;" type="text"/>	01
District nurse	<input style="width: 40px; height: 20px;" type="text"/>	visits per	<input style="width: 40px; height: 20px;" type="text"/>	02
Domiciliary therapy	<input style="width: 40px; height: 20px;" type="text"/>	visits per	<input style="width: 40px; height: 20px;" type="text"/>	03
Meals-on-Wheels	<input style="width: 40px; height: 20px;" type="text"/>	visits per	<input style="width: 40px; height: 20px;" type="text"/>	04
Other (please specify)	<input style="width: 40px; height: 20px;" type="text"/>	visits per	<input style="width: 40px; height: 20px;" type="text"/>	99

None 05
 Don't know 77

Level of Care: Please tick the level that best describes the client's needs (tick only one)

24	0	Client does not need any intervention	00
	1	Client needs prevention / maintenance programme	01
	2	Client needs convalescence / respite	02
	3	Client needs slow stream rehabilitation	03
	4	Client needs regular rehabilitation programme	04
	5	Client needs intensive rehabilitation	05
	6	Client needs specific treatment for individual acute disabling condition	06
	7	Client needs medical care and rehabilitation	07
	8	Client needs rehabilitation for complex disabling condition	08

Enderby P & Stevenson J (2000). What is Intermediate Care? Looking at Needs. *Managing Community Care* 8(6): 35-40

TOMs: Please enter a score from 0 – 5 for each category in the box to the right (you may use half points if necessary). Please refer to page 5 for full details.

25	Impairment	<input style="width: 80%; height: 20px;" type="text"/>
----	-------------------	--

26	Activity	
27	Participation	
28	Wellbeing	

Enderby P, John A & Petherham B (2006). *Therapy Outcome Measures for speech and language therapists, physiotherapists, occupational therapists and rehabilitation nursing (2nd Edition)*. Wileys, UK.

EQ-5D HEALTH SURVEY (DISCHARGE)

We are interested in how well you feel and how your health affects the way you carry out your daily activities. We would be grateful if you could answer these questions.

Place a tick in ***one box*** in each group below to indicate which statement best describes your own health state ***today***.

7.8.1.4 Mobility

Please tick one

I have no problems in walking about

29 01

I have some problems in walking about

29 02

I am confined to bed

29 03

7.8.1.5 Self-care

7.8.1.5.1.1.1 Please tick one

I have no problems with self-care

30 01

I have some problems washing or dressing myself

30 02

I am unable to wash or dress myself

30 03

Usual activities (e.g. work, study, housework, family or leisure)

7.8.1.5.1.1.2 Please tick one

I have no problems with performing my usual activities

31 01

I have some problems with performing my usual activities

31 02

I am unable to perform my usual activities

31 03

7.8.1.6 Pain / discomfort

I have no pain or discomfort

I have moderate pain or discomfort

I have extreme pain or discomfort

7.8.1.6.1.1.1 Please
tick one

32 01

32 02

32 03

7.8.1.6.2 Anxiety / depression

7.8.1.6.2.2 I am not anxious or depressed

I am moderately anxious or depressed

I am extremely anxious or depressed

7.8.1.6.2.1.1 Please
tick one

33 01

33 02

33 03

Remember, these questions are about how you feel **TODAY**.

Thank you for your help in this survey.

Please hand this booklet back to the member of staff who gave it to you.

If the client/service user is unable to complete the questions, please read out the questions and possible answers and fill in the responses they give.

Please remember to complete the section below when the client / service user hands you back the booklet

34 Date of completion of EQ-5D health survey (Discharge)

35 If not completed, please indicate why Client/Service user refused Other (please specify clearly below)

<input type="checkbox"/>	01
<input type="checkbox"/>	99

SATISFACTION QUESTIONNAIRE

Please give the client / service user the satisfaction questionnaire and ask them to complete it as soon as possible and to return it in the prepaid envelope provided.

Please stress that no-one on the scheme will see the completed questionnaire.

**MANY THANKS FOR YOUR HELP & TIME IN
COMPLETING THIS INFORMATION**

Please address any queries regarding the administration of this record pack to:

Tony Smith	Tony.Smith@sheffield.ac.uk	0114 222 0892
Pam Enderby	P.M.Enderby@sheffield.ac.uk	0114 222 0858
Steven Ariss	S.Ariss@sheffield.ac.uk	0114 222 8371
Adele Blinston	Adele.Blinston@sheffield.ac.uk	0114 222 8370

OR

Freepost address:EEICC Project Team
ScHARR
FREEPOST SF 1314
Sheffield S1 1AY

Appendix 8. - Interview Schedule

EEICC Interview schedule for staff to discuss the nature of effective leadership in interprofessional teams

Name / number of team:

Job title of interviewee:

Agenda for change band:

Date of interview:

Interviewer: Tony Smith

Permission to tape record: (transcript required?)

Face to face interview (circle correct)

Introduction

Thank you for agreeing to be interviewed as part of the evaluation of the EEICC workforce project being carried out by staff at The University of Sheffield, School of Health and Related Research. The study is funded by the Department of Health, Service Delivery and Organisation Programme.

This interview should last for approximately 40 minutes.

The data obtained from this interview will be used in a non-attributable form.

Interviews questions

1. Which work factors affect your clinical performance?
2. Do you feel yourself to be as productive as you could be in your role?
3. Can you describe some of the instances when you felt yourself to be at your most productive?
4. What factors helped you to be so productive?
5. From your perspective, how can staff in interprofessional care teams become more productive?
6. Do you feel committed to your interprofessional care teams work and goals?
7. When you are feeling very committed to the interprofessional care teams work and goals, what conditions or situations make you feel that way?
8. If you could design an environment in which you could be most successful, what 3 things would you include?
9. What does, or might, your manager do to make you feel more commitment to the organization?
10. What is the worst example of leadership you have experienced? What things did the leader do that was so bad? How did it make you feel towards your work?
11. What is the best example of leadership you have experience? What things did the leader do that were so good? How did it make you feel towards your work?
12. Describe the leadership qualities of your current team leader?
13. What would be the ideal characteristics of a leader of an interprofessional care team such as yours?
14. Is it necessary for the leader of an interprofessional care team to be a health professional (Dr, Nurse, Therapist etc).
15. Is there any particular professional background that you think would be most appropriate to lead an interprofessional care team such as yours?
16. Are there any other things that you think are important for effectively leading interprofessional care teams?

Thank you very much for agreeing to be interviewed and for providing the information requested.

Appendix 9. - Qualitative interview invitation letter

THE UNIVERSITY OF SHEFFIELD
School of Health and Related Research

ScHARR
SCHOOL OF HEALTH AND
RELATED RESEARCH



(Date)

Dear

Re: The EEICC Study: Invitation to take part in a face-to-face interview

As a member of a Community Based or Intermediate Care Team participating in the EEICC project we would like to obtain your views about you're the attributes of effective leadership in an interprofesional care team setting.

The interview will last for forty five minutes and further details of themes to be covered will be provided once you have confirmed your participation. The interview will be conducted by myself. I would like to suggest the following date and time immediately before/after action learning set that has already been organised [specify date and time].

I must stress that your participation in the interview is entirely voluntary and any information you provide will only be used in a non-identifiable form. If you have any queries about our research or your potential involvement, please do not hesitate to contact me at the University of Sheffield. I can be reached on 0114 222 0892 or by email on tony.smith@sheffield.ac.uk. Alternatively please ask your manager for further information.

I look forward to working with you.

Yours sincerely,

Tony Smith

Research Fellow

EEICC Project Manager

Appendix 10. - Interview Consent Form

THE UNIVERSITY OF SHEFFIELD
School of Health and Related Research



Team Number

THE EEICC STUDY

Enhancing the Effectiveness of Interprofessional Teamworking: Costs and Outcomes

Staff Consent Form – Face to face interviews

Project title: Enhancing the Effectiveness of Interprofessional Teamworking: Costs and Outcomes

Researchers: Professor Pam Enderby
Dr Susan Nancarrow
Mr Tony Smith
Ms Anna Moran

Please initial box

1. I acknowledge that I have read and understood the information sheet for the above study and have had the opportunity to consider the information and ask questions.
2. I understand that my participation in this project is voluntary, I am here of my own free will, and I am free to withdraw at any time without giving any reason, without my employment being affected.
3. I agree to take part in the above study

Name of staff member

Date

Signature

Name of researcher

Date

Signature