INVESTIGATING THE EFFECTIVENESS OF BREAST CANCER TEAMS IN IRELAND: THE ROLE OF INTERPROFESSIONAL TEAM PROCESSES

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ABSTRACT

While there is sufficient research evidence to suggest that a multidisciplinary team approach improves the outcomes of patients, specifically those with breast cancer, limited attention has examined the extent to which certain inter-professional team working processes coordinate the multiple disciplines involved in a way that facilitates improved team effectiveness, specifically in breast cancer care in Ireland. Therefore, this study was carried out in order to examine the multidisciplinary team working process and its impact on the effectiveness of multidisciplinarity in the regional specialised breast cancer centres in Ireland. Three breast cancer teams were investigated using a mixed methods approach. It involved (1) a bespoke questionnaire comprising multiple previously published/validated scales, which was completed by the team members, (2) follow-up interviews with core team members and (3) a questionnaire designed, standardised and validated by Picker Institute\(^1\), which was administered to a minimum of one hundred patients per team who were attending the teams’ review clinics.

In this study, team outcomes were predicted by a number of team process variables. Specifically, the ratings of various aspects of team effectiveness were predicted by innovation & flexibility and the professional development of team members. Other team outcomes, such as work satisfaction, general mental health and the overall team effectiveness score, were predicted by the following: participation in decision-making, communication of the team’s long-term plans and goals, intra-team communication, innovation & flexibility, professional development and leadership & supervision. However, follow-up interviews highlighted challenges involved in implementing these team working processes in practice. The lack of understanding and appreciation of one another’s roles and limited communication were the most commonly cited. In addition, findings from the patient questionnaire drew attention to the lack of sufficient clinical nurse specialist staffing in the multidisciplinary team. This had an impact on maintaining communication between the team and the patient, particularly in the provision of emotional and educational support during the patient’s cancer care.

Together, the findings of this study point to a number of important implications for theory, policy and practice. The most salient of these are as follows: the need for increased role clarity and recognition and improved communication both within and between the teams and between the teams and patients; sufficient staffing in oncology liaison nursing to support

\(^1\) Picker Institute cooperates with educational institutions and other interested bodies in sponsoring education and research in patient-centred care.
communication between the team and the patient; as well as team building exercises. If implemented, these practices would afford the opportunity for improvement in these breast cancer teams before practices that contribute to less than optimal team performance become embedded.
PROLOGUE

The original aim of the thesis was to conduct a comparative study of multidisciplinary team working practices in the breast cancer centres in Ireland and in British Columbia [BC], Canada. The rationale for this comparative approach was grounded in the fact that, in 2006/2007, Ireland embarked upon a systematic re-organisation of its breast cancer services into regional cancer centres in order to reflect what had been successfully achieved in BC in 2002. In the interim, the National Cancer Control Programme [NCCP] in Ireland was to be directed by Professor Tom Keane – a clinician and academic by training. He was seconded by the BC Cancer Agency to Ireland in 2006/2007 on grounds of his former experience as a provincial radiation programme leader with the BC Cancer Agency for twelve years.

The first step involved in conducting a comparative study overseas required the appointment of an academic to supervise the study in BC. This necessitated investigating the research interests of staff across the various universities. In the end, Professor Sally Thorne of the School of Nursing at the University of BC was considered to be appropriate and agreed to act in this role. Ethical approval of the study in BC was granted without difficulty and I immediately initiated both email and telephone contact with the regional breast cancer centres in BC on the prospect of their involvement in this comparative study.

To my surprise, however, I quickly realised that a comparative element in this thesis was not feasible because the regional breast cancer centres in BC are structurally different to those in Ireland. While the planning arrangement of the breast cancer centres in Ireland had adopted an on-site multidisciplinary team approach in line with the research evidence, the established breast cancer centres in BC, however, could not be considered multidisciplinary in nature. These breast cancer centres primarily function as radiation/chemotherapy treatment centres. Breast surgeons, situated in regional hospitals, carry out the diagnostic procedures and engage with these regional centres when treatment is appropriate. The nurses in these regional centres do not have specialised cancer care training and are not specifically involved in breast oncology care. Therefore, the only team structure evident in these regional centres is the collaboration between medical and radiation oncologists.
Because the structures of the breast cancer centres in Ireland and in BC are not equivalent, the rationale for a comparative study on breast cancer centres no longer existed. Rather, an in-depth study of the role of multidisciplinary team working practices in the breast cancer centres in Ireland only was considered to be more valuable, although the recruitment of those teams later proved to be a demanding task in itself.

Nonetheless, despite this outcome, promising contact has been established with both academics and medical practitioners in breast cancer care in BC. The prospect for an evaluation of breast cancer care in Ireland and in BC following this doctoral study has been welcomed. Indeed, given the structural differences in both countries, one could argue that the breast cancer centres in BC are less developed in terms of their multidisciplinarity than those in Ireland. As one radiation oncologist in BC acknowledged: *We need to learn from our Irish counterparts.*
To mum and Jonathan with love
I would firstly like to thank my supervisors Dr. Claire Armstrong and Dr. Sarah MacCurtain for their invaluable insights, expertise and friendship during the last four years. Their generosity of time, patience and guidance gave me the strength to persevere in my understanding of the magnitude of the situation at hand, making this journey both an enlightening and enjoyable one.

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I would like to say a special thank you to my wonderful mother, Elmar, for her wisdom, unwavering kindness, support and love. Undoubtedly, Mum has been the one to keep me sane!

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CHAPTER ONE: INTRODUCTION

1.1 Introduction
This chapter begins by setting out the overall purpose and aims of the research. The context in which the study is carried out is examined and described, in terms of the following: statistics on incidence rates and mortality rates of breast cancer; current policy and practice regarding multidisciplinary teams [MDTs] in breast cancer care, with particular reference to the United Kingdom [UK] and Ireland; and the current state of theoretical research into the effectiveness of MDTs in the healthcare context. Following this, the questions guiding the research are laid out. Next, the methodology employed is briefly discussed. The proposed outcomes of the research follow. Finally, the reader is presented with an outline of the structure of the remainder of the thesis.

1.2 Purpose of the Research
This study is carried out in order to build a picture of the multidisciplinary team working process and, from this, to gain a more complete understanding of the factors determining the effectiveness of multidisciplinarity in the regional specialised breast cancer teams in Ireland. As is discussed, while there is sufficient research evidence to suggest that a multidisciplinary team approach improves the outcomes of patients, specifically those with breast cancer, limited attention has examined the extent to which certain interprofessional team working processes coordinate the multiple disciplines involved in a way that facilitates improved team effectiveness, specifically in breast cancer care in Ireland.
1.3 Context of the Research

1.3.1 Statistics

Cancer is the second leading cause of mortality in OECD\(^2\) countries, accounting for 27% of all deaths on average in 2006 (OECD 2009). Breast cancer is the most common form of cancer among women in OECD countries (OECD 2009). It accounts for 30% or more of cancer incidence among women and 15% to 20% of cancer deaths (OECD 2009). According to the OECD report (2009), while the incidence rates of breast cancer have increased with the availability of breast cancer screening over the past decade, the death rates have declined or remained stable in many OECD countries, indicating increases in survival rates, due to earlier diagnosis and/or better treatments.

However, this finding is not consistent in the Irish context, whereby both the incidence rates and mortality rates of breast cancer have remained high. Breast cancer is the second most common cancer in Ireland. It accounts for 30% of all cancers in Irish women with approximately 2,500 new breast cancer cases diagnosed each year (NCRI 2009). In comparison with other Western European countries, the incidence of breast cancer in Ireland is ranked second highest and is 19% above the European Union [EU] average incidence (National Cancer Registry and Womens Health Care 2006). Furthermore, the mortality rate of breast cancer in Ireland is ranked fourth highest amongst OECD countries (OECD 2009), just in front of its neighbouring country, the UK. In 2008, 731 deaths from breast cancer were reported in Ireland (DOH 2010).

1.3.2 Policy and Practice

Research evidence shows that the survival rates of women with breast cancer improve by five to ten years when they are treated in specialised breast cancer centres (Gillis and Hole 1996), particularly where surgical staff are specialised in breast surgery (Houssami and Sainsbury 2006). More importantly, however, it is where there is an MDT (Eaker \textit{et al}. 2005), consisting of the core professionals from surgery, radiology, pathology, oncology and nursing (Haward \textit{et al}. 2003), in addition to the more peripheral professions, including palliative care, psychiatry/psychology, genetics and plastic surgery (Catt \textit{et al}. 2005). Indeed, two observational studies in breast cancer found that MDTs resulted in more evidence-based recommendations and more timely treatment (Chang \textit{et al}. 2001, Gabel \textit{et al}. 1997). Also

\(^2\) Organisation for Economic Co-operation and Development – an organisation that provides a setting where governments can assess the similarities or differences of policy experiences, search for answers to common problems, identify good practice and coordinate domestic and international policies
Important are sufficiently high team caseloads (Haward et al. 2003), specifically high surgeon workloads (Mikeljevic et al. 2003), and adequate surgical management (Kingsmore et al. 2004).

Healthcare policy on breast cancer care in Western Europe now considers the multidisciplinary team approach as the standard structure of care (Fleissig et al. 2006a, Houssami and Sainsbury 2006, Whelan et al. 2006). The European Society of Mastology [EUSOMA] has published guidelines for ideal multidisciplinary clinics and established a certification system for dedicated breast centres (Blamey and Cataliotti 2006, EUSOMA 2000, Greco and Marotti 2006). An essential prerequisite is that each breast unit has a core team consisting of health professionals from diverse disciplines who have undergone specialist training in breast cancer, beyond that provided in their general medical education (Cataliotti et al. 2007). However, a consistent finding in health services research is the gap between evidence and practice (Grol and Grimshaw 2003). While safe, reliable evidence-based healthcare has become a major ambition for policy-makers in healthcare, especially in developed countries, it is not always achieved (Corrigan et al. 2001, Kohn et al. 1999).

In the UK, for example, a major national policy initiative for multidisciplinary cancer care was launched in 1995 (Calman and Hine 1995). This was subsequently followed by the publication of Improving Outcomes Guidance for Breast Cancer Services in 1996 (Cancer Guidance Sub-Group of the Clinical Outcomes Group 1996), which recommended that all breast cancer patients should be referred to MDTs managing a minimum of 100 new breast cancer patients per year; it detailed the composition of teams, defining core and extended members; it specified that each team has a designated lead clinician; and it defined some of the working practices, such as meeting regularly to discuss all new cases and having protocols for referral and treatment. Indeed, it was at that time when survival from breast cancer in the UK compared unfavourably with many European countries (Berrino et al. 1999, Quinn et al. 1998). In the UK alone, wide variations in the management of breast cancer patients were reported (Chouillet et al. 1994, Richards et al. 1996, Sainsbury et al. 1995b) and variable care was thought to contribute to the relatively poor performance (Sant et al. 1998).
However, current data from the Clinical Trials Support Unit validated by the World Health Organisation has shown a 30% improvement in breast cancer survival in the UK in the decade from 1990 to 2000 with continuing improvement trends to date (Peto and Boreham 2004). This improvement has partly come about as a result of the use of the multidisciplinary team approach in the management of patients with breast cancer (Peto and Boreham 2004). A more recent study by Whelan et al. (2006) on the management of breast cancer patients in England is encouraging in that most patients with breast cancer in England are now cared for by an MDT. Nonetheless, the coordination of the multiple professions involved in the diagnosis and treatment of each patient is yet to be improved (Whelan et al. 2006). In short, “much achieved but still more to be done” (Whelan et al. 2006, p.119).

Similarly, in Ireland, a major national policy initiative for multidisciplinary cancer care was launched in 2007. This sought a re-organisation of the country’s cancer services into eight regional specialised centres, under the guidance of national quality assurance standards of clinical practice for symptomatic breast disease services (O’ Higgins 2007, O’ Keefe et al. 2000). However, in 2008, a number of false positive and false negative breast cancer diagnoses were reported in two healthcare regions in Ireland. The reports (Fitzgerald 2008, HIQA 2008, O’ Doherty 2008, O’ Doherty et al. 2008) on the circumstances surrounding the misdiagnoses of Irish women indicated systemic weaknesses in the translation of evidence-based guidelines for multidisciplinary breast cancer care into the practice setting in Ireland. These weaknesses related specifically to the coordination of the multiple professions involved in the diagnosis and treatment of each patient.

Therefore, while there is clinical value in the evidence, caution is required in that the potential value of the extensive endeavour that goes into establishing clinical practice guidelines may not be matched by the level of adherence to them in practice (Bloom et al. 2004). Similar to what has been reported in the Irish case, a systematic review has found that traditional paper dissemination of evidence-based guidelines is relatively ineffective in changing the behaviour of healthcare professionals (Freemantle et al. 1996).
1.3.3 Theoretical Context

There has been an historical shift in performance tactics in healthcare from expert individual practitioners to expert teams of practitioners. Previous research shows that teams are now a fundamental facet of maximising the effectiveness of patient care, particularly in the care of cancer patients (Blumberg and Ramanathan 2002, Shankar et al. 2001, Soriano et al. 2002, Van Laethem et al. 2001), but more so in the care of breast cancer patients (Fay et al. 2006a, Haward et al. 2003, Houssami and Sainsbury 2006, Jenkins et al. 2001, West et al. 2003). However, despite an increase in the delivery of cancer services via MDTs, research that shows the evidence for the effectiveness of multidisciplinary team working is scarce and, thus, stronger evidence is necessary (Alberts et al. 2003, Carter et al. 2003, Houssami and Sainsbury 2006, Taylor et al. 2010). Moreover, it has been proposed by Scholes and Vaughan (2002, p.399) that, while “much has been written on multiprofessional teamwork, less attention has been given to cross-boundary working and the impact on the multiprofessional team”. Indeed, D’Amour et al. (2005) are of the opinion that it is unrealistic to think that simply bringing professionals together in teams will lead to collaboration because of the wide range of human dynamics that need to be developed within a team.

Breast cancer care is complex on two levels. On the one hand, the biological nature of breast cancer is complex and may present in a multitude of situations. On the other hand, interdisciplinary team working must be employed to reflect the complex biology of breast disease and be adaptable to a myriad of situations and presentations of breast disease. However, because training in medicine is discipline specific, where physicians become experts in some limited aspects of detection, diagnosis and treatment in breast cancer care, the challenge becomes how to bring together these different disciplines in a way that facilitates optimal complex decision-making, and hence optimises patient outcomes (Anderson et al. 2008).
A multidisciplinary team approach in the management of breast cancer advocates the participation of multiple disciplines in cancer care delivery. This approach, however, does not define how to coordinate the different disciplines in a way that facilitates optimal complex decision-making and, hence, optimises patient outcomes (Anderson et al. 2008). In practice, an MDT can “produce dysfunctional outcomes when it lacks appropriate coordination and communication for optimal breast diagnosis or development of multimodality treatment plans” (Anderson et al. 2008, p.7). According to Anderson et al. (2008), in order to avoid the “hidden” gaps in the definition of multidisciplinary breast care (p.9), successful breast cancer management necessitates “transforming the healthcare professionals involved in sequential, multidisciplinary care into a knowledgeable, interdisciplinary team committed to achieving state-of-the-art comprehensive breast cancer care” (p.7).

1.4 Research Question

In order to test, and subsequently add to, the theory on the association between the team structure, interprofessional team processes and team outcomes, including patient care experience, in multidisciplinary breast cancer teams in Ireland, this study is guided by the following research questions:

1. To what extent is there an association between the structure of a breast cancer team and the team processes it engages in?

2. To what extent is there an association between the structure and processes of a breast cancer team and the outcomes of the team, including the patient care experience?

3. Which team processes are most influential on the outcomes of the team, including the patient care experience?
1.5 Methodology
The aim of this study is to explore three regional specialised breast cancer teams in Ireland in terms of multidisciplinary team working and to determine the extent to which certain interprofessional team working practices impact on the effectiveness of multidisciplinarity in these teams. On this basis, a mixed methods approach (Bryman 2008) was employed in each of the three breast cancer centres, in order to achieve a more comprehensive account of the area of enquiry. The research involved not only the members of the three multidisciplinary breast cancer teams but also the patients who were attending these teams’ review clinics.

1.5.1 Team Questionnaire
A bespoke team questionnaire, derived from multiple sources and subsequently piloted, was administered to each member in the three breast cancer teams. The purpose of this team questionnaire was to obtain the team members’ views of interprofessional team working within their teams in the following areas – purpose of the team, team meeting frequency, participation in decision-making, trust within the team, inter-personal & inter-team relationships, intra-team communication and communication of the team’s long-term plans and goals, reflexivity, innovation & flexibility, professional development of team members and leadership & supervision –, and to match these findings against the team members’ well-being, such as work satisfaction and general mental health, their ratings of various aspects of team effectiveness and their overall team effectiveness score. Data analysis was carried out using PASW [version 19].

1.5.2 Team Interviews
On the basis of the findings of the team questionnaire, individual interviews were conducted with the core team members in order to intensively investigate the three teams in question and to explore further the dynamics of interprofessional team working within those teams. Data analysis was carried out using NVIVO [version 8].
1.5.3 Patient Questionnaire
A patient questionnaire, which is a standardised and validated Picker instrument, was administered to a sample of at least 100 patients per team who were attending the review clinics for treatment that they had received since 2006/2007. The reason for this year was that it was at that time when the national cancer control forum re-organised the country’s breast cancer services into 8 designated centres of excellence. In two of the teams investigated, the questionnaire was administered face-to-face to patients. In the third team, the questionnaire was completed over the telephone for practical reasons. The purpose of this patient questionnaire was to obtain information on the patients’ perception of the care they received from the teams investigated. Findings provide an additional measure of team effectiveness in the new breast cancer centres examined. Data analysis was carried out using PASW [version 19].

1.6 Proposed Outcome of the Research
By studying the association between the team structure, interprofessional team processes and team outcomes in multidisciplinary breast cancer teams in Ireland, this research will go some way towards building a picture of the multidisciplinary team working process in Ireland and, from this, to address the gap in the research to date on the factors determining the effectiveness of multidisciplinarity in breast cancer care. Moreover, carrying out this study at a time when each breast cancer centre is in its early stage of development affords the opportunity for improvement before poor practices become embedded. Furthermore, findings could have important implications for informing and guiding the management practice of MDTs in other cancer areas as well as in other disease settings across the hospital sector.

1.7 Outline of the Thesis
1.7.1 Chapter 2 – Team Study in Context
This chapter begins with a preliminary overview of healthcare in Ireland. An investigation into breast cancer care in Ireland follows. A background to the breast cancer services is provided. The gap between policy and practice is illustrated, based on findings in the reports into the circumstances surrounding the ten breast cancer misdiagnoses at the Midland Regional Hospital [MRH], Portlaoise, and at the Mid-Western Regional Hospital [MWRH], Limerick. Finally, the future for breast cancer services in Ireland is discussed and a list of best practice principles, derived from the reports for breast cancer care, is recommended.
1.7.2 Chapter 3 – Interprofessional Team Processes
In this chapter, the notion of a team is defined and its importance in healthcare policy is illustrated. The evidence for multidisciplinary teams [MDTs] in the context of healthcare is discussed. This is followed by a review of the evidence-based links between the structure of a multidisciplinary healthcare team, in particular a breast cancer team, and the role of interprofessional team processes in cross-boundary working to improve the effectiveness of multidisciplinarity and, hence, yield improved quality outcomes in patient care.

1.7.3 Chapter 4 – Research Methodology
This chapter outlines the research objectives and research questions in this study. Approaches to research and the choice of research methods are considered. The methodology employed is justified and the consequent implications for the research design in this study are discussed. The chapter then focuses on the research instruments, including the methods of analysis. The fieldwork is described.

1.7.4 Chapter 5 – Findings
In this chapter, findings from the team questionnaire, team interviews and the patient questionnaire used in the study are documented. Tables and charts are used for illustration purposes.

1.7.5 Chapter 6 – Discussion, Conclusions & Implications
This chapter discusses the main findings from the team questionnaire, team interviews and the patient questionnaire within the context of the research questions derived from the conceptual model and also the results of previous team studies in healthcare. The contribution of this study to the literature is described as well as its practical implications. The limitations inherent in the study are detailed and directions for future research are suggested.
1.8 Conclusion

Healthcare policy on breast cancer care in Western Europe now considers the multidisciplinary team approach as the standard structure of care (Fleissig et al. 2006a, Houssami and Sainsbury 2006, Whelan et al. 2006). The European Society of Mastology [EUSOMA] has published guidelines for ideal multidisciplinary clinics and established a certification system for dedicated breast centres (Blamey and Cataliotti 2006, EUSOMA 2000, Greco and Marotti 2006). An essential prerequisite is that each breast unit has a core team consisting of health professionals from diverse disciplines who have undergone specialist training in breast cancer, beyond that provided in their general medical education (Cataliotti et al. 2007). However, despite an increase in the delivery of cancer services via MDTs, research that shows the evidence for the effectiveness of multidisciplinary team working is scarce and, thus, stronger evidence is necessary (Alberts et al. 2003, Carter et al. 2003, Houssami and Sainsbury 2006, Taylor et al. 2010). Moreover, it has been proposed by Scholes and Vaughan (2002, p.399) that, while “much has been written on multiprofessional teamwork, less attention has been given to cross-boundary working and the impact on the multiprofessional team”. By studying the association between the team structure, interprofessional team processes and team outcomes in multidisciplinary breast cancer teams in Ireland, this research will go some way towards building a picture of the multidisciplinary team working process in Ireland and, from this, to address the gap in the research to date on the factors determining the effectiveness of multidisciplinarity in breast cancer care. Moreover, carrying out this study at a time when each breast cancer centre is in its early stage of development affords the opportunity for improvement before practices that contribute to less than optimal team performance become embedded. Furthermore, findings could have important implications for informing and guiding the management practice of MDTs in other cancer areas as well as in other disease settings across the hospital sector.
CHAPTER TWO: TEAM STUDY IN CONTEXT

2.1 Introduction
This chapter begins with a preliminary overview of healthcare in Ireland. An investigation into breast cancer care in Ireland follows. A background to the breast cancer services is provided. The gap between policy and practice is illustrated, based on findings in the reports into the circumstances surrounding the ten breast cancer misdiagnoses at the Midland Regional Hospital [MRH], Portlaoise, and at the Mid-Western Regional Hospital [MWRH], Limerick. Finally, the future for breast cancer services in Ireland is discussed and a list of best practice principles, derived from the reports for breast cancer care, is recommended.

2.2 Healthcare in Ireland
In recent years, there have been a number of public scandals about patient care in Ireland. They have subsequently dealt a serious blow to the credibility of the Irish healthcare system in nationally safeguarding what is best practice for the patient. By definition, a best practice is “…a set of interrelated work activities repeatedly utilised by individuals or groups that a body of knowledge demonstrates will yield an optimal result – good patient outcomes” (Tucker et al. 2007, p.894). Examples of high profile cases of less than best practice emerging from within the Irish health service are as follows: poor levels of hospital hygiene; the lack of step-down services for older people resulting in beds in acute hospitals being blocked unnecessarily; poor care standards in State-run and State-registered private nursing homes; the Lourdes Hospital caesarean hysterectomy scandal; and the most recent case of breast cancer misdiagnoses. These cases have raised questions about the effectiveness of patient-centred systems in Ireland.
On 1st January 2005, the Irish healthcare system began an historical transition from the ten existing health boards, eastern regional health authority [ERHA] and local political representation in health administration to a single, semi-state centralised model of administration, referred to as the Health Service Executive [HSE]. The then Minister for Health, Mary Harney, criticised the former system of Irish healthcare. She claimed that “the health board system, as it evolved over three decades, became a myriad of confusion, inconsistency and incoherence; it failed to enforce financial accountability, it failed to provide clear and timely decision-making, and it failed, most of all, in the central purpose of healthcare practice and management - to put the patients first” (*The Limerick Leader* 2006, p.1).

The new centralised healthcare structure of administration at national level, however, was expected to secure not only greater governance and accountability but additionally a consolidated and integrated patient system of expertise and critical functions. Its alignment with the ambitions of the national health strategy *Quality and Fairness – A Health System For You* (DOHC 2001) was considered to be a critical step forward: a strategy which identified organisational development as a key driver in delivering an improved health system. As shown in the diagram below, this new system of Irish healthcare, the HSE, would govern the health service at some distance from the Department of Health. The Minister for Health would appoint the HSE board and its chairman would report to him. The HSE would be reported to by the national hospitals’ agency, now the national hospitals’ office [NHO], and four regional health offices [RHOs]. While the role of the NHO would plan, commission and fund acute hospital services, manage waiting lists and approve consultant posts, it would be reported to by the central regional hospitals whose managers would administer a coherent service amongst the smaller hospitals of that region. Moreover, the RHO would coordinate the planning and delivery of primary, community and continuing care services within its region through the local health offices [LHOs], which would directly manage the majority of services and report to the RHO. In effect, this semi-state, centralised model was to provide a national focus for service delivery and to establish a more streamlined and focused system within which healthcare staff could deliver improved service. Indeed, this centralised system of care had originally been recommended in the Prospectus Report (DOHC 2003a) and, in particular, the proposals for planned hospital networks and dedicated public hospital teams had been laid out by the Hanly task force on medical staffing (DOHC 2003b).
For example, in 2000 and again in 2006, a planned hospital network of eight dedicated breast cancer teams was proposed and, in 2007, was implemented by the National Cancer Control Programme [NCCP]. Designated “centres of excellence”, this national consolidation and integration of breast cancer expertise sought to improve the care being delivered to breast cancer patients, by means of the following: developing, implementing and promoting best practice, patient-centred, multidisciplinary breast care; improving detection and treatment of breast cancer through ongoing public education as well as that of health professionals; facilitating the early detection and diagnosis of breast cancer; translating research findings into improving the care and quality of life of patients with breast cancer; and monitoring breast cancer outcomes through data collection, analysis and dissemination. Nonetheless, the reality of this centralised system of breast cancer care is far from effective in practice, according to a statement made by the State’s former director of the NCCP, Professor Tom Keane:

“In many situations in Ireland, the clinicians are flying blind – the system is flying blind… Services are fragmented and resources are stretched across many areas. The time from when a patient presents until treatment is very long, and there is no single medical record, which creates ‘endless duplication’ of test and ‘lots of delay’” (The Irish Times 2007, p.7).
2.3 Breast Cancer Care in Ireland

2.3.1 Background to the Breast Cancer Services

In 1999, the then Minister for Health and Children, Mr Brian Cowen, asked the National Cancer Forum to report and make recommendations on the development of breast services for women with breast cancer symptoms. The report on the *Development of Services for Symptomatic Breast Disease* (O'Keefe et al. 2000), under the chairmanship of Professor J. Fennelly, collected information regarding the service provision at that time, through questionnaires completed by the regional cancer directors and visits to hospitals in each Health Board region.

O’Keefe et al. (2000) reported that the level of service provision varied throughout the thirty-three hospitals in the country. There was an absence of specific breast clinics. Instead, women were seen as part of the general surgical clinic. A multidisciplinary team [MDT] structure, comprising a breast surgeon for clinical assessment, a breast radiologist for breast imaging by mammography and/or ultrasound and a breast pathologist for tissue diagnosis, did not exist. As a result, the *triple* assessment procedure, that would otherwise yield a more cost effective and accurate diagnosis for most patients on the same day, was unavailable in many places. Indeed, in the absence of pathological assessment, critical variability in the interpretation of mammograms and, thus, in their recommendations was common; morbidity was associated with unnecessary open benign and malignant surgical biopsies. Furthermore, multidisciplinary team meetings [MDMs] were uncommon; follow-up was variable; and there were no clear protocols in the management of cancer that had spread beyond the breast.

In addition, there was the absence of a surgical training programme for breast disease in Ireland. Hence, the surgery for breast cancer was performed in most general hospitals by general surgeons, some of whom had expressed a special interest in breast disease. Not only was there a lack of pre-operative diagnosis and pre-operative treatment planning, but the type of surgical practices being performed varied. Furthermore, there was minimal facility for professional development. The recruitment of patients for clinical trials was low, as few hospitals diagnosed 100 cases per year. This is a necessary volume to develop and maintain the skills to deliver not only a quality service but also effective future treatments (O’ Higgins 2007).
From this review, it was evident that there was a discrepancy in access to a uniform standard of breast cancer care. Thus, O’Keefe et al. (2000) proposed the establishment of a specialist breast centre in each Health Board in Ireland, the location of which was determined by geography, population, custom and established pattern of health service use, plans for development under the National Cancer Strategy and skills and expertise and the facilities that were already in place. In all, fourteen units were chosen. Their locations are listed in the table below.

Table 2.1: Locations of Specialist Breast Centres [2000]

<table>
<thead>
<tr>
<th>Health Board</th>
<th>Specialist Breast Centres</th>
</tr>
</thead>
<tbody>
<tr>
<td>South-Eastern Health Board</td>
<td>Waterford Regional Hospital</td>
</tr>
<tr>
<td>Southern Health Board</td>
<td>South Infirmary &amp; Cork University Hospital</td>
</tr>
<tr>
<td>Mid-Western Health Board</td>
<td>Mid-Western Regional Hospital, Limerick</td>
</tr>
<tr>
<td>Western Health Board</td>
<td>Galway University Hospitals</td>
</tr>
<tr>
<td>North-Eastern Health Board</td>
<td>Our Lady of Lourdes Hospital, Drogheda</td>
</tr>
<tr>
<td>North-Western Health Board</td>
<td>Sligo Regional Hospital, Letterkenny General Hospital &amp; Altnagelvin Hospital, Derry</td>
</tr>
<tr>
<td>Midland Health Board</td>
<td>Midland Regional Hospital, Tullamore</td>
</tr>
<tr>
<td>North Side of the Eastern Health Board</td>
<td>Beaumont Hospital &amp; Mater Misericordiae Hospital, Dublin</td>
</tr>
<tr>
<td>South Side of the Eastern Health Board</td>
<td>St James’s Hospital, St Vincent’s Hospital &amp; Tallaght Hospital, Dublin</td>
</tr>
</tbody>
</table>

In 2005, the Department of Health and Children founded the National Quality Assurance Group for symptomatic breast disease services. This group developed a framework of national quality assurance guidelines for symptomatic breast disease services through consultations with a wide range of Irish-based specialists involved in breast cancer care, and in conjunction with the State’s former director of the NCCP, Professor Tom Keane. Published in a report on the *National Quality Assurance Standards for Symptomatic Breast Disease Services* (O’ Higgins 2007), the National Quality Assurance Group recommended that all cancer care should be provided through a national system of four managed cancer control networks in the HSE’s four geographical regions, each serving a population of around one million people and consisting of primary, hospital, palliative, psycho-oncology and supportive care with patient care being fully integrated between each of these elements within each network. It was proposed that the breast cancer services would be the first to be centralised into eight centres (O’Higgins 2007). Their locations are listed in the table below.
Table 2.2: Locations of Specialist Breast Centres [2007]

<table>
<thead>
<tr>
<th>Cancer Control Network</th>
<th>Specialist Breast Centres</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCCP East [Dublin North-East]</td>
<td>Beaumont Hospital &amp; Mater Misericordiae Hospital</td>
</tr>
<tr>
<td>NCCP East [Dublin Mid-Leinster]</td>
<td>St. James’s Hospital &amp; St. Vincent’s Hospital</td>
</tr>
<tr>
<td>NCCP South</td>
<td>Cork University Hospital &amp; Waterford Regional Hospital</td>
</tr>
<tr>
<td>NCCP West</td>
<td>Mid-Western Regional Hospital, Limerick, &amp; Galway University Hospitals</td>
</tr>
</tbody>
</table>

Whilst the number of specialist breast centres had been reduced to eight, the recommendations in the report on the *National Quality Assurance Standards for Symptomatic Breast Disease Services* (O’Higgins 2007) should be taken in conjunction with the report on the *Development of Services for Symptomatic Breast Disease* (O’Keefe et al. 2000). Primarily, they argue that specialist breast centres should operate as a separate entity, as opposed to being part of a general surgical clinic, each serving a population of approximately 300,000 – 350,000 and providing services to more than 150 newly diagnosed patients with primary breast cancer per year. Furthermore, they refer to five specific prerequisites of best practice for patient care in the setting up of a specialist breast centre.

Firstly, each specialist breast centre should have an on-site functioning multidisciplinary breast cancer team, made up of core personnel, who have received specific training and clinical expertise in breast cancer beyond that provided in their general professional training. The table below lists the personnel involved in an MDT in breast care.

Table 2.3: Personnel in a Multidisciplinary Breast Cancer Team

<table>
<thead>
<tr>
<th>Core Personnel</th>
<th>Peripheral Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultant breast surgeon [at least two] and team</td>
<td>Administrative staff</td>
</tr>
<tr>
<td>Consultant radiologist [at least two]</td>
<td>Oncology pharmacist</td>
</tr>
<tr>
<td>Consultant histopathologist [at least two]</td>
<td>Clinical geneticist/genetics counsellor</td>
</tr>
<tr>
<td>Clinical nurse specialist in breast care³</td>
<td>Data management personnel</td>
</tr>
<tr>
<td>Consultant radiation oncologist</td>
<td>Research nurse</td>
</tr>
<tr>
<td>Consultant medical oncologist</td>
<td>Lymphedema nurse (or specialist)</td>
</tr>
<tr>
<td>Consultant plastic and reconstructive surgeon</td>
<td>Palliative care specialist/team</td>
</tr>
<tr>
<td>Clinical staff</td>
<td>Psychiatrist/clinical psychologist</td>
</tr>
<tr>
<td></td>
<td>Social worker</td>
</tr>
<tr>
<td></td>
<td>Occupational therapist</td>
</tr>
<tr>
<td></td>
<td>Physiotherapist</td>
</tr>
<tr>
<td></td>
<td>Nominated orthopaedic surgeon with expertise in the</td>
</tr>
<tr>
<td></td>
<td>management of bone metastases</td>
</tr>
<tr>
<td></td>
<td>Neurosurgeon</td>
</tr>
</tbody>
</table>

³ A clinical nurse specialist in breast care is, in practice, referred to as a breast care nurse in surgical care and a liaison nurse in medical oncology care.
Secondly, a lead clinician should be appointed to lead the breast unit. The lead clinician should generally be the consultant breast surgeon for the following three reasons: (1) While the majority of patients presenting to the breast unit do not have cancer and do not necessitate the services of a medical oncologist or radiotherapist, they do require the surgical specialist for clinical assessment and reassurance; (2) the consultant breast surgeon is the initial point of medical specialist contact with the patient in the breast unit; (3) and in the great majority of cases, the consultant breast surgeon discusses and undertakes the primary treatment for patients who have been diagnosed with cancer.

Thirdly, a multidisciplinary breast team meeting should be held at least weekly to ensure effective management and review of the following: (1) All patients who have had triple assessment – that is, a clinical examination, imaging by mammography and/or ultrasound and pathology sampling; (2) all patients who are after their first therapeutic operation; (3) and those for who, at any time, discussion at the meeting is deemed appropriate. Each MDM should be arranged to allow for attendance by all core personnel. In addition, a medical consultant should be appointed as the administrative head of all MDMs.

Fourthly, a patient receiving a diagnosis of breast cancer should be given the diagnosis by the consultant breast surgeon in a private environment and with a breast care nurse present. The patient should be offered a prompt admission for the first therapeutic operation within three weeks of definitive diagnosis, in order to minimise psychological distress. A written letter should be sent to the patient’s general practitioner indicating the proposed treatment plan.

And finally, due to the rapid clinical application of new technologies and new treatments, continuing professional development [CPD] for breast disease should be mandatory for all specialists and should be funded by the State. The Association of Breast Surgery (2005) indicated that all personnel involved in the specialist breast centre must be allocated sufficient dedicated time and encouragement to maintain professional knowledge and skills in their areas of expertise. Furthermore, a patient with breast cancer should have the opportunity, and should be encouraged, to participate in clinical trials in surgery, radiation therapy and systemic therapy, as part of a programme of multi-centre clinical research. In addition, all staff should have training in communication and counselling skills, and must maintain such training on a continual basis.
2.3.2 Gap between Policy and Practice

In 2008, it came to the attention of the National Cancer Forum that nine women with breast cancer had been misdiagnosed at the MRH, Portlaoise, and one woman with breast cancer had been misdiagnosed at the MWRH, Limerick. Following this development, the National Cancer Forum launched an investigation into the circumstances surrounding the misdiagnoses at the two hospitals in question. A significant finding arising from this examination was that the recommendations laid down in previous reports (O’Higgins 2007, O’Keefe et al. 2000) had not been implemented in the hospitals where the misdiagnoses took place.

In relation to the best practice of providing a single site specialist breast centre, the reports by Fitzgerald (2008), O’Doherty (2008) and O’Doherty et al. (2008) – hereafter referred to as The reports – noted that the breast cancer services in the HSE Midland area were operating on three separate sites – the MRH, Portlaoise, the Midland Regional Hospital, Mullingar, and St. Vincent’s Hospital, Dublin. However, this model for the provision of symptomatic breast disease services in the former Midland Health Board was at variance with the National Cancer Strategy. Indeed, the report on the Development of Services for Symptomatic Breast Disease (O’Keefe et al. 2000) had emphasised that the peripheral location of Portlaoise in the Health Board might militate against achieving the critical mass of patients required for a specialist breast unit, and therefore recommended that the breast unit be located in the Midland Regional Hospital, Tullamore, because of its geographical location in the Health Board and because this would fit in with previous decisions made by the Health Board regarding the organisation of oncology and pathology services. Instead, however, a specialist breast unit was developed at the MRH, Portlaoise, with outreach services to the Midland Regional Hospital, Mullingar, and later to St. Vincent’s hospital, where a second opinion was being sought on mammography scans. According to The Reports, this model led to a fragmentation of the breast cancer services in the HSE Midland area.
With regards to the best practice of providing an on-site functioning multidisciplinary breast cancer team, the HIQA\(^4\) report (2008) raised a significant issue in relation to staffing in the pathology department at the MWRH, Limerick. It was reported that a consultant histopathologist with special interest in cytopathology had been unable to set up a cytology service due to the lack of technical staff and other resources. Instead, cytology services were being outsourced to Cork University Hospital. However, the review committee believed that this was not a suitable arrangement. Despite the fact that each breast cancer patient at the MWRH, Limerick, underwent a triple assessment, their multidisciplinary diagnosis was compromised by the lack of the reporting pathologist from Cork University Hospital or another pathologist being present at the MDMs. As consequence, a potential opportunity to correct the interpretative error in question was missed and resulted in a fourteen-month delay in treatment.

Similarly, the best practice of providing an on-site functioning multidisciplinary breast cancer team was significantly questioned by The Reports on the breast cancer services at the MRH, Portlaoise. Indeed, it was found that, while two consultant radiologists were employed at the MRH, Portlaoise, neither had specialist training in reading breast x-rays; one carried out the majority of the breast radiology work; and therefore the facility for a double-reading of breast x-rays was absent.

According to current best practice in breast imaging clinical practice, breast radiology reports should, on occasion, direct clinical management so as to facilitate efficient diagnosis and reduction of time between patient presentation and definitive diagnosis (O’Doherty 2008). However, in this case, it was highlighted that many of the reports issued on mammography and breast ultrasound in the MRH, Portlaoise, over the period under review were difficult to interpret and thus resulted in significant difficulty for clinicians delivering the service: “They lacked clarity, specificity, and helpful conclusions that could have directed clinical management” (O’Doherty 2008, p.7). Indeed, prior to this investigation by the National Cancer Forum, the consultant surgeon in the MRH, Portlaoise, had raised the question of mammography scans which were being diagnosed as positive for breast cancer but which were healthy. As a result, an unusually high number of breast radiology findings were being referred for a second opinion in St. Vincent’s Hospital. However, the outcome of this was

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\(^4\) Health Information and Quality Authority – an independent authority that governs quality, safety and accountability in the National Health Service in Ireland
that the time between the reviewed mammograms at the MRH, Portlaoise, the referred mammogram scans for a second opinion in St. Vincent’s Hospital, to the diagnosis of the patients identified in this report as having cancer ranged from four and a half months to nearly three years (O’Doherty 2008).

In addition, the best practices of triple assessment and multidisciplinary breast team meetings were notably questioned by The Reports on the breast cancer services at the MRH, Portlaoise. It was confirmed to the review group by clinical staff that there was no triple assessment procedure, by means of clinical, radiological and pathological evaluation, and, subsequently, there were no MDMs in relation to new patients attending the symptomatic breast services in Portlaoise. However, fortnightly MDMs attended by consultant surgeons, pathologists, medical oncologists and breast care nurses took place following surgery for breast cancer, to discuss further patient management. These findings have significant consequences. In the following paragraph, a single patient case is described to illustrate this situation.

One of the nine women identified in this review as having cancer was having annual follow up for family history of breast cancer. The main consultant radiologist at the MRH, Portlaoise, reported an abnormality in 2006. A subsequent review of this patient, also in 2006, at the St. Vincent’s Health Care Group did not concur with this finding. The consultant radiologist also reported an abnormality in February 2007. The review group agreed that, had a multidisciplinary meeting taken place in February 2007, a decision would have been made at that stage to carry out a biopsy and a diagnosis would have been made (O’Doherty 2008).

And finally, the best practice of leadership was highlighted in The Reports on the breast cancer services at the MRH, Portlaoise, and the HIQA report (2008) on the breast cancer services at the MWRH, Limerick. According to the HIQA report (2008, p.41) leadership is essential in the search for safety and quality improvement, “especially…where a multidisciplinary approach is necessary to ensure seamless care for patients… All staff must feel empowered to take the initiative and, in turn, this requires significant levels of discretion and delegated authority”. However, whilst acknowledging the calibre and motivation of the clinical workforce to provide the best service possible to patients and their families, there was a front line view of an insufficient focus on the things that matter to patients; and consequently little confidence that the day-to-day realities faced by staff and the patients they serve were fully understood.
Primarily, The Reports identified an absence of clinical leadership within the breast cancer teams. Moreover, no satisfactory evidence was ascertained with regard to a sense of common purpose between the breast cancer teams and senior management, nor in relation to clarity of accountability for achieving this. According to the HIQA report (2008), the core purpose of management in a healthcare organisation is to facilitate, through an appropriate balance of clinical and management staff, the delivery of safe, high quality, responsive services, whilst ensuring effective use of resources. Ultimately, this necessitates effective teamwork between clinicians and managers in order to achieve informed consensus about difficult choices and priorities. However, the review process found no integrated system-wide approach involving both managerial and clinical input. Neither did it find an authoritative and coordinated management role established to ensure the review and development of the evidence-based practice of multidisciplinary care in breast clinical practice. This led to the integrity of the communications process being held in disrepute. Indeed, the decision-making process was fragmented, with insufficient clarity about who was making the decisions, why they were being made, or when they were signed off. In all, the impression gained from the review process was of a system characterised by status, disempowerment and mistrust.

2.3.3 Future for Best Practice Breast Cancer Services
Following the investigation by the National Cancer Forum into the circumstances surrounding the misdiagnoses at the MRH, Portlaoise, and the MWRH, Limerick, The Reports recommended that a prompt decision on the future location of breast cancer services in the HSE Dublin Mid-Leinster area be established. At the time, it had been noted that the uncertainty of the future location of breast services in the HSE appeared to be having a detrimental effect on staff morale. Furthermore, The Reports recommended the implementation of the national quality assurance standards of best practice for symptomatic breast disease services, as indicated in the report by O’Higgins (2007), with immediate effect throughout the country. Those standards are as follows:

- Single site specialist breast cancer units
- On-site functioning multidisciplinary breast cancer teams, coordinated in the area of triple assessment and MDM frequency
- Clinical leadership within the teams and in management
- Patient-focused communication strategies that supplement the formal communication process with regular visits to the shop floor, ensuring that the views and perspectives of patients and front line staff are taken into account, and
Continuous professional development in areas of expertise

As acknowledged by Dr. Ann O’ Doherty, chairperson of the review committee in the investigation into the misdiagnoses at the MRH, Portlaoise:

“Implementation of these standards would, in my view, significantly reduce the likelihood of such an occurrence of sub-standard care in the future… Unless there is put in place a breast imaging service run to the standards set out in the National Quality Assurance Standards for Breast Disease completed in 2006 and announced by the Minister of Health and Children, no further breast imaging should be carried out in the Midland Regional Hospital Portlaoise” (O’ Doherty 2008, p.11).

2.4 Conclusion

Since The Reports, smaller cancer centres in the Midlands have been closed and hundreds of women have been referred to specialist cancer centres in Dublin. Initially, this arrangement raised concern regarding the staffing resources necessary to cater for this immediate influx of new breast cancer patients. However, a recent national quality review of symptomatic breast disease services (HIQA 2010a) has indicated significant progress to date in the transition from the variable application of a multidisciplinary approach to patient care throughout the thirty-three hospitals in the country, to all eight centres now having clear staffing arrangements in place for the delivery of multidisciplinary care of all patients.

In addition, a spectrum of arrangements has been put in place in each centre to ensure the skill and expertise of its staff, although a formal policy remains to be developed to support and monitor continuous professional development. A lead clinician has been nominated in all centres to provide focus for developing the multidisciplinary service and monitoring quality in line with the standards developed by the NCCP – referred to as Key Performance Indicators [KPIs]. However, it has been acknowledged that this role is still evolving and needs clearer definition through a written role description and terms of reference. Furthermore, this HIQA review (2010a) has called for improved interaction between the centres among the various disciplines. Initially, the designated centres saw themselves as competitors in relation to resources and reputation and were not oriented to working collaboratively. Latterly, there have been examples of collaborative working – the sharing of good practice, problem solving and the comparing of information on quality and outcomes. Yet, there is still room for improvement. It has been recommended that a national network of the lead clinicians be formally established for the purpose of identifying and addressing mutual development and support needs.
Taking into consideration the multidisciplinary arrangements that are currently in place in all eight breast cancer centres, an in-depth reflection of the effectiveness of multidisciplinary care in its early stage of development is needed. This is to afford the opportunity for improvement in these breast cancer teams before poor practices become embedded. Indeed, the timeliness of this PhD study is significant given its methodological approach to investigating the role of team working practices in breast cancer teams and the impact this may have on the teams’ effectiveness, the team members’ well-being and job satisfaction, as well as the patients’ overall care experience.
CHAPTER THREE: INTERPROFESSIONAL TEAM PROCESSES

3.1 Introduction
In this chapter, the notion of a team is defined and its importance in healthcare policy is illustrated. The evidence for multidisciplinary teams [MDTs] in the context of healthcare is discussed. This is followed by a review of the evidence-based links between the structure of a multidisciplinary healthcare team, in particular a breast cancer team, and the role of interprofessional team processes in cross-boundary working to improve the effectiveness of multidisciplinarity and, hence, yield improved quality outcomes in patient care.

3.2 Definition of a Team
Cohen and Bailey’s (1997, p.241) definition of a team is “a collection of individuals who are interdependent in their tasks, who share responsibility for outcomes, who see themselves and who are seen by others as an intact social entity embedded in one or more larger social systems (for example, business unit or corporation), and who manage their relationships across organisational boundaries”. Specific to healthcare, the notion of a team offers the promise of greater achievement than can be successfully rendered through individual endeavour (Borrill et al. 2000a). In 1988, the World Health Organisation launched a campaign entitled ‘Learning Together to Work Together for Health’ (WHO 1988), from which the concept of a team has grown in importance in healthcare policy.

In the United Kingdom’s [UK] National Health Service, for example, the importance of work teams to meet patient needs and to accommodate the changing demands of healthcare provision has been underlined in numerous Department of Health reports and policy documents (DOH 1991, 1993, 1994, 1999, 2000, 2001). One document published by the National Health Service Management Executive (NHSME 1993), in particular, drew attention to the importance of team working, if health and social care for people are to be of the highest quality and efficiency. It stated that the best and most cost-efficient outcomes for patients and clients are achieved when professionals work together, learn together, engage in clinical audit of outcomes together, and generate innovation to ensure progress in practice and service. This approach has been inextricably linked to the government’s modernisation agenda for the National Health Service (DOH 2001).
In Ireland, policy agenda has similarly focused on reforming how clinical work is organised, performed and monitored, in light of OECD (2000) concerns regarding the quality and efficiency of the Irish healthcare service: (1) The rising cost of healthcare, bringing into question the resource efficiency of existing models of service quality and productivity; (2) the uncertainty over the suitability and value of contemporary modes of clinical work organisation; and (3) the apprehension about the medical profession’s competence to guarantee the accountability of its members. Implemented in 2003, the Health Reform Programme resolutely endows individual organisations with the responsibility of delivering quality-oriented, efficient services. This modernisation agenda calls on doctors, nurses, allied health workers and managers in acute, primary, secondary and community healthcare settings to “subscribe to the power sharing implications of team-based approaches to clinical work” (Degeling et al. 2003, p.650).

3.3 Evidence for Multidisciplinary Teams in the Healthcare Context

There has been an historical shift in performance tactics in healthcare from expert individual practitioners to expert teams of practitioners. Teams are now empirically considered to be a fundamental facet of maximising the effectiveness of patient care (Bower et al. 2003, Downey-Ennis et al. 2004, Mendez et al. 2008, Poole and Real 2003, Wheelan et al. 2003). Indeed, the explosion in scientific knowledge and technology and the resulting complexity of patient care has led to increasing specialisation (Hall and Weaver 2001, Poole and Real 2003), which, although beneficial to the development of a more comprehensive healthcare system, contributes to potential fragmentation in the continuity of patient care (Anonson et al. 2009). Thus, coordinated team efforts between the interdependent functions of medicine, nursing and allied health professionals are required (Carson et al. 2001, Fried et al. 2000, Heinmann and Zeiss 2002).
The Department of Health in the UK defines an MDT as a group of people of different healthcare disciplines, who all meet at an arranged time (whether physically in one place, or by video or teleconferencing) to discuss a given patient and who are each able to contribute independently his/her particular skills and knowledge to the diagnostic and treatment decisions about the patient (DOH 2004a). Specific to this study on breast cancer care, a multidisciplinary breast cancer team involves collaboration between team members for treatment planning; it is patient-centred; and provides psychosocial support and access to clinical trials (National Breast Cancer Centre 2005, Rabinowitz 2004, Shuster et al. 2000, Tripathy 2003).

Boyle et al. (2004) used a rugby analogy to illustrate collaborative working in the multidisciplinary care of cancer patients. Initially, a diagnosis of cancer throws a patient’s life into a radical state of turmoil:

“It feels for some patients that they have become little more than a ball on a rugby field, covered in mud, surrounded by a swirling mass of strangers, with no idea where they are going and what is going to become of them... Patients usually enter as the general practitioner (number 9) feeds them into the hospital scrum, where the front row (surgeon, radiologist and pathologist) determines the direction of play. Nurses, anaesthetists, medical and radiation oncologists provide support and complete the forward pack. The role of number eight is increasingly being played by a specialist nurse, who makes sure that the patient does not get lost in the melee, and is handed safely back to the GP. The back line may include a psychologist (usually left wing), social worker, geneticist, plastic surgeon, rehabilitation and allied health professional. On the reserve bench is the palliative care specialist.” (Boyle et al. 2004, p.477)

In essence, cancer treatment is a team game and “the power of a great team will always be greater than the power of a great individual” (Boyle et al. 2004, p.479). This argument has been supported by early conservative studies of cancer registries (Junor et al. 1994, Sainsbury et al. 1995a), which acknowledged that, when a multidisciplinary approach to treatment and care was employed, survival prospects for patients were enhanced. Research studies highlight the importance of a multidisciplinary approach for optimising the management and outcomes of patients with cancer (Blumberg and Ramanathan 2002, Shankar et al. 2001, Soriano et al. 2002, Van Laethem et al. 2001). A review of the association between cancer teams and the quality of clinical care provided revealed that multidisciplinary team functioning benefited patients through enhanced access to, and use of, standardised and up-to-date therapy (Landheer et al. 2001).
Nonetheless, despite an increase in the delivery of cancer services via MDTs, research that shows the evidence for the effectiveness of multidisciplinary team working is scarce and, thus, stronger evidence is necessary (Alberts et al. 2003, Carter et al. 2003, Houssami and Sainsbury 2006, Taylor et al. 2010). Moreover, it has been proposed by Scholes and Vaughan (2002, p.399) that, while “much has been written on multiprofessional teamwork, less attention has been given to cross-boundary working and the impact on the multiprofessional team”. Indeed, D’Amour et al. (2005) are of the opinion that it is unrealistic to think that simply bringing professionals together in teams will lead to collaboration because of the wide range of human dynamics that need to be developed within a team. Therefore, the purpose of the following review is to examine the evidence-based links between the structure of a multidisciplinary healthcare team, in particular a breast cancer team, and the increasing role of specific interprofessional team processes in cross-boundary working to improve the effectiveness of multidisciplinarity and, hence, yield improved quality outcomes in patient care. The review focuses primarily on studies in healthcare-related contexts, but, where relevant and helpful to our understanding and where the evidence base in healthcare is limited, makes reference to key studies conducted in general contexts.

For the purpose of guiding the reader through the review, a diagram has been inserted. This is based on the following:

- the key findings unveiled in the reports into the circumstances surrounding the misdiagnoses of Irish women in 2007 (Fitzgerald 2008, HIQA 2008, O’Doherty 2008, O’Doherty et al. 2008) and

This is an overarching model that will be empirically explored in the following chapters.
3.3.1 Structure of the Team

Size and Tenure

Firstly, research on team size suggests that teams are most effective when they have sufficient, but not greater than sufficient, numbers of members to perform the group task (Curral et al. 2001, Guzzo 1988, Guzzo and Shea 1992, Hackman 1990, 1992). It is argued that very small teams (2 or 3 people) will lack the diversity of viewpoints and perspectives necessary for innovation (Jackson 1996), whereas large teams (above 12 or 13) can be cumbersome (Molyneux 2001) and become too unwieldy to enable effective interaction, exchange and participation (Borrill et al. 2000a, Poulton 1995, Poulton and West 1999, Shortell et al. 2004). As was argued by Cohen and Bailey (1997), team size may have an inverted u-shaped relation to teamwork, in that too few or too many members reduce effectiveness. It was later found in Fay et al.’s (2006b) study that the effect of team size on team effectiveness in breast cancer teams is moderated by team processes. Size was only positively related to innovations when team processes were of high quality. Indeed, a higher number of people were more likely to hold a more heterogeneous set of perspectives and skills that were only utilised when the team processes were superior.
Secondly, team tenure and team effectiveness have been found to be significantly related. Dubnicki and Limburg (1991) found that older healthcare teams tend to be more effective in certain ways. Indeed, Watson et al. (1991) studied teams who spent more than 30 hours in decision-making tasks and found that group decision-making effectiveness (relative to individual decision-making effectiveness) rose over time and that this could be partially attributed to the effects of increased familiarity among members. Moreover, Borrill et al. (2000a) found that team tenure is related to mutual role understanding. However, other research on diversity in teams suggested that longer tenure might be associated with increasing homogeneity and resulting detrimental effects on team innovation (Bantel and Jackson 1989, Jackson 1996). Indeed, Katz (1982) suggested that group longevity is associated with a tendency to ignore and become increasingly isolated from sources that offer the most critical forms of feedback, evaluation and information and that, without changes in membership, teams may become less innovative over time.

Composition

And thirdly, team composition, in terms of the heterogeneous composition of skills and knowledge, is considered an important factor for team effectiveness, particularly given the complexity of tasks in patient care. Each team member will bring a different knowledge perspective to the problem, thus enhancing member capability and commitment to delivering a quality service (Ancona et al. 1996). Borrill et al.’s (2000a) study on primary healthcare teams found that teams with greater occupational diversity reported higher overall effectiveness. Similarly, Haward et al.’s (2003) study of breast cancer teams found that perceived team effectiveness and clinical performance were related to team composition, working methods and outcomes. Indeed, it was found that the number of different occupational groups reported by team members as leading team discussions positively predicted team processes, such as participation, concern for quality and reflexivity, self-rated innovation, and overall effectiveness.
Nonetheless, it has been argued that, while “we are constantly reminded of the value of diversity within teams...the reality is that working together from a variety of perspectives is sometimes difficult to achieve” (Firth-Cozens 2001) and, therefore, multidisciplinary composition may not always benefit a team (Fay et al. 2006a). Indeed, teams that are diverse in task-related attributes are often diverse in individual attributes, such as team tenure, age, occupation and gender, and, together, these attributes can trigger stereotypes and prejudice (Jackson 1996), which can affect the team working processes and outcomes (Campion et al. 1993, Day et al. 2004, West et al. 2003). In the primary healthcare setting, Bond et al.’s (1985) study found little evidence to suggest that teams generally adopt collaborative, integrated styles of working. A similar argument was raised by Huxley (1990) in relation to the community mental healthcare setting. He stated that there was limited concrete evidence to suggest that CMHTs improved coordination and service coverage. Moreover, in Mistral and Velleman’s (1997) study of CMHTs, it was proposed that none of the team members really experienced the ‘team’ as a ‘team’ at all. In fact, one team member commented that “in reality, the ‘team’ works as separate individuals and comes together to liaise formally only once a week” (Mistral and Velleman 1997, p.137).

The history of professional cultures has traditionally fostered a hierarchical power structure that is well-known to the healthcare literature (Coburn 1992, DeSantis 1980, Hafferty and Wolinsky 1991, Wolinsky 1988). It has placed the physician in power (Fried et al. 2000, Institute of Medicine 2001, Wicks 1998, Witz 1992) and is generally controlled by men despite women only dominating in number (Borrill et al. 2002). Today, this poses a challenge in the multidisciplinary team setting in bringing together these different disciplines in a way that facilitates effective interdisciplinary teamwork, mutual respect and consideration for alternative viewpoints and philosophies (Hall 2005, Miller et al. 2001). Indeed, status differences can have a negative impact on multidisciplinary team functioning (Cott 1997, Fried et al. 2000, Greenberg et al. 2007, Kennedy et al. 2009, Manser 2009, Rosenstein and O'Daniel 2006), making it difficult for members to speak across professional boundaries (for example, physician vs. nurse vs. therapists) to collaborate for learning (Edmondson 2003). As was acknowledged in Atwal and Caldwell’s (2006) study, which explored nurses’ perceptions of multidisciplinary teamwork in acute healthcare, some nurses did not always regard themselves as having equal status and/or power in a team and that some nurses did not voice an opinion for fear of being scapegoated.
It has been suggested that traditional demarcations and medical supremacy need to be challenged with more understanding and acknowledgement of each respective contribution, in order to create successful teams (Humphries and Hean 2004, Millward and Jeffries 2002, Wilson 2000). In particular, Laidler (1991) has used the term professional adulthood to express how staff from different disciplines need to feel adequately confident in their own roles and professional identity, in order to feel safe enough to share and suspend their professional autonomy to work effectively together. Failure to achieve this professional adulthood will result in interprofessional jealousy and conflict to the detriment of the team members’ well-being and the patients’ care (Laidler 1991). Similarly, Dombeck (1997, p.15) has argued that “articulating disciplinary and professional identity is important before interprofessional relationships can be successful. It is difficult to form collaborative ties when one is unsure of one’s professional identity”.

Furthermore, Scholes and Vaughan (2002, p.402) have argued that “professional artistry and craft knowledge may be the kernel upon which effective cross-boundary working can be fostered and through which expert multiprofessional practice can be realised”. Indeed, traditional role boundaries maybe usurped when all members seek to exercise professional expertise that places the patient at the centre of all practice initiatives. In this manner, “seeking expertise becomes the shared aspiration of the whole team” (Scholes and Vaughan 2002, p.402). As D’Amour (1999) phrased it, the livelihood of this expert multiprofessional paradigm requires implementing a logic of collaboration rather than a logic of competition. Ultimately, however, the ideal environment for collaborative practice requires fostering a status-equal basis between the various team members (Ben-Syra and Szyf 1992, Taylor 2002). It has been proposed that the role of interprofessional team processes is key to challenging the power and authority of this historical professional hierarchy (Liedtka and Whitten 1998). Indeed, Molyneux’s (2001) study of a multidisciplinary healthcare team found that interprofessional team processes such as the personal qualities of flexibility and adaptability and commitment of staff, communication within the team and the opportunity to develop creative working methods within the team had a significant effect on creating cooperative and positive working relationships and practices, thereby reducing professional boundaries within the team.
Therefore, it is at this point in the review where we go beyond the assumption of *direct* effects of multidisciplinarity on outcomes. The aim is to explore the increasing role of interprofessional team processes in re-negotiating cross-boundary relationships, thereby improving the effectiveness of multidisciplinarity in healthcare teams, in particular breast cancer teams, and, hence, yielding improved quality outcomes in patient care.

### 3.3.2 Role of Interprofessional Team Processes in Cross-Boundary Working

An MDT should not simply be a collective of professionals who predominantly work independently and occasionally interact with one another (Miller *et al.* 2001). Indeed, a lack of appropriate coordination and communication among the professions in a multidisciplinary group can produce dysfunctional outcomes for optimal breast diagnosis or development of multimodality treatment plans (Anderson *et al.* 2008, p.7). Rather, for the accomplishment of complex tasks, effective multidisciplinary team working must become interprofessional in nature. This requires moving beyond both traditional ways of working and professional power imbalances towards the enactment of a shared team culture, open communication, mutual respect for all the practitioners and equal value to be attributed to their contribution to current team practices (Freeman *et al.* 2000a). It is proposed that this can only be accomplished when each member of the team comprehends the others’ contributions to care as well as how and why they practice in the way they do (Miller *et al.* 2001). This necessitates group processes to be nurtured (Miller *et al.* 2001).

Indeed, Marks *et al.* (2001) have shared this view of team effectiveness as not only being a function of team composition, in terms of team members’ specialised skills and knowledge, but also the interprofessional processes that teams engage in to accomplish their goals. They provide a comprehensive definition of team process and describe it as “members’ interdependent actions that convert inputs to outcomes through cognitive, verbal and behavioural activities directed towards organisational task work to achieve collective goals” (Marks *et al.* 2001, p.357). They differentiate process or teamwork from task work and argue that task work is *what* the team does and teamwork is *how* the team does it. The central tenet of the team process literature is that certain team processes lead to greater effectiveness and efficiency. The importance of interprofessional team processes is supported in the healthcare literature and studies have found that the processes engaged in by the team affect both team outcomes and patient outcomes.
In relation to team outcomes, West and Wallace’s (1991) study of primary healthcare teams found that team processes – such as team collaboration, commitment to the team and tolerance of diversity – are an important factor in determining how innovative healthcare teams are. More recent studies on team working support this link between the quality of team working and team innovativeness (Borrill et al. 2002, West et al. 2005). In particular, a study by Fay et al. (2006a) into the effect of team processes on multidisciplinarity in breast cancer teams and primary healthcare teams revealed that “high quality team processes, associated with the pursuit of a shared vision, high interaction frequency, trust and reflexivity, moderate the relationship between the extent of multidisciplinarity and innovation, such that the superior the team processes, the stronger the relationship between multidisciplinarity and team innovation” (Fay et al. 2006a, p.556). In addition, influenced by West et al.’s (1998) Input – Group Processes – Outputs model on workplace teams, Haward et al.’s (2003) study of workplace team effectiveness in breast cancer teams found that the quality of clinical care and team effectiveness is related to team composition, working methods and workloads. Furthermore, they found that the mental health of team members in breast cancer teams appeared substantially better than in previous studies of cancer clinicians, other National Health Service settings and the general population. Similarly, research in the primary healthcare setting has discovered that those working within a supportive, well-organised team had better mental health and there was increased team effectiveness (Carter and West 1999). Moreover, a longitudinal study, focusing on three forms of MDTs [primary healthcare teams, community mental healthcare teams and secondary healthcare teams] in the UK, demonstrated an association between better team functioning – in terms of clarity of objectives, levels of participation, commitment to quality and support for innovation – and better mental health, lower stress levels and increased job satisfaction (Borrill et al. 2000a).

In terms of patient outcomes, Alexander et al.’s (2005) study supports the premise that team processes have implications for patient outcomes and they argue that how the team works together is related to the quality of patient care. This argument is reinforced by the studies in cancer care mentioned earlier (Landheer et al. 2001, Sainsbury et al. 1995a, Van Laethem et al. 2001). Moreover, in the context of primary care, team working has been reported by Wood et al. (1994) to improve healthcare delivery and staff motivation, giving better detection, treatment, follow-up and outcome in patient hypertension (Adorian et al. 1990). Also, team working has been found to improve patients’ access to primary care (Marsh 1991). Sommers et al. (2000) noted an increased level of satisfaction among patients who had
access to a primary healthcare team, notably in terms of a higher mean number of social activities, fewer symptoms and slightly improved overall health. Furthermore, a study by Jansson et al. (1992) monitoring patient contacts for six years after the introduction of team working attributed improved patient access to primary care to improved accessibility and continuity provided by teams.

This literature review now proceeds to discuss the role of specific interprofessional team practices in enhancing cross-boundary relationships:

- Purpose of the team, in terms of clear team objectives and role clarity
- Participation in decision-making, with an emphasis on trust
- Communication, with particular attention given to regular team meetings
- Reflexivity
- Innovation
- Professional development, with an emphasis on team training, and
- Leadership

However, developing team working arrangements is complex (Gerrish 1999), as evident in the literature where numerous problems have been associated with interprofessional team working (Barr 1997, Boddington et al. 2006, Carter et al. 2003, Firth-Cozens 2001); a lack of understanding and appreciation of one another’s roles and limited communication being the most commonly cited (Benson and Ducanis 1995, Birchall 1997, Burke et al. 2000, Catt et al. 2005, Donaghy and Devlin 2002, Jenkins et al. 2001, Pethybridge 2004, Reeves and Lewin 2004, Skjorshammer 2001). It is these practices that will be particularly explored in depth in this review.

3.3.2.1 Purpose of the Team

Complex tasks are achieved more readily when professionals working in healthcare teams have clear goals, are cooperative and mutually supportive of one another and are aware of each other’s role (Firth-Cozens 1999b, Payne 1999).
Clear Team Objectives

The most consistently important factor in determining group effectiveness is the existence of group goals or objectives (Guzzo and Shea 1992, Pritchard et al. 1988); without a goal, a team of any nature cannot function to its fullest potential (McCallin 2003a, Outhwaite 2003, Porter-O'Grady et al. 2006). Fundamentally focused on and guided by local health needs and services and national policies and guidelines, healthcare teams with clearly defined objectives are more likely to be effective and develop new goal-appropriate methods of team working (Poulton and West 1999, West and Field 1995, West and Poulton 1997). Moreover, clarity of and commitment to shared objectives, along with high levels of participation, task orientation and support for innovation, facilitate a coordinated approach among team members (Borrill et al. 2000a) and yield high levels of team innovation (West and Anderson 1996). Furthermore, clear team objectives, together with high levels of participation, commitment to excellence and support for innovation, have been found to mediate the relationship between team leadership clarity and innovation (West et al. 2003).

Role Clarity

Role clarity is an essential prerequisite for team working in healthcare teams. Indeed, the level of role understanding and the value assigned to other’s contributions can influence communication regarding tasks and about sharing professional knowledge and ideas (Freeman et al. 2000b) and can lead to increased levels of work satisfaction (Collins et al. 2000, Onyett et al. 1997, Robinson et al. 1993, Spear et al. 2004). However, often is the case that interprofessional team working is challenged by a lack of role understanding and more so role appreciation (Borrill et al. 2000b, Donaghy and Devlin 2002, Firth-Cozens 1998). Indeed, while each professional within a team has an individual role to play, the assumption must not be made that each understands the role of others (Larkin and Callaghan 2005). For example, Catt et al. (2005) found that there was less than total agreement within the research roles and clinic nurse roles as to the areas they regularly covered with patients. Subsequently, in the case where the healthcare professional may not feel confident that other team players cover a topic with the patient adequately or where the team has an insufficient understanding of a particular profession (Catt et al. 2005), confusion over where one’s practice boundaries begin and end can arise (Moller and Harber 1996), leading to role blurring (Falk 1977), tension and possibly rivalry (Hunt 1983, Larkin and Callaghan 2005, Norman and Peck 1999).
Therefore, West and Markiewicz (2004) propose that clarification of goals and objectives are essential to facilitate good team functioning, as they help to clarify each professional’s roles and responsibilities and provide the team with a vision, so that individual’s creativity can be pooled to produce creative team outcomes. As argued by Anonson et al. (2009), knowledge of one’s own profession, as well as knowledge of other team members’ competencies and clear delineation of professional skill sets (McNair et al. 2001), will enable professionals to engage in discussion more fully.

3.3.2.2 Participation in Decision-Making
Decision-making in teams cannot be viewed in isolation from the purpose, aims and context of team working (Cook et al. 2001), for it is a central tenet of team effectiveness (Campion et al. 1993, Pearson and Spencer 1995), perceived team effectiveness and staff satisfaction (Lemieux-Charles and McGuire 2006, Yeatts and Seward 2000). Indeed, the manner in which individual team members are involved in the decision-making process has been suggested as a potential indicator of team effectiveness (De Dreu and West 2001, Drach-Zahavy and Somech 2001, Latham et al. 1994, Pearson and Spencer 1995). By bringing their own lens of understanding to a situation, individual team members enable the team to view the issue with a wider perspective (Cook et al. 2001). Moreover, the speed and nature of decisions are further enhanced when the team members have a better knowledge of each other’s roles and skills, growing quickly to trust each other and, thus, are more likely to build professional and collaborative relationships across functional and hierarchical lines (Luthans 2002) and to engage in teamwork processes that enhance team performance (Cook et al. 2001, Jones and George 1998, Spreitzer et al. 1999). A climate of mutual respect and trust is fundamental for effective teamwork (Cashman et al. 2004, Cook et al. 2001, Dieleman et al. 2004, Molyneux 2001). Intra-team trust increases team safety and enables team members to be tolerant of dissent and disagreement without triggering dysfunctional conflict (Ensley et al. 2002); it expands members’ feelings of potency, autonomy and, subsequently, empowerment (Corsun and Enz 1999); uncommon or unpopular ideas, appropriate for team innovation, are more likely to be voiced (Edmondson et al. 2001); thus creating the opportunity for greater reflexivity and the exchange of information and knowledge (Edmondson 1999).
That said, it is important to note that team members may not be equally empowered to participate in decision-making (Cott 1997, 1998). From a nursing perspective, the clinical nurse specialist in the cancer team plays a more supportive role to clinicians in the discussion of diagnosis and treatments (Jenkins et al. 2001). However, the issue of status and more so power imbalances across the healthcare professions have a tendency to silence members who wish to speak up, share authority and collaborate in problem-solving and quality improvement (Edmonson 1999). Indeed, Molyneux (2001) and Rutherford and McArthur (2004) identified that the status of team members has implications for the effective working of the team, as it may inhibit members from participating in the decision-making process and from providing input in team meetings. Characteristically one nurse in Rutherford and McArthur’s (2004, p.346) study reported: “I think we all feel restricted within our own grades...as to how far you can go really”. As a consequence, it has been found that those who come to feel less integrated in the team become less satisfied with their co-workers and the job at hand (Fried et al. 2000, Lichtenstein et al. 2004). However, in a more recent study by Propp et al. (2010), it was suggested that nurses combat this potential barrier to their collaborative contributions by employing communication practices such as building credibility, communicating diplomatically and individualising their communication with physicians. Nonetheless, despite this recent finding, it can be still argued that the implementation of employee empowerment remains a complex, “arguable” process (Jarrar and Zairi 2002, p.268).

3.3.2.3 Communication
Effective communication between healthcare professionals is a necessary condition for the provision of quality patient care (Goldszer 2004). As argued by Poole and Real (2003, p.396), “communication is the cement which holds teams together”. Team members have different skills and expertise and to function effectively communication is vital in achieving positive team working relationships (Dieleman et al. 2004, Hanafin and Cowley 2003, Molyneux 2001, Sargeant et al. 2008). As one G.P. commented in Rutherford and McArthur’s (2004, p.357) study, “whether we are doctors, nurses, receptionists or whatever, unless we communicate amongst each other…everything breaks down”. Four factors have been highlighted as important in the literature in facilitating effective communication processes in healthcare teams and are discussed below.
Firstly, a shared geographical location has been found to facilitate ease and timeliness of interprofessional communication through informal, frequent encounters between team members, thus creating opportunities for information sharing and the development of positive working relationships between team members (Cook et al. 2001, Molyneux 2001). Secondly, many researchers have underlined the importance of inter-personal relations with people outside of one’s own team or organisation, which have been shown to enhance the likelihood of obtaining new knowledge and disclose new perspectives, thus igniting the development of new ideas or the adoption of new ways of doing things (Ancona and Caldwell 1992, Andrews and Smith 1996, Denison et al. 1996, Keller 2001, Payne 1990, Perry-Smith and Shalley 2003).

A third factor is that regular team meetings have been deemed necessary to promote good communication (Bennett-Emslie and McIntosh 1995, Cant and Killoran 1995), particularly in terms of defining objectives, clarifying roles, apportioning tasks, encouraging participation and handling change (Field and West 1995, West and Field 1995). In particular, Rutherford and McArthur (2004) and Xyrichis and Lowton (2008) found that team meetings were important for effective team working in terms of breaking down professional barriers and improving interprofessional communication. Moreover, regular team meetings have been associated with high levels of team effectiveness and team innovation (Borrill et al. 2000b). However, a study by Macaskill et al. (2006) to assess surgeons’ views and their current commitments to multidisciplinary breast meetings found that not all key personnel in the MDT were present at the meeting. Their study concluded that meetings should be protected sessions for all key personnel to be present. Furthermore, while telemedicine could help in some cases where healthcare sites and staff are far apart (Axford et al. 2002, Davison et al. 2004, Fielding et al. 2005), it has been acknowledged that sufficient resources should be available for effective multidisciplinary working at the team meeting (Fleissig et al. 2006b).

And finally, adequate administrative and clerical support, before, during and after team meetings, is important to ensure good organisation and coordination (DOH 2004b). At the team meeting, the main responsibility of an MDT coordinator is to ensure availability of all necessary patient information and to record decisions about patient management. Accurate documentation should ensure that subsequent written reports do not differ from opinions given during the meeting (Douek and Taylor 2003). Indeed, the emphasis is on improving the transparency of the decisions, thus sparing a lot of discussions later (Ruhstellera et al. 2006).
3.3.2.4 Reflexivity

Reflexivity has been identified as an important team process in fostering team innovative behaviour and learning (De Dreu 2002b, Edmondson et al. 2001). It has been associated with high levels of team effectiveness (Carter and West 1998, De Dreu 2002a, De Dreu and Carsten 2007), high levels of team innovation (Muller et al. 2009, Schippers et al. 2008, Tjosvold et al. 2004, West 2000) and increased work satisfaction (Schippers et al. 2003, West 1996). By definition, reflexivity in a team context is “the extent to which team members overtly reflect upon the group’s objectives, strategies and processes and adapt them to current or anticipated endogenous or environmental circumstances” (West 1996, p.559). Notably, reflexivity has been shown to be instrumental in counteracting the negative effects of diversity in goal orientation by surfacing and clarifying differences in task representations between members, thereby enabling teams to reach a more shared understanding of task strategies and goals (Nederveen Pieterse et al. 2011, Van Ginkel et al. 2009). Indeed, reflexivity is crucial when teams are expected to achieve a higher level of integration of work where cases are complex (Opie 1997, West 1996). In addition, high levels of team reflexivity and safety are deemed necessary to present the diverse and certainly sometimes hard to communicate views to the team, thus offsetting the impairing processes of social characterisation (Fay et al. 2006a). As argued by De Dreu (2002a), teams that regularly reflect on their actions, communication processes and working methods are competent in making better use of ideas voiced by minority members.

Nonetheless, despite the evidence, researchers have argued that, in practice, teams have a natural tendency to limit their reflexivity as they are inclined to keep to their customary routines (Gray 2007, West 1996), even when presented with evidence that this behaviour might be dysfunctional (Gersick and Hackman 1990). In Field and West’s (1995) study on primary healthcare teams, members expressed frustration that there was no evaluation of the team, that individual expertise, skills and contributions went unacknowledged, since no opportunities for comparison existed, and that this presented difficulties for the staff in maintaining their self-respect. Field and West (1995) suggested that regular appraisals could praise individuals for their contribution but also offer a chance to discuss problems, consider appropriate solutions to improve team functioning, increase members’ commitment towards achieving their team’s goals and provide support where needed. In addition, West and Markiewicz (2004) proposed that conducting team audits would provide teams with effective feedback.
Therefore, taking into consideration, on the one hand, the limited scale of reflexivity in teams and, on the other hand, the potential benefits gained from implementing reflexive team practices, it has been recommended that contextual variables such as team leadership or team training can positively affect team reflexivity (Hirst et al. 2004, Okhuysen and Eisenhardt 2002, Schippers et al. 2008). As advocated by Gersick and Hackman (1990), a team leader might help the team to develop meta-routines, which prompt members to initiate re-evaluation of first-level routines in a regular and timely fashion and, thus, become more reflexive.

3.3.2.5 Innovation
Innovation, in the form of introducing new and improved healthcare for patients, has been proposed as an important dimension of team effectiveness, given the rapidly changing and challenging environments (Poulton and West 1990). Team innovation pertains to “the intentional introduction and application...of ideas, processes, products or procedures which are new to that...work team...and which are designed to benefit...the work team” (West and Farr 1990, p.9). Studies such as Hoffman and Maier (1961) and Borrill et al. (2000a) have found that heterogeneity of team composition is related to team innovation.

However, team innovation necessitates not only creative ideas but also the processing of these ideas, in order to omit those that appear useless and to implement those that have promise. Research suggests that innovations are more likely to occur where there is an openness to change and a support for innovation (Madjar et al. 2002, Shin and Zhou 2003). Support for innovation is described as the “expectation, approval and practical support of attempts to introduce new and improved ways of doing things in the work environment” (West and Farr 1990, p.315).

In a longitudinal study of 27 top management teams in hospitals, West and Anderson (1996) concluded that, although the proportion of innovative team members predicted the rated radicalness of innovations introduced, team processes, in particular, support for innovation, best predicted the overall level of team innovation. Similarly, Borrill et al. (2000b) reported that high support for innovation in the team predicted the overall level of team effectiveness and was powerfully related to the quality of team working. Moreover, Poulton and West (1999) found that teams, who were open to innovation and change, were more likely to work well as a team, structure their work more effectively and be more effective in their healthcare
delivery. Furthermore, support for innovation, together with high levels of participation, in teams have been associated not just with higher levels of effectiveness and innovation (West and Poulton 1997, West and Wallace 1991) but also with improved team member mental health (Carter and West 1999, Poulton and West 1999, West and Anderson 1996).

3.3.2.6 Professional Development
The Institute of Medicine (1999) reported that, while most care delivered today is done by teams of people, training often remains focused on individual responsibilities, leaving practitioners inadequately prepared to enter complex settings. Indeed, the medical training that instils a culture of autonomy for action can diminish professionals’ tendencies to seek opportunities to learn to communicate, share authority and collaborate in problem-solving and quality improvement (IOM 1999, 2001). In a series of communication skills courses for specialist cancer teams, 39% of senior oncology nurses and 25% of doctors attending cited “communication with colleagues” among their most stressful and challenging concerns (Jenkins et al. 2001, p.70).

Inadequate training in communication and management skills, particularly among gastroenterologists, surgeons, radiologists, oncologists and palliative care specialists, was shown to contribute to psychiatric disorder, associated with the stress of feeling overloaded, as well as burnout [emotional exhaustion, depersonalisation and low personal accomplishment] (Ramirez et al. 1995, 1996). More recent evidence of this link between insufficient training in communication and management skills and high levels of psychiatric morbidity and burnout can be found in studies among vascular surgeons, colorectal surgeons and colorectal nurse specialists working in cancer care (Sharma et al. 2008a, 2008b). Furthermore, emotional exhaustion amongst clinical and surgical oncologists was discovered in Catt et al.’s (2005) study where failure by the team to outline clear role boundaries led to burnout in some individuals and feelings of being undervalued. If left unchecked, such issues can lead to discontentment, ill will and poor staff morale (Jenkins et al. 2001).
West and Pillinger (1996) suggested that professionals need training and education in team working because this facilitates knowledge of each other’s work. It also enhances shared understanding of the task that can only be achieved when professionals know about their colleagues’ roles and expertise (Cannon-Bowers et al. 1993). Additionally, even if interdisciplinary teams embrace the notion of shared leadership, teams also need training and development as they change attitudes, thinking and culture, as labels are not enough (Firth-Cozens 1999a, McCallin 2003b). As noted by Burke et al. (2004, p.96), “there is no question that interdisciplinary teams are becoming ubiquitous in healthcare; it is also true that experts do not necessarily combine to make an expert team”. Because doctors and nurses are trained separately, it is difficult for individual clinicians to capitalise on the technical and medical skills and knowledge capabilities and recognise the limits of the other profession in daily tasks. Therefore, training is required to provide team members with the necessary competencies not only at the level of the individual’s functioning but additionally at the level of the team’s functioning, so that the reputed benefits to patients and healthcare professionals can be realised (Catt et al. 2005, Hackman 1987, Poulton and West 1993, 1994, West and Poulton 1997).

3.3.2.7 Leadership

Where one person has authority for decision-making, they tend to control the interaction (Carletta et al. 1998). Traditionally, doctors have been accorded and have assumed leadership of healthcare teams, regardless of their competence (Horwitz 1970). However, Kane (1975) suggested almost four decades ago that leadership be allocated to the team member with the most expertise, rather than being linked to professional groups. More recently, Lichtenstein et al. (2004) asserted that it would be more appropriate to select team leaders based on their competencies rather than their occupation. Indeed, Rosen and Callaly (2005, p.14) have argued that “management should be performed by the person in the team best qualified, experienced, and most committed to performing the management role independent of the type of clinical professional background”. Indeed, this management role requires “someone to look at the overall best interests of the team, to identify opportunities for joint activities, to negotiate with individuals to do the right team thing and to ensure resources and priorities are covered” (Maister 1993, p.212). Furthermore, a leader needs to be a pioneer, prepared to follow a vision of something different, to guide colleagues from many different disciplines forward into a future that is unknown and quite different to the present (McCallin 2003b).
Indeed, innovative roles for healthcare leaders are now coming to the forefront that integrate team development for the purpose of sustaining clinical productivity and patient satisfaction (Carr 1995). Fundamentally, this innovative strategy requires a particular style of leadership today that is not only synonymous with a single administrative head of each team, necessary for management, but also a shared leadership style across the sub-groups within the team. Referred to as group centred leadership (Borrill *et al*. 2000a) or collaborative leadership (Anonson *et al*. 2009), shared leadership can be defined as “a team property whereby leadership is distributed among team members rather than focused on a single designated leader” (Carson *et al*. 2007, p.1217). Not only is it equated with stewardship (McCallin 2003b), whereby all team members share responsibility for team processes and outcomes of patient care (Wilson and Gleason 2001), but it must be supported by a willingness among members of flexible clinical teams to redefine professional roles and boundaries (Coombs and Dillon 2002).

By obtaining input from different members as well as making independent decisions when the situation arises (Haward *et al*. 2003, Ruhstaller *et al*. 2006, West *et al*. 2003), this style of leadership has been found to influence the effectiveness of the decision-making process (Borrill *et al*. 2000b, Tannenbaum *et al*. 1996). Clinical team leaders who listen to members and incorporate their ideas improve team decisions (Norrgren and Schaller 1999). Moreover, clinical team leaders who communicate a motivating rationale for change and who minimise concerns about power and status differences through self-disclosure, noting awareness of their own fallibility, and emphasising a need for interdisciplinary work, can increase the ease of speaking up in the service of learning (Edmondson 2003). In particular, Nembhard and Edmondson’s (2006, p.941) construct of “leader inclusiveness” – words and deeds exhibited by leaders that indicate an invitation and appreciation for others’ contributions – has been shown to be a key moderator of the relationship between status and psychological safety. Such a distributed or shared leadership style that invites high involvement amongst all the different functions within the team has been found to not only render high levels of team effectiveness and team innovation (Borrill *et al*. 2000a), but also raise team members’ ratings of the team’s effectiveness dramatically (Ross *et al*. 2000) and increase their levels of work satisfaction (Soonhee 2002, Spreitzer *et al*. 1997).
Nonetheless, managing the different professionals and coaching colleagues in the art of shared leadership is still an evolving concept (McCallin 2003b). Recent studies of psychological safety and communication in the healthcare environment have highlighted the role of leadership in cultivating a culture of safety, but have not articulated the actual practices of leaders that are needed, other than training staff to speak up (Leonard et al. 2004, Maxfield et al. 2005). In practice, the leadership of creative people with strong professional identity may prove difficult for leaders who lack technical expertise to represent the group adequately, communicate effectively with group members, appraise needs and concerns, assess interactions and develop and mentor junior staff (Mumford et al. 2002). Indeed the training of team leaders in the art of shared leadership today needs to be addressed, given the evidence which demonstrates that practices such as annual appraisal and objective setting for each team member and six monthly follow-ups with a team leader are essential for high quality teamwork and smoother interdisciplinary working within the team (Lowe and O’Hara 2000).

3.4 Conclusion

Literature on the recent re-organisation of healthcare delivery suggests that MDTs are now deemed a necessity for organisational effectiveness. Indeed, the heterogeneous composition of specialised skills and knowledge in teams performing complex tasks, such as in breast cancer care, implies that each team member will bring a different knowledge perspective to the problem, thus enhancing member capability and commitment to delivering a quality service (Ancona et al. 1996). However, there is also recognition in the literature that multidisciplinarity may not always benefit a team (Catt et al. 2005, Fay et al. 2006a) and that “troubled teams” can arise (Boddington et al. 2006, p.67). Primarily, traditional ways of working and professional power imbalances present a challenge to multidisciplinary team effectiveness (Molyneux 2001). It has been proposed that the role of interprofessional team processes is key to challenging the power and authority of this historical professional hierarchy (Liedtka and Whitten 1998). Considering that research is limited in the Irish context, this literature makes a valuable contribution by going beyond the assumption of direct effects of multidisciplinarity on outcomes and exploring the increasing role of interprofessional team processes in re-negotiating cross-boundary relationships, thereby improving the effectiveness of multidisciplinarity in healthcare teams, in particular breast cancer teams, and, hence, yielding improved quality outcomes in patient care. Attention has been drawn to the following interdisciplinary work practices: (1) Purpose of the team, in
terms of clear team objectives and role clarity; (2) participation in decision-making, with an emphasis on trust; (3) communication, with particular attention given to regular team meetings; (4) reflexivity; (5) innovation; (6) professional development, with an emphasis on team training; and (7) leadership. The extant empirical linkage of team processes and team effectiveness in patient care quality opens up the prospect of a rich empirical study into the extent to which team processes influence the effectiveness of the newly formed breast cancer teams in Ireland. Indeed, this research is needed, and is discussed in the following chapters, in order to better understand how to gain the most from MDTs working in breast cancer care. Such insight may lead to the implementation of more nuanced and appropriate team practices in breast cancer care in Ireland.
CHAPTER FOUR: RESEARCH METHODOLOGY

4.1 Introduction
This chapter outlines the research objectives and research questions in this study. Approaches to research and the choice of research methods are considered. The methodology employed is justified and the consequent implications for the research design in this study are discussed. The chapter then focuses on the research instruments, including the methods of analysis. The fieldwork is described.

4.2 Research Objectives and Research Questions

4.2.1 Conceptual Frameworks
Saunders et al. (1997) stressed the importance of theory in generating research objectives and questions. Gill and Johnson (1997, p.178) defined theory as “a formulation regarding the cause and effect relationship between two or more variables”, and the theory underpinning the research questions formulated can be very useful when devising a framework to organise and guide data analysis (Yin 1984). While Bryman (1988) warned that this might precipitate an untimely closure on the issues to be examined, Saunders et al. (1997) also advocated the use of such a framework with the researcher allowing for flexibility in terms of modification as new issues arise or emerge from the study. In order to devise a conceptual framework, Gill and Johnson (1997) suggested that the researcher identifies which concepts, themes and issues represent important aspects of the problem under investigation and the predicted or presumed relationships between them.

Following Gill and Johnson’s (1997) advice, the following sources were used in developing a conceptual framework for this study:

- the key issues as defined and highlighted by the literature on team effectiveness in healthcare teams
- the key findings unveiled in The Reports into the circumstances surrounding the misdiagnoses of Irish women in 2007 and
From this, a conceptual model for analysis was developed – see Figure 4.1. This provides an integrated graphical representation of the structure, processes and outcome relationships as derived from the three key input sources highlighted above.

Figure 4.1: Conceptual Model in Study

4.2.2 Formulating a Research Question

When engaging in a project, the researcher can either formulate hypotheses and test them or develop theories. The former is usually more appropriate when there is a considerable body of research in the particular area. The latter when the area to be explored is relatively under-researched or when there are contradictions and ambiguities in the research. In the case of this study, however, while there is sufficient research evidence to suggest that a multidisciplinary team approach improves the outcomes of patients, specifically those with breast cancer, limited attention has examined the extent to which specific interprofessional team working processes coordinate the multiple disciplines involved in a way that facilitates improved team effectiveness, specifically in breast cancer care in Ireland. On this basis, the author formulated the following key research questions in order to test, and subsequently add to, the theory on the association between the team structure, interprofessional team processes and team outcomes, including patient care experience, in multidisciplinary breast cancer teams:
1. To what extent is there an association between the structure of a breast cancer team and the team processes it engages in?

2. To what extent is there an association between the structure and processes of a breast cancer team and the outcomes of the team, including the patient care experience?

3. Which team processes are most influential on the outcomes of the team, including the patient care experience?

The research questions were later used to guide the development of the instruments for the team questionnaire and team interviews and for ensuring field-notes during data collection remained relevant to the study.

4.3 Approaches to Research and Choosing a Research Methodology

According to Suppe (1977, p.649), “it is a central aim of science to come to a knowledge of how the world really is” and how we achieve this is through the process of research. Because both the quality and accuracy of research are affected by methodological issues, therefore, a clear concise methodology is critical in conducting research. However, an appropriate research methodology is centrally determined by philosophical positions and, thus, failure to consider philosophical issues in research design can critically affect the quality of research output (Easterby-Smith et al. 1991). Indeed, the philosophy of social scientific research comprises a variety of assumptions about the nature of the social world and the manner in which it can be examined. In the following sections, two main sets of assumptions – ontology and epistemology – are considered in conjunction with their methodological implications. It is important to note, however, that along the continuum of each approach, there are many more approaches adopted, which employ parts of both extremes in varying amounts.
4.3.1 Ontological Assumptions

Ontological assumptions concern the fundamental nature of the phenomenon under examination. By definition, ontologies are systems of categories, meanings and identities within which actors and actions are situated (Reuf 1999). Essentially, ontology refers to whether the phenomenon to be examined is external to the individual or whether it is the product of his/her mind. This fundamental question has a critical impact on how one interprets the world and hence the types of assumptions that one makes about the operation of the structures and systems within it. In dealing with the essence of phenomena and the nature of existence, ontology is classified in terms of its extreme points, realism and nominalism.

Realism implies that a reality exists that is independent of human thoughts and beliefs (Saunders et al. 2003) and that this reality should be capable of public tests, through objective means of questionnaires and survey instruments (Creswell 1994), and whose results do not vary significantly with the tester (Hempel 1970). On the other hand, nominalism implies that reality is made up of concepts and labels (Burrell and Morgan 1979, Easterby-Smith et al. 2008). Primarily, strict nominalists would claim that objectivity is impossible (Mick 1986), since all observations are theory laden (Kuhn 1962). The nominalist assumption is that language is a medium oriented towards action and function and that people exercise language to illustrate, clarify or create versions of the social world in which they live (Chimombo and Roseberry 1998, Elliot 1996, Gergen 1985, Pettigrew 1979). By embracing the concept of multiple realities, nominalist ontology requires the active participation of the researcher in the research process (Hill and McGowan 1999) and it is through interviews and case studies that such research facilitates the reporting of the unique realities of individuals (Creswell 1994).

4.3.2 Epistemological Assumptions

Epistemological assumptions concern the study of the criteria by which we determine what does and does not constitute warranted or valid knowledge (Gill and Johnson 2002) – what may be regarded as ‘true’ and ‘false’ – and how we communicate and share this knowledge to fellow human beings. Indeed, the primary objective of an empirical epistemology is to expand a body of reliable facts and governing laws that can be applied to real-world situations. In this way, it is claimed that the empiricist tradition endeavours to imitate the natural sciences by identifying the important generalisations covering the event to be explained (Brannick and Roche 1997, Hussey and Hussey 1997). By this endeavour, epistemology is classified in terms of its extreme points, positivism and phenomenology (Burrell and Morgan 1979).
Positivism assumes that there is a single objective reality that can be discovered and interpreted by laws or law-like generalisations similar to those produced by the physical and natural sciences and that facts and causes can be determined with little regard for the subjective states of individuals (Remenyi et al. 1998). Indeed, the key idea of positivism is that the social world exists externally and that social phenomena should be observed and measured through highly structured objective methods to facilitate replication (Gill and Johnson 1997), rather than being inferred subjectively through sensation, reflection and intuition (Easterby-Smith et al. 1991, 2008, Saunders et al. 1997). Critics of the positivist approach, however, claim that it is inadequate and unsuitable for the social sciences as it fails to capture the rich complexity of social situations (Saunders et al. 2000), by encouraging an emphasis on superficial facts without understanding the underlying mechanisms observed or their meanings to individuals (Bowling 2009).

On the other hand, phenomenology stems from the view that the world and reality are socially constructed rather than scientifically constructed and that human action arises from people’s sense-making of different situations rather than as a direct response from external stimuli (Easterby-Smith et al. 1991). Indeed, this phenomenological approach involves the researcher trying to understand not only what is happening but also why it is happening (Saunders et al. 1997); what Remenyi et al. (1998, p.35) call “the details of the situation to understand the reality or perhaps a reality working behind them”. In this manner, research observation precedes theory in that it initiates, reformulates, deflects and clarifies theory (Merton 1968). Critics of the phenomenological approach, however, claim that the unstructured inductive methods are unreliable in that, where the researcher is pre-eminently the research tool (Goulding 2002), the entire study is rendered subjective, results are difficult to replicate and bias cannot be eliminated. The table below presents the main characteristics which differentiate the extreme approaches of positivism and phenomenology.
Table 4.1: Contrasting Positivistic and Phenomenological Paradigms

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*Source: Hussey and Hussey (1997, p.54)*

4.3.3 Methodological Implications

The two sets of assumptions outlined above have direct implications of a methodological nature. The research methods that are associated with positivism and phenomenology are classified as nomothetic and ideographic respectively.

Nomothetic methods focus on the process of testing hypotheses in accordance with the standards of scientific rigour, by using systematic protocol and technique (Burrell and Morgan 1979, Gill and Johnson 1997, 2002). The purpose of such research methods is to arrive at precise models that elucidate why certain phenomena occur across society. At the core of nomothetic methods is the deductive tradition. Deductive research methods focus on developing a conceptual and theoretical structure prior to its testing through empirical observation. As such, it is the dominant research approach in the natural sciences, where “laws provide the basis of explanation, permit the anticipation of phenomena, predict their occurrence and, therefore, allow them to be controlled” (Hussey and Hussey 1997, p.52).

On the other hand, ideographic methods focus on the analysis of subjective accounts that one generates by ‘getting inside’ situations and involving oneself in the everyday flow of life (Burrell and Morgan 1979). This is an attempt to fully account for all of the factors involved in a specific problem (Sedlack and Stanley 1992). Central to ideographic methods is the inductive tradition. Inductive research methods assume that laws and generalisations can be developed from an accumulation of observations and cases, which take account of the subjects meaning and interpretational systems in order to gain explanation and understanding (Burrell and Morgan 1979). The table below presents the main characteristics of nomothetic and ideographic methods.
Table 4.2: Contrasting Nomothetic and Ideographic Methods

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<th>Nomothetic Methods Emphasise:</th>
<th>Ideographic Methods Emphasise:</th>
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<td>Deduction</td>
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<td>Explanation via analysis of causal relationships and explanation covering laws</td>
<td>Explanation of subjective meaning systems and explanation by understanding</td>
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<td>Generation and use of quantitative data</td>
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</tr>
<tr>
<td>Use of various controls, physical or statistical, so as to allow the testing of hypotheses</td>
<td>Commitment to research in everyday settings to allow access to and minimise reactivity among the subjects of research</td>
</tr>
<tr>
<td>Highly structured research methodology, to ensure replicability of 1, 2, 3 and 4 above.</td>
<td>Minimum structure to ensure 2, 3 and 4 above (and as a result of 1)</td>
</tr>
</tbody>
</table>

Source: Gill and Johnson (2002)

Nonetheless, it has been argued that, while the distinction between the ontological and epistemological paradigms maybe very clear at the philosophical level (Burrell and Morgan 1979), this distinction breaks down when it comes to choosing specific methods and considering the practical issues surrounding the research design (Bulmer 1988, Punch 1986). According to Strauss and Corbin (1998), primacy should not be given to either the deductive or inductive methods of doing research: “An instrument is an instrument, not an end in itself” (1998, p.28). Indeed, the issue is not primacy but rather when and how each method might be useful to theorising (McKeganney 1995). Not only is it perfectly possible to combine methodological approaches within the same piece of research, it is often advantageous to do so (Saunders et al. 2003). The justification for combining methodological approaches is discussed further in the following section, in terms of a mixed methods approach, as well as its consequent implications for the research design in this study.
4.4 Implications for Research Design

4.4.1 Mixed Methods Approach

Although many researchers perceive themselves as belonging to one or other research paradigm, the growing knowledge of the weaknesses of different methods has led many others to reach a conclusion that social research methods should not be treated as mutually exclusive alternatives (Brewer and Hunter 1989, Silverman 1993). Since the early 1980s, many researchers have adopted a mixed methods approach (Bryman 2008, Bryman and Bell 2007, Saunders et al. 2007) – referred to as multi-methods (Brannen 1992), multi-strategy (Bryman 2004), mixed methods (Creswell 2003, Tashakkori and Teddlie 2003) or mixed methodology research (Tashakkori and Teddlie 1998). This approach to research combines quantitative [deductive] and qualitative [inductive] methods, which are grounded in both the positivist and phenomenological orientations respectively (Bryman and Bell 2007, Creswell 2008, Fox et al. 2007, Gill and Johnson 2002). One way of combining quantitative and qualitative research is to build upon quantitative/qualitative findings and this is referred to as “enhancement” (Bryman 2006, p.107). It entails “making more of or augmenting either quantitative or qualitative findings by gathering data using a qualitative or quantitative research approach” (2006, p.107). This combination is of particular value when the research design must cater for practical constraints, such as limited access to data (Easterby-Smith et al. 1991) and the non-return of questionnaires (Saunders et al. 2000). By employing both research approaches, the researcher can bring together a more comprehensive account of the area of enquiry and, thus, achieve “completeness” (Bryman 2006, p.106).

The aim of this study is to test, and subsequently add to, the theory on the association between the team structure, interprofessional team processes and team outcomes, including patient care experience, in multidisciplinary breast cancer teams. Therefore, this research benefits from the adoption of a mixture of deductive and inductive approaches. Two quantitative surveys were initially administered for the purpose of obtaining the following: (1) the team members’ perception of interprofessional team working within their team, the team members’ well-being and their team’s effectiveness; and (2) the patients’ perception of the care they received from the teams investigated. However, because the number of possible completed team questionnaires is somewhat limited due the small number of breast cancer teams to be investigated and the small size of each team, qualitative interviews were conducted with the core team members in order to intensively investigate the teams in question and to explore further the dynamics of interprofessional team working within those teams. Therefore, by
employing both deductive and inductive approaches respectively, the researcher could build a more complete picture of the interprofessional team working process and, from this, gain an enhanced understanding of the factors determining the effectiveness of multidisciplinarity in breast cancer teams.

4.5 Research Instruments

The primary aim of this study was to explore three regional specialised breast cancer teams in Ireland in terms of multidisciplinary team working and to determine the extent to which specific interprofessional team working practices impacted on the effectiveness of multidisciplinarity in these teams. The following sections discuss the team questionnaire, the team interview guide and the patient questionnaire employed in this research study. Incorporated in the discussions are descriptions of the methods of analysis used.

4.5.1 The Team Questionnaire

In order to obtain the team members’ views of interprofessional team working within their team, the team members’ well-being and their team’s effectiveness, it proved necessary to use many different published scales. The instrument used in this study is presented in Appendix A. It was a nine-page questionnaire comprising six main sections, as listed in the table below with their respective scales.

Table 4.3: Layout of the Team Questionnaire, Including the Scales

<table>
<thead>
<tr>
<th>Main Section</th>
<th>Scales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section A. General Information about the Breast Cancer Team</td>
<td>Purpose of the Team</td>
</tr>
<tr>
<td>Section B. Biographical Details</td>
<td>Participation in Decision-Making, Trust, Relationships, Communication, Reflexivity, Innovation &amp; Flexibility, Professional Development and Leadership &amp; Supervision</td>
</tr>
<tr>
<td>Section C. Team Working Practices</td>
<td>Work Satisfaction and General Mental Health</td>
</tr>
<tr>
<td>Section D. Work and Well-Being</td>
<td>Ratings of Various Aspects of Team Effectiveness</td>
</tr>
<tr>
<td>Section E. Team Effectiveness</td>
<td></td>
</tr>
<tr>
<td>Section F. Additional Comments</td>
<td></td>
</tr>
</tbody>
</table>
In total, the team members were asked to respond to ninety-nine items. The research sites were concerned with the confidentiality and anonymity of the responses. Therefore no questions, which might uniquely identify individuals, were asked. In most sections, a 5-point Likert scale was used. However, this was not possible in all instances. Because previously published and validated scales were used, their original Likert scales were retained in order to maintain their reliability. In addition, eight open-ended questions were asked. PASW [version 19] was used to analyse the data from the team questionnaire. Negatively worded items in the scales were reverse coded. They are highlighted as ‘R’ in Table 4.4 at the end of this section. The reliability of each scale in the team questionnaire was calculated and sufficiently high reliabilities were found for all scales. The following section examines each of the scales used.

4.5.1.1 Purpose of the Team

This scale measured an individual’s perception of the purpose of his/her breast cancer team. The purpose of the team was measured using a four-item scale, which was adapted from the original five-item instrument developed by the research team at Aston Business School specifically for the Commission for Health Improvement, Clinical Governance Review, Staff Survey (2001) and the Employee Involvement Survey (2001). The items in this Aston scale had been adapted from a measure devised by Carter and West (1998), but were changed substantially for the Aston Business School’s surveys to measure an individual’s views about working in teams within the National Health Service [NHS]. Responses to this Aston scale were binary – that is, yes/no. In this study, however, responses were given on a four-point Likert scale, which ranged from one (representing ‘always false’) to four (representing ‘always true’). The question was phrased “To what extent do you agree with the following statements?”. Sample items included: “This BCT [Breast Cancer Team] has clear team objectives” and “There are different roles for team members within this team”. The data were coded such that higher scores signified greater levels of understanding the purpose of the team. The instrument used from the Aston Business School’s Staff Survey (2001) and Employee Involvement Survey (2001), excluding the item which was dropped from this scale for the purpose of this study, had a reliability of 0.81. In this study, the four-item scale had a reliability of 0.67.

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5 Cronbach's alpha (α) is the most common form of reliability coefficient. This measure determines the reliability of a multiple item scale. It is based on the mean correlation of each item in the scale with every other item and is calculated by examining the responses given to scale items. By convention, alpha should be 0.70 or higher to retain an item in a scale. However, it is acceptable to report coefficients of less than 0.70 if there are only a small number of items in the scale Morgan, G. A. and Griego, O. V. (1998) Easy use and interpretation of SPSS for Windows: answering research questions with statistics, Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
4.5.1.2 Participation in Decision-Making

This scale measured an individual’s perception of the level of team member participation in decision-making within his/her breast cancer team. Participation in decision-making was measured using a three-item scale, originally developed by Campion et al. (1993). As in the original scale, responses in this study were given on a five-point Likert scale, which ranged from one (representing ‘strongly disagree’) to five (representing ‘strongly agree’). The question was phrased “To what extent do you agree with the following statements?”. Sample items included: “As a member in this team, I have a real say in how the team carries out its work” and “Most members in this team get a chance to participate in decision-making”. The data were coded such that higher scores signified greater levels of participation in decision-making. Campion et al. (1993) found that the three-item scale had a reliability of 0.88. In this study, the three-item scale had a reliability of 0.87.

4.5.1.3 Trust

This scale measured an individual’s perception of trust within his/her breast cancer team. Trust was measured using a twelve-item scale, originally developed by Nyhan and Marlowe (1997) to measure an individual’s level of trust in his/her supervisor and in his/her work organisation as a whole. In Nyhan and Marlowe’s (1997) organisational trust inventory, responses were given on a seven-point Likert scale, which ranged from one (representing ‘nearly zero’) to seven (representing ‘nearly 100%’). In this study, however, responses were given on a five-point Likert scale, which ranged from one (representing ‘nearly zero’) to five (representing ‘nearly 100%’). The question was phrased “To what extent do you agree with the following statements?”. Sample items included: “I am confident that members of the team are technically competent at the critical elements of their job” and “I am confident that members of the team will make well thought out decisions about their job”. The data were coded such that higher scores signified greater levels of trust. Nyhan and Marlowe (1997) found that the twelve-item scale had a reliability ranging from 0.92 to 0.97 across different groups. In this study, the twelve-item scale had a reliability of 0.91.
4.5.1.4 Relationships

This scale measured an individual’s perception of the relationships both within his/her breast cancer team and between his/her breast cancer team and similar teams in other hospitals. Inter-personal and inter-team relationships were measured using an eight-item scale, which was adapted from the two original four-item instruments developed by the research team at Aston Business School specifically for the Commission for Health Improvement, Clinical Governance Review, Staff Survey (2001) and the Employee Involvement Survey (2001). It is important to note that the rationale for combining the two scales was simply for ease of presentation. However, because factor analysis showed that the items in the combined scale loaded onto two factors, the two scales were later analysed separately. As in both relationship scales, responses in this study were given on a five-point Likert scale, which ranged from one (representing ‘strongly disagree’) to five (representing ‘strongly agree’). The question was phrased “To what extent do you agree with the following statements?”. Sample items included: “The different specialities co-operate very well” and “We share goals with colleagues from other hospitals”. The data were coded such that higher scores signified greater levels of relationships both within the breast cancer team and between the breast cancer team and similar teams in other hospitals. Both relationship instruments used from the Aston Business School’s Staff Survey (2001) and Employee Involvement Survey (2001) had reliabilities of 0.75 and 0.91 respectively. In this study, the relationship instruments had reliabilities of 0.83 and 0.81 respectively.

4.5.1.5 Communication

This scale measured an individual’s perception of communication within his/her breast cancer team and an individual’s understanding of the team’s long-term plans and goals communicated by the team’s management. Intra-team communication and communication of the team’s long-term plans and goals were measured using a seven-item scale, which was adapted from the original four-item instrument and three-item instrument developed by the research team at Aston Business School specifically for the Commission for Health Improvement, Clinical Governance Review, Staff Survey (2001) and the Employee Involvement Survey (2001). It is important to note that the rationale for combining the two scales was simply for ease of presentation. However, because factor analysis showed that the items in the combined scale loaded onto two factors, the two scales were later analysed separately. As in both communication scales, responses in this study were given on a five-point Likert scale, which ranged from one (representing ‘strongly disagree’) to five
(representing ‘strongly agree’). The question was phrased “To what extent do you agree with the following statements?”. Sample items included: “Communication in the team is very good” and “The team’s management doesn’t clearly communicate their strategic plans or goals”. The data were coded such that higher scores signified greater levels of intra-team communication and communication of the team’s long-term plans and goals. Both communication instruments used from the Aston Business School’s Staff Survey (2001) and Employee Involvement Survey (2001) had reliabilities of 0.81. In this study, the communication instruments had reliabilities of 0.60 and 0.75 respectively.

4.5.1.6 Reflexivity
This scale measured an individual’s perception of reflexivity within his/her breast cancer team. Reflexivity was measured using a five-item scale, originally developed by Patterson et al. (2005) as part of their multi-dimensional measure of organisational climate. As in the original scale, responses in this study were given on a four-point Likert scale, which ranged from one (representing ‘always false’) to four (representing ‘always true’). The question was phrased “To what extent do you agree with the following statements?”. Sample items included: “In this team, the way people work together is readily changed in order to improve performance” and “The methods used by this team to get the job done are often discussed”. The data were coded such that higher scores signified greater levels of reflexivity. Patterson et al. (2005) found that the five-item scale had a reliability of 0.76. In this study, the five-item scale had a reliability of 0.90.

4.5.1.7 Innovation & Flexibility
This scale measured an individual’s perception of innovation and flexibility within his/her breast cancer team. Innovation and flexibility were measured using a six-item scale, originally developed by Patterson et al. (2005) as part of their multi-dimensional measure of organisational climate. As in the original scale, responses in this study were given on a four-point Likert scale, which ranged from one (representing ‘always false’) to four (representing ‘always true’). The question was phrased “To what extent do you agree with the following statements?”. Sample items included: “New ideas are readily accepted here” and “This team is quick to respond when changes need to be made”. The data were coded such that higher scores signified greater levels of innovation and flexibility. Patterson et al. (2005) found that the six-item scale had a reliability of 0.86. In this study, the six-item scale had a reliability of 0.89.
4.5.1.8 Professional Development

This scale measured an individual’s perception of professional development within his/her breast cancer team. Professional development was measured using a four-item scale, originally developed by the research team at Aston Business School specifically for the *Commission for Health Improvement, Clinical Governance Review, Staff Survey* (2001). As in this Aston scale, responses in this study were given on a five-point Likert scale, which ranged from one (representing ‘not at all’) to five (representing ‘a great deal’). The question was phrased “*To what extent are the following statements true?*”. Sample items included: “The organisation strongly believes in the importance of training and development” and “People here are encouraged to develop their team skills”. The data were coded such that higher scores signified greater levels of professional development. The instrument used from the Aston Business School’s *Staff Survey* (2001) had a reliability of 0.82. In this study, the four-item scale had a reliability of 0.76.

4.5.1.9 Leadership & Supervision

This scale measured an individual’s perception of leadership and supervision within his/her breast cancer team. Leadership and supervision were measured using a six-item scale, which was adapted from the original two-item instrument and four-item instrument developed by the research team at Aston Business School specifically for the *Commission for Health Improvement, Clinical Governance Review, Staff Survey* (2001). It is important to note that the rationale for combining the two scales was simply for ease of presentation. However, because factor analysis showed that the items in the combined scale loaded onto one factor, this scale was later analysed as a whole. As in both leadership and supervision instruments, responses in this study were given on a five-point Likert scale, which ranged from one (representing ‘not at all’) to five (representing ‘a great deal’). Similarly, in this study, responses were given on a five-point Likert scale, which ranged from one (representing ‘not at all’) to five (representing ‘a great deal’). The question was phrased “*To what extent are the following statements true?*”. Sample items included: “My supervisor/manager encourages me to use creative and innovative ways to meet patient/service needs” and “My supervisor/manager shares his/her knowledge and expertise”. The data were coded such that higher scores signified greater levels of leadership and supervision. Both leadership and supervision instruments used from the Aston Business School’s *Staff Survey* (2001) had altogether a reliability of 0.92. In this study, the six-item scale had a reliability of 0.91.
4.5.1.10 Work Satisfaction

This scale measured an individual’s work satisfaction within his/her breast cancer team. Work satisfaction was measured using a seven-item scale, which was adapted from the original six-item instrument based on a longer version devised by Warr et al. (1979) and developed by the research team at Aston Business School, specifically for the Commission for Health Improvement, Clinical Governance Review, Staff Survey (2001) and the Employee Involvement Survey (2001). It is important to note that factor analysis showed that all seven items in the scale loaded onto one factor and, therefore, this scale was later analysed as a whole. As in this Aston scale, responses in this study were given on a five-point Likert scale, which ranged from one (representing ‘very dissatisfied’) to five (representing ‘very satisfied’). The question was phrased “How satisfied are you with the following statements?”. Sample items included: “The recognition you get for good work” and “Your team’s lead clinician/manager” in conjunction with the additional seventh item “Your patients’ outcomes”. The data were coded such that higher scores signified greater levels of work satisfaction. The instrument used from the Aston Business School’s Staff Survey (2001) and Employee Involvement Survey (2001) had a reliability of 0.83. In this study, the seven-item scale had a reliability of 0.88.

4.5.1.11 General Mental Health

This scale measured an individual’s general mental health within his/her breast cancer team. General mental health was measured using a twelve-item scale, originally developed by Goldberg (1978) to screen for minor psychiatric disorder in general population and in occupational mental health research. Referred to as the GHQ-12, this self-report questionnaire measures 12 symptoms of minor psychiatric morbidity – for example, mild depression, loss of confidence, sleep disturbance. As in the original scale, responses in this study were given on a four-point Likert scale, which ranged from one (representing ‘much less than usual’) to five (representing ‘much more than usual’). The question was phrased “Have you recently...?”. Sample items included: “Been able to concentrate on whatever you are doing?” and “Lost much sleep over worry?”. The data were coded such that lower scores signified greater levels of general mental health. Goldberg (1978) found that the twelve-item scale had a mean internal reliability of 0.85. In this study, the 12-item scale had a reliability of 0.88.
4.5.1.12 Ratings of Various Aspects of Team Effectiveness

This scale measured an individual’s perception of the effectiveness of his/her breast cancer team. Team effectiveness was measured using a seven-item scale, originally developed by the research team at Aston Business School specifically for the Commission for Health Improvement, Clinical Governance Review, Staff Survey (2001) and the Employee Involvement Survey (2001). As in this Aston scale, responses in this study were given on a five-point Likert scale, which ranged from one (representing ‘strongly disagree’) to five (representing ‘strongly agree’). The question was phrased “To what extent do you agree with the following statements?”. Sample items included: “This team does not have much of a reputation for top quality patient care” and “There is an emphasis on patient-focused care in this team”. The data were coded such that higher scores signified greater levels of team effectiveness. The instrument used from the Aston Business School’s Staff Survey (2001) and Employee Involvement Survey (2001) had a reliability of 0.88. In this study, the seven-item scale had a reliability of 0.83.

Table 4.4: Negatively Worded Items, Reverse Coded as ‘R’, in the Scales Employed in the Team Questionnaire

<table>
<thead>
<tr>
<th>Scale</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose of the Team</td>
<td>Section A.</td>
</tr>
<tr>
<td></td>
<td>Q. 4.1-4.</td>
</tr>
<tr>
<td>Participation in Decision-Making</td>
<td>Section C.</td>
</tr>
<tr>
<td></td>
<td>Q. 1.1.1-3.</td>
</tr>
<tr>
<td>Trust</td>
<td>Section C.</td>
</tr>
<tr>
<td></td>
<td>Q. 2.1.1-12.</td>
</tr>
<tr>
<td>Inter-Personal Relationships</td>
<td>Section C.</td>
</tr>
<tr>
<td></td>
<td>Q. 3.1.1-4.</td>
</tr>
<tr>
<td></td>
<td>Q. 3.1.2. [R]</td>
</tr>
<tr>
<td>Inter-Team Relationships</td>
<td>Section C.</td>
</tr>
<tr>
<td></td>
<td>Q. 3.1.5-8.</td>
</tr>
<tr>
<td>Intra-Team Communication</td>
<td>Section C.</td>
</tr>
<tr>
<td></td>
<td>Q. 4.1.1-4.</td>
</tr>
<tr>
<td></td>
<td>Q. 4.1.3 &amp; 4. [R]</td>
</tr>
<tr>
<td>Communication of the Team’s Long-Term Plans &amp; Goals</td>
<td>Section C.</td>
</tr>
<tr>
<td></td>
<td>Q. 4.1.5-7.</td>
</tr>
<tr>
<td></td>
<td>Q. 4.1.5 &amp; 6. [R]</td>
</tr>
<tr>
<td>Reflexivity</td>
<td>Section C.</td>
</tr>
<tr>
<td></td>
<td>Q. 5.1.1-5.</td>
</tr>
<tr>
<td>Innovation &amp; Flexibility</td>
<td>Section C.</td>
</tr>
<tr>
<td></td>
<td>Q. 6.1.1-6.</td>
</tr>
<tr>
<td>Professional Development</td>
<td>Section C.</td>
</tr>
<tr>
<td></td>
<td>Q. 6.2.1-4.</td>
</tr>
<tr>
<td></td>
<td>Q. 6.2.4. [R]</td>
</tr>
<tr>
<td>Leadership &amp; Supervision</td>
<td>Section C.</td>
</tr>
<tr>
<td></td>
<td>Q. 7.3.1-6.</td>
</tr>
<tr>
<td>Work Satisfaction</td>
<td>Section D.</td>
</tr>
<tr>
<td></td>
<td>Q. 1.1.1-7.</td>
</tr>
<tr>
<td>GHQ-12</td>
<td>Section D.</td>
</tr>
<tr>
<td></td>
<td>Q. 1.2.1-12.</td>
</tr>
<tr>
<td></td>
<td>Q. 1.2.2, 5, 6, 9-11. [R]</td>
</tr>
<tr>
<td>Ratings of Various Aspects of Team Effectiveness</td>
<td>Section E.</td>
</tr>
<tr>
<td></td>
<td>Q. 1.1.1-7.</td>
</tr>
<tr>
<td></td>
<td>Q. 1.1.1. [R]</td>
</tr>
</tbody>
</table>
4.5.2 The Team Interview Guide

In order to intensively investigate the teams in question and to explore further the dynamics of interprofessional team working within those teams, individual interviews were conducted with the core team members. The instrument used in this study is presented in Appendix B. There were eleven main questions covering three broad areas: interdisciplinary team processes in your breast cancer team; your well-being, along the lines of work satisfaction and general mental health; and your team’s effectiveness in breast cancer care. It is important to note that, depending on the findings of the team questionnaire – notably the outliers shown in boxplots in Appendix D –, the emphasis on certain questions varied. All interview transcripts were imported into NVIVO [version 8] and all quotations were transferred into nodes to analyse the data.

4.5.3 The Patient Questionnaire

The Picker Ambulatory Oncology Survey Instrument (National Research Corporation 2005) was used to obtain information on the patients’ perceptions of the care they received from the breast cancer teams investigated in this study. This instrument was standardised and validated in Canada in 2005 and had an average reliability of 0.93. In recent years, this survey has been used to measure the experiences of cancer care patients in British Columbia, Canada (Watson et al. 2007), New South Wales, Australia (Heading et al. 2008, 2009) and New Zealand (Cancer Control Council of New Zealand 2009). The instrument used in this study is presented in Appendix C. It was a six-page questionnaire comprising ten main sections, as listed in the table below with sample items included.
### Table 4.5: Layout of the Patient Questionnaire, Including Sample Items

<table>
<thead>
<tr>
<th>Main Section</th>
<th>Sample Items</th>
</tr>
</thead>
</table>
| .1. About Your Diagnosis              | i. “Who first told you of your breast cancer diagnosis?”  
ii. “Were you told of your diagnosis in a sensitive manner?” |  
| .2. Planning Your Treatment           | i. “Did someone discuss different treatments for breast cancer with you?”  
ii. “Did you understand the information you were provided regarding the various treatment options?” |  
| .3. About Your Tests                  | i. “Did your care provider explain why you needed tests in a way you could understand?”  
ii. “After the tests were done, did someone explain the results in a way that you could understand?” |  
| .4. About Your Surgery                | i. “Did you have surgery after your breast cancer diagnosis?”  
ii. “Were the results of your surgery explained in a way you could understand?” |  
| .5. About Your Chemotherapy           | i. “Have you had outpatient chemotherapy during your cancer treatment?”  
ii. “Do you think the staff did everything they could to help you with your chemotherapy side effects?” |  
| .6. About Your Radiation Therapy      | i. “Have you had radiation therapy during your cancer treatment?”  
ii. “Do you think the staff did everything they could to help you with your radiation therapy side effects?” |  
| .7. Symptom Management                | i. “Did you get enough information about possible changes in your physical appearance?”  
ii. “Did you get enough information about your nutritional needs?” |  
| .8. Your Healthcare Providers         | i. “Did you know who was in charge of your care for each of your therapies?”  
ii. “How well coordinated was the referral of your case between specialist groups?” |  
| .9. Your Overall Impression of Your Care | i. “Did you receive all of the services you thought you needed for your breast cancer treatment?”  
ii. “Do you feel you were given sufficient privacy during your care?” |  
| .10. Your Background                  | i. “In general, how would you rate your health?”  
ii. “Thinking about your treatment, was it for a first time breast cancer diagnosis or a repeat breast cancer diagnosis?” |  

In total, the team members were asked to respond to eighty-one items. No questions, which might uniquely identify individuals, were asked. PASW [version 19] was used to analyse the data from the patient questionnaire. Negatively worded questions were reverse coded. They are highlighted as ‘R’ in Table 4.6. Also, because the results were to be calculated in the form of positive scores – that is, the percentage of respondents who gave the ideal/positive response(s) to a question –, the data had to be recoded such that all positive scores = 1 and all negative scores = 0. In addition, a specific missing value of -8 was coded where the answer given was non-applicable. Furthermore, a specific missing value of -9 was coded where respondents were unable to answer the following questions: Q.s 23-25, 27-33 and 35-40, in the case where they did not undergo surgery, chemotherapy and radiotherapy respectively; and Q. 42, where they
did not experience pain during their cancer treatment. The patient questionnaire comprised eight dimensions: access to care; coordination and continuity of care; information, communication and education; physical comfort; emotional support; respect for patient preferences; surgery specific issues; and overall impression of visit. The reliability of each scale was calculated and is listed below in Table 4.6.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Measure</th>
<th>Questions</th>
<th>Reliability Coefficient</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to Care</td>
<td>9-item measure of a patient’s perception of access to care for his/her breast cancer treatment.</td>
<td>Q. 17 [R] Q. 19 Q. 29 Q. 30 [R] Q. 31 Q. 36 Q. 37 [R] Q. 38 Q. 69</td>
<td>0.66</td>
<td></td>
</tr>
<tr>
<td>Coordination &amp; Continuity of Care</td>
<td>10-item measure of a patient’s perception of coordination &amp; continuity of care during his/her breast cancer treatment.</td>
<td>Q. 14 Q. 16 Q. 53 Q. 54 Q. 56 Q. 57 Q. 58 [R] Q. 59 Q. 60 Q. 65</td>
<td>0.78</td>
<td></td>
</tr>
<tr>
<td>Information, Communication &amp; Education</td>
<td>11-item measure of a patient’s perception of information, communication &amp; education during his/her breast cancer treatment.</td>
<td>Q. 8 Q. 9 Q. 10 Q. 15 Q. 18 Q. 20 Q. 21 Q. 43 Q. 46 Q. 48 Q. 49</td>
<td>0.84</td>
<td></td>
</tr>
<tr>
<td>Physical Comfort</td>
<td>5-item measure of a patient’s perception of physical comfort during his/her breast cancer treatment.</td>
<td>Q. 32 Q. 33 Q. 39 Q. 40 Q. 42</td>
<td>0.76</td>
<td></td>
</tr>
<tr>
<td>Emotional Support</td>
<td>9-item measure of a patient’s perception of emotional support during his/her breast cancer treatment.</td>
<td>Q. 5 Q. 6 Q. 44 Q. 45 Q. 47 Q. 55 Q. 61 Q. 63 Q. 64</td>
<td>0.82</td>
<td></td>
</tr>
<tr>
<td>Respect for Patient Preferences</td>
<td>7-item measure of a patient’s perception of the respect for his/her preferences during his/her breast cancer treatment.</td>
<td>Q. 11 Q. 12 Q. 13 Q. 51 Q. 62 Q. 71 Q. 72</td>
<td>0.76</td>
<td></td>
</tr>
<tr>
<td>Surgery Specific Issues</td>
<td>2-item measure of a patient’s perception of how long he/she would have to wait until the day of his/her breast surgery and his/her understanding of the results of his/her breast surgery.</td>
<td>Q. 24 Q. 25</td>
<td>0.43</td>
<td></td>
</tr>
<tr>
<td>Overall Impressions of Visit</td>
<td>5-item measure of a patient’s overall impression of care during his/her breast cancer treatment.</td>
<td>Q. 66 Q. 67 Q. 68 Q. 70 Q. 74</td>
<td>0.80</td>
<td></td>
</tr>
</tbody>
</table>
4.6 Fieldwork

Three regional specialised breast cancer teams in Ireland were explored in terms of multidisciplinary team working and the extent to which specific interprofessional team working practices impacted on the effectiveness of multidisciplinarity in these teams. Three of the remaining five breast cancer teams in Ireland declined to participate. Correspondence with the remaining two breast cancer teams ended after eight months of writing letters, sending emails and making telephone calls to the teams asking them to make a decision on participation in the study. The following tables provide a synopsis of the fieldwork involved in distributing the team questionnaire, conducting team interviews and administering the patient questionnaire.

Table 4.7: Fieldwork Involved in Distributing the Team Questionnaire

<table>
<thead>
<tr>
<th>Dates</th>
<th>Fieldwork</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 2009</td>
<td>The questionnaire was piloted amongst a hospital-based vascular team comprising ten individuals. A vascular team was chosen for this pilot study as it was similar in multidisciplinary composition to that of the breast cancer teams to be studied. The questionnaire is presented in Appendix E. Eight of the questionnaires were returned. No amendments were indicated on the basis of the pilot study.</td>
</tr>
<tr>
<td>January – July 2010</td>
<td>The questionnaire was distributed to the 18 individuals in Team B. Fifteen completed questionnaires were returned.</td>
</tr>
<tr>
<td>February – November 2010</td>
<td>The questionnaire was distributed to the 21 individuals in Team A. Fourteen completed questionnaires were returned.</td>
</tr>
<tr>
<td>October 2010 – January 2011</td>
<td>The questionnaire was distributed to the 25 individuals in Team C. Twelve completed questionnaires were returned.</td>
</tr>
</tbody>
</table>
Table 4.8: Fieldwork Involved in Conducting the Team Interviews

<table>
<thead>
<tr>
<th>Dates</th>
<th>Fieldwork</th>
</tr>
</thead>
<tbody>
<tr>
<td>October – December 2010</td>
<td>Nine interviews in total were conducted in Team B. The aim was to interview a professional from each of the core disciplines working in the breast cancer team. However, at this stage in the study, I was unable to interview the consultant radiologist, and the consultant radiation oncologist and consultant medical oncologist declined to participate in the study. Therefore, professionals from the following disciplines were interviewed: one consultant breast surgeon; two consultant pathologists; one registrar in radiation oncology; two clinical nurse specialists; one clinical nurse manager; and two oncology liaison nurses [whose responsibility is for patients presenting with breast cancer only].</td>
</tr>
<tr>
<td>October – November 2010</td>
<td>Nine interviews in total were conducted in Team A. Apart from the lead consultant breast surgeon who declined an interview, professionals from the following disciplines were interviewed: one special registrar in breast surgery; one consultant radiologist; one consultant radiation oncologist; one consultant medical oncologist; three clinical nurse specialists; one oncology liaison nurse [whose responsibility is for patients presenting with lung and primary brain tumours only, and not breast cancer]; and one mammographer.</td>
</tr>
<tr>
<td>November – December 2010</td>
<td>Nine interviews in total were conducted in Team C. Due to a reluctance among some team members to complete the questionnaire, professionals from the following disciplines were interviewed: one consultant breast surgeon [who was the original lead clinician of Team C when it was first established]; one consultant radiation oncologist; one consultant medical oncologist; four clinical nurse specialists; and two oncology liaison nurses [whose responsibility is for patients presenting with all cancers].</td>
</tr>
</tbody>
</table>

Table 4.9: Fieldwork Involved in Administering the Patient Questionnaire

<table>
<thead>
<tr>
<th>Dates</th>
<th>Fieldwork</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 2010 &amp; June – August 2010</td>
<td>The questionnaire was administered face-to-face to a sample of at least 100 patients who were attending Team B’s review clinics for treatment that they had received since 2006/2007. The reason for this sample size was that a recent HIQA (2010a) investigation into the patients’ breast cancer care experience conducted one patient group discussion per breast cancer centre and each discussion group only contained an average of six patients who were selected by each centre to participate. At the time of that investigation, comments were made regarding the lack of adequate personalised care and support during chemotherapy (HIQA 2010d); insufficient information and time made available to discuss side-effects of chemotherapy and how these could be managed (HIQA 2010b); lack of dietary advice (HIQA 2010e); and inadequate information and support made available regarding entitlements to prostheses, a medical card and home help (HIQA 2010c). In total, fourteen consultant-led review clinics were attended and 118 questionnaires were completed, of which 100 were usable.</td>
</tr>
<tr>
<td>February – March 2010 &amp; May – August 2010</td>
<td>The questionnaire was administered face-to-face to a sample of at least 100 patients who were attending Team A’s review clinics for treatment that they had received since 2006/2007. In total, 40 consultant-led review clinics were attended and 104 questionnaires were completed, of which 101 were usable.</td>
</tr>
<tr>
<td>October – November 2010</td>
<td>For practical reasons, the questionnaire could not be administered face-to-face. I was provided with a list of patients and completed the questionnaire over the telephone to a sample of at least 100 patients who had received treatment from Team C. In total, 101 telephone calls were made and 101 questionnaires were completed.</td>
</tr>
</tbody>
</table>
4.7 Conclusion

The primary aim of this study was to explore three regional specialised breast cancer teams in Ireland in terms of multidisciplinary team working and to determine the extent to which specific interprofessional team working practices impacted on the effectiveness of multidisciplinarity in these teams. Therefore, a mixed methods approach was employed. It involved (1) a bespoke questionnaire comprising multiple previously published/validated scales, which was completed by the team members, (2) follow-up interviews with core team members and (3) a questionnaire designed, standardised and validated by Picker Institute, which was administered to a minimum of one hundred patients per team who were attending the teams’ review clinics. A synopsis of the fieldwork involved in distributing the team questionnaire, conducting team interviews and administering the patient questionnaire was provided. The findings from all three instruments are documented in the next chapter.
5.1 Introduction
In this chapter, findings from the team questionnaire, team interviews and the patient questionnaire used in the study are documented. Tables and charts are used for illustration purposes.

5.2 Findings from the Team Questionnaire
Findings from the team questionnaire are discussed under the following sections:

- Team A: Descriptive statistics on team characteristics, individual characteristics and team working variables
- Team B: Descriptive statistics on team characteristics, individual characteristics and team working variables
- Team C: Descriptive statistics on team characteristics, individual characteristics and team working variables
- Comparative analysis on team working variables across the three teams
- Team A: Descriptive statistics on team outcome variables
- Team B: Descriptive statistics on team outcome variables
- Team C: Descriptive statistics on team outcome variables
- Comparative analysis on team outcome variables across the three teams
- Correlation analysis between the team structure, team working and team outcome variables and
- Multiple regression analysis
5.2.1 Team A: Descriptive statistics on team characteristics, individual characteristics and team working variables

In this section, the findings from the team questionnaire for Team A are discussed in terms of the following descriptive statistics: team characteristics; individual characteristics; and team working variables.

Firstly, the team characteristics of Team A are highlighted in Table 5.1. A breakdown of the composition of Team A is shown in Table 5.2. Bar Chart 5.1 illustrates the team members’ awareness of the team’s key performance indicators and Table 5.3 shows the variety of team members’ responses for the team’s top three performance indicators.

Table 5.1: Descriptive Statistics on Team Characteristics of Team A

| Number of Teams | The average number of teams that each team member works in is one team. |
| Team Size       | While 21 people work in Team A, the value of the mean given for the size of the team was 22 people. Answers ranged from 8 to 50 people. This suggests that there is overall confusion among the team members as to who is working in their team. |
| Team Tenure     | The value of the median given for tenure of Team A was 6–10 years. |

Table 5.2: Composition of Team A

<table>
<thead>
<tr>
<th>Disciplines</th>
<th>Professions</th>
<th>Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Breast Surgery</td>
<td>1 Professor of Surgery, 3 Special Registrars</td>
<td>100%</td>
</tr>
<tr>
<td>2 Radiology</td>
<td>2 Consultant Radiologists</td>
<td>100%</td>
</tr>
<tr>
<td>5 Pathology</td>
<td>2 Consultant Pathologists, 3 New Consultant Pathologists</td>
<td>50% [1 Consultant Pathologist participated]</td>
</tr>
<tr>
<td>6 Oncology</td>
<td>4 Consultant Radiation Oncologists, 1 Consultant Medical Oncologists, 1 New Consultant Medical Oncologist</td>
<td>60% [2 Consultant Radiation Oncologists &amp; 1 Consultant Medical Oncologist participated]</td>
</tr>
<tr>
<td>3 Nursing</td>
<td>3 Breast Care Nurses</td>
<td>100%</td>
</tr>
<tr>
<td>1 Other</td>
<td>1 Mammographer</td>
<td>100%</td>
</tr>
</tbody>
</table>
Table 5.3: Top 3 Key Performance Indicators in Team A

<table>
<thead>
<tr>
<th>Response Rate</th>
<th>Performance Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Person</td>
<td>NCCP’s key performance indicators</td>
</tr>
<tr>
<td>2 People</td>
<td>HIQA guidelines</td>
</tr>
<tr>
<td>3 – 5 People</td>
<td>Urgent appointments have all imaging performed at time of clinic</td>
</tr>
<tr>
<td>6 – 9 People</td>
<td>Time to see patient from receipt of G.P. referral</td>
</tr>
</tbody>
</table>

Table 5.4: Descriptive Statistics on Individual Characteristics of Team A

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>The value of the median given for age was 36–45 years.</td>
</tr>
<tr>
<td><strong>Nationality</strong></td>
<td>The common nationality was Irish. Other nationalities included Swedish, Pakistani and Nigerian.</td>
</tr>
<tr>
<td><strong>Tenure in this Breast Cancer Team since it was designated a Centre of Excellence</strong></td>
<td>The value of the median given for tenure in Team A was 1–2 years – a timeframe which is reflective of the recent designation of centres of excellence in 2006/2007.</td>
</tr>
<tr>
<td><strong>Tenure in Breast Cancer Care</strong></td>
<td>The value of the median given for tenure in breast cancer care was 11–15 years.</td>
</tr>
</tbody>
</table>
And finally, the team working variables in Team A are highlighted in Table 5.5. The mean [M], median [Med] and standard deviation [S.D.] were calculated for the following team working scales in the team questionnaire – purpose of the team, participation in decision-making, trust, inter-personal relationships, inter-team relationships, intra-team communication, communication of the team’s long-term plans and goals, reflexivity, innovation & flexibility, professional development and leadership & supervision. In addition, the median was calculated for the team meeting frequency.

Table 5.5: Descriptive Statistics on Team Working Variables in Team A

<table>
<thead>
<tr>
<th>Team Working Variables</th>
<th>Mean</th>
<th>Median</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose of the Team</td>
<td>M = 3.55</td>
<td>Med = 3.50</td>
<td>S. D. = 0.31</td>
</tr>
<tr>
<td>Participation in Decision-Making</td>
<td>M = 3.86</td>
<td>Med = 4.0</td>
<td>S. D. = 0.52</td>
</tr>
<tr>
<td>Trust</td>
<td>M = 4.67</td>
<td>Med = 4.67</td>
<td>S. D. = 0.31</td>
</tr>
<tr>
<td>Inter-Personal Relationships</td>
<td>M = 4.23</td>
<td>Med = 4.13</td>
<td>S. D. = 0.43</td>
</tr>
<tr>
<td>Inter-Team Relationships</td>
<td>M = 3.99</td>
<td>Med = 4.0</td>
<td>S. D. = 0.47</td>
</tr>
<tr>
<td>Intra-Team Communication</td>
<td>M = 4.04</td>
<td>Med = 4.0</td>
<td>S. D. = 0.49</td>
</tr>
<tr>
<td>Communication of the Team’s Long-Term Plans &amp; Goals</td>
<td>M = 4.19</td>
<td>Med = 4.0</td>
<td>S. D. = 0.65</td>
</tr>
<tr>
<td>Reflexivity</td>
<td>M = 3.10</td>
<td>Med = 3.0</td>
<td>S. D. = 0.32</td>
</tr>
<tr>
<td>Innovation &amp; Flexibility</td>
<td>M = 2.98</td>
<td>Med = 3.0</td>
<td>S. D. = 0.33</td>
</tr>
<tr>
<td>Professional Development</td>
<td>M = 3.66</td>
<td>Med = 3.63</td>
<td>S. D. = 0.61</td>
</tr>
<tr>
<td>Leadership &amp; Supervision</td>
<td>M = 3.72</td>
<td>Med = 3.75</td>
<td>S. D. = 0.92</td>
</tr>
<tr>
<td>Team Meeting Frequency</td>
<td>Med = 8.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5.2.2 Team B: Descriptive statistics on team characteristics, individual characteristics and team working variables

In this section, the findings from the team questionnaire for Team B are discussed in terms of the following descriptive statistics: team characteristics; individual characteristics; and team working variables.

Firstly, the team characteristics of Team B are highlighted in Table 5.6. A breakdown of the composition of Team B is shown in Table 5.7. Bar Chart 5.3 illustrates the team members’ awareness of the team’s key performance indicators and Table 5.8 shows the variety of team members’ responses for the team’s top three performance indicators.

Table 5.6: Descriptive Statistics on Team Characteristics of Team B

<table>
<thead>
<tr>
<th>Number of Teams</th>
<th>The average number of teams that each team member works in is one team.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team Size</td>
<td>While 18 people work in Team B, the value of the mean given for the size of the team was 14 people. Answers ranged from 8 to 20 people. This suggests that there is overall confusion among the team members as to who is working in their team.</td>
</tr>
<tr>
<td>Team Tenure</td>
<td>The value of the median given for tenure of Team B was 3–5 years.</td>
</tr>
</tbody>
</table>

Table 5.7: Composition of Team B

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Profession</th>
<th>Response Rate</th>
</tr>
</thead>
</table>
| 5 Breast Surgery | 1 Consultant Surgeon  
                      | 1 Registrar                        | 100%                                |
|                  | 2 Senior House Officers            |                                     |
|                  | 1 Intern                           |                                     |
| 1 Radiology      | 1 Consultant Radiologist          | 100%                                |
| 4 Pathology      | 4 Consultant Pathologists          | 75% [3 Consultant Pathologists partecipated] |
| 3 Oncology       | 1 Consultant Radiation Oncologist | 33.3% [1 Registrar participated]    |
|                  | 1 Registrar                        |                                     |
|                  | 1 Consultant Medical Oncologist   |                                     |
| 5 Nursing        | 2 Breast Care Nurses               | 100%                                |
|                  | 1 Clinical Nurse Manager          |                                     |
|                  | 2 Oncology Liaison Nurses          |                                     |
Bar Chart 5.3: Existence of Key Performance Indicators in Team B

Table 5.8: Top 3 Key Performance Indicators in Team B

<table>
<thead>
<tr>
<th>Response Rate</th>
<th>Performance Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Person</td>
<td>Number of urgent referrals Information for patient Aware of document but would need to consult</td>
</tr>
<tr>
<td>2 People</td>
<td>Data collection PR support</td>
</tr>
<tr>
<td>3 – 5 People</td>
<td>Urgent appointments have all imaging performed at time of clinic Non-urgent appointment seen within 12 weeks Communication Support for patient</td>
</tr>
<tr>
<td>6 – 9 People</td>
<td>Time to see patient from receipt of G.P. referral Urgent appointment seen within 2 weeks</td>
</tr>
</tbody>
</table>

Secondly, the individual characteristics of Team B are highlighted in Table 5.9. Bar Chart 5.4 illustrates the breakdown of gender in Team B and the team members’ employment status with the HSE and with their team.

Table 5.9: Descriptive Statistics on Individual Characteristics of Team B

<table>
<thead>
<tr>
<th>Age</th>
<th>The value of the median given for age was 36-45 years.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nationality</td>
<td>The common nationality was Irish. Other nationalities included Swedish, Pakistani and Nigerian.</td>
</tr>
<tr>
<td>Tenure in this Breast Cancer Team since it was designated a Centre of Excellence</td>
<td>The value of the median given for tenure in Team B was 1–2 years – a timeframe which is reflective of the recent designation of centres of excellence in 2006/2007.</td>
</tr>
<tr>
<td>Tenure in Breast Cancer Care</td>
<td>The value of the median given for tenure in breast cancer care was 6–10 years.</td>
</tr>
</tbody>
</table>
And finally, the team working variables in Team B are highlighted in Table 5.10. The mean [M], median [Med] and standard deviation [S.D.] were calculated for the following team working scales in the team questionnaire – purpose of the team, participation in decision-making, trust, inter-personal relationships, inter-team relationships, intra-team communication, communication of the team’s long-term plans and goals, reflexivity, innovation & flexibility, professional development and leadership & supervision. In addition, the median was calculated for the team meeting frequency.

Table 5.10: Descriptive Statistics on Team Working Variables in Team B

<table>
<thead>
<tr>
<th>Team Working Variables</th>
<th>Mean</th>
<th>Median</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose of the Team</td>
<td>M = 3.53</td>
<td>Med = 3.50</td>
<td>S. D. = 0.39</td>
</tr>
<tr>
<td>Participation in Decision-Making</td>
<td>M = 3.67</td>
<td>Med = 4.00</td>
<td>S. D. = 0.99</td>
</tr>
<tr>
<td>Trust</td>
<td>M = 4.26</td>
<td>Med = 4.08</td>
<td>S. D. = 0.38</td>
</tr>
<tr>
<td>Inter-Personal Relationships</td>
<td>M = 3.85</td>
<td>Med = 3.75</td>
<td>S. D. = 0.57</td>
</tr>
<tr>
<td>Inter-Team Relationships</td>
<td>M = 3.52</td>
<td>Med = 3.50</td>
<td>S. D. = 0.73</td>
</tr>
<tr>
<td>Intra-Team Communication</td>
<td>M = 3.57</td>
<td>Med = 3.50</td>
<td>S. D. = 0.44</td>
</tr>
<tr>
<td>Communication of the Team’s Long-Term Plans &amp; Goals</td>
<td>M = 3.76</td>
<td>Med = 4.00</td>
<td>S. D. = 0.79</td>
</tr>
<tr>
<td>Reflexivity</td>
<td>M = 2.89</td>
<td>Med = 3.00</td>
<td>S. D. = 0.49</td>
</tr>
<tr>
<td>Innovation &amp; Flexibility</td>
<td>M = 2.90</td>
<td>Med = 3.00</td>
<td>S. D. = 0.45</td>
</tr>
<tr>
<td>Professional Development</td>
<td>M = 3.40</td>
<td>Med = 3.50</td>
<td>S. D. = 0.95</td>
</tr>
<tr>
<td>Leadership &amp; Supervision</td>
<td>M = 3.91</td>
<td>Med = 4.00</td>
<td>S. D. = 0.77</td>
</tr>
<tr>
<td>Team Meeting Frequency</td>
<td></td>
<td>Med = 8.00</td>
<td></td>
</tr>
</tbody>
</table>
5.2.3 Team C: Descriptive statistics on team characteristics, individual characteristics and team working variables

In this section, the findings from the team questionnaire for Team C are discussed in terms of the following descriptive statistics: team characteristics; individual characteristics; and team working variables.

Firstly, the team characteristics of Team C are highlighted in Table 5.11. A breakdown of the composition of Team C is shown in Table 5.12. Bar Chart 5.5 illustrates the team members’ awareness of the team’s key performance indicators and Table 5.13 shows the variety of team members’ responses for the team’s top three performance indicators.

Table 5.11: Descriptive Statistics on Team Characteristics of Team C

<table>
<thead>
<tr>
<th>Number of Teams</th>
<th>The average number of teams that each team member works in is one team.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team Size</td>
<td>While 25 people work in Team C, the value of the mean given for the size of the team was 20 people. Answers ranged from 6 to 34 people. This suggests that there is overall confusion among the team members as to who is working in their team.</td>
</tr>
<tr>
<td>Team Tenure</td>
<td>The value of the median given for tenure of Team C was 6–10 years.</td>
</tr>
</tbody>
</table>

Table 5.12: Composition of Team C

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Profession</th>
<th>Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Breast Surgery</td>
<td>2 Consultant Surgeons</td>
<td>50% [1 Consultant Surgeon &amp; 1 Registrar participated]</td>
</tr>
<tr>
<td></td>
<td>2 Registrars</td>
<td></td>
</tr>
<tr>
<td>2 Radiology</td>
<td>2 Consultant Radiologists</td>
<td>50% [1 Consultant Radiologist participated]</td>
</tr>
<tr>
<td>2 Pathology</td>
<td>2 Consultant Pathologists</td>
<td>0%</td>
</tr>
<tr>
<td>5 Oncology</td>
<td>2 Consultant Radiation Oncologists</td>
<td>40% [1 Consultant Radiation Oncologist &amp; 1 Consultant Medical Oncologist participated]</td>
</tr>
<tr>
<td></td>
<td>3 Consultant Medical Oncologists</td>
<td></td>
</tr>
<tr>
<td>8 Nursing</td>
<td>4 Breast Care Nurses</td>
<td>75% [4 Breast Care Nurses &amp; 2 Oncology Liaison Nurses participated]</td>
</tr>
<tr>
<td></td>
<td>2 Oncology Liaison Nurses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 Oncology Nurse</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 Radiotherapy CNS</td>
<td></td>
</tr>
<tr>
<td>4 Other</td>
<td>2 Social Workers</td>
<td>25% [1 Physiotherapist participated]</td>
</tr>
<tr>
<td></td>
<td>1 Physiotherapist</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 Occupational Therapist</td>
<td></td>
</tr>
</tbody>
</table>
Bar Chart 5.5: Existence of Key Performance Indicators in Team C

Table 5.13: Top 3 Key Performance Indicators in Team C

<table>
<thead>
<tr>
<th>Response Rate</th>
<th>Performance Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Person</td>
<td>Number of mammograms</td>
</tr>
<tr>
<td></td>
<td>Access to biopsies as guided</td>
</tr>
<tr>
<td></td>
<td>Triple assessment turnover</td>
</tr>
<tr>
<td></td>
<td>Service delivery parameters</td>
</tr>
<tr>
<td></td>
<td>Reporting parameters</td>
</tr>
<tr>
<td>2 People</td>
<td>HIQA guidelines</td>
</tr>
<tr>
<td></td>
<td>Number of meetings per year</td>
</tr>
<tr>
<td></td>
<td>Decisions</td>
</tr>
<tr>
<td></td>
<td>Clinical/ radiological/ pathological scares</td>
</tr>
<tr>
<td>6 – 9 People</td>
<td>Time to see patient from receipt of G.P. referral</td>
</tr>
<tr>
<td></td>
<td>Time from MDM discussion to surgery/ adjuvant treatment</td>
</tr>
<tr>
<td></td>
<td>Urgent appointment seen within 2 weeks</td>
</tr>
</tbody>
</table>

Secondly, the individual characteristics of Team C are highlighted in Table 5.14. Bar Chart 5.6 illustrates the breakdown of gender in Team C and the team members’ employment status with the HSE and with their team.

Table 5.14: Descriptive Statistics on Individual Characteristics of Team C

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>The value of the median given for age was 36-45 years.</td>
<td>The value of the median given for age was 36-45 years.</td>
<td>The value of the median given for age was 36-45 years.</td>
<td>The value of the median given for age was 36-45 years.</td>
</tr>
<tr>
<td>Nationality</td>
<td>The common nationality was Irish. Other nationalities included Swedish, Pakistani and Nigerian.</td>
<td>The common nationality was Irish. Other nationalities included Swedish, Pakistani and Nigerian.</td>
<td>The common nationality was Irish. Other nationalities included Swedish, Pakistani and Nigerian.</td>
<td>The common nationality was Irish. Other nationalities included Swedish, Pakistani and Nigerian.</td>
</tr>
<tr>
<td>Tenure in this Breast Cancer Team since it was designated a Centre of Excellence</td>
<td>The value of the median given for tenure in Team B was 1–2 years – a timeframe which is reflective of the recent designation of centres of excellence in 2006/2007.</td>
<td>The value of the median given for tenure in Team B was 1–2 years – a timeframe which is reflective of the recent designation of centres of excellence in 2006/2007.</td>
<td>The value of the median given for tenure in Team B was 1–2 years – a timeframe which is reflective of the recent designation of centres of excellence in 2006/2007.</td>
<td>The value of the median given for tenure in Team B was 1–2 years – a timeframe which is reflective of the recent designation of centres of excellence in 2006/2007.</td>
</tr>
<tr>
<td>Tenure in Breast Cancer Care</td>
<td>The value of the median given for tenure in breast cancer care was 6–10 years.</td>
<td>The value of the median given for tenure in breast cancer care was 6–10 years.</td>
<td>The value of the median given for tenure in breast cancer care was 6–10 years.</td>
<td>The value of the median given for tenure in breast cancer care was 6–10 years.</td>
</tr>
</tbody>
</table>
And finally, the team working variables in Team C are highlighted in Table 5.15. The mean [M], median [Med] and standard deviation [S.D.] were calculated for the following team working scales in the team questionnaire – purpose of the team, participation in decision-making, trust, inter-personal relationships, inter-team relationships, intra-team communication, communication of the team’s long-term plans and goals, reflexivity, innovation & flexibility, professional development and leadership & supervision. In addition, the median was calculated for the team meeting frequency.

Table 5.15: Descriptive Statistics on Team Working Variables in Team C

<table>
<thead>
<tr>
<th>Team Working Variables</th>
<th>Mean</th>
<th>Median</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose of the Team</td>
<td>M = 3.56</td>
<td>Med = 3.63</td>
<td>S. D. = 0.41</td>
</tr>
<tr>
<td>Participation in Decision-Making</td>
<td>M = 3.78</td>
<td>Med = 4.0</td>
<td>S. D. = 0.57</td>
</tr>
<tr>
<td>Trust</td>
<td>M = 4.35</td>
<td>Med = 4.33</td>
<td>S. D. = 0.43</td>
</tr>
<tr>
<td>Inter-Personal Relationships</td>
<td>M = 4.29</td>
<td>Med = 4.50</td>
<td>S. D. = 0.47</td>
</tr>
<tr>
<td>Inter-Team Relationships</td>
<td>M = 3.83</td>
<td>Med = 3.88</td>
<td>S. D. = 0.51</td>
</tr>
<tr>
<td>Intra-Team Communication</td>
<td>M = 3.94</td>
<td>Med = 4.0</td>
<td>S. D. = 0.65</td>
</tr>
<tr>
<td>Communication of the Team’s Long-Term Plans &amp; Goals</td>
<td>M = 4.06</td>
<td>Med = 4.0</td>
<td>S. D. = 0.95</td>
</tr>
<tr>
<td>Reflexivity</td>
<td>M = 2.98</td>
<td>Med = 3.0</td>
<td>S. D. = 0.45</td>
</tr>
<tr>
<td>Innovation &amp; Flexibility</td>
<td>M = 2.81</td>
<td>Med = 2.92</td>
<td>S. D. = 0.49</td>
</tr>
<tr>
<td>Professional Development</td>
<td>M = 3.38</td>
<td>Med = 3.25</td>
<td>S. D. = 0.66</td>
</tr>
<tr>
<td>Leadership &amp; Supervision</td>
<td>M = 3.41</td>
<td>Med = 3.50</td>
<td>S. D. = 0.91</td>
</tr>
<tr>
<td>Team Meeting Frequency</td>
<td></td>
<td>Med = 8.0</td>
<td></td>
</tr>
</tbody>
</table>
5.2.4 Comparative Analysis on Team Working Variables across the Three Teams

The table below lists the mean [M], median [Med] and standard deviation [S.D.] for each team working variable across all three breast cancer teams. Included in the table is a Kruskal-Wallis Test to show where there is a statistically significant difference in the team working variables across the three breast cancer teams. Where there is no statistically significant difference, this is highlighted as ‘N.S.’ in the table. In the following paragraphs, the findings for each team working variable are discussed across the three breast cancer teams. Boxplots are used to illustrate where there is a statistically significant difference in the findings.

Table 5.16: Comparative Analysis on Team Working Variables across the Three Teams

<table>
<thead>
<tr>
<th>Team Working Variables</th>
<th>ALL 3 Breast Cancer Teams</th>
<th>Between-Groups Analysis</th>
<th>Kruskal-Wallis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Median</td>
<td>Standard Deviation</td>
</tr>
<tr>
<td>Purpose of the Team</td>
<td>M = 3.55</td>
<td>Med = 3.50</td>
<td>S. D. = 0.36</td>
</tr>
<tr>
<td>Participation in Decision-Making</td>
<td>M = 3.76</td>
<td>Med = 4.0</td>
<td>S. D. = 0.73</td>
</tr>
<tr>
<td>Trust</td>
<td>M = 4.43</td>
<td>Med = 4.42</td>
<td>S. D. = 0.41</td>
</tr>
<tr>
<td>Inter-Personal Relationships</td>
<td>M = 4.11</td>
<td>Med = 4.0</td>
<td>S. D. = 0.53</td>
</tr>
<tr>
<td>Inter-Team Relationships</td>
<td>M = 3.77</td>
<td>Med = 3.75</td>
<td>S. D. = 0.61</td>
</tr>
<tr>
<td>Intra-Team Communication</td>
<td>M = 3.84</td>
<td>Med = 4.0</td>
<td>S. D. = 0.55</td>
</tr>
<tr>
<td>Communication of the Team’s Long-Term Plans &amp; Goals</td>
<td>M = 3.99</td>
<td>Med = 4.0</td>
<td>S. D. = 0.80</td>
</tr>
<tr>
<td>Reflexivity</td>
<td>M = 2.99</td>
<td>Med = 3.0</td>
<td>S. D. = 0.42</td>
</tr>
<tr>
<td>Innovation &amp; Flexibility</td>
<td>M = 2.90</td>
<td>Med = 3.0</td>
<td>S. D. = 0.42</td>
</tr>
<tr>
<td>Professional Development</td>
<td>M = 3.48</td>
<td>Med = 3.50</td>
<td>S. D. = 0.76</td>
</tr>
<tr>
<td>Leadership &amp; Supervision</td>
<td>M = 3.70</td>
<td>Med = 3.75</td>
<td>S. D. = 0.86</td>
</tr>
<tr>
<td>Team Meeting Frequency</td>
<td>Med = 8.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.2.4.1 Purpose of the Team

From Table 5.16, we can see that the value of the mean is 3.55 for purpose across all three breast cancer teams. This indicates that the average response is “mostly true” for all three teams, suggesting that team members have a real understanding of the purpose of their team.

5.2.4.2 Participation in Decision-Making

From Table 5.16, we can see that the value of the mean is 3.76 for participation in decision-making across all three breast cancer teams. This indicates that the average response is “neither agree nor disagree” for all three teams, signifying that team members are undecided over their degree of participation in decision-making in their team.
5.2.4.3 Trust

From Table 5.16, we can see that the value of the mean is 4.43 for trust across all three breast cancer teams. This indicates that the average response is “quite high” for all three teams, implying that team members have a high degree of trust in their colleagues. However, from the boxplot below, we can see that the distribution of scores on trust is significantly higher in Team A than in Team B and Team C. A Kruskal-Wallis Test revealed a statistically significant difference in trust across the three different breast cancer teams, as demonstrated in Table 5.16.

![Boxplot 5.1: Trust](image)

5.2.4.4 Inter-Personal Relationships

From Table 5.16, we can see that the value of the mean is 4.11 for inter-personal relationships across all three breast cancer teams. This indicates that the average response is “agree” for all three teams, suggesting that team members are of the opinion that there is a healthy level of cooperation amongst their colleagues in their team.

5.2.4.5 Inter-Team Relationships

From Table 5.16, we can see that the value of the mean is 3.77 for inter-team relationships across all three breast cancer teams. This indicates that the average response is “neither agree nor disagree” for all three teams, suggesting that team members are not sure of the degree of cooperation between their team and similar teams in other hospitals.
5.2.4.6 Intra-Team Communication

From Table 5.16, we can see that the value of the mean is 3.84 for communication across all three breast cancer teams. This indicates that the average response is “neither agree nor disagree” for all three teams, signifying that team members are undecided over the degree of communication amongst their colleagues in their team. However, from the boxplot below, we can see that the distribution of scores on intra-team communication is significantly higher in Team A and Team C than in Team B. A Kruskal-Wallis Test revealed a statistically significant difference in intra-team communication across the three different breast cancer teams, as demonstrated in Table 5.16.

5.2.4.7 Communication of the Team’s Long-Term Plans and Goals

From Table 5.16, we can see that the value of the mean is 3.99 for communication of the team’s long-term plans and goals across all three breast cancer teams. This indicates that the average response is “neither agree nor disagree” for all three teams, signifying that team members are unclear about their understanding of the team’s long-term plans and goals communicated by the team’s management.

5.2.4.8 Reflexivity

From Table 5.16, we can see that the value of the mean is 2.99 for reflexivity across all three breast cancer teams. This indicates that the average response is “mostly false” for all three teams, inferring that team members have a negative attitude towards reflexivity in their team.
5.2.4.9 Innovation & Flexibility
From Table 5.16, we can see that the value of the mean is 2.90 for innovation and flexibility across all three breast cancer teams. This indicates that the average response is “mostly false” for all three teams, suggesting that team members have a negative outlook on innovation and flexibility in their team.

5.2.4.10 Professional Development
From Table 5.16, we can see that the value of the mean is 3.48 for professional development across all three breast cancer teams. This indicates that the average response is “moderate amount” for all three teams, signifying that team members are of the view that professional development is moderately encouraged in their team.

5.2.4.11 Leadership & Supervision
From Table 5.16, we can see that the value of the mean is 3.70 for leadership and supervision across all three breast cancer teams. This indicates that the average response is “moderate amount” for all three teams, implying that team members are of the opinion that the role of leadership and supervision has a moderate influence over the way in which they carry out their work in their team.

However, it is important to note that there are missing data in five cases: four missing cases who are consultants in Team A; and one missing case who is a consultant in Team C. Reasons given for the missing data in the open question on leadership and supervision are as follows:

- “Non-applicable.” [I.D. 24, Team A]
- “No one really supervises/manages me but myself. I don’t have any supervisor/manager.” [I.D. 17, Team A]
- “I don’t have many meetings.” [I.D. 18, Team A]
- “Nobody supervises my work other than at the MDM. I am a leader and I supervise.” [I.D. 27, Team C]

An additional comment on leadership and supervision was made by a consultant in Team C who nonetheless completed the scale on leadership and supervision: “Team lead clinician is not my line manager but is my consultant colleague” [I.D. 35, Team C].
5.2.4.12 Team Meeting Frequency

From Table 5.16, we can see that the value of the median is 8.0 for team meeting frequency across all three breast cancer teams. This indicates that, across all of the teams, most people report meeting weekly.

5.2.5 Team A: Descriptive Statistics on Team Outcome Variables

The mean [M], median [Med] and standard deviation [S.D.] were calculated for the following team outcome scales in the team questionnaire – work satisfaction, GHQ-12 and ratings of various aspects of team effectiveness. In addition, the mean, median and standard deviation were calculated for the overall team effectiveness score. The table below lists the findings for each team outcome variable in Team A.

Table 5.17: Descriptive Statistics on Team Outcome Variables in Team A

<table>
<thead>
<tr>
<th>Team Outcome Variables</th>
<th>Mean</th>
<th>Median</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Satisfaction</td>
<td>M = 4.17</td>
<td>Med = 4.07</td>
<td>S. D. = 0.52</td>
</tr>
<tr>
<td>GHQ-12</td>
<td>M = 2.58</td>
<td>Med = 2.50</td>
<td>S. D. = 0.31</td>
</tr>
<tr>
<td>Ratings of Various Aspects Team</td>
<td>M = 4.35</td>
<td>Med = 4.29</td>
<td>S. D. = 0.31</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Overall Team Effectiveness Score</td>
<td>M =8.50</td>
<td>Med = 8.0</td>
</tr>
</tbody>
</table>

5.2.6 Team B: Descriptive Statistics on Team Outcome Variables

Table 5.18: Descriptive Statistics on Team Outcome Variables in Team B

<table>
<thead>
<tr>
<th>Team Outcome Variables</th>
<th>Mean</th>
<th>Median</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Satisfaction</td>
<td>M = 4.15</td>
<td>Med = 4.0</td>
<td>S. D. = 0.60</td>
</tr>
<tr>
<td>GHQ-12</td>
<td>M = 2.66</td>
<td>Med = 2.58</td>
<td>S. D. = 0.34</td>
</tr>
<tr>
<td>Ratings of Various Aspects of Team</td>
<td>M = 4.25</td>
<td>Med = 4.29</td>
<td>S. D. = 0.41</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Overall Team Effectiveness Score</td>
<td>M = 8.27</td>
<td>Med = 8.0</td>
</tr>
</tbody>
</table>

5.2.7 Team C: Descriptive Statistics on Team Outcome Variables

Table 5.19: Descriptive Statistics on Team Outcome Variables in Team C

<table>
<thead>
<tr>
<th>Team Outcome Variables</th>
<th>Mean</th>
<th>Median</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Satisfaction</td>
<td>M = 3.75</td>
<td>Med = 3.78</td>
<td>S. D. = 0.49</td>
</tr>
<tr>
<td>GHQ-12</td>
<td>M = 2.68</td>
<td>Med = 2.50</td>
<td>S. D. = 0.48</td>
</tr>
<tr>
<td>Ratings of Various Aspects of Team</td>
<td>M = 4.31</td>
<td>Med = 4.43</td>
<td>S. D. = 0.65</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Overall Team Effectiveness Score</td>
<td>M = 8.33</td>
<td>Med = 8.50</td>
</tr>
</tbody>
</table>
5.2.8 Comparative Analysis on Team Outcome Variables across the Three Teams

The table below lists the mean [M], median [Med] and standard deviation [S.D.] for each team outcome variable across all three breast cancer teams. Included in the table is a Kruskal-Wallis Test, which shows that there is no statistically significant difference [N.S.] in the team outcome variables across the three breast cancer teams. In the following paragraph, the findings for each team outcome variable are discussed across the three breast cancer teams.

Table 5.20: Comparative Analysis on Team Outcome Variables across the Three Teams

<table>
<thead>
<tr>
<th>Team Outcome Variables</th>
<th>ALL 3 Breast Cancer Teams</th>
<th>Between-Groups Analysis</th>
<th>Kruskal-Wallis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Median</td>
<td>Standard Deviation</td>
</tr>
<tr>
<td>Work Satisfaction</td>
<td>M = 4.04</td>
<td>Med = 4.0</td>
<td>S. D. = 0.56</td>
</tr>
<tr>
<td>GHQ-12</td>
<td>M = 2.64</td>
<td>Med = 2.50</td>
<td>S. D. = 0.37</td>
</tr>
<tr>
<td>Ratings of Various Aspects of Team Effectiveness</td>
<td>M = 4.30</td>
<td>Med = 4.29</td>
<td>S. D. = 0.46</td>
</tr>
<tr>
<td>Overall Team Effectiveness Score</td>
<td>M = 8.37</td>
<td>Med = 8.0</td>
<td>S. D. = 0.99</td>
</tr>
</tbody>
</table>

From Table 5.20, we can see that all team members across the three breast cancer teams are satisfied in their job. Their general mental health has not changed over the past few weeks. They generally agree that their teams are effective. And finally, all team members across the three teams give an overall positive team score rating.

5.2.9 Correlation Analysis between the Team Structure, Team Working and Team Outcome Variables

Correlation analysis is used here to explain the strength and direction of the linear relationship between two variables. Referred to as a bivariate correlation or zero-order correlation (Pallant 2007), the focus of this analysis is to investigate the following relationships between:

- Team Structure (independent) and Team Working (dependent) Variables
- Team Structure (independent) and Team Outcome (dependent) Variables
- Team Working (independent) and Team Outcome (dependent) Variables
On the one hand, Pearson’s product-moment correlation coefficient [r] was used to examine the correlations between two scalar variables and between a dichotomous variable and a scalar variable, while on the other hand, Spearman’s rank order correlation coefficient [rho] was used to explore the correlations between an ordinal variable and a scalar variable. Both correlation coefficients can only take on values from -1 to +1. The size of the absolute value indicates the strength of the relationship. Cohen (1988) suggests the following guidelines about the strength of the relationships: where \( r = 0.10 \) to 0.29, the correlation is small suggesting a weak relationship; where \( r = 0.30 \) to 0.49, the correlation is medium signifying a modest relationship; and where \( r = 0.50 \) to 1.0, the correlation is large indicating a strong relationship. Furthermore, the signs – and + refer to the direction of the relationship, whether there is a positive (+) correlation [as one variable increases or decreases, so does the other] or a negative (–) correlation [as one variable increases, the other decreases]. The table below lists the strength and direction of each linear relationship between the variables. In the following sections, the findings for each linear relationship that is statistically significant are presented in terms of modest positive and strong positive correlations. It is important to note, however, that the following team structure variables were not included in the correlation analysis for reasons that follow:

- **Size** – the small sample size of three teams and the fact that each team has a similar number of team members.

- **Composition**, in terms of profession – the small sample size of professions in each discipline – and nationality – this question was not answered by Team C for confidentiality/anonymity reasons.

- **Tenure**, in terms of tenure of this breast cancer team in this hospital – the value of the median given for tenure of Team A and Team C in particular is 6-10 years and, therefore, this variable could not be investigated further since, in the last 1-2 years, both teams experienced a major reconfiguration of their multidisciplinary staffing arrangements in line with the NCCP guidelines for centres of excellence – and tenure in this breast cancer team since it was designated a centre of excellence – this question was not answered by Team C for confidentiality/anonymity reasons.

- **Key performance indicators** – the majority of members stated that they have them in their team.

Therefore, the only team structure variables that were included in the correlation analysis were as follows: gender; age; employment status with this breast cancer team; tenure in breast cancer care; and employment status with the Health Service Executive [HSE].
Table 5.21: Details of the Correlations between the Team Structure, Team Working and Team Outcome Variables

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<td>.101</td>
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<td>.273</td>
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<td>.452 **</td>
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<td></td>
<td>.576 **</td>
<td>.166</td>
<td>.616 **</td>
<td>.216</td>
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<td>.470 **</td>
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<td>.228</td>
<td>.616 **</td>
<td>.712 **</td>
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<td>.369 *</td>
<td>.349 *</td>
<td>.556 **</td>
<td>.814 **</td>
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<td>.316 *</td>
<td>.540 **</td>
<td>.087</td>
<td>.316 *</td>
<td>.346 *</td>
<td>.630 **</td>
<td>.369 *</td>
<td>.349 *</td>
<td>.556 **</td>
<td>.814 **</td>
<td>.690 **</td>
<td>.681 **</td>
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<td></td>
<td>.414 **</td>
<td>.165</td>
<td>.576 **</td>
<td>.369 *</td>
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<td>.630 **</td>
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<td>.369 *</td>
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<td></td>
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<tr>
<td></td>
<td>.165</td>
<td>.087</td>
<td>.616 **</td>
<td>.346 *</td>
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<td></td>
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<td>.630 **</td>
<td>.346 *</td>
<td>.630 **</td>
<td>.346 *</td>
<td></td>
</tr>
</tbody>
</table>

Note: N = 41, except in the case of Leadership and Supervision where N = 36

* 1 = Pearson's Correlation Coefficient [*]  
** P < 0.05  
*** P < 0.01  
**** P < 0.001  
* 2 = Spearman's Correlation Coefficient [No]
5.2.9.1 Correlations between the Team Structure Variables
Only three correlations were found between the team structure variables. A strong positive correlation was observed between age and tenure in breast cancer care, indicating that, across all three teams, older people have spent a longer period of employment working in breast cancer care. A strong positive correlation was found between employment status with the HSE and gender. This shows that, across all three teams, people who are permanently employed by the HSE are more likely to be women. And finally, a modest negative correlation was observed between employment status with the HSE and employment status with this breast cancer team, indicating that, across all three teams, people who are permanently employed by the HSE are more likely to work part-time in their team.

5.2.9.2 Correlations between the Team Structure and Team Working Variables
Only three correlations were found between the team structure variables and the team working variables. Modest positive correlations were observed between employment status with the HSE and the following team working variables: participation in decision-making; and inter-team relationships. This indicates that, across all three teams, people who are permanently employed by the HSE are more likely to have a high degree of participation in decision-making in their team and report good relationships between their team and similar teams in other hospitals. In addition, a modest positive correlation was found between tenure in breast cancer care and participation in decision-making, indicating that, across all three teams, people who have spent a longer period of employment working in breast cancer care are more likely to have a high degree of participation in decision-making in their team.

5.2.9.3 Correlations between the Team Structure and Team Outcome Variables
The only correlation found between a team structure variable and a team outcome variable was a modest positive correlation between employment status with this breast cancer team and ratings of various aspects of team effectiveness. This indicates that, across all three teams, people who work full-time in their team are more likely to agree that their team is effective.
5.2.9.4 Correlations between the Team Working Variables

In this section, the findings for each linear relationship between the team working variables that is statistically significant are presented below in terms of modest positive and strong positive correlations. It is important to note that no statistically significant correlations were found between team meeting frequency and the team working variables.

- Modest positive correlations were found between purpose of the team and the following team working variables: trust; reflexivity; and innovation & flexibility.
- Modest positive correlations were found between participation in decision-making and the following team working variables: inter-team relationships; reflexivity; and innovation & flexibility.
- Modest positive correlations were found between trust and the following team working variables: inter-personal relationships; inter-team relationships; innovation & flexibility; professional development; and leadership & supervision. Strong positive correlations were observed between trust and the following team working variables: intra-team communication; communication of the team’s long-term plans and goals; and reflexivity.
- Modest positive correlations were found between inter-personal relationships and the following team working variables: inter-team relationships; and innovation and flexibility. Strong positive correlations were observed between inter-personal relationships and the following team working variables: intra-team communication; communication of the team’s long-term plans and goals; and reflexivity.
- Modest positive correlations were found between inter-team relationships and the following team working variables: intra-team communication; communication of the team’s long-term plans and goals; and professional development. Strong positive correlations were observed between inter-team relationships and the following team working variables: reflexivity; and innovation and flexibility.
- Modest positive correlations were found between intra-team communication and the following team working variables: professional development; and leadership and supervision. Strong positive correlations were observed between intra-team communication and the following team working variables: communication of the team’s long-term plans and goals; reflexivity; and innovation and flexibility.
- Modest positive correlations were found between communication of the team’s long-term plans and goals and the following team working variables: reflexivity; and innovation and flexibility.
• Strong positive correlations were observed between reflexivity and the following team working variables: innovation & flexibility; professional development; and leadership & supervision.

• Strong positive correlations were observed between innovation & flexibility and the following team working variables: professional development; and leadership & supervision.

• A modest positive correlation was found between professional development and leadership & supervision.

5.2.9.5 Correlations between the Team Outcome Variables

Strong positive correlations were observed between the following team outcome variables: work satisfaction and ratings of various aspects of team effectiveness; work satisfaction and overall team effectiveness score; and ratings of various aspects of team effectiveness and overall team effectiveness score. This indicates that, across all three teams, people who are satisfied in their work are more likely to agree that their team is effective and give an overall positive team score rating. In addition, people who agree that their team is effective are more likely to give an overall positive team score rating. It is important to note that no statistically significant correlations were found between general mental health and the team outcome variables.

5.2.9.6 Correlations between the Team Working and Team Outcome Variables

In this section, the findings for each linear relationship between the team working and team outcome variables that is statistically significant are presented below in terms of modest positive and strong positive correlations. It is important to note that no statistically significant correlations were found between team meeting frequency and the team outcome variables.

• Modest positive correlations were found between purpose of the team and the following team outcome variables: ratings of various aspects of team effectiveness; and overall team effectiveness score.

• Modest positive correlations were found between participation in decision-making and the following team outcome variables: ratings of various aspects of team effectiveness; and overall team effectiveness score. A strong positive correlation was observed between participation in decision-making and work satisfaction.

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• Modest positive correlations were found between trust and the following team outcome variables: work satisfaction; ratings of various aspects of team effectiveness; and overall team effectiveness score.
• Modest positive correlations were found between inter-personal relationships and the following team outcome variables: ratings of various aspects of team effectiveness; and overall team effectiveness score.
• Modest positive correlations were found between inter-team relationships and the following team outcome variables: work satisfaction; ratings of various aspects of team effectiveness; and overall team effectiveness score.
• Modest positive correlations were found between intra-team communication and the following team outcome variables: work satisfaction; and ratings of various aspects of team effectiveness. A strong positive correlation was observed between intra-team communication and overall team effectiveness score.
• Modest positive correlations were found between communication of the team’s long-term plans and goals and the following team outcome variables: general mental health; and overall team effectiveness score.
• A modest positive correlation was found between reflexivity and work satisfaction. Strong positive correlations were observed between reflexivity and the following team outcome variables: ratings of various aspects of team effectiveness; and overall team effectiveness score.
• Strong positive correlations were observed between innovation & flexibility and the following team outcome variables: work satisfaction; ratings of various aspects of team effectiveness; and overall team effectiveness score.
• A modest positive correlation was found between professional development and work satisfaction. Strong positive correlations were observed between professional development and the following team outcome variables: ratings of various aspects of team effectiveness; and overall team effectiveness score.
• Modest positive correlations were found between leadership & supervision and the following team outcome variables: ratings of various aspects of team effectiveness; and overall team effectiveness score. A strong positive correlation was observed between leadership & supervision and work satisfaction.
5.2.10 Multiple Regression Analysis

Multiple regression analysis is used to test the relationships in the model. The rationale for using this method of analysis is to reduce the number of possible regression variables by excluding those variables that have no relationship with the outcome variable. An initial phase of regression is carried out using a stepwise approach with a high inclusion/exclusion level of significance to guard against spurious relationships being included. A backward regression approach is then used to reduce the model to include only significant terms that contribute to the R-squared value. The residuals are then analysed to see if they comply with the regression assumptions of normality and constant variance. The final regression model is shown at the end of this section.

It is important to note that only the relationships between the team structure, team working and team outcome variables in the model were analysed. The patient outcome variables were not included in the analysis, but analysed separately on a team-by-team basis, for three reasons.

1. While statistically significant differences between the teams were reported in the analysis of the patient data in section 5.4.3, it was not possible to statistically link these differences to individual team members given the small sample size of 41 team members investigated. However, the patient data was additionally explored in interviews with core team members in section 5.3, providing qualitative evidence which linked the teams to the patient outcomes, thus, supporting the theoretical model.

2. The distribution of the patients’ positive scores across each dimension was negatively skewed, as shown in the boxplots in Appendix H. In particular, the dimension entitled “Overall Impression of Visit” showed just under a 90% positive score rating.

3. The distribution of the patients’ overall hospital ratings was negatively skewed, as shown in the histogram in Appendix I. The value of the mean given was 9.13 out of 10.0 on overall hospital rating.
In addition, no possible independent variables in the model were controlled for two reasons. Firstly, in terms of multicollinearity, some of the independent variables were very strongly correlated with each other, more so than with the dependent variable. This led to ill-conditioning, which can result in extraordinary values in the B column in the regression model, such as negative values where positive relationships are expected. And secondly, because of the small sample of 41 team members, the regression model could not contain many variables. A rule of thumb is a minimum of 7 observations (participants) per variable in the regression model. Considering the small sample, the size of the regression model was restricted to 5 variables. And finally, a word of caution is advised with regard to generalising the relationships demonstrated in the analysis below to the whole population of breast cancer teams in Ireland, given the limited number of teams examined.

5.2.10.1 Multiple Regression Analysis between the Team Structure and Team Working Variables

In the paragraphs below, multiple regression demonstrates which of the team structure variables best explain levels of the following team working variables: purpose of the team; participation in decision-making; trust; and inter-team relationships. Tables are used for illustration purposes. It is important to note that no team structure variables were found to significantly predict the following team working variables: inter-personal relationships; intra-team communication; communication of the team’s long-term plans and goals; reflexivity; innovation & flexibility; professional development; leadership & supervision; and team meeting frequency.

**Purpose of the Team**

Multiple regression was used to assess which of the team structure variables best explained levels of purpose of the team. The total variance explained by the model as a whole was 10.4%, $F (1, 37) = 4. 30, p < 0.05$. The employment status with this breast cancer team was found to be statistically significant, as shown in the table below.

Table 5.22: The Link between the Team Structure Variables and Purpose of the Team

<table>
<thead>
<tr>
<th>Variables</th>
<th>Unstandardised Coefficients B</th>
<th>Standardised Coefficients Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>3.417**</td>
<td>0.323*</td>
</tr>
<tr>
<td>Employment Status with this</td>
<td>0.24*</td>
<td></td>
</tr>
<tr>
<td>Breast Cancer Team</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* $P < 0.05$    ** $P < 0.01$
**Participation in Decision-Making**

Multiple regression was used to assess which of the team structure variables best explained levels of participation in decision-making. The total variance explained by the model as a whole was 29.5%, $F(2, 38) = 7.97, p < 0.01$. The employment status with this breast cancer team and the employment status with the HSE were found to be statistically significant, as shown in the table below.

Table 5.23: The Link between the Team Structure Variables and Participation in Decision-Making

<table>
<thead>
<tr>
<th>Variables</th>
<th>Unstandardised Coefficients B</th>
<th>Standardised Coefficients Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.569**</td>
<td></td>
</tr>
<tr>
<td>Employment Status with this Breast Cancer Team</td>
<td>0.478*</td>
<td>0.321*</td>
</tr>
<tr>
<td>Employment Status with the HSE</td>
<td>1.075**</td>
<td>0.563**</td>
</tr>
</tbody>
</table>

* $P < 0.05$  ** $P < 0.01$

**Trust**

Multiple regression was used to assess which of the team structure variables best explained levels of trust. The total variance explained by the model as a whole was 10.2%, $F(1, 37) = 4.21, p < 0.05$. The employment status with this breast cancer team was found to be statistically significant, as shown in the table below.

Table 5.24: The Link between the Team Structure Variables and Trust

<table>
<thead>
<tr>
<th>Variables</th>
<th>Unstandardised Coefficients B</th>
<th>Standardised Coefficients Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>4.267**</td>
<td></td>
</tr>
<tr>
<td>Employment Status with this Breast Cancer Team</td>
<td>0.265*</td>
<td>0.320*</td>
</tr>
</tbody>
</table>

* $P < 0.05$  ** $P < 0.01$
Inter-Team Relationships

Multiple regression was used to assess which of the team structure variables best explained levels of relationships between the team and similar teams in other hospitals. The total variance explained by the model as a whole was 13.1%, \( F (1, 37) = 5.56, p < 0.05 \). The employment status with the HSE was found to be statistically significant, as shown in the table below.

Table 5.25: The Link between the Team Structure Variables and Inter-Team Relationships

<table>
<thead>
<tr>
<th>Variables</th>
<th>Unstandardised Coefficients B</th>
<th>Standardised Coefficients Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>3.250**</td>
<td></td>
</tr>
<tr>
<td>Employment Status with the HSE</td>
<td>0.616*</td>
<td>0.361*</td>
</tr>
</tbody>
</table>

* \( P < 0.05 \)  ** \( P < 0.01 \)

5.2.10.2 Multiple Regression Analysis between the Team Structure and Team Outcome Variables

In the paragraph below, multiple regression demonstrates which of the team structure variables best explain levels of team effectiveness. A table is used for illustration purposes. It is important to note that no team structure variables were found to significantly predict the following team outcome variables: work satisfaction; general mental health; and overall team effectiveness score.

Ratings of Various Aspects of Team Effectiveness

Multiple regression was used to assess which of the team structure variables best explained levels of team effectiveness. The total variance explained by the model as a whole was 11.9%, \( F (1, 39) = 5.29, p < 0.05 \). The employment status with this breast cancer team was found to be statistically significant, as shown in the table below.

Table 5.26: The Link between the Team Structure Variables and Ratings of Various Aspects of Team Effectiveness

<table>
<thead>
<tr>
<th>Variables</th>
<th>Unstandardised Coefficients B</th>
<th>Standardised Coefficients Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>4.095**</td>
<td></td>
</tr>
<tr>
<td>Employment Status with this Breast Cancer Team</td>
<td>0.322*</td>
<td>0.346*</td>
</tr>
</tbody>
</table>

* \( P < 0.05 \)  ** \( P < 0.01 \)
5.2.10.3 Multiple Regression Analysis between the Team Working and Team Outcome Variables

In the paragraphs below, multiple regression demonstrates which of the team working variables best explain levels of the following team outcome variables: work satisfaction; general mental health; ratings of various aspects of team effectiveness; and overall team effectiveness score. Tables are used for illustration purposes.

Work Satisfaction

Multiple regression was used to assess which of the team working variables best explained levels of work satisfaction. The total variance explained by the model as a whole was 59.4%, \( F (3, 32) = 15.63, p < 0.001 \). The participation in decision-making scale, the innovation & flexibility scale and the leadership & supervision scale were found to be statistically significant, as shown in the table below. Residuals were examined. They were shown to be normally distributed and have constant variance.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Unstandardised Coefficients B</th>
<th>Standardised Coefficients Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.807</td>
<td></td>
</tr>
<tr>
<td>Participation in Decision-Making</td>
<td>0.261**</td>
<td>0.343**</td>
</tr>
<tr>
<td>Innovation &amp; Flexibility</td>
<td>0.475*</td>
<td>0.319*</td>
</tr>
<tr>
<td>Leadership &amp; Supervision</td>
<td>0.243*</td>
<td>0.375*</td>
</tr>
</tbody>
</table>

* \( P < 0.05 \)  ** \( P < 0.01 \)
**General Mental Health**

Multiple regression was used to assess which of the team working variables best explained levels of general mental health. The total variance explained by the model as a whole was 16.3%, $F(1, 34) = 6.60, p < 0.05$. The communication of the team’s long-term plans and goals scale was found to be statistically significant, as shown in the table below. Residuals were examined. They were shown to be normally distributed and have constant variance.

Table 5.28: The Link between the Team Working Variables and General Mental Health

<table>
<thead>
<tr>
<th>Variables</th>
<th>Unstandardised Coefficients B</th>
<th>Standardised Coefficients Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>1.912**</td>
<td></td>
</tr>
<tr>
<td>Communication of the Team's Long-Term Plans &amp; Goals</td>
<td>0.192*</td>
<td>0.403*</td>
</tr>
</tbody>
</table>

* $P < 0.05$  ** $P < 0.01$

**Ratings of Various Aspects of Team Effectiveness**

Multiple regression was used to assess which of the team working variables best explained levels of team effectiveness. The total variance explained by the model as a whole was 57.7%, $F(2, 38) = 25.97, p < 0.001$. The innovation & flexibility scale and the professional development scale were found to be statistically significant, as shown in the table below. Residuals were examined. They were shown to be normally distributed and have constant variance.

Table 5.29: The Link between the Team Working Variables and Ratings of Various Aspects of Team Effectiveness

<table>
<thead>
<tr>
<th>Variables</th>
<th>Unstandardised Coefficients B</th>
<th>Standardised Coefficients Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>1.984**</td>
<td></td>
</tr>
<tr>
<td>Innovation &amp; Flexibility</td>
<td>0.537**</td>
<td>0.498**</td>
</tr>
<tr>
<td>Professional Development</td>
<td>0.218**</td>
<td>0.363**</td>
</tr>
</tbody>
</table>

* $P < 0.05$  ** $P < 0.01$
Overall Team Effectiveness Score

Multiple regression was used to assess which of the team working variables best explained levels of overall team effectiveness. The total variance explained by the model as a whole was 59.6%, $F (3, 32) = 15.72, p < 0.001$. The intra-team communication scale, innovation & flexibility scale and the professional development scale were found to be statistically significant, as shown in the table below. Residuals were examined. They were shown to be normally distributed and have constant variance.

Table 5.30: The Link between the Team Working Variables and Overall Team Effectiveness Score

<table>
<thead>
<tr>
<th>Variables</th>
<th>Unstandardised Coefficients B</th>
<th>Standardised Coefficients Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>1.946</td>
<td>0.348*</td>
</tr>
<tr>
<td>Intra-Team Communication</td>
<td>0.685*</td>
<td>0.306*</td>
</tr>
<tr>
<td>Innovation &amp; Flexibility</td>
<td>0.827*</td>
<td></td>
</tr>
<tr>
<td>Professional Development</td>
<td>0.420*</td>
<td>0.310*</td>
</tr>
</tbody>
</table>

* $P < 0.05$  ** $P < 0.01$

The final regression model is inserted below, illustrating the relative strengths of the relationships between the team structure, team working and team outcome variables.
Figure 5.1: Regression Model [including Beta figures] in Study
5.2.11 Conclusion on the Findings from the Team Questionnaire

Findings from the team questionnaire were documented and were illustrated in tables and charts. In general, all team members across the three breast cancer teams gave an overall positive team score rating; they generally agreed that their teams are effective; they are satisfied in their job; and their general mental health has not changed over the past few weeks.

Team outcomes were predicted by a number of team process variables. Firstly, the overall team effectiveness score was predicted by intra-team communication, innovation and flexibility and the professional development of team members. Secondly, the ratings of various aspects of team effectiveness were predicted by innovation & flexibility and the professional development of team members. Thirdly, work satisfaction was predicted by participation in decision-making, innovation and flexibility and leadership and supervision in the team. And finally, general mental health was predicted by communication of the team’s long-term plans and goals.

It is important to note that Team B scored lowest on trust and intra-team communication, in comparison to Team A and Team C. However, the range of responses for the team working practices across all three breast cancer teams suggests the need for further research. In the next section, findings from interviews with core team members are explored, in order to gain a deeper understanding of the dynamics of interprofessional team working across all three breast cancer teams.
5.3 Findings from the Team Interviews

Findings from the team interviews are discussed under the following themes:

- Purpose of the Team
- Understaffing
- Participation in Decision-Making
- Relationships & Trust
- Communication
- Reflexivity
- Innovation & Flexibility
- Professional Development
- Leadership & Supervision

5.3.1 Purpose of the Team

Quantitative analysis of the team questionnaire indicated that team members have a real understanding of the purpose of the team in all three breast cancer teams. Qualitative analysis of the interviews conducted revealed that team members have a very positive outlook on the purpose of the team and the practice of multidisciplinary team working. Previously, the decision went “...from doctor to doctor” [I.D. 32, Team C]. Patients would have been “…tripping around trying to see everybody and maybe not even get to see all members of the multidisciplinary team” [I.D. 32, Team C]. Now having all members of the multidisciplinary team [MDT] in one place makes it “...easier and [it’s] more transparent” [I.D. 18, Team A]. However, it is important to note that this centralisation process was a particularly stressful time for Team A and Team C. People were moved from one hospital to the other. There were a series of staff changes within the team. In Team A, “...you had a high volume of people coming in over a short period of time and it was quite an intense work rate... it was a big change for everyone” [I.D. 20, Team A]. In Team C, numerous oncologists came and went. There were reductions in the number of surgeons. There were no junior doctors to help out at the clinics and, therefore, it was usual to have a number of patients at the clinics all to be seen by the one consultant.

“...we have been tremendously stressed in our unit over the last few years... we did not have a team working with us... people as human beings pay the price for those stresses.” [I.D. 28, Team C]
Initially, this centralisation process created boundaries between the parties in the teams, although this has since been overcome.

"...for a certain amount of time, we had a ‘them’ and ‘us’ situation, where it was ‘our way’ and ‘their way’, whereas now it has turned into ‘the way’. We’ve lost the ‘them’ and ‘us’ attitude but it did take time.” [I.D. 20, Team A]

In addition, the boundary of what once was traditionally a surgeon’s domain has been “...blurred a lot” [I.D. 32, Team C]. There is more of an emphasis on “…this is what I would recommend” as opposed to “…this is what I do and nobody can do it better than I do” [I.D. 32, Team C]. No longer considered “…a job in isolation” [I.D. 3, Team B], there is now “…the reassurance...that all opinions are aired and a consensus decision is made about treatment” [I.D. 29, Team C]. Indeed, “...the bigger the multidisciplinary team, the better... It’s more holistic. It’s more defined what people do” [I.D. 14, Team A]. It’s a “…seamless process” [I.D. 19, Team A], in that each team member deals with “…their own chapter in the treatment of a patient” [I.D. 28, Team C]. A further benefit is that each chapter is kept in line with “…new technology... new advances, being very up to date” [I.D. 15, Team A]. Ultimately, “…it’s better for the patient” [I.D. 14, Team A]. However, it is important to note that the qualitative analysis of the interviews conducted revealed an additional theme in this study which is significantly affecting team working efforts going forward and that is understaffing. This theme is now discussed in the next section.

5.3.2 Understaffing

Qualitative analysis of the interviews conducted revealed that one major factor affecting team working efforts is understaffing in the following areas: (1) liaison nursing in medical oncology across all three breast cancer teams; and (2) individual team deficiencies in staffing particularly in Team B and Team C.

Firstly, one staff problem that all three breast cancer teams have in common is liaison nursing in medical oncology. The significance of the role of an oncology liaison nurse is as “…an education link person” for patients undergoing chemotherapy [I.D. 31, Team A]. Because oncology deals with all cancers, colon, brain and lung, the patient tends to lose that doctor-nurse relationship that they experienced in breast surgery, which is a speciality on its own, and, therefore, “…the way to rectify it is with a liaison person” [I.D. 15, Team A].

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In relation to Team A, there is no liaison nurse designated to breast cancer patients in medical oncology due to the staff embargo. There is only one titled oncology liaison nurse in the team and her areas of responsibility are lung and primary brain tumours only.

“...there is a deficit certainly from surgery to the oncology side of things... That’s a current hot issue.” [I.D. 21, Team A]

It is interesting to note, however, that, outside this hospital, the chemotherapy service is still being delivered in satellite hospitals where there is an oncology liaison nurse dedicated to looking after breast cancer patients.

“The lack of a breast liaison nurse in our service is a major deficiency... This is a major gap in our service...for patients with metastatic cancer who would benefit from liaison nurse support. We had such a relationship in [our former cancer unit] with a dedicated liaison nurse post. I am very frustrated at the current scenario and have been endeavouring to resolve it in the past year.” [I.D. 18, Team A]

Up until a few years ago, there were two breast care nurses in the surgical sub-team of Team A and they continued contact with the patient right through their treatment. Since then, the number of patients accessing the breast service has grown and, therefore, the breast care nurses have been unable to keep up with the oncology appointments.

- “[The liaison nurse post] was less obvious before when the volume was smaller because people could accommodate... I would have been near the oncology unit where they gave the chemotherapy. I used to walk in and out. It was much easier.” [I.D. 23, Team A]
- “[Now] you have a lot of benign cancers and the benign are as needy. They take a lot of time and there isn’t an oncology liaison person here to pick up that level of support that they would have had and gotten used to.” [I.D. 14, Team A]

The result of this is that, when the patients have their first consultation visit with the oncologist after their surgery, they are not educated on their specific line of treatment until their first chemotherapy visit in the day-ward at which they can talk to the chemotherapy nurses if they have any queries “...but that’s a long time to wait with all those questions” [I.D. 14, Team A]. And while current efforts are being made to ensure that the patients have the same chemotherapy nurses from their first chemotherapy visit through to the end of their care, this continuity of contact for the patient is not always feasible due to the rotation of chemotherapy nurses between the day-ward and the inpatient ward.

“...we do make an effort if they have connected with somebody that they would continue with that person...but that can’t always happen.” [I.D. 14, Team A]

Presently, this “...deficit of life support” is “dangerous” [I.D. 23, Team A]. For example:

“I had a lady yesterday who contacted me. She couldn’t get through to the chemo ward because they were incredibly busy down there but that’s where she had her chemo two weeks ago... The woman had a massive abscess... She was a diabetic. She was incredibly unwell but it all worked out well. She was brought in. But if that was left unaided...she could be incredibly unwell.” [I.D. 23, Team A]
This deficit has also been a source of frustration for the medical oncology sub-team.

“Our service is like a Chevy compared with the Cadillac involvement in surgery.” [I.D. 18, Team A]

In relation to Team C, there are two liaison nurses dedicated to all medical oncology patients. However, in terms of their job description, it’s “...very airy fairy” [I.D. 40, Team C].

“There’s just huge areas that you could say, right, that’s you... every liaison nurse in the country nearly has a slightly different element to the roles...and management can push it into what [it] wants.” [I.D. 40, Team C]

Recently, their role has had to change due to the fact that the increase in patient numbers has not been met with an increase in oncology liaison nurses. The oncology liaison nurses only now see the patients in the outpatient clinic when the patients have their first consultation visit with the oncologist or when they are in for a review halfway during their treatment. They no longer look after in-patients – that is when the patients fall sick during their treatment and have to be admitted. That link is no longer there. While the role is recognised by the consultants and management, it’s very difficult to quantify the importance of this role in order to justify an increase in oncology liaison nurses. A large portion of the time is spent on the phone talking to patients and, if there’s a problem, talking to their primary care team such as the GP or the home care nurse in order to avoid having the patient come into the dayward or being admitted. The hallmark of this role is early intervention.

“I am always so passionate about liaison. I would always be putting in the numbers, the calls but it’s very hard to quantify it... because [the patients] haven’t had to clock into the hospital, there’s no record...and putting it into a database it might be just one line and it doesn’t reflect back on the amount of work that went into it.” [I.D. 40, Team C]

Furthermore, in relation to Team B, there are two liaison nurses dedicated to breast cancer patients but they work part-time only which equates to one breast-specific liaison nurse. Originally, there was one full-time and one part-time. The full-time person is currently out on maternity leave. Her maternity leave is being covered by a part-time person. Because there are now two liaison nurses who work part-time this requires them to work harder as a team.

“We have to really work at communication... We have a communication book but we also have a lot of phone contact...that would include me being phoned at home or [the other liaison nurse] being phoned at home because that’s what we need to do... sometimes it’s not enough to write something because it wouldn’t give you an impression of what’s going on with the person psychologically or any other issues that are huge... Circumstances are so individual with each patient. You have to be able to completely try to make it as transparent as possible the flow between the two of us as to where we are at with the patient.” [I.D. 38, Team B]
However, both liaison nurses agreed that their jobs would be better served by two full-time breast-specific liaison nurses “...for cohesion, for continuity” [I.D. 38, Team B] because they would have their own list of patients, unlike having to share the list due to part-time commitments and, therefore, ending up knowing only half of the patients really well, because they would have educated them on the day of their first consultation visit with the oncologist.

“...when you don’t have that first consult and you don’t educate them, you are kind of going back and you are gathering. You haven’t that same relationship with them... I don’t think it breaks down communication but it hinders their care.” [I.D. 36, Team B]

In addition, this part-time arrangement affects the functioning of the breast cancer team “...because the likes of [the medical oncologist] or any of the surgeons just never know whether they are going to get me or [the other liaison nurse] or if either of us was to be around if they were to look for one of us anyway so it’s a bit less ideal” [I.D. 38, Team B]. Therefore, going forward, this part-time arrangement in liaison nursing “...wouldn’t be very sustainable” [I.D. 38, Team B].

Secondly, Team B and Team C have expressed further staff problems of their own. In relation to Team B, there is a shortage of pathologists dedicated to reading biopsies of breast cancer patients. At present, a pathologist from Team C has agreed to fill this gap and to report via telephone conference at the weekly multidisciplinary team meeting [MDM].

“...you’ve teleconferencing with a pathologist and he’s absolutely excellent to listen to. He sounds just the man on the job. He’s very easy on the ear.” [I.D. 38, Team B]

However, while this current arrangement “...works reasonably well” [I.D.11, Team B], the sustainability of this arrangement is questionable.

“It’s not a particularly satisfactory arrangement, well it is in that [the pathologist is] good but [the pathologist is] not there... I don’t know how workable it is long-term.” [I.D. 11, Team B]

There is also a shortage of breast care nurses. Originally there was one surgical sub-team of the MDT. Now there are two. This has automatically doubled the nurses’ workload without doubling the number of nurses, in comparison to the surgical sub-teams in the other two breast cancer teams who do not share their breast care nurses.

“I’m forever playing ‘catch-up’, particularly on things like notes...it doubled our clinics overnight... instead of having just a new and a return and a reconstruction every other week, we now have two news, two returns and two consultants to do reconstructions every other week.” [I.D. 3, Team B]

Currently, there are only two breast care nurses and one clinical nurse manager 1 [CNM1], who has been recruited by the surgical team to work mostly in the role of a breast care nurse.

“2.5 but that’s only by the Grace of God.” [I.D. 3, Team B]
The primary issue here is that the CNM1 not only has to perform the duties of a breast care nurse but she also has to fulfil her own role such as stocking up the clinic, organising the store room etc. and “...sometimes we just don’t have enough hands” [I.D. 1, Team B]. The key problem of this is that the surgical sub-team does not have care assistants to alleviate the pressure that breast care nurses are under.

“Personally I don’t feel that I should be going around the hospital giving x-ray sheets to Departments because I don’t feel that’s part of my role... and I’m not whining and whinging... I just think sometimes our work would be better served if we were doing a lot less of the things we shouldn’t be doing and a lot more of the things we should be doing.” [I.D. 2, Team B]

Furthermore, in relation to Team C, there is a shortage of radiologists dedicated to reading mammograms and ultrasounds of breast cancer patients. Currently, there is only one full-time breast radiologist. A second breast radiologist was appointed but did not take up the job. Since then, the job has been re-advertised but the team has had to depend on retired radiologists to come in and do part-time work. Having one full-time and one part-time equivalent has, as a result, caused tension in relationships with other team members.

“...that’s creating pressure on the other radiologists and when the pressure sometimes builds up...people can get irritated...and that irritation is transmitted by the way you deal with your other colleagues.” [I.D. 28, Team C]

However, the fundamental issue here is that the workload for radiologists has increased because the patient no longer trusts the surgeon.

“...the grand majority of [patients]...have imaging because patients do not trust the physician like they used to trust before... you examine a person and you say they’re fine and they say are you not going to do an ultrasound or a mammogram? And the indication is there, they have to have it.” [I.D. 28, Team C]

In addition, there is a shortage of junior doctors and nursing staff in the oncology sub-team of the MDT. This has caused a huge pressure for the consultants themselves in running the oncology unit.

“I cannot believe the amount of pressure that comes with this job...the sense of responsibility is tremendous, tremendous... we’ve gone from a consultant-led to a consultant-provided [service] overnight and the pressure is tremendous because there has been no added support [from junior doctors and nurses] to do that... I spend a lot of my time now working as a highly qualified senior house officer, a highly qualified special registrar and then...a small portion of my work is on consultants work... I’m not sure how sustainable it is going forward.” [I.D. 32, Team C]
5.3.3 Participation in Decision-Making

Quantitative analysis of the team questionnaire indicated that team members are undecided over their degree of participation in decision-making in all three breast cancer teams. Qualitative analysis of the interviews conducted revealed that there are four factors affecting the degree of participation in decision-making across all three teams: (1) role; (2) standard versus complex cases; (3) the design of the room for the MDM; and (4) the volume attending the MDM and the reality of other commitments.

Firstly, ‘role’ is an important factor in determining one’s degree of openness to participate in decision-making. Primarily, the consultants would play a major role in the technical discussion of the diagnosis and decided treatment of each patient at the MDM.

“...most of the decisions are made at a higher level...with the consultants.” [I.D. 26, Team C]

In comparison, the breast care nurses would play a more supportive role as “...an advocate for the patient” in the decision-making process [I.D. 2, Team B]. Their input would be from the point of view of knowing their own patients, whether they are young or elderly, their worries, their travel concerns, their social circumstances and if they would cope with a particular decision on treatment.

“[If] we felt that the decision was something that [the patient] would find difficult, then we would obviously pipe up that ‘I think Mrs Bloggs is not going to take that’. It’s like there was a lady the other day and there was a debate whether she should have conservative surgery or a mastectomy. [The surgeon] couldn’t make her mind up and she said ‘I think I need to see her again’, and I said ‘well if you go for a mastectomy, I think it’s not going to be an issue because she was quite happy to go with the clinical decision’ whereas obviously some people don’t want one thing or another. So I’d say if we felt strongly enough, we would speak up.” [I.D. 3, Team B]

In addition, the role of the liaison nurses in medical oncology is minimal in terms of their participation in the MDM discussion because the patients who are being discussed at the MDM would have not begun treatment yet and, therefore, the liaison nurses wouldn’t have met the patients. However, the liaison nurses would get to know the patients, what they have been through, from the MDM discussion, “...so it’s a gathering of information at that point for me” [I.D. 36, Team B] and “…you can have a lot of preparation work done before you meet the patients and when you meet them, you do your assessment” [I.D. 40, Team C].
Secondly, while there is a good degree of participation at the MDM, “...a lot of it is pretty standardised” [I.D. 11, Team B] “...because most cases are fairly clear cut” [I.D. 17, Team A] and, therefore, “...the decision is obvious so there doesn’t need to be much discussion about it” [I.D. 11, Team B]. However, the reality is that boredom seeps in, “...like we discuss something like 40 cases in an hour and a half. Out of a series of about 40 cases, I think there are probably about 5 worth discussing” [I.D. 11, Team B]. The problem with this is that “...it just zones people out. I think actually because of that, things are missed in cases that are worth discussing” [I.D. 11, Team B]. In light of this reality, what has been proposed is “time management” [I.D. 26, Team C] for the discussion of the self-evident cases at the MDM, rather than setting aside another MDM for the discussion of the more complex cases.

“Life is basically full of MDMs these days so there is really no place to put in one more so I think you have to use the ones you have in a better way.” [I.D. 17, Team A]

A third factor that is affecting the degree of participation in decision-making, particularly in Team B and Team C, is the design of the MDM room. All team members present at the MDM have to face in the one direction, as opposed to being in a circle, because the imaging of x-rays and pathology are on one screen on one wall. For Team B, “...it’s kind of chairs dotted around a bit” [I.D. 38, Team B]. However, for Team C, it’s more of a classroom design, more so a ranking system. The consultants are seated in the top two rows because they need to be closer to the imaging. The breast care nurses are seated in the third row, followed by the oncology liaison nurses and medical students and then the social workers, the physiotherapist and the occupational therapists are seated in the rows further back.

“...there’s a ranking. I suppose, in terms of who sits where and once you sit in that place, it seems like that’s where you should be.” [I.D. 32, Team C]

Usually, those in the top two rows participate in the decision-making process. Not everyone in the rows further back can participate because not all of them can hear everything that is being said.

○ “...for people who are further behind, I know they can’t hear as much. I know they miss the nuances of what might be said.” [I.D. 32, Team C]

○ “...it’s not a good set-up... Really bad actually in the sense of people sitting in rows behind each other. I really don’t think it’s very conducive to a very open approach. If you’re sitting back here, you can’t hear what’s been said often up at the top.” [I.D. 31, Team C]
And while generally those in the back rows would feel comfortable participating in the discussion, there are times that they might think “...I’m not going to ask that. I’ll ask one of the consultants later” [I.D. 31, Team C]. Nevertheless, there doesn’t seem to be any immediate solution to this participation barrier for the simple reason that “…we are kind of hierarchical in that it’s not something that there is movement around in... I bet if I went back to a centre that I started doing cancer in 17 years ago, I could still tell you where everyone is sitting!” [I.D.32, Team C]

A final factor that is affecting the degree of participation in decision-making, particularly in Team A, is the volume of members attending the MDM. It is important to note that, where there was originally one surgical sub-team in Team A, there are now five, in comparison to two equivalents in Team B and Team C. The primary issue here is that a large MDM can inhibit members from participating in the MDM discussion as opposed to a small team where people would be more willing to be open.

- “The fact that the team is so big now, that is a problem... if we have 'dirty linen', dare I call it that, it’s hard to discuss that in front of large teams.... people are reticent... When you have a small team, people are willing to be open.” [I.D. 19, Team A]
- “I was just used to working with a nice kind of small group. I found it easier...whereas now there is so much happening and there is so much change within the centre itself that you are constantly up against other people’s opinions... I wouldn’t be great at speaking up in a bigger group... in my own cohort of nurses, I suppose I find there are very vocal people in the group and I find I’m quiet and I find it difficult to speak up but if I have something to say, I will say it... it’s just my personality.” [I.D. 21, Team A]
- “…I’m not saying it’s putting people off but I think you would need to be mindful of it and consider it. It’s working at the moment but the volume could be a deterrent.” [I.D. 23, Team A]

In addition, a large MDM cannot always get everyone’s opinion on every patient due to clinic/theatre commitments that run on the same morning as the MDM. The time isn’t blocked off specifically for the MDM. Often is the case whereby surgeons are only present to discuss the diagnostics of their own patients. The problem with this arrangement is that “…if surgeons are leaving within the multidisciplinary time allotted, then the patients discussed later are probably not having the same discussion as the patients that were discussed earlier” [I.D. 23, Team A]. And even when the surgeons are there, “…they are not there because they are thinking of where they need to go” [I.D. 20, Team A]. Therefore, this compromises the purpose of having a large MDM.
5.3.4 Relationships and Trust

Quantitative analysis of the team questionnaire indicated that, in all three breast cancer teams, team members are, on the one hand, of the opinion that there is a healthy level of cooperation amongst their colleagues in their team, while, on the other hand, are ambivalent over the degree of cooperation between their team and similar teams in other hospitals. Qualitative analysis of the interviews conducted examined these findings further in terms of (1) inter-personal and (2) inter-team relationships across all three breast cancer teams.

Firstly, in relation to inter-personal relationships, qualitative analysis of the interviews conducted revealed that there are good working relationships in and between all sub-groups of the MDT, ranging from the consultants in surgery, radiology, pathology and oncology, the breast care nurses and liaison nurses in oncology care and the social workers. This is a significant finding particularly for Team A and Team C, who have experienced an amalgamation of the breast services from local and regional hospitals onto one central site and with this a major reconfiguration of staffing arrangements.

- "...it was a hostile take-over” [I.D. 15, Team A]
- "...I suppose that was difficult enough because you’ve got very autonomous people, very experienced and then we’re all expected to move into one centre to work from one pot...without any huge change management support, as in move in, take off running.” [I.D. 31, Team C]

However, there is certainly room for improvement in these new staffing relationships.

- "...it has been very difficult and even in the last number of months it’s like two services which have moved onto the one site. But it’s the same nurses, the same consultants that were previously. We have to change that. We have to have rotation of nurses, in particular, I think that is what needs to happen.” [I.D. 15, Team A]
- "...you’re often still the one coming in” [I.D. 26, Team C]

In relation to the working relationships in Team B, however, two factors were highlighted as affecting cooperation amongst colleagues in the team: (1) “...the lack of pathology services” and the huge radiology workload, which means that “...people probably haven’t had their MRIs on time...before they are due to have the surgery and these kind of stresses then causes strains on relationships... you do hear whisperings then of disapprovals amongst the radiology staff about how a certain thing was handled” [I.D. 36, Team B]; and (2) “...personality clashes in terms of approach” between the breast surgeons and medical oncologists [Identities no. 8 & 36, Team B] whereby the “...medical oncologists would favour mastectomy a lot of the time whereas the surgeons would favour a wide local incision
and conservative surgery... it really comes down to preference” [I.D. 11, Team B]. In essence, these two factors “…kind of affect the mood and certainly the whole functioning from time to time of the team” [I.D. 36, Team B].

Nonetheless, it is important to note that personality clashes are also evident in Team C. Notably, the reconfiguration of the breast cancer service can be characterised “…as [what] happens when you move house, you have to find a place on the shelf for that box that is in the corner and that happens with people. People are like puzzles. You have to find the right place for every person” [I.D. 28, Team C]. However, because this new team environment has challenged traditionally defined roles of authority by encouraging its members to now “…fight for [their] own territory with the evidence that [they] have to support it” [I.D. 32, Team C], this has made some people aggressive “…to the point that they can undermine your situation as a person from the point of view of making their point across” [I.D. 28, Team C]. As one team member phrased it: “It’s this vested interest story. If somebody has a specific opinion and if they may feel intimidated by a different opinion, [then] that can lead to some difficulties” [I.D. 29, Team C]. People are trying to protect their own personal egos and “…they think that they are right...and they have difficulty with other points of view from colleagues” [I.D. 28, Team C].

In addition to personality clashes, however, the nursing sub-group in Team C spoke of a professional boundary, more so a hierarchy, in the doctor-nurse relationship.

“...I was always used to that but it’s still there but probably not there as bad as before...but it’s still there... even with the younger consultants, you know, it’s still obvious. It’s still there.” [I.D. 26, Team C]

This hierarchy is illustrated in the classroom design of the room where the MDM is held. Although current nursing staff “…tend to ignore that” as “…all of our roles are as important as each other’s” [I.D. 31, Team C], one nurse in particular commented that “…you’d just be careful what you’d just be putting forward” [I.D. 26, Team C]. It was also mentioned that new members to the MDT would feel “…a bit reluctant” to ignore it [I.D. 33, Team C].
In all, personality, as well as professional, boundaries can somewhat have an effect on trust in the team and the degree to which members can depend on each other. This was indicated in the quantitative analysis of the team questionnaire that, although team members have a high degree of trust in their colleagues, the distribution of scores on trust is significantly higher in Team A than in Team B and Team C. Indeed, the challenge facing these latter breast cancer teams is to overcome these boundaries by instilling an environment of role clarity and recognition, openness and trust among members in these new teams.

Secondly, in relation to inter-team relationships, qualitative analysis of the interviews conducted revealed that, while there are research meetings, teleconferences etc. at a sub-group level of the MDT for the purpose of comparing, and thus improving, practice, there is little to no interaction between the breast cancer teams in the country, other than accommodating patient preferences. The reality is that certain centres are very well established. They have a very strong referral into them with Breast Check and are very heavily resourced.

“I suppose they do look after their own patch.” [I.D. 15, Team A]

This is in comparison to the smaller units investigated in this study who are less established where the patient numbers are concerned.

“...So there’s a certain amount of people trying to get a lot more resources and I think they are probably eyeing up other centres and not wanting to appear that they are actually under-resourced or not performing as well as the other units.” [I.D. 15, Team A]

However, this can hinder inter-team relationships between the breast centres from developing.

“I think there’s a certain amount with the different units but I think it really needs to come from higher up. It needs to come from the National Cancer Control Programme. They need to get all the lead physicians from the different units sitting down, identifying what the common problems are...but there has to be a degree of openness” [I.D. 15, Team A]

Indeed, there is a need for openness among the centres about areas that they are performing badly in and sharing staff resources across the centres where there is excessive employment.
5.3.5 Communication

Quantitative analysis of the team questionnaire indicated that, in all three breast cancer teams, team members are not only unclear about their understanding of the team’s long-term plans and goals communicated by the team’s management but are also undecided over the degree of communication amongst their colleagues in their team. However, it is important to note that the distribution of scores on intra-team communication is significantly higher in Team A and Team C than in Team B. Qualitative analysis of the interviews conducted examined these findings further.

Primarily, qualitative analysis revealed that there is good cross-boundary communication and support between the different sub-teams of the MDTs via phone calls, text messages and emails, particularly where certain sub-groups are physically separated by distance within the hospital or when some team members are working off-site in satellite hospitals or in their private practice. Indeed, the informal approach is still regularly used. However, despite the quantitative evidence which suggests a significant difference between Hospitals A, B and C, qualitative analysis revealed that there remain four factors affecting effective communication between the team members in each team: (1) communication between the breast care nurses and liaison nurses in medical oncology; (2) communication between the liaison nurses in medical oncology and their patients; (3) communication between the breast care nurses, liaison nurses in medical oncology and the social workers in informing the patients of the financial assistance that is available to them during their treatment; and (4) communication of the MDT decisions at the weekly MDM.

Firstly, there is good communication between the breast care nurses and breast-specific liaison nurses in medical oncology in Team B, as opposed to in Team A and Team C. The reason for this is that the breast care nurses speak to the liaison nurses directly over the phone to coordinate the flow of patients from surgery to medical oncology.

“...we’d contact the girls and say there’s someone coming through. These are the particular issues. Some of them are very straight forward and others you’d want to give the heads up and say, look there could be a problem here with XYZ, so we would speak directly to the co-ordinators.” [I.D. 3, Team B]

In particular, where patients have quite a lot of issues, the breast care nurses would make it their business to meet the patients when they are meeting the liaison nurses “...so there’s a bit of a handover of care... their communication towards us is very good” [I.D. 38, Team B]. In addition, the breast care nurses share their notes with the liaison nurses via the medical oncology computer system, which was bought from Canada six years ago.
“The on-line system is fantastic because we can log in and just look at what has been discussed by the girls...and if there were big issues like...there would be some of our patients with bigger social issues than others... if it’s somebody who is getting re-housed, has alcoholism... they are the ones that the girls will flag up for us personally.” [I.D. 8, Team B].

It is important to note, however, that, while the medical oncologists put their notes on the system, the breast surgeons don’t, unlike referring breast surgeons from other breast centres who put their letter of referral on the computer system “...so that has the most detailed history in it. That has the histology results and...the surgery results and the size of the tumour and all that...” [I.D. 36, Team B]. Therefore, it would be welcomed by the liaison nurses if the breast surgeons put their notes on the computer system “...because a lot of the patients we look after even during chemotherapy might find a lump on the other side so we end up sending them back down to the surgeon... we’d have to ring the breast nurses to find out what happened but we always find out. It’s not that we have difficulty with communication” [I.D. 36, Team B].

In comparison to the communication set-up in Team B, there are no breast-specific liaison nurses in medical oncology in Team A for the purpose of facilitating the coordination of nursing care from surgery to medical oncology. Furthermore, while there are two liaison nurses in medical oncology in Team C, they are not breast-specific in their role but cater for all oncology patients and, therefore, there is a difficulty in specifically accommodating a direct communication link with the breast care nurses.

Secondly, there is good communication between the breast care nurses and their patients across all three teams, in comparison to the communication between the liaison nurses in medical oncology and their patients. This disparity was highlighted during the administration of the patient questionnaire, whereby patients significantly commented on the lack of a one-to-one nurse contact that they could call on if they had any questions about their health problems during their chemotherapy, the extent to which these patients felt that they did not receive sufficient emotional support and information about their nutritional needs in all three hospitals concerned.
In Team B, there are four breast care nurses looking after patients in surgical care, as opposed to two part-time breast-specific liaison nurses looking after patients who are undergoing chemotherapy. While the medical oncology computer system facilitates good communication between the liaison nurses who, because of their part-time roles, are never in together on the same work day, continuity of communication between the liaison nurses and their patients is somewhat affected.

“We kind of try to reach out to [the patients] as much as we can but we are mindful of the limited resources and they are limited when you look at the cohort of people and the amount of nurses you have. You’d love to be talking to them all the time... [but] some people will feel like they have been ignored... you target people you see and that’s the thing... because you are actually looking for trouble otherwise. It sounds dreadful to say it like that but you’re trying to just get the needs met of the most needy as it were at any given time.” [I.D. 38, Team B]

In Team A, there are three breast care nurses looking after the patients in surgical care. However, there is no liaison nurse for the patients to directly call on whilst undergoing chemotherapy, except for the chemotherapy nurses who the patients would meet randomly for their treatment in the day-ward.

Furthermore, in Team C, there are four breast care nurses looking after patients in surgical care, as opposed to two general liaison nurses in medical oncology looking after patients who are undergoing chemotherapy. The communication dilemma initially starts at the patient’s first consultation visit with the medical oncologist. What is happening at the moment is that immediately after the patients have their first consult with the oncologist, the liaison nurse has to seat them in a “...busy corridor” [I.D. 40, Team C] to educate them on their treatment and gives them written information about it. She is not supposed to leave the clinic because “...you only have three hours to see x amount of patients and if you spend one hour with one, the others are missing out as well on your time” [I.D. 40, Team C]. At this stage, the liaison nurse “...kind of feels more that [the patients] don’t want to feel they are being rushed and I’m just throwing information at them and giving them a folder” and “...once somebody gets upset in the corridor...you’re constantly apologizing to them that you don’t have a room” [I.D. 40, Team C]. However, the liaison nurse does point out that she will allocate a time to ring the patients back over the next two days and offer to meet them again in a quieter area. Nonetheless, after that meeting, the patient does not see the liaison nurse until half-way through their treatment when they are reviewed by the oncologist in the clinic. Rather, the patient goes into the day ward for treatment for three or four months where they meet a
number of different chemotherapy nurses.

“Ideally it would be nice to offer them all a chemotherapy nurse but we don’t have the facility to do that.” [I.D. 32, Team C]

However, the patients are given the number for the liaison nurse and the number for the day ward should they have a problem. Nonetheless, the patients who don’t call the liaison nurse are the ones with problems.

“...they are the ones who could actually be forgotten about and they are just being seen in the day-ward and deemed as no problem but when you actually got the opportunity to contact them, arrange to meet them, they had loads of social problems but didn’t want to ring us because they knew we were so busy” [I.D. 40, Team C].

A third factor is that there is good communication between the breast care nurses, breast-specific liaison nurses in medical oncology and the social worker in Team B in informing the patients of the financial assistance that is available to them during their treatment, as opposed to in Team A and Team C. The ‘role’ of the breast care nurse and liaison nurse “overlaps” in informing the patient of applying for the medical card, which would cover the expense of the wig, and the Travel-to-Care grant for the petrol costs incurred, because of the number of radiotherapy sessions that some patients would have to undergo following their chemotherapy treatment [I.D. 38, Team B]. Furthermore, there is one dedicated social worker for oncology patients to whom the breast care nurses and the liaison nurses would refer patients directly without having to fill in the application forms themselves.

“...we have our own social worker which is such a luxury so we kind of let her get on with it.” [I.D. 38, Team B]

At the end of the day, there is “…a very good rapport” between all three parties in informing the patient of financial assistance [I.D. 36, Team B].

In comparison to the communication set-up in Team B, there have not been discussions between the breast care nurses and the oncology sub-team in Team A about a procedure for informing the patients of the availability of financial support, in light of the absence of a liaison nurse. While the oncology team has proposed to incorporate information about financial assistance in a leaflet that is handed to the patients describing their treatment on their first visit for chemotherapy, they have acknowledged that this is late in the game for patients who are usually two months into their breast care when they enter the treatment stage. However, this would somewhat explain then the finding in the quantitative analysis of the patient questionnaire, in terms of the range of staff who assisted in helping the patients
figure out how to pay for any extra costs for their breast cancer, in particular, the breast surgeon, the breast care nurse, an advertisement in the treatment clinic, a patient in the treatment clinic, a neighbour, friends, G.P., pharmacist, and finally the hospital receptionist.

Furthermore, the communication between the breast care nurses, liaison nurses in medical oncology and the two social workers, who are dedicated specifically to oncology patients, is somewhat stilted in Team C. At the moment, the ‘role’ of breast care nurses has been extended to include filling in application forms for the medical card and the Travel-to-Care grant [I.D. 33, Team C].

“I find myself filling out the forms. I often ask myself is this within the remit of my job description?” [I.D. 33, Team C]

Indeed, while it is the role of the social worker to fill in the application forms for the breast cancer patients, the method of approaching these patients is still not settled.

“There’s no direct procedure... a lot of patients won’t take it on board to phone [the social workers]. They just have a little thing about a social worker... At one point, the social workers [went] to the wards to see the patients but a lot of the patients were just not ready to have that conversation.” [I.D. 26, Team C]

The social workers do attend the weekly MDMs. They are handed a list of all the newly diagnosed patients. It’s still up for debate whether they should phone a couple of weeks after the patient has been told of their diagnosis just to mention their name and what they are about and if they want they can get back to them.

“...there is definitely a disparity as to how we are going about it... it’s something that is still up for discussion really just finally trying to identify where you start that procedure, whose responsibility is it, who is the patient’s link in relation to it.” [I.D. 26, Team C]

At the moment, the arrangement is “...a bit hit and miss” [I.D. 26, Team C]. In the long-term, however, it is not sustainable. For example, when filling in the Travel-to-Care grant, all trips for surgery, chemotherapy and radiotherapy need to be documented. The thing is that the breast care nurses only look after the patient from the surgical side of care and, therefore, they wouldn’t be aware of what chemotherapy and/or radiotherapy schedule the patient would be going on.

- “...we can’t really take on board all that side of it.” [I.D. 26, Team C]
- “...from a time factor for us, it’s very difficult. It’s a good bit of paper work.” [I.D. 31, Team C]
Therefore, there is a need for social workers to become more proactive in their role. As one nurse exclaimed, “…I feel actually it’s the social workers that should be chasing [the patients] up because the breast care nurses, they are so busy up there” [I.D. 40, Team C]. What has been proposed is that a system should be set up whereby, after every MDM, the social workers would be given a list of patients who are positive cases with breast cancer with an outline of the date and time when each patient will next present at the breast clinic to be told of their diagnosis. A room should be provided in the breast clinic so that these patients can meet with the social worker. Notably, this would require immediate collaboration between the breast care nurses and the social workers.

A final factor is that the communication of the MDT decisions at the weekly MDM needs to be coordinated better across all three breast cancer teams, in particular, Team A and Team C, in order to facilitate clarity of tasks among the different sub-groups after the MDM. Prior to the discussion at the MDM in relation to the patient, a form is filled in with comments from the surgeon, the radiologist and the histopathologist who have each assessed the patient via a clinical examination, mammogram and/or ultrasound and a biopsy. The patient’s form is then presented at the MDM. The problem arises in what is written down on the MDM form as the MDT’s decision regarding the patient at the meeting.

In Team A, what is written down by the lead clinician as the MDT’s decision concerning the patient can be particularly unclear for the radiology sub-team.

“Each form will be signed off by a clinician but the clinician might not be a radiologist so the radiological nuances might be lost on somebody who’s an oncologist, let’s say… For us as radiologists, they might say ‘that’s got to be biopsied’. We might write down ‘well that looks like a lesion that might need ultrasound. It needs to be done in a [such] position. The patient must come off their warfarin beforehand. The patient is very nervous’. ” [I.D. 19, Team A]

From a radiological perspective, these “little nuggets” are vital for how radiologists, as well as radiographers, perform their tasks after the MDM [I.D. 19, Team A]. Otherwise, this group ends up having to backtrack through the pathology reports, the radiology reports, “…possibly try to make a phone call to the surgeon and confirm that you are doing the right thing and you could have a patient sitting outside the door half an hour while all this is going on” [I.D. 20, Team A]. However, to get around this dilemma, the radiology sub-team now writes down the MDT’s decision regarding each patient on a separate sheet for themselves “…to say all the other little bits and pieces” [I.D. 19, Team A]. Nonetheless, because there are six radiologists in the sub-group who take turns in representing their team at the MDM, the sub-team of
radiographers has to air on the side of caution with each patient.

“...that you know exactly what you are doing and what you are doing is the correct thing... [because] sometimes on the day, things can get lost in translation so to speak, but not always. It’s not a regular routine.” [I.D. 20, Team A]

Similarly, this resort to note-taking has been taken up by the radiotherapy sub-team in Team C, although not without problems. Often there is a discrepancy in what the radiation oncologist records in his/her notes for each patient at the MDM and the typed version of the MDT’s decision concerning each patient that is sent to the radiation oncologist after the MDM.

“...often it’s different from what I heard.” [I.D. 29, Team C]
The secretarial support for the MDM is non-medical. They are note-taking by hand “...which is very untidy” and “...it might just be that they heard it differently” because “...you are getting 50 opinions of all the people inside in the room” [I.D. 29, Team C]. Then the difficulty here is that the radiation oncologist is unsure as to whether or not it is the correct MDT opinion. A solution around this is that one radiation oncologist in the sub-team has taken the initiative to work with IT on a software type of management system that would contain all the necessary data elements in a defined format such as the size and the histology. The secretarial support of the MDT would run this program during the MDM discussion. After each patient is discussed, all members can view the electronic record. If someone disagrees with it, they can say it there and then. When all members agree, this patient document is saved and printed off and this is the final MDT decision for that patient. Therefore, the advantage of this would be that the clinicians no longer have to take notes but can pay more attention to what everyone is saying.

“I can focus on the conversation rather than writing.” [I.D.29, Team C]

Indeed, this need to move beyond the manual recording of MDT decisions at the MDM has also been recognised by Team A.

“...lack of IT...makes us slower and less efficient.... [and] leaves room for delays and errors. Referrals need to be then dictated by the doctor which may or may not contain all relevant information. There can also be a further delay waiting for letters to be typed then proofed and signed. Often what the patient knows is not mentioned in these letters.” [I.D. 41, Team A]
Already, this proposed electronic system of recording MDT decisions is up and running in Belfast. This IT system records all MDT decisions as well as allowing for GP letters, referrals to other disciplines and the information for each patient’s chart to be produced instantly at the time of the MDT discussion. Furthermore, all sub-groups present at the MDM are aware of what the patient knows and what the next tasks are for each sub-team following the MDM.

5.3.6 Reflexivity
Quantitative analysis of the team questionnaire indicated that team members have a negative attitude towards reflexivity in all three breast cancer teams. Qualitative analysis of the interviews conducted revealed that reflexivity is in the early stages of development at both a national level and an individual team level. The NCCP held its first annual national meeting at Farmleigh, in Dublin, in October 2010. Representatives from all disciplines in the eight multidisciplinary breast cancer teams attended. There was a general meeting followed by sub-group discussions where they exchanged quality information on how each discipline was performing.

“...are we meeting our targets? We came home feeling a lot better than when we went up because we’re not doing badly at all.” [I.D. 3, Team B]

Prior to this national meeting, however, each team has held, and continues to hold, a monthly governance meeting. The Health Information and Quality Authority [HIQA] has reviewed the governance framework of each team and, in particular, recommended that the governance structure in Team A be reduced to having just two representatives from each sub-group of the MDT because “...if you want to be an effective decision-maker, you really only need a few people making decisions because the intellectual capacity of a group diminishes the bigger it actually gets” [I.D. 15, Team A]. In addition, from the interviews conducted, two recommended governance practices have been suggested as a further means of going forward: (1) data management of patients post-treatment attending the review clinics; and (2) a formal review of how effectively each team is working.

Firstly, the current team objective of the governance meeting is to review whether or not the team is meeting the key performance indicators as drawn up by the NCCP.

“I suppose that forum allows us to develop... everybody has an input, so there are no single flyers.”
[I.D. 32, Team C]
Nonetheless, while the current emphasis is on reporting performance on the throughput of patients from referral to diagnosis and treatment and the time frames between those stages, there is an even greater need to collect outcome data from follow-ups of patients in the years post-treatment as this would provide a performance measure of how effective are the methods used by the teams to get the job done.

“...if you take care of your patients in the time frame that is allowed, then everything is good. But what type of treatment you provide them with, no one looks at... The end result is really the most important thing.” [I.D. 17, Team A]

In addition, it would create a sense of satisfaction in one’s work.

“There is no real follow-up on the results of the treatment. There is no recognition of someone doing a very good job...so you basically are supposed to do your job and do it in a very good way and no one is reviewing it.” [I.D. 17, Team A]

Secondly, there is a need for discussion as to whether people in the team are working effectively together in order to improve performance, particularly where staffing arrangements have been altered with the establishment of centres of excellence. This concern has been raised by members of Team C who have witnessed a recent reconfiguration of all staffing arrangements onto one site to cater for the service needs of their region. Despite the informal chats that happen, there is a need to formally look at how the team is working, in particular, the nursing sub-group of the MDT. One issue is that two out of the four breast care nurses had originally worked in general and regional hospitals and have now been relocated to the designated centre, bringing with them different approaches to their practice and this creates stress, particularly in terms of role clarity.

“I think it would be very beneficial to do that... I would find stressful... people have differences of opinion or have a different approach to their practice. It’s not right or wrong but it’s different and again...that’s what difficulty I would find.” [I.D.31, Team C]

For example, in this designated centre, the breast care nurse would see the patients after their surgery before they left the team and would not see them again until their follow-up appointment two weeks later. In the meantime, the patients could phone the breast care nurse if they had a problem and could come back in to be seen. However, in the peripheral centre, the practice would have been that patients, who were discharged after their surgery, would be given an appointment to come back and see the breast care nurse maybe three or four days later just to check the wound. The difference in practice there would have probably been due to the smaller numbers of patients attending the unit. Nonetheless, the focus on practice moving forward should be “...looking at...how we do things. How have you been doing them? How am I doing them? What’s the best evidenced-based way to do them?” [I.D. 31, Team C]
Another issue is that, within the nursing sub-group of Team C, the four breast care nurses and the two oncology liaison nurses have not sat down and discussed how they could improve the transfer of patient information between them. Indeed, it is a “time factor” [I.D. 40, Team C], although both oncology liaison nurses have agreed that it would be a good thing to do so.

5.3.7 Innovation & Flexibility

Quantitative analysis of the team questionnaire indicated that team members have a negative outlook on innovation and flexibility in all three breast cancer teams. Qualitative analysis of the interviews conducted revealed that there are three factors affecting efforts by the teams to be innovative and flexible to changing ways of practice: (1) workload; (2) staff embargo; and (3) personality clashes.

Firstly, workload was reported to be a hindering factor for Team B.

“...they're fairly on the ball... but when we can bury our heads with anything else basically, one has to be practical. We work full-time as well.” [I.D. 3, Team B]

Despite this factor, however, the team has shown initiative. For example, nurse-led clinics have been set up to take out the drains and assess the surgical wounds of patients so that patients can be discharged earlier by the team and then seen a few days later by the breast care nurse. In addition, patients are no longer sent away with a booklet on breast reconstruction. Instead, they can watch a DVD on it with the breast care nurse who is there to answer any questions they may have.

Secondly, the staff embargo was highlighted as a hampering factor for Team A.

“[The team] is limited...because there is a limited amount of staff and there is a limited amount of time... People aren’t as motivated to try and do new things and to bring about change.” [I.D. 20, Team A]

Regardless of this factor, however, the radiography sub-group of the MDT has set up small audits, such as looking at their repeat biopsy rate, as a means of improving the quality of their service.

“We do little research projects because I believe that we need to encourage ongoing learning, some kind of thinking outside the box, because I think things can become very mundane if you can see no purpose to the job that you are doing.” [I.D. 20, Team A]
In addition, the surgical sub-group of the MDT has embraced new technologies in line with evidence-based practices.

“We don’t do things in the old fashioned way so, in terms of surgery, we’ve moved away from thinking that surgery is the only way to treat a cancer. We are embracing neo-adjuvant chemotherapy. We are embracing reconstruction procedures as well.” [I.D. 15, Team A]

Further efforts by the MDT have been to streamline the referral process from the surgeon to the oncologist following discussion at the weekly MDM to reduce time wastage. Also, the team is currently reviewing the possibility of reducing patient travel to the designated breast treatment centre by arranging for members of the team to travel out to satellite hospitals.

And finally, personality clashes were reported to be a deterring factor for Team C.

“I would be open to change but...from what I see even at the MDM, when something is suggested...to try and make the journey quicker and less problematic for the patient...not everyone would be like-minded and there can be clashes in that regard... it might be a long time before it’s actually initiated unless it comes from the National Cancer Control Programme.” [I.D. 37, Team C]

The problem is that some people “…like their own way of doing things” [I.D. 37, Team C] rather than “…re-invent things” [I.D. 29, Team C] and other people “…just go by the guidelines... go by what management [says]... [They] just don’t look at that bigger picture” [I.D. 40, Team C]. For that reason, “…change can be a challenge” [I.D. 28, Team C] to the extent whereby innovation can often be “self-led” in the team, as illustrated in one team member’s initiative to improve the functioning of the team’s weekly MDM using an electronic system of recording MDT decisions [I.D. 29, Team C].

5.3.8 Professional Development

Quantitative analysis of the team questionnaire indicated that team members are of the view that professional development is moderately encouraged in all three breast cancer teams. Qualitative analysis of the interviews conducted revealed three reasons for supporting this observation in the following areas: (1) individual clinical skills training; (2) team training; and (3) training in communication skills with the patient.
Firstly, while the NCCP has established a professional-development accreditation system that obliges all breast care professionals to develop their clinical skills by accumulating a certain number of credits annually from attending conferences etc., there are two factors affecting individual efforts across the teams to achieve this: (1) time; and (2) finance. Time was reported to be a hindering factor for all three breast cancer teams due to staff shortage.

“[While] there are certain criteria that we have to meet...there is no replacement for anybody. It just makes it difficult on everyone that’s left behind to keep the service going.” [I.D. 2, Team B]

In addition, finance is another deterring factor in up-skilling.

“In the past, we have had the opportunity to send people, but of late, the finances aren’t there, so it is harder to try and send people on these courses.” [I.D. 20, Team A]

The result of this is that staff have had to resort to taking days out of their annual leave, which before they would have gotten back. By leaving this to individual staff to develop their own educational needs, however, one team member has acknowledged that “...management should be more prescriptive in focusing staff to training and development” [I.D. 36, Team B]. Some team members have even welcomed the return of annual appraisals. Furthermore, what some team members have also found happening is that “...it’s the same person getting all those courses” [I.D. 37, Team C] and often is the case that “...they never come back and give you the chat after the conference or educate you or update you on it” [I.D. 40, Team C]. Members should be encouraged to arrange a half-hour education session saying “...this is what I learned or these are areas we could improve on” [I.D. 40, Team C]. In addition to this arrangement, some team members have welcomed the idea of using “...the knowledge that is around us in the hospital” through the set-up of in-house lectures, study mornings, journal clubs etc. once or twice a year “...just so that people would have experience in presenting, bringing new ideas to the table and that people feel part of the team” [I.D. 20, Team A]. Indeed, it was acknowledged by one team member that, while there is the problem of finding the time, “...you still have to try no matter how bad things get staffing wise because otherwise I think people become very demotivated” [I.D. 20, Team A]. Already, the beginnings of this initiative have been undertaken by the lead clinician in Team B. An annual in-house education seminar has been set up for the breast care staff and this has been running for the past five years at lunchtime. The most recent seminar took place in the evening and was on family history and breast reconstruction.

“It’s just an education thing, just to say to the staff this is what’s going on; get a Rep to sponsor it; bit of grub; instead of doing everything for patients, to do something for staff that’s free.” [I.D. 3, Team B]
Secondly, qualitative analysis of the interviews conducted revealed that there was little to no team training done by members across the three teams, although it was acknowledged that this should be encouraged. Time and finance were again highlighted as two factors affecting this training initiative.

“Everything is tightening in and in and in and it’s not seen as a priority.” [I.D. 2, Team B]

However, in the last few years, a management course has been incorporated into the training of special registrars on the path to becoming consultants. It is a week’s long teaching course on how to draw up an agenda for a meeting, how to chair a meeting, team working, negotiating skills etc: “Teaching the teachers” [I.D. 32, Team C]. This is an advantage going forward in that this new breed of consultants who are joining the teams will have this basic management training. They are “...more flexible” in comparison to their senior counterparts for whom “…this team building, this leadership, this lingo is totally alien” [I.D. 32, Team C]. The reason for this is that for a large part of their career in getting to a consultant position, they have had “…to work single mindedly” [I.D. 32, Team C]. In the face of a growing emphasis on large MDTs today, “...they may not want to be part of a multidisciplinary program where they have to expose their weaknesses in front of their nursing colleagues” [I.D. 32, Team C]. Overall, “…I think the skill mix will improve” [I.D. 32, Team C].

However, there is a need to welcome further team training initiatives “…such as team building, more information on management structures, how to ensure that we get the best out of every member of the team, how to ensure that those people who are in the fourth row feel it’s ok to ask the questions” [I.D. 32, Team C].

At the moment, there is talk in Team C of conducting an annual review of the functioning of the team, starting in 2011. The idea is a team-building exercise. The team would meet off-site to get feedback from all disciplines involved on how it’s performing. Each discipline would choose what they want to present, such as what initiative they have brought in that has worked well for them and get feedback. This initiative has been done in another designated breast treatment centre where one team member previously worked in and it has proven to be “…a very good team-building exercise to get people off-site...because it gives a sense of importance to what we do. It gets people out of that traditional format of MDT where we sit on each row. It’s informal and it’s a day to recognise we do good work” [I.D. 32, Team C].

In short, “…it’s a great appraisal meeting” [I.D. 32, Team C].
And finally, qualitative analysis of the interviews conducted revealed that there was little to no training in communication skills with the patient, particularly among the clinicians, who are faced with the daily task in breast care of giving good news one minute and bad news the next, especially to young breast cancer patients.

“...we have some communication skills course here which I haven’t managed to do.... but in terms of breaking bad news, that sort of thing, no, it’s really on the job training and you learn through making mistakes and seeing people’s reactions.” [I.D. 11, Team B]

Only up until a few years ago, doctors, unlike nurses, had not received any training in communication skills with the patient.

“That’s a deficiency right across doctor training. Maybe it’s changed now. I mean, i’m qualified since the early 90’s but certainly nobody has ever given me a course on how to break bad news to somebody.” [I.D. 15, Team A]

Therefore, communication skills with the patient have been a skill learned from experience for many doctors, as well as for nurses since a proportion of them have not received any further training since their university degree. However, it is important to note that experience is not sufficient and that communication skills of both doctors and nurses remain somewhat deficient, as highlighted in the quotations below by breast cancer patients across the three teams at the time they were given their diagnosis.

Quotations from breast cancer patients at Team A are as follows:

- “A little bit of insensitivity I felt was shown regarding my diagnosis. I received a phone call from my surgeon to say I needed to come in the following day for a chat. That was fine but for the fact that the doctor went on to say: ‘Either way, you’ll have to have the lump removed’. My legs were very shaky after hearing that!” [I.D. 182]

- “One of the very first things my surgeon said to me when telling me of my diagnosis was: ‘You’re probably thinking you’re going to die. Sure we all have to die at some time!’ Doctors have it medically but not psychologically when it comes to telling the patient the diagnosis!” [I.D. 198]

- “I was not told of my diagnosis in a sensitive manner. I received a phone call to come in the following day. I was not told to bring a family member or a friend. I was not expecting the news and therefore I felt ill-prepared. I could have done with a friend with me. I felt the doctor and nurse had very little social skills in telling me my diagnosis. They talked about life expectancy and the removal of my breast without dealing sensitively to the fact that I was a very young woman, only in my early 30s, who hadn’t yet settled down with someone, not to mind having children. And who would have thought you could get breast cancer at that age in your life?! If I got a dollar every time someone said to me ‘you’re so young to have breast cancer’, I would have been a rich woman today!” [I.D. 212]
Quotations from breast cancer patients at Team B are as follows:

- “I would like to see more sensitivity shown to the patient at initial consultation regarding diagnosis. I feel that professional persons are removed emotionally from the fears and anxieties of the diagnosis whilst in consultation with the patient.” [I.D. 144]
- “Patients are vulnerable. Care needs to be taken with the language used by consultants/breast care nurses; no one wants to be lied to but too much bluntness can be devastating.” [I.D. 177]
- “More information should be given to women especially younger women about the possibility of nipple and skin saving mastectomy surgery. And people skills should be given more of a priority in training doctors!” [I.D. 221]

Quotations from breast cancer patients at Team C are as follows:

- “I was not told of my diagnosis in a sensitive manner. After having had a mammogram and ultrasound, the radiologist came up to me and said: ‘You have cancer!’” [I.D. 265]
- “The surgeon said to me: ‘You have to die sometime’. This made me negative and scared. To this day, I really don’t know why he said that to me!” [I.D. 230]
- “I was asked by the locum surgeon what I was worried about. I said to him that it was breast cancer. He nodded and said yes. In my mind I was thinking: ‘So, I don’t have it?’ I felt he was talking in riddles. It was just too confusing. I just wanted him to come out with it.” [I.D. 314]

5.3.9 Leadership & Supervision

Quantitative analysis of the team questionnaire indicated that team members are of the opinion that the role of leadership and supervision has a moderate influence over the way in which they carry out their work in all three breast cancer teams. Qualitative analysis of the open-ended questions in the team questionnaire revealed that consultants within the sub-groups of surgery, radiology, pathology and oncology are of the opinion that no one supervises/manages their work and that some are in fact leaders and supervisors of their own sub-groups within the MDT. Further qualitative analysis of the interviews conducted with the consultant sub-groups disclosed similar findings across all three breast cancer teams. However, it was later emphasised that the team lead clinician oversees each sub-group’s work at the team’s weekly MDM. The role of the lead clinician is to chair the discussion of each patient at the MDM so that all sub-group opinions are aired and debated upon, and an optimal decision on each patient is arrived at.
It is also important to note that, from the interviews conducted with the nursing sub-groups across all three breast cancer teams, the significance of the role of the team lead clinician varies in the work of the breast care nurses and oncology liaison nurses. Considering that the team lead clinician across all three teams is a surgeon, therefore, he/she would have a more direct influence over the way in which the breast care nurses carry out their work, in comparison to the work of oncology liaison nurses which would tend to be supervised by the lead consultant of the oncology sub-group. Despite this variation of influence, however, all nursing sub-groups across the three breast cancer teams are very satisfied with their current team lead clinician, as evident in the quotations below:

- “I have no problems whatsoever with our current leader. She’s just... she’s efficient, she’s competent and she won’t let the service down anyway.” [I.D. 2, Team B]
- “She’s extremely good I think.” [I.D. 3, Team B]
- “Excellent leadership, I’d have to say... I think she does a great job.” [I.D. 38, Team B]
- “The current team lead clinician has respect and praise for nurses.” [I.D. 30, Team C]
- “Ideas from the nursing discipline are always welcomed.” [I.D. 33, Team C]
- “Our lead consultant at the moment...would seem to be quite a good manager.” [I.D. 31, Team C]
- “I think one lead person has achieved an incredible amount to get to where we are at now.” [I.D. 23, Team A]

In relation to the last quote above, it is important to note the significance, as well as the difficulty, of the role of team lead clinician during the reconfiguration of the breast services into centres of excellence. According to a former lead clinician, it was “…very challenging because I moved at the time the reconfiguration had to be done... a lot more work was generated... the unit had to be organised according to the new guidelines that were coming from the Health Information and Quality Authority and that was very challenging: discussions; arguments; hot blood” [I.D. 28, Team C].

Furthermore, the team lead clinician is rotated every two years, in accordance with the NCCP. The question was put to the interviewees as to who did they think the next team lead clinician should be. Responses varied from a surgeon, to a radiologist, oncologist, a nurse, a manager and anyone who wants it. Firstly, it was suggested that the next team lead clinician should be a surgeon, because he/she is at the front-line of care. The surgeon is the first person who the patient meets, who gives the diagnosis, discusses the treatment options, plans and performs the surgery and sees the patient again for an immediate follow-up in clinic. In addition, the surgical side of breast care is the starting point for any implementation of a national directive or changes in the organisation of breast management. Secondly, it was
proposed that the next team lead clinician should either be a surgeon or a radiologist because they are the two leads when it comes to diagnosing a patient. Thirdly, it was recommended that the next team lead clinician should be rotated because “...the surgeons have traditionally held the whip, but times are changing” [I.D. 28, Team C] and “...I think rotation is a good idea because people can get stagnant” [I.D. 2, Team B]. It was suggested that an oncologist should be the next team lead clinician, in particular, a medical oncologist, because “...the future of breast cancer treatment whether we like it or not is going to be based on cost. There is going to be a whole lot of funding issues. Surgery in itself isn’t that expensive. If you look at oncology, for example, that’s extremely expensive” [I.D. 15, Team A]. What was additionally proposed was that the team lead clinician should be of young age. “I know experience is very good but sometimes when you have older people who have been there, sometimes their relationships with other consultants may not have gone very well. That can actually impact if you are trying to be a lead clinician...and I think that is certainly improving now and, with the younger consultants that are coming through, I think that is going to make a difference.” [I.D. 15, Team A]

However, the point was also raised that “...when you say lead clinician, it automatically gives the impression that it has to be a medic” [I.D. 32, Team C]. Therefore, it was proposed that the team lead clinician should be rotated to allow for any individual “...the opportunity to bring their area to the front” [I.D. 32, Team C], such as a lead nurse or a manager.

At the end of the day, however, it is up to anyone who wants it because “...it’s a bit of a hot potato... The amount of paperwork and administration involved in it is incredible and essentially you’d be paid the same salary so most people wouldn’t be jumping to volunteer for that” [I.D. 11, Team B]. Going forward, it has been emphasised by both consultants and nurses that the team lead clinician must be visionary in how the breast cancer service is to be run over the next two-year period. However, it was acknowledged by a former lead clinician that “...leading in a way can be very difficult sometimes because you are the one who has to say the cake is going to be cut this way... And some people don’t like that and then you create challenges...across the different disciplines within the unit” [I.D.28, Team C]. Therefore, it has also been suggested that the qualities that the future team lead clinician must possess are approachability and good communication and organisational skills [I.D.s 29 &37, Team C].
5.3.10 Conclusion on the Findings from the Team Interviews

The findings were documented accordingly under themes. A deeper understanding of the dynamics of team working across all three breast cancer teams was achieved. Overall, all team members across the three breast cancer teams have a very positive attitude to the practice of multidisciplinary team working. Nonetheless, team working efforts are significantly affected by understaffing, in particular, liaison nursing in medical oncology, which was significantly highlighted during the administration of the patient questionnaire. Furthermore, because all three breast cancer teams are in the early stages of development as centres of excellence, in particular, Team A and Team C who have experienced “growing pains” in the last year [I.D. 18, Team A], in terms of a major reconfiguration in staffing arrangements, there is room for improvement across all areas of team working practice.

Going forward, team members have considered the following factors to be the most important in improving the effectiveness of how they work together as a team: (1) Sufficient staffing, particularly in the area of oncology liaison nursing, radiology and pathology, as well as care assistant staff; (2) role clarity and recognition; (3) openness and trust both within the team and across teams; (4) avoidance of a hierarchical development within the team; (5) better communication of patient information between nursing staff in surgery and medical oncology and social workers; (6) need for an electronic system of recording MDT decisions at the MDM; (7) better time arrangement for the MDM and better time management of patient discussion at the MDM; (8) a revised MDM layout to facilitate participation from all parties in the MDT; (9) data management of patients post-treatment attending the review clinics; (10) formal reviews of how effectively the team is working; (11) more flexibility towards changing current practices in light of new evidence; (12) a team-led approach to innovation; (13) a visionary team lead clinician who is approachable, has good communication and organisational skills and is supportive of team members when applying for professional development courses; (14) appraisal meetings; (15) in-house lectures, study mornings, journal clubs to up-skill the team on the latest advances in breast cancer care; (16) team building exercises; (17) training among doctors and nurses in communication skills with the patient; and finally (18) debriefing sessions following, for example, a very upsetting family meeting or the death of a patient, who had been an in-patient for some time. At the moment, “...there’s nothing. It’s just that door is closed. Next person is in the bed...so it’s like a bit of a conveyer belt which is quite sad” [I.D. 37, Team C].
5.4 Findings from the Patient Questionnaire

Findings from the patient questionnaire are discussed under the following sections:

- Descriptive statistics on patient characteristics across the three teams
- Team A: Descriptive statistics on dimensions of care
- Team B: Descriptive statistics on dimensions of care
- Team C: Descriptive statistics on dimensions of care
- Comparative analysis on dimensions of care across the three teams
- Comparative analysis on the overall hospital rating across the three teams
- Correlation analysis between the patient outcome variables

5.4.1 Descriptive Statistics on Patient Characteristics across the Three Teams

Table 5.31: Descriptive Statistics on Patient Characteristics across the Three Teams

| Gender | Male = 0.6%, Female = 99.4% |
| Age | Median = 50 to 59 years |
| Diagnosis | First time breast cancer diagnosis = 96.2%  
A repeat breast cancer diagnosis = 3.8% |
| Patient Type | Public = 63.5%, Private = 28%, Both = 8.5% |
| Outpatient Clinic Visits | Median = Ten or more times |
| Common Treatment Planner | Consultant breast surgeon. Other treatment planners mentioned, but infrequently so, ranged from the breast care nurse, whether in surgical or oncology care, the oncologist, the radiologist, the surgeon and oncologist, the surgeon and breast care nurse, the oncologist and breast care nurse, and finally the surgeon, oncologist and breast care nurse. |
| No. of Different Doctors | Median = 3 doctors |
| Surgery | Surgery after diagnosis = 96.6%  
Surgery in the hospital in which the patient was diagnosed = 88.7% |
| Chemotherapy | Outpatient chemotherapy during cancer treatment = 71.7% [Team A], 57.3% [Team B] and 94.1% [Team C]  
Outpatient chemotherapy in the hospital in which the patient was diagnosed = 96.8% [Team A], 98.3% [Team B] and 55.3% [Team C]  
The remaining 30% of patients had this treatment in another hospital.  
Blood test(s) done during the patient’s same visit for their chemotherapy = 93.5% [Team A], 100% [Team B] and 16.9% [Team C]  
The remaining 83.1% of patients of Team C had their blood test(s) taken a day or two before their chemotherapy visit and, as a result of this, reported that they never had to wait longer than expected for their chemotherapy treatment. |
| Radiotherapy | Radiation therapy during their cancer treatment = 63.8%  
Radiation therapy in the hospital in which the patient was diagnosed = 97.5% [Team A], 90.5% [Team B] and 1.6% [Team C].  
The remaining 98.4% of patients of Team C had this treatment in another hospital. |
| Pain | Median = Moderate |
| General Rating of Health | Median = Very good |
| Services that Patients felt they wanted but did not receive Information about | Dietician = 20.4%  
Counselling = 11.5%  
Support Group = 5.3%  
Physical Therapist = 5.3%  
Occupational Therapist = 4%  
Spiritual Support = 3.1%  
Speech Therapist = 1.9%  
Palliative Care = 1.9% |

In addition, patients felt there is a need for information about alternative therapies. For example: “There appears to be a general lack of knowledge or disregard for alternative therapies and consequently a lack of information.” [I.D. 61, Team A]; and “There is a need for alternative therapy input into care. I found reiki and hypnosis particularly helpful.” [I.D. 6, Team B]
5.4.2 Team A: Descriptive Statistics on Dimensions of Care

Positive scores \([P]\) were calculated for the following dimensions: Access to care; coordination & continuity of care; information, communication & education; physical comfort; emotional support; respect for patient preferences; surgery specific issues; and overall impression of visit. Positive scores for the dimensions are the proportion of positive responses across all the questions in the dimension relative to the total number of responses across all the questions in the dimension. The following bar chart shows the percentage of positive responses for each dimension in Team A. It is important to note that Team A, as well as Team B and Team C, scored lowest in the dimension entitled “Emotional Support”.

Bar Chart 5.7: Descriptive Statistics on Dimensions of Care in Team A
5.4.3 Team B: Descriptive Statistics on Dimensions of Care

Bar Chart 5.8: Descriptive Statistics on Dimensions of Care in Team B

[Bar chart showing percentages for various dimensions of care]

5.4.4 Team C: Descriptive Statistics on Dimensions of Care

Bar Chart 5.9: Descriptive Statistics on Dimensions of Care in Team C

[Bar chart showing percentages for various dimensions of care]
5.4.5 Comparative Analysis on Dimensions of Care across the Three Teams

The table below lists the percentage of positive responses for each dimension of care across all three breast cancer teams. Included in the table is a Kruskal-Wallis Test, which shows that there is a statistically significant difference in the dimensions of care across all three teams. In the following sections, the findings for each dimension of care are discussed in relation to particular items affiliated with each dimension across all three breast cancer teams. See Appendix F on positive scores and Chi-Square Tests for all items in each dimension across the three breast cancer teams. Quotations from breast cancer patients have been inserted where appropriate. Clustered bar charts are used for illustration purposes.

Table 5.32: Comparative Analysis on Dimensions of Care across the Three Teams

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>No. of Items</th>
<th>ALL 3 Breast Cancer Teams</th>
<th>Team A</th>
<th>Team B</th>
<th>Team C</th>
<th>Between-Groups Analysis</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td>P = 81%</td>
<td>P = 82%</td>
<td>P = 74%</td>
<td>P = 90%</td>
<td>Kruskal-Wallis Test</td>
</tr>
<tr>
<td>Access to Care</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Chi-Square = 33.42</td>
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<td></td>
<td></td>
<td>Asymp. Sig. = 0.000</td>
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<tr>
<td>Coordination &amp; Continuity of Care</td>
<td>10</td>
<td>P = 84%</td>
<td>P = 90%</td>
<td>P = 73%</td>
<td>P = 91%</td>
<td>Chi-Square = 54.38</td>
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<td>Asymp. Sig. = 0.000</td>
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<tr>
<td>Information, Communication &amp; Education</td>
<td>11</td>
<td>P = 80%</td>
<td>P = 83%</td>
<td>P = 74%</td>
<td>P = 85%</td>
<td>Chi-Square = 10.89</td>
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<td>Asymp. Sig. = 0.004</td>
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<tr>
<td>Physical Comfort</td>
<td>5</td>
<td>P = 90%</td>
<td>P = 90%</td>
<td>P = 86%</td>
<td>P = 93%</td>
<td>Chi-Square = 22.38</td>
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<td>Asymp. Sig. = 0.000</td>
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<tr>
<td>Emotional Support</td>
<td>9</td>
<td>P = 75%</td>
<td>P = 80%</td>
<td>P = 64%</td>
<td>P = 84%</td>
<td>Chi-Square = 32.20</td>
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<td>Asymp. Sig. = 0.000</td>
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<tr>
<td>Respect for Patient Preferences</td>
<td>7</td>
<td>P = 87%</td>
<td>P = 89%</td>
<td>P = 78%</td>
<td>P = 95%</td>
<td>Chi-Square = 41.58</td>
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<td>Asymp. Sig. = 0.000</td>
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<tr>
<td>Surgery Specific Issues</td>
<td>2</td>
<td>P = 92%</td>
<td>P = 97%</td>
<td>P = 88%</td>
<td>P = 92%</td>
<td>Chi-Square = 6.0</td>
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<td></td>
<td></td>
<td>Asymp. Sig. = 0.050</td>
</tr>
<tr>
<td>Overall Impression of Visit</td>
<td>5</td>
<td>P = 95%</td>
<td>P = 97%</td>
<td>P = 92%</td>
<td>P = 97%</td>
<td>Chi-Square = 16.07</td>
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<td>Asymp. Sig. = 0.000</td>
</tr>
</tbody>
</table>
5.4.5.1 Access to Care

From Table 5.32, we can see that, overall, breast cancer patients reported a high level of satisfaction [81%] with their access to care. However, a Kruskal-Wallis Test revealed a statistically significant difference in access to care across the three different breast cancer teams, as demonstrated in Table 5.32. Breast cancer patients, who were treated by Team B, reported lower levels of satisfaction with their access to care [74%], in comparison to an 82% satisfaction rating among patients who were treated by Team A and a 90% satisfaction rating among patients who were treated by Team C. Reasons for this discrepancy are discussed below in relation to particular items affiliated with access to care.

Clustered Bar Chart 5.1: Access to Care

- 64% of breast cancer patients, who were treated by Team B, believed that their care providers considered their travel concerns when planning for their treatment. This is in comparison to 78% of patients who were treated by Team A and 83% of patients who were treated by Team C.
- 67% of breast cancer patients, who were treated by Team B, stated that they only had to wait either less than 30 minutes or between 30 minutes and 60 minutes from their scheduled appointment until their chemotherapy treatment. This is in comparison to 87% of patients who were treated by Team A and 98% of patients who were treated by Team C.
- 53% of breast cancer patients, who were treated by Team B, as well as 45% of breast cancer patients, who were treated by Team A, reported that they never had to wait longer than expected for their chemotherapy treatment. This is in comparison to 85% of patients who were treated by Team C.
An additional point of interest, however, is that breast cancer patients across all three teams reported low ratings of not having to wait longer than expected for their radiation treatment: a 48% rating among patients who were treated by Team B; a 61% rating among patients who were treated by Team A; and a 69% rating among patients who were treated by Team C.

5.4.5.2 Coordination & Continuity of Care
From Table 5.32, we can see that, overall, breast cancer patients reported a high level of satisfaction [84%] with the coordination and continuity of their care. However, a Kruskal-Wallis Test revealed a statistically significant difference in the coordination and continuity of care across the three different breast cancer teams, as demonstrated in Table 5.32. Breast cancer patients, who were treated by Team B, reported lower levels of satisfaction with the coordination and continuity of their care [73%], in comparison to a 90% satisfaction rating among patients who were treated by Team A and a 91% satisfaction rating among patients who were treated by Team C. Reasons for this discrepancy are discussed below in relation to particular items affiliated with coordination and continuity of care.

Clustered Bar Chart 5.2: Coordination and Continuity of Care
• 53% of breast cancer patients, who were treated by Team B, felt that **their care providers were always familiar with their medical history**. This is in comparison to 79% of patients who were treated by Team A and 93% of patients who were treated by Team C.

• 64% of breast cancer patients, who were treated by Team B, believed that **their care providers were always aware of their test results**. This is in comparison to 84% of patients who were treated by Team A and 93% of patients who were treated by Team C.

• 64% of breast cancer patients, who were treated by Team B, stated that **they always knew what the next step in their care would be**. This is in comparison to 88% of patients who were treated by Team A and 94% of patients who were treated by Team C.

• 61% of breast cancer patients, who were treated by Team B, reported that **they always knew who to ask when they had questions about their health problems**. This is in comparison to 85% of patients who were treated by Team A and 87% of patients who were treated by Team C. A note of interest, however, is that some breast cancer patients, who were treated by Team A and Team C, were quoted as saying that, while they had their breast care nurse that they could call to ask questions about their health problems during their surgical care, this one-to-one patient – nurse relationship did not exist in their oncology care. Because of this lack of liaison/personal contact, patients attending these two hospitals felt that they were forgotten about during their chemotherapy treatment and were left second guessing themselves with their symptoms. Some patients felt that they could not go back to their breast care nurse for help as they believed it wasn’t her job.

Quotations from breast cancer patients, who were treated by Team A, are as follows:

○ “The transition in my care from surgery to oncology was very different. You get such a hand holding in surgical care. But, there is no all inclusive type transfer in oncology care. The patient and breast care nurse relationship in surgical care does not exist in oncology care. My breast care nurse gave me great information about my surgery and somewhat touched upon the oncology side of my care. However, my oncology nurse – who was usually not the same person on each of my visits to the oncology unit – did not give me sufficient information about my oncology care. I was given no understanding of the various side effects of the chemotherapy and radiotherapy treatment to the extent that I second guessed myself at times with my symptoms. At one time, I reacted very badly to the chemo. My G.P. came to visit me. Up until then, while my G.P. had been kept well up to date with my surgical care, he had not
been informed enough about my oncology care. When he saw me he sent me straight up to A&E. Afterwards, he said to me that things could have gone very wrong for me if he hadn’t made the call. From then on, the oncology team kept in contact with my G.P.” [I.D. 119]

○ “Chemotherapy was very hard. It wasn’t that my hair would go! I was just so sick. No words can describe it. Nothing prepares you for it, but when you move to this stage you need a ‘link’ into the care. I rang the oncology unit but it was not the same as having a designated person with whom you had built up a good relationship with. The oncology unit is busy busy. Fantastic unit! Care is wonderful but they are too busy to be taking outside problem phone calls. It’s such a huge drain on their time and work.” [I.D. 69]

○ “The oncology unit is not good at taking outside problem phone calls. No matter how busy my nurse specialist was she would always get back to me promptly to answer any queries I had and allay my fears.” [I.D. 76]

Quotations from breast cancer patients, who were treated by Team C, are as follows:

○ “Someone should be appointed during your chemo care for you to call on if you’ve a problem. That support is only there during your surgical care.” [I.D. 292]

○ “Once you’ve left the surgical side of your care, you’re forgotten about. I did meet a liaison nurse before I started my chemo. She told me to expect this symptom and that symptom etc. I never saw her after that. You need someone to support you during your chemo care. I could completely talk to the breast care nurse but that is not her job. I could talk to the chemo nurses, who were lovely, but there were different ones all the time. It is a real disadvantage of not having one person to talk to if you’re having a bad day between your treatment sessions.” [I.D. 301]

○ “You have no equivalent support post-surgery. When you’re told after your surgery that you need further treatment, you’re given all this information regarding side effects of the treatment. You need time to digest it all. You then need to have a liaison that you can call on if you have any questions during your treatment. Having that personal contact would mean so much rather than having to do all the research yourself to find out that what you’re experiencing is normal! It would be a great support.” [I.D. 307]

○ “After your surgery, you have no backup. No one is ringing you to see how you are doing with the chemo or the radiation. You think at times that you’re the only one experiencing such symptoms! I couldn’t call my breast care nurse as her job is to look after patients pre- and post-surgery. You’re kind of left to learn as you go along.” [I.D. 305]
5.4.5.3 Information, Communication & Education

From Table 5.32, we can see that, overall, breast cancer patients reported a high level of satisfaction [80\%] with the information, communication and education during their care. However, a Kruskal-Wallis Test revealed a statistically significant difference in the information, communication and education during care across the three different breast cancer teams, as demonstrated in Table 5.32. Breast cancer patients, who were treated by Team B, reported lower levels of satisfaction with the information, communication and education during their care [74\%], in comparison to an 83\% satisfaction rating among patients who were treated by Team A and an 85\% satisfaction rating among patients who were treated by Team C. Reasons for this discrepancy are discussed below in relation to particular items affiliated with information, communication and education.

Clustered Bar Chart 5.3: Information, Communication & Education
• 70% of breast cancer patients, who were treated by Team B, stated that, **if they had questions about clinical trials or new treatments for their breast cancer, they felt comfortable talking with the staff about them.** This is in comparison to 90% of patients who were treated by Team A and 91% of patients who were treated by Team C. A note of interest, however, is that some breast cancer patients, who were treated by Team A and Team C, were quoted as saying that they didn’t feel comfortable talking with the staff about clinical trials or new treatments because of the lack of layman’s terms, the anxiety this caused them and the insensitivity shown by the staff.

Quotations from breast cancer patients, who were treated by Team A, are as follows:

○ “When I was diagnosed with breast cancer, I did not know anything about clinical trials or new treatments for my cancer. When the team spoke to me about one particular trial that they had in mind for me, I felt ill-prepared about what questions I needed to ask them. I felt the team did not discuss this trial treatment in terms I could easily interpret. So, when I got home, I went straight on the internet. I’m glad I did as it laid out the treatment in plain English for me to take in the full picture and from there I felt that I was in control again of my treatment planning. I decided not to go along with the trial treatment in the end.” [I.D. 100]

○ “I was asked if I would like to part-take in a clinical trial. I wasn’t sure if this treatment trial would be the optimal treatment solution for my cancer care. It just wasn’t discussed in layman’s terms and it only caused me more anxiety than I needed! If the team had said that this trial treatment would be a better option for me at the time, then I possibly would have gone along with it.” [I.D. 153]

○ “The one thing I didn’t like was the manner in which I was approached regarding my participation in a clinical trial. I am a retired medical professional and I would have gladly undergone a trial treatment if it could help research. But there was just a lack of sensitivity on behalf of the doctor responsible for the trial treatment. After I had been diagnosed, treatment options had been discussed, including a trial treatment, but I had not made up my mind yet. It was during that time that I was in for a day of tests and scans etc. The minute I came out of the room after having my bone scan done, there was the doctor outside like she was just there to grab me!” [I.D. 154]

Quotations from breast cancer patients, who were treated by Team C, are as follows:

○ “Information given regarding the Taylor X trial was vague. The nurse dismissed my concerns. I was not impressed by this.” [I.D. 237]

○ “I didn’t feel comfortable talking to the nurse about the clinical trial. I felt that I’d come out worse than I was!” [I.D. 238]
“After I was given my diagnosis, I was told how I would fit into the category for a clinical trial. I felt that I couldn’t take it all in and that maybe for future reference they shouldn’t go into that much detail on the day you’re told you’ve got cancer.” [I.D. 268]

- 69% of breast cancer patients, who were treated by Team B, as well as 72% of breast patients, who were treated by Team C, reported that, if they had to wait for their first appointment, someone explained why. This is in comparison to 94% of patients who were treated by Team A.

- 58% of breast cancer patients, who were treated by Team B, stated that they got enough information about possible changes in their work or usual activities. This is in comparison to 77% of patients who were treated by Team A and 77% of patients who were treated by Team C.

- 64% of breast cancer patients, who were treated by Team B, reported that they got enough information about possible changes in their energy level. This is in comparison to 78% of patients who were treated by Team A and 78% of patients who were treated by Team C.

An additional point of interest, however, is that breast cancer patients across all three teams reported low ratings of not getting enough information about their nutritional needs: a 55% rating among patients who were treated by Team B; a 57% rating among patients who were treated by Team A; and a 65% rating among patients who were treated by Team C.

Quotations listed below from some breast cancer patients, particularly those who were treated by Team A and Team C, highlight the following: the lack of nutritional information received during their care; the anxiety this caused them in their efforts to boost their immune system during chemo and then finding out that what they were taking could affect their treatment; and now their constant endeavour to combat the weight gained from being on steroids post-treatment in an effort to achieve a better mental control of their illness and to build a healthier lifestyle.

Quotations from breast cancer patients, who were treated by Team A, are as follows:

- “No one ever discussed nutrition or any alternative that could help one whilst going through the treatment, so I had to research that myself. Since my treatment, I’ve caught every virus that’s around. So I really think that one should be advised as to how you can build up your immune system whilst going through this.” [I.D. 58]
“A dietician who is specifically trained in giving dietary advice to breast cancer patients is needed. You really don’t know what liquids you should drink, what foods you should eat and what supplements you should take when you’re diagnosed with breast cancer and on treatment. For example, I was in work one day and a colleague of mine had a cold. I was afraid I would get it being on chemo. I took RUBEX – a vitamin C booster – for five days. I told one of the oncology nurses about this on my next visit just to check to see if it was ok. She said to me to take fresh oranges instead, that RUBEX could nullify the effect of the chemo. I really didn’t know what to think after that!” [I.D. 143]

“Better help on dietary advice would be good – even if it is referral to someone. During time of treatment, you are too weak to sort anything out yourself!” [I.D. 152]

“I was told that ‘we do not give and you will not be given information on diet!’” [I.D. 192]

“I would have liked to have gotten dietary advice in post-chemo treatment. I seem to have piled on the weight and can’t shake it off. I’m still on medication at the moment and this maybe affecting my weight. I don’t really know.” [I.D. 87]

“A more balanced diet would have given me better control over my weight and therefore more mental control over my illness.” [I.D. 196]

Quotations from breast cancer patients, who were treated by Team C, are as follows:

“I am a celiac. And so a service that I should have received information on should have been a dietician.” [I.D. 256]

“I should have received information on dietary support. I had to research the whole thing myself. I found out that eating pineapples are good for treating mouth blisters and eating marshmallows are good for getting rid of the nausea.” [I.D. 292]

“General information about nutritional needs was given to me when I was first diagnosed. But I didn’t know if all the information applied to me or not. That information seemed irrelevant at the diagnosis stage. It’s only during your chemo that you’re not eating very well, only picking at stuff, and that you then realise afterwards that you should have gotten information about your own nutritional needs. Another thing is that you’re not given information on what not to take! During my treatment, I had thought about taking Echinacea to boost my immune system. I only mentioned it in passing one day to one of the chemo nurses. To my surprise, she said: ‘I wouldn’t recommend taking that or any other herbal remedy’.” [I.D. 291]

“On one of my chemo visits, I happened to say to the nurse that I was taking soya products. She said to me that she would recommend that I stop taking them as they could affect the chemo. If I had only been made aware of it earlier...” [I.D. 310]

“The nurses tell you to drink plenty of water, but I still don’t know what vitamins to take post-chemo and radiation to detox?” [I.D. 243]

“I’m on steroids and find it hard to lose the weight. I feel that I should have been given information on a dietary service just to talk to someone who would put together a diet plan for me to help me to lose the weight.” [I.D. 296]
“After my treatment, I should have been given information on a dietary service to help me stay healthy.” [I.D. 307]

5.4.5.4 Physical Comfort
From Table 5.32, we can see that, overall, breast cancer patients reported a high level of satisfaction [90%] with the physical comfort during their care. While a Kruskal-Wallis Test revealed a statistically significant difference in physical comfort across the three different breast cancer teams, as demonstrated in Table 5.32, a high satisfaction rating of physical comfort during care is consistent across all three breast cancer teams: a 90% satisfaction rating among patients who were treated by Team A; an 86% satisfaction rating among patients who were treated by Team B; and a 93% satisfaction rating among patients who were treated by Team C. Furthermore, Chi-Square Tests for all five items in this dimension did not show statistically significant differences across the three breast cancer teams, as found in Appendix F. The positive scores for each item across all three teams were high.

5.4.5.5 Emotional Support
From Table 5.32, we can see that, overall, breast cancer patients reported a high level of satisfaction [75%] with the emotional support during their care. However, a Kruskal-Wallis Test revealed a statistically significant difference in emotional support across the three different breast cancer teams, as demonstrated in Table 5.32. Breast cancer patients, who were treated by Team B, reported lower levels of satisfaction with the emotional support during their care [64%], in comparison to an 80% satisfaction rating among patients who were treated by Team A and an 84% satisfaction rating among patients who were treated by Team C. Reasons for this discrepancy are discussed below in relation to particular items affiliated with emotional support.
• 48% of breast cancer patients, who were treated by Team B, felt that, during their cancer treatment, someone put them in touch with other care providers who could help them with anxieties and fears. This is in comparison to 76% of patients who were treated by Team A and 87% of patients who were treated by Team C.

• 45% of breast cancer patients, who were treated by Team B, acknowledged that they got enough information about possible changes in their sexual activity. This is in comparison to 67% of patients who were treated by Team A and 71% of patients who were treated by Team C.

• 36% of breast cancer patients, who were treated by Team B, felt that they got enough information about possible changes in their relationship with their spouse or partner. This is in comparison to 62% of patients who were treated by Team A and 71% of patients who were treated by Team C.

• 40% of breast cancer patients, who were treated by Team B, believed that they got enough information about possible changes in their emotions. This is in comparison to 62% of patients who were treated by Team A and 68% of patients who were treated by Team C. Despite this difference, however, all three positive scores are low across all three hospitals. Quotations listed below from some breast cancer patients, particularly those who were treated by Team A and Team C, highlight the lack of information received regarding possible changes in their emotions during their
care and the crucial role played by cancer care centres in bringing them through their care.

Quotations from breast cancer patients, who were treated by Team A, are as follows:

[Lack of information received]
- “I have a history of depression. I don’t feel the doctors or the nurses took this into consideration when treating me for my breast cancer. I felt neglected after my mastectomy.” [I.D. 66]
- “I didn’t realise that I could refer myself to the Cancer Care Centre since I didn’t have chemotherapy. It was only later on in my care did I see an advertisement outlining its services. I really believe that the psychological side of my radiotherapy could have been dealt with better. I feel that while a treatment plan had been put in place, a psychological plan should have been arranged.” [I.D. 120]

[Role of cancer care centres]
- “The Cancer Care Centre was fantastic. It helped me to deal with my depression. I had a lot of scarred tissue as a result of two breast reconstructions. I had nine surgical procedures done in total. I feel the breast reconstructive surgeon didn’t act quickly enough. He was more concerned in freeing up a hospital bed. My district nurse at home did not know how to help me. As a result, I was in and out of hospital all the time.” [I.D. 123]
- “I would like to commend the work of the Cancer Care Centre, which was excellent in its support and care.” [I.D. 41]

Quotations from breast cancer patients, who were treated by Team B, are as follows:

[Lack of information received]
- “I have a long history of depression. After my mastectomy, I was unprepared for the emotional problems in dealing with memory loss, being cold and skin problems.” [I.D. 2]
- “Psychological aspects of mastectomy need to be addressed.” [I.D. 30]

[Role of cancer care centres]
- “The Cancer Support Centre is a great help and support.” [I.D. 169]

Quotations from breast cancer patients, who were treated by Team C, are as follows:

[Lack of information received]
- “I felt that I didn’t get enough information about possible changes in my emotions. Chemo affects the brain, your whole personality. I lost my confidence.” [I.D. 298]
- “I felt that there was no one for my partner to talk to, to give us that family support we needed.” [I.D. 283]
Role of cancer care centres

- “My first visit to the Cancer Care Centre was life-changing. I was met at the door by a lady who said: ‘Hi. I’m X. I’m ten years a survivor’. This made me feel very positive setting out on my cancer journey, as originally I thought that breast cancer was a death sentence!” [I.D. 250]

- “After-care in the Cancer Care Centre is just fantastic. You can have reflexology, do yoga and meditation, part-take in flower arranging and meet lots of people.” [I.D. 243]

An additional point of interest, however, is that, while breast cancer patients reported a high level of satisfaction [79%] with the help they received in figuring out how to pay for any extra costs for their breast cancer, the range of staff who assisted in this effort varied considerably across all three teams: from the Irish Cancer Society; to the social worker in the hospital; the breast surgeon; the breast care nurse; the liaison nurse; an advertisement in the treatment clinic; a patient in the treatment clinic; a neighbour; friends; G.P.; pharmacist; and finally to the hospital receptionist.

5.4.5.6 Respect for Patient Preferences

From Table 5.32, we can see that, overall, breast cancer patients reported a high level of satisfaction [87%] with the respect shown for their own preferences during their care. However, a Kruskal-Wallis Test revealed a statistically significant difference in respect for patient preferences across the three different breast cancer teams, as demonstrated in Table 5.32. Breast cancer patients, who were treated by Team B, reported lower levels of satisfaction with the respect shown for their own preferences during their care [78%], in comparison to an 89% satisfaction rating among patients who were treated by Team A and a 95% satisfaction rating among patients who were treated by Team C. Reasons for this discrepancy are discussed below in relation to particular items affiliated with respect for patient preferences.
66% of breast cancer patients, who were treated by Team B, believed that their care providers took their family or living situation into account in planning for their treatment. This is in comparison to 82% of patients who were treated by Team A and 93% of patients who were treated by Team C.

66% of breast cancer patients, who were treated by Team B, reported that they were provided with sufficient information regarding their patient rights and responsibilities. This is in comparison to 84% of patients who were treated by Team A and 95% of patients who were treated by Team C.

5.4.5.7 Surgery Specific Issues

From Table 5.32, we can see that, overall, breast cancer patients reported a high level of satisfaction [92%] with the information they received about how long they would have to wait until the day of their surgery and their understanding of the results of their surgery. While a Kruskal-Wallis Test revealed a statistically significant difference in surgery specific issues across the three different breast cancer teams, as demonstrated in Table 5.32, a high satisfaction rating of surgery specific issues is consistent across all three breast cancer teams: a 97% satisfaction rating among patients who were treated by Team A; an 88% satisfaction rating among patients who were treated by Team B; and a 92% satisfaction rating among
patients who were treated by Team C. And, while Chi-Square Tests for all two items in this dimension showed statistically significant differences across the three breast cancer teams, as found in Appendix F, the positive scores for each item across all three teams were high.

5.4.5.8 Overall Impression of Visit
From Table 5.32, we can see that, overall, breast cancer patients reported a high level of satisfaction [95%] with their overall care in terms of the following: Patients’ care providers did everything they could to treat their cancer; patients highly rated the quality of care they received during their cancer treatment; patients highly rated the quality of all of their care overall; and patients recommended their healthcare providers to their family and friends. While a Kruskal-Wallis Test revealed a statistically significant difference in overall impression of visit across the three different breast cancer teams, as demonstrated in Table 5.32, a high satisfaction rating of overall impression of visit is consistent across all three breast cancer teams: a 97% satisfaction rating among patients who were treated by Team A; a 92% satisfaction rating among patients who were treated by Team B; and a 97% satisfaction rating among patients who were treated by Team C. And, while a Chi-Square Test for one out of the five items in this dimension showed a statistically significant difference across the three breast cancer teams, as found in Appendix F, the positive scores for all five items across all three teams were high. Quotations below sum up the patients’ overall impression of their care delivered by the three teams examined.

Quotations from breast cancer patients, who were treated by Team A, are as follows:
- “Excellent care and very caring breast care nurses and a very caring surgeon and team.” [I.D. 82]
- “The team is excellent. They are professional, caring and supportive and instil great confidence. They really are amazing.” [I.D. 91]
- “Fantastic overall – a great team.” [I.D. 152]

Quotations from breast cancer patients, who were treated by Team B, are as follows:
- “Excellent service!” [I.D. 8]
- “Delighted with the service: professional, hard working staff; great care.” [I.D. 25]
- “I couldn’t say one bad word about the team. They make you feel at ease about the whole thing, especially when you feel your whole world is caving in when you’re told ‘you’ve got cancer!’” [I.D. 189]
Quotations from breast cancer patients, who were treated by Team C, are as follows:

- “I couldn’t praise the team more. Excellent service!” [I.D. 226]
- “The team was exceptional! They made the journey as easy as possible.” [I.D. 309]
- “The team works very well together.” [I.D. 311]

5.4.6 Comparative Analysis on the Overall Hospital Rating across the Three Teams

The value of the mean is 9.13 out of 10.0 on overall hospital rating for Team A, Team B and Team C. However, from the boxplot below, we can see that the distribution of patient scores on overall hospital rating is significantly lower for Team B than for Team A and Team C. There are also 12 outliers, including 4 extremely low outliers. A Kruskal-Wallis Test revealed a statistically significant difference in the patients’ overall hospital rating across the three different breast cancer teams [Team A, n = 104, Team B, n = 111, and Team C, n = 101], $\chi^2 [2, n = 316] = 16.192$, $p = 0.000$. Team A and Team C recorded higher median scores [Med = 10.00] than Team B, which recorded a median value of 9.00. Nonetheless, this median value of 9.00 out of 10.00 on overall hospital rating is still high.
5.4.7 Correlation Analysis between the Patient Outcome Variables

Correlation analysis is used here to explain the strength and direction of the linear relationships between the patient outcome variables only. No correlations were examined between the patient outcome variables and the following: the team structure, team working and team outcome variables. The reason for this was that, while statistically significant differences between the teams were reported in the analysis of the patient data in section 5.4.3, it was not possible to statistically link these differences to individual team members given the small sample size of 41 team members investigated. However, the patient data was additionally explored in interviews with core team members in section 5.3, providing qualitative evidence which linked the teams to the patient outcomes, thus, supporting the theoretical model.

Positive scores for all patients across each dimension were calculated. Positive scores for the patients across each dimension are the proportion of each patient’s positive responses across all the questions in the dimension relative to the total number of each patient’s responses across all the questions in the dimension. Because the distribution of the patients’ positive scores across each dimension was negatively skewed, as shown in the histograms in Appendix G, Spearman’s rank order correlation coefficient [rho] was used to explore the correlations between the variables. The table below lists the strength and direction of each linear relationship between the patient outcome variables. In the following section, the findings are discussed.
<table>
<thead>
<tr>
<th>Overall Hospital Rating</th>
<th>Access to Care</th>
<th>Coordination &amp; Continuity of Care</th>
<th>Information, Communication &amp; Education</th>
<th>Physical Comfort</th>
<th>Emotional Support</th>
<th>Respect for Patient Preferences</th>
<th>Surgery Specific Issues</th>
<th>Overall Impression of Visit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Impression of Visit</td>
<td><strong>0.340</strong></td>
<td><strong>0.448</strong></td>
<td><strong>0.446</strong></td>
<td><strong>0.416</strong></td>
<td><strong>0.352</strong></td>
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<td>Access to Care [^2]</td>
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<td><strong>0.443</strong></td>
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<td>Coordination &amp; Continuity of Care [^2]</td>
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<tr>
<td>Information, Communication &amp; Education [^2]</td>
<td><strong>0.446</strong></td>
<td><strong>0.443</strong></td>
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<td><strong>0.416</strong></td>
<td><strong>0.407</strong></td>
<td><strong>0.407</strong></td>
<td><strong>0.420</strong></td>
<td><strong>0.398</strong></td>
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<tr>
<td>Physical Comfort [^2]</td>
<td><strong>0.416</strong></td>
<td><strong>0.352</strong></td>
<td><strong>0.416</strong></td>
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<td><strong>0.352</strong></td>
<td><strong>0.332</strong></td>
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<tr>
<td>Emotional Support [^2]</td>
<td><strong>0.464</strong></td>
<td><strong>0.461</strong></td>
<td><strong>0.548</strong></td>
<td><strong>0.416</strong></td>
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<td><strong>0.479</strong></td>
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<tr>
<td>Respect for Patient Preferences [^2]</td>
<td><strong>0.464</strong></td>
<td><strong>0.461</strong></td>
<td><strong>0.548</strong></td>
<td><strong>0.416</strong></td>
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<td><strong>0.492</strong></td>
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<td>Surgery Specific Issues [^2]</td>
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<tr>
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<td><strong>0.464</strong></td>
<td><strong>0.461</strong></td>
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</tbody>
</table>

*[^2] = Spearman's Correlation Coefficient \([\rho]\) 

* *P* < 0.05 
** ** *P* < 0.01 
*** *** *P* < 0.001
5.4.7.1 Correlations between the Patient Outcome Variables
All correlations between the patient outcome variables were found to be statistically significant. This indicates that, across all three breast cancer teams, patients were satisfied across all eight dimensions of care and gave an overall positive hospital rating.

5.4.8 Conclusion on the Findings from the Patient Questionnaire
Findings from the patient questionnaire were documented and were illustrated in tables and charts. In general, all patients across the three breast cancer teams gave an overall positive hospital rating, as well as an overall positive impression of their care. This finding supports the overall positive team score rating, which was given by all team members across the three breast cancer teams.

It is important to note that Team B received the lowest patient scores across all eight dimensions of care. However, all three breast cancer teams scored lowest in the dimension entitled “Emotional Support”, particularly in the informational areas about possible changes in the patients’ sexual activity, their emotions and in their relationship with their spouse or partner. Indeed, it was during the administration of the questionnaire that patients significantly commented on the lack of a one-to-one nurse contact that they could call on if they had any questions about their health problems during their chemotherapy, the extent to which patients felt that they did not receive sufficient emotional support and information about their nutritional needs in all three teams concerned. In addition, patients stated that they didn’t feel comfortable talking with the staff about clinical trials or new treatments because of the lack of layman’s terms, the anxiety this caused them and the insensitivity shown by the staff. These areas were examined further in the previous section which explored findings from interviews with core team members.
5.5 Conclusion

In this study, a number of findings were uncovered. Team outcomes were predicted by a number of team process variables. Specifically, the ratings of various aspects of team effectiveness were predicted by innovation & flexibility and the professional development of team members. Other team outcomes, such as work satisfaction, general mental health and the overall team effectiveness score, were predicted by the following: participation in decision-making, communication of the team’s long-term plans and goals, intra-team communication, innovation & flexibility, professional development and leadership & supervision. However, follow-up interviews highlighted challenges involved in implementing these team working processes in practice. The lack of understanding and appreciation of one another’s roles and limited communication were the most commonly cited. In addition, findings from the patient questionnaire drew attention to the lack of sufficient clinical nurse specialist staffing in the multidisciplinary team. This had an impact on maintaining communication between the team and the patient, particularly in the provision of emotional and educational support during the patient’s cancer care. Together, the findings of this study point to a number of important implications for theory, policy and practice, which are discussed in the next chapter.
6.1 Introduction

This chapter discusses the main findings from the team questionnaire, team interviews and the patient questionnaire within the context of the research questions derived from the conceptual model and also the results of previous team studies in healthcare. The contribution of this study to the literature is described as well as its practical implications. The limitations inherent in the study are detailed and directions for future research are suggested.

6.2 Contribution to the Literature

Chapter three reviewed the literature on the evidence-based links between the structure of a multidisciplinary healthcare team, in particular a breast cancer team, and the increasing role of specific interprofessional team processes in cross-boundary working to improve the effectiveness of multidisciplinarity and, hence, yield improved quality outcomes in patient care. Indeed, it was proposed that the role of interprofessional team processes is key to challenging the power and authority of an historical professional hierarchy (Liedtka and Whitten 1998) where the physician is in control (Fried et al. 2000, Institute of Medicine 2001, Wicks 1998, Witz 1992). However, it was established from the literature review that developing team working arrangements is complex (Gerrish 1999). Extant evidence highlights numerous problems associated with interprofessional team working (Barr 1997, Boddington et al. 2006, Carter et al. 2003, Firth-Cozens 2001). A lack of understanding and appreciation of one another’s roles and limited communication are the most commonly cited (Benson and Ducanis 1995, Birchall 1997, Burke et al. 2000, Catt et al. 2005, Donaghy and Devlin 2002, Jenkins et al. 2001, Pethybridge 2004, Reeves and Lewin 2004, Skjorshammer 2001). It is these practices that were particularly addressed in this study in order to test, and subsequently add to, the theory on the association between the team structure, interprofessional team processes and team outcomes in multidisciplinary breast cancer teams in Ireland. In the following paragraphs, each team practice investigated is discussed in terms of its contribution to the literature, based on findings in the regression model, the patient questionnaire and in the team interviews conducted.
6.2.1 Purpose of the Team

In this study, regression analysis revealed that, while full-time employment in the team positively predicted the level of clarity of purpose in the team, clarity of purpose in the team itself did not predict any team outcome. This finding is surprising, given that the literature supports the links between clearly defined objectives, role clarity and team effectiveness (Borrill et al. 2000a, Firth-Cozens 1999b, Freeman et al. 2000b, Payne 1999) and role clarity and work satisfaction (Collins et al. 2000, Onyett et al. 1997, Robinson et al. 1993, Spear et al. 2004) in the delivery of healthcare. However, a word of caution is advised when discussing this finding, on grounds that a small sample size of three breast cancer teams were investigated in this study.

Furthermore, descriptive statistics in this study suggested that team members have a real understanding of the purpose of the team. However, from the team interviews conducted in this study, two examples draw attention to the fact that interprofessional team working is often challenged by a lack of role understanding, more so role appreciation, as demonstrated in the literature (Borrill et al. 2000b, Donaghy and Devlin 2002, Firth-Cozens 1998). The first example of this challenge in this study is that the reconfiguration of the breast cancer service into multidisciplinary centres has challenged traditionally defined roles of authority. In particular, it has blurred a lot the boundary of what once was traditionally a surgeon’s domain. Indeed, members are now encouraged to fight for their own territory with the evidence that they have to support it, especially at multidisciplinary team meetings [MDMs].

As a consequence, however, findings from this study suggest that members can be perceived as being aggressive to the point that they can undermine other people’s roles in the process of making one’s own point. The second example of this challenge in this study is that, while the responsibility of the social worker is to fill in the application forms for breast cancer patients who wish to avail of the medical card and the Travel-to-Care grant, the method by which the social worker approaches patients on this issue is still not settled in one team setting examined. As such, the arrangement is somewhat haphazard between nursing staff in surgery and medical oncology, in terms of whose responsibility it is to assist the patient in the application process. Currently, the role of the breast care nurses has been expanded. They no longer just inform the patient of the financial assistance that is available to them, but they also fill in the necessary application forms. However, breast care nurses often ask themselves if this is within the remit of their job description.
Indeed, the two examples mentioned above support literature on role ambiguity (Jenkins et al. 2001) and role expansion (Falk 1977) respectively. As stated in the literature, where the healthcare professional may not feel confident that other team players cover a topic with the patient adequately or where the team has an insufficient understanding of a particular profession (Catt et al. 2005), confusion over where one’s practice boundaries begin and end can arise and this can often lead to role blurring (Falk 1977). Role blurring has been reported in the literature to result in some team members feeling they are doing everything (Moller and Harber 1996) and this lack of clear understanding for each professional’s role and responsibility is a significant barrier for effective teamwork. Therefore, taking into consideration the fact that the breast cancer teams investigated in this study are relatively new, clarification of goals and objectives are, thus, essential to facilitate good team functioning. As acknowledged by West and Markiewicz (2004), they help to clarify each professional’s roles and responsibilities and provide the team with a vision, so that individual’s creativity can be pooled to produce creative team outcomes. Moreover, it has been argued by Anonson et al. (2009) that knowledge of one’s own profession, as well as knowledge of other team members’ competencies and clear delineation of professional skill sets (McNair et al. 2001), will enable professionals to engage in discussion more fully.

6.2.2 Participation in Decision-Making

In this study, regression analysis revealed that full-time employment in the team, as well as permanent employment in the Health Service Executive [HSE], positively predicted the level of participation among team members in decision-making and that full-time employment in the team positively predicted the level of team effectiveness. This finding supports earlier literature on the link between tenure in decision-making tasks and group decision-making effectiveness (Watson et al. 1991). In addition, regression analysis in this study found that participation among team members in decision-making positively predicted the level of work satisfaction. This finding contributes to healthcare team effectiveness literature to date on the link between participation in group decision-making and job satisfaction (Fried et al. 2000, Lemieux-Charles and McGuire 2006, Lichtenstein et al. 2004, Yeatts and Seward 2000). However, regression analysis did not reveal any predicted relationship between team members’ participation in decision-making tasks and team effectiveness, despite earlier evidence to suggest this (Campion et al. 1993, Pearson and Spencer 1995). Nonetheless, a word of caution is advised when considering this finding, on the basis that a small sample size of three breast cancer teams were investigated in this study.
Furthermore, descriptive statistics in this study indicated that team members are undecided over their degree of participation in decision-making in their team. However, this finding is surprising, given that descriptive statistics in this study also implied that team members have a high degree of trust in their colleagues. As the literature has found, teams characterised by trust, together with openness, caring relations and a problem-solving approach to decision-making increase members’ feelings of potency, autonomy and, subsequently, empowerment (Corsun and Enz 1999). They also allow for uncommon or unpopular ideas, appropriate for team innovation, to be voiced (Edmondson et al. 2001). Thus, team members are more likely to build professional and collaborative relationships across functional and hierarchical lines (Luthans 2002) and to engage in teamwork processes that enhance team performance (Cook et al. 2001, Jones and George 1998, Spreitzer et al. 1999). However, it is important to note that, while regression analysis in this study revealed that full-time employment in the team positively predicted the level of trust, trust was not found to predict any team outcome. Nonetheless, as mentioned earlier, this lack of relationship in this study maybe due to the small sample size of three breast cancer teams.

To explain the low levels of participation in decision-making in the teams investigated, team interviews conducted in this study found that two factors affected the manner in which team members participate in the decision-making process. The first factor was the fact that a large MDM can inhibit members from participating in the MDM discussion. In comparison to small scale MDMs prior to the transformation of the breast cancer services into centres of excellence, at which everyone knew each other and in particular their role, team members today may feel that they are constantly up against the opinions of many more people who have joined the team and, thus, maybe less willing to be open – a factor which the team needs to be mindful of and consider in a large MDM context.

A second factor in this study was that the design of the MDM room can affect the manner in which all team members participate in the decision-making process. In one team setting, for example, it is more of a classroom design, more so a ranking system. The consultants, who play a major role in the technical discussion of the diagnosis and decided treatment of each patient, are seated in the front two rows because they need to be closer to the imaging. The breast care nurses and medical students are seated in the third row, followed by the oncology liaison nurses in the fourth row. The social workers, the physiotherapist and the occupational therapists are seated in the rows further back. However, it is often the case that only those in
the top two rows participate in the decision-making process. Not everyone in the rows further back can participate because not all of them can hear everything that is being said. And while generally those in the back rows would feel comfortable participating in the discussion, there are times that they may refrain from asking a question and rather follow it up with the consultant later. At present, there doesn’t seem to be any immediate solution to this participation barrier for the simple reason that the design of the MDM room reflects a traditional hierarchy, particularly in the doctor-nurse relationship, where there is no movement around, despite the fact that this professional boundary is also having somewhat of an effect on trust in the team and the degree to which members can depend on each other.

According to the literature, this issue of status and more so power imbalances has a tendency to prevail between the healthcare professions with the effect of silencing members who wish to speak up, share authority and collaborate in problem-solving and quality improvement (Cott 1997, 1998, Edmondson 1999, Fried et al. 2000). Studies carried out by Molyneux (2001) and Rutherford and McArthur (2004) identified that the status of team members may inhibit members from participating in the decision-making process and from providing input in team meetings. Characteristically one nurse in Rutherford and McArthur’s (2004) study reported – “I think we all feel restricted within our own grades...as to how far you can go really”. This finding was also indicated in Borrill et al.’s (2000a) study of primary healthcare teams, which found that, when teams did meet, many team members remained silent throughout the meeting and that, in over half of the meetings recorded by the authors, no group decisions were taken. In a more recent study by Propp et al. (2010), it was suggested that nurses combat this potential barrier to their collaborative contributions by employing communication practices such as building credibility, communicating diplomatically and individualising their communication with physicians. However, bearing in mind the resilience of a traditional hierarchy at play in this study, particularly in the doctor-nurse relationship, it can be argued that the implementation of employee empowerment remains nonetheless a complex, “arguable” process (Jarrar and Zairi 2002, p.268).
6.2.3 Communication

In this study, regression analysis revealed that, while communication of the team’s long-term plans and goals positively predicted the general mental health of its team’s members as well as the fact that communication between its team members positively predicted the members’ overall rating of the team, neither forms of communication within the team predicted team effectiveness. This latter finding is surprising, given that existing research evidence suggests this (Firth-Cozens 1998, Molyneux 2001, Sargeant et al. 2008). However, a word of caution is advised when discussing this finding, on grounds that a small sample size of three breast cancer teams were investigated in this study.

Furthermore, descriptive statistics in this study suggested that team members are undecided over the degree of communication amongst their colleagues in their team and are unclear about their understanding of the team’s long-term plans and goals communicated by the team’s management. To explain the low levels of communication in the teams investigated, team interviews conducted in this study found that five factors hampered effective communication efforts among team members. The first factor was the fact that a shortage of radiologists, together with a huge radiology workload, has placed a strain on relationships between team members across two team settings in particular and, thus, has impeded effective communication efforts. Moreover, a shortage of pathologists dedicated to reading biopsies of breast cancer patients in one team setting has meant that the team has had to outsource its pathology services to another hospital. This absence of an on-site pathology sub-team of the multidisciplinary team [MDT] has been reported to have a negative effect on cooperation amongst colleagues in the team.

Both findings are surprising, given that descriptive statistics in this study implied that team members are of the opinion that there is a healthy level of cooperation amongst their colleagues in their team. However, regression analysis in this study did not find interpersonal relationships to predict any team outcome, although the small sample size of three breast cancer teams maybe a possible explanation for this lack of relationship in this study. Nonetheless, in terms of the level of inter-personal relationships, there is always room for improvement. In relation to the latter finding, extant literature suggests the need for a shared geographical location to facilitate ease and timeliness of interprofessional communication and the development of positive working relationships between team members (Cook et al. 2001, Molyneux 2001).
A second factor in this study was that, while research meetings, teleconferences etc. are conducted among sub-groups of the MDT at a national level for the purpose of comparing and, thus, improving practice, there is very limited interaction between the breast cancer teams in the country, other than accommodating patient preferences. The reality is that, while certain centres are very well established, smaller units investigated in this study are less established where the patient numbers are concerned and are less resourced than their counterparts. This can hinder inter-team relationships between the breast centres from developing.

This finding supports descriptive statistics in this study, which indicated that team members are not sure over the degree of cooperation between their team and similar teams in other hospitals. In addition, while regression analysis in this study found that permanent employment in the HSE positively predicted the level of inter-team relationships, inter-team relationships did not predict any team outcome. However, as mentioned earlier, the rationale for this lack of relationship in this study maybe due to the small sample size of three breast cancer teams. Nonetheless, in terms of the level of inter-team relationships, the need for openness among the centres about areas that they are performing badly in has been acknowledged in this study and sharing staff resources across the centres where there is excessive employment is advocated. Cited in the literature, Perry-Smith and Shalley (2003) have underlined the importance of interpersonal relations with people outside of one’s own team or organisation which have been shown to enhance the likelihood of obtaining new knowledge and disclose new perspectives, thus igniting the development of new ideas or the adoption of new ways of doing things. This perspective is also shared by many researchers who have provided evidence for the positive relationship between external communication and innovation (Ancona and Caldwell 1992, Andrews and Smith 1996, Denison et al. 1996, Keller 2001, Payne 1990).
A third factor in this study was that, in accordance with the guidelines set out under the National Cancer Control Programme, all three teams hold a weekly MDM. Indeed, the literature supports this arrangement because regular team meetings have been deemed necessary to promote good communication (Cant and Killoran 1995), particularly in terms of defining objectives, clarifying roles, apportioning tasks, encouraging participation and handling change (Field and West 1995, West and Field 1995). Regular team meetings have also been associated with effective teamwork (Lowe and O’Hara 2000) and high levels of effectiveness and innovation (Borrill et al. 2000b). However, regression analysis in this study did not find team meeting frequency to be a predictor of any team outcome in this study. Nonetheless, as mentioned earlier, a small sample size of three breast cancer teams maybe a possible reason for this lack of relationship in this study. Furthermore, descriptive statistics in this study indicated that, across all of the teams, most people report meeting weekly. However, from the team interviews conducted in this study, it was reported that, because of an understaffing of pathologists in one team setting, having a pathologist from another team to report the biopsy results via telephone conference at the weekly MDM may have a negative impact on the effectiveness of the weekly operations of the MDM in the future. As was argued by Fleissig et al. (2006b) sufficient resources should be available for effective multidisciplinary working at the team meeting.

A fourth factor found to hamper effective communication efforts among team members in this study was having a large MDM and this was highlighted in one team setting investigated. It cannot always get everyone’s opinion on every patient due to clinic/theatre commitments that run on the same morning as the MDM. The time is not reserved solely for the MDM. Often is the case whereby surgeons are only present to discuss the diagnostics of their own patients. The problem with this arrangement is that, if surgeons are leaving within the multidisciplinary time allotted, then the patients discussed later are probably not having the same clinical involvement in the discussion as the patients that were discussed earlier and this compromises the purpose of having a large MDM. This finding supports Macaskill et al.’s (2006) assertion that meetings should be protected sessions for all key personnel to be present.
A final problem identified in this study was that the communication of the MDT decisions at the weekly MDM needs to be coordinated better, in order to facilitate clarity of tasks among the different sub-groups after the MDM. In some cases, team members have ended up backtracking through reports or calling the lead surgeon to confirm that what they are supposed to do is right and, thus, have resorted to taking their own notes at the MDM. However, this note-taking also proves problematic when there is a discrepancy in what the team members record in their notes for each patient at the MDM and the typed version of the MDT’s decision of each patient that is sent to the team members after the MDM. Cited in the literature, Douek and Taylor (2003) stressed the need for accurate and transparent documentation to ensure that subsequent written reports do not differ from opinions given during the meeting. As reiterated by Ruhstaller (2006), it spares a lot of discussions later. Already, an electronic system of recording MDT decisions is currently up and running in Belfast. After each patient is discussed, all members can view the electronic record. If someone disagrees with it, they can say it there and then. When all members agree, this patient document is saved and printed off and this is the final MDT decision for that patient. Therefore, if applied to the three teams investigated in this study, the advantage of this electronic system would be that the clinicians no longer have to take notes but can pay more attention to what everyone is saying, all sub-groups present at the MDM are aware of what the patient knows and, most importantly, what the next tasks are for each sub-team following the MDM.

An additional finding in this study, separate to the area of communication between team members, resided in the team’s communication with the patient. It has been found that patients are not receiving enough emotional support, particularly in the informational areas about possible changes in their sexual activity, their emotions and in their relationship with their spouse or partner, as well as enough educational support in relation to their nutritional needs and when considering partaking in clinical trials or new treatments. Indeed, this finding is reflected in the literature on the lack of information, communication, educational and emotional support during the care of cancer patients. Coverage on clinical trials is not always comprehensive for patients, particularly since discussing clinical trials presents a challenge for many healthcare professionals in giving complex information to patients about trials and describing the concept of randomisation in simple terms (Fallowfield et al. 1997, Jenkins et al. 1999). Moreover, the psychosocial aspects of cancer are not routinely covered (Sainio and Eriksson 2003, Voogt et al. 2005) and sexual well-being is a neglected area of discussion.

According to the literature, the provision of psychosocial support, education and information to cancer patients has traditionally been a nursing domain (Addington-Hall et al. 1992, Ambler et al. 1999, Edmonds et al. 1999, McCorkle et al. 1989, Rustoen et al. 1998, Weintraub and Hagopian 1990). This role has been found to impact positively on the information and support received by women with breast cancer (Rankin et al. 2004), in terms of improving symptom management of breast and lung cancer patients in the areas of improved emotional functioning and quality of life, increased satisfaction with care and decreased numbers of physical symptoms (Given et al. 2002, Moore et al. 2002). In particular, a review of a random sample of 72 breast cancer teams in England found that the components of multidisciplinary breast teams that achieve the best overall clinical performance for patients with newly detected breast cancer were team workload and the proportion of nurses in the team (Haward et al. 2003).

In this study, however, it has been found that there is a major problem of understaffing in the area of liaison nursing in medical oncology to the extent where one team examined does not have a liaison nurse to look after its breast cancer patients when they have their chemotherapy. Indeed, it was during the administration of the questionnaire that patients significantly commented on the lack of a one-to-one nurse contact that they could call on if they had any questions about their health problems during their chemotherapy, the extent to which patients felt that they did not receive sufficient emotional support and information about their nutritional needs in all three teams concerned. This qualitative finding has already been highlighted in a national quality review of symptomatic breast disease services in Ireland (HIQA 2010a). At the time of that investigation, comments were made regarding the lack of adequate personalised care and support during chemotherapy (HIQA 2010d); insufficient information and time made available to discuss side-effects of chemotherapy and how these could be managed (HIQA 2010b); lack of dietary advice (HIQA 2010e); and inadequate information and support made available regarding entitlements to prostheses, a medical card and home help (HIQA 2010c).
While the staff embargo by the HSE was given in this study as a common reason for this understaffing, it was later emphasised that the job description of a liaison nurse in medical oncology is very ill-defined, in terms of the huge areas the job covers, that each has a slightly different element to their role, and that there is a difficulty in quantifying the importance of this role in order to justify an increase in oncology liaison nurses; the extent to which the lack of sufficient oncology liaison nurses to deal with the increase in patient numbers has rendered a curtailment of their daily tasks. Indeed, this finding has been highlighted in the literature, which has found the role of an oncology liaison nurse to be very much a key unseen role (Jenkins et al. 2001), that in some cases there is a wide variation in clinical aspects of the role (White et al. 1997) and where the specialist nurse is off sick, on annual leave or otherwise unavailable, there is no guaranteed fall back for covering this need (Catt et al. 2005). Nonetheless, this study builds on the evidence that ultimately supports the unique role of clinical nurse specialists in cancer care provision, particularly from the patients’ perspective. Further investigation of the possible beneficial effect that the clinical nurse specialist makes on patients’ outcomes is required, especially given the fact that clinical nurse specialists are at the top end of the grading scale and are viewed as costly (Amira et al. 2004).

6.2.4 Reflexivity

In this study, regression analysis revealed that reflexivity was not found to predict any team outcome. This finding is surprising, given that the literature has identified reflexivity to be an important team process in fostering team innovative behaviour and learning (De Dreu 2002b, Edmondson et al. 2001). The literature has also linked reflexivity with affective well-being and high levels of team effectiveness (Carter and West 1998, De Dreu 2002a, De Dreu and Carsten 2007), particularly in terms of high team performance levels (Schippers and Homan 2009, Schippers et al. 2003), as well as work satisfaction (Schippers et al. 2003, West 1996). However, a word of caution is advised when considering this finding, for the reason being that a small sample size of three breast cancer teams were investigated in this study.
Furthermore, descriptive statistics in this study suggested that team members have a negative attitude towards reflexivity in their team. Indeed, the literature supports this finding where, in practice, teams have a natural tendency to limit their reflexivity as they are inclined to keep to their customary routines (Gray 2007, West 1996), even when presented with evidence that this behaviour might be dysfunctional (Gersick and Hackman 1990). Moreover, it is a known fact that it is the time constraints, resourcing, more so the assumptions of status and seniority that make reflexivity within MDTs difficult to achieve (Fay et al. 2006a). However, the team interviews conducted in this study came across two proposals which show how both challenges could be overcome respectively.

While this study found that monthly governance meetings review whether or not the team is meeting the key performance indicators – that is, the throughput of patients from referral to diagnosis and treatment and the time frames between those stages – as drawn up by the National Cancer Control Programme [NCCP], there is an even greater need to move beyond this customary routine to engage in more reflexive processes at the meeting. One proposal is to collect outcome data from follow-ups of patients in the years post-treatment as this would provide a performance measure of how effective are the methods used by the teams to get the job done and, thus, would create a sense of satisfaction in one’s work. Secondly, it has been proposed to hold a formal review of how effective the team is working, particularly where staffing arrangements have been altered with the establishment of centres of excellence and new members to the teams have brought with them their own different approaches to their practice and this creates stress, particularly in terms of role clarity. By holding a formal review, the team would be able to look at what each member’s approach to practice is and, thus, make a decision on what is the best evidence-based way to do practice, thus enhancing patient throughput and information.

Indeed, both proposals offered in this study complement suggested methods of review in the literature, whether it be engaging in team audits to provide teams with effective feedback (West and Markiewicz 2004) or conducting regular appraisal meetings for the purpose of not only praising individuals for their contribution but also offering a chance to discuss problems, consider appropriate solutions to improve team functioning, increase members’ commitment towards achieving their team’s goals and provide support where needed (Field and West 1995). Moreover, both proposals support the literature on making reflexivity important, particularly in offsetting the impairing processes of social characterisation (Fay et al. 2006a),
making better use of ideas voiced by minority members (De Dreu 2002a), achieving a higher level of integration of work where cases are complex (Opie 1997) and thus promoting team learning (Edmondson et al. 2001). Furthermore, this study has highlighted deficits in team leadership and team training and, thus, if addressed, both practices could have a positive effect on team reflexivity, as the evidence demonstrates (Hirst et al. 2004, Okhuysen and Eisenhardt 2002, Schippers et al. 2008). Indeed, as advocated by Gersick and Hackman (1990), a team leader might help the team to develop meta-routines, which prompt members to initiate re-evaluation of first level routines in a regular and timely fashion and, thus, become more reflexive.

6.2.5 Innovation

In this study, regression analysis revealed that innovation and flexibility efforts among members in the team positively predicted the levels of work satisfaction, team effectiveness and the overall rating of the team by its members. This finding contributes to extensive literature to date, which has found that high support for innovation in teams is a principal predictor of overall team effectiveness (Borrill et al. 2000b, Poulton and West 1999, West and Poulton 1997, West and Wallace 1991).

However, descriptive statistics in this study indicated that team members have a negative outlook on innovation and flexibility in their team. While this study acknowledges the innovative efforts of team members at both the sub-group level and at the MDT level, team interviews conducted in this study nonetheless highlighted three factors affecting efforts by these teams to be innovative and flexible to changing ways of practice: (1) workload; (2) staff embargo; and (3) personality clashes. In relation to the latter barrier, it has been found that some people in this study prefer to do their own thing as opposed to re-invent things while other people are happy to just go along with the guidelines as laid out by the National Cancer Control Programme [NCCP]. For that reason, change can be a challenge to the extent whereby innovation can often be self-led in the team. Therefore, teams need to support a team-based approach to innovation, for as research suggests, innovations are more likely to occur where there is an openness to change and a support for innovation (Madjar et al. 2002, Shin and Zhou 2003).
6.2.6 Professional Development

In this study, regression analysis revealed that professional development of team members’ clinical and team skills positively predicted the levels of team effectiveness and the overall rating of the team by its members. This finding contributes to extant literature on the link between training, at an individual and team level, improved team functioning and the realisation of reputed benefits to patients and healthcare professionals (Catt et al. 2005, Poulton and West 1993, 1994, West and Poulton 1997). Furthermore, descriptive statistics in this study suggested that team members are of the view that professional development is moderately encouraged in their team. To explain the moderate levels of professional development in the teams investigated, team interviews conducted in this study found two factors that hamper effective professional development efforts among team members.

Firstly, it was established in this study that the National Cancer Control Programme [NCCP] has put forward a professional-development accreditation system that obliges all breast care professionals to develop their clinical skills by accumulating a certain number of credits annually from attending conferences etc. However, it was acknowledged in this study has found that there are two factors affecting individual efforts across the teams to achieve this: (1) time; and (2) finance. Two proposals have been put forward: half-hour education sessions given by those who have attended seminars; and in-house lectures, study mornings, journal clubs etc. once or twice a year given by the teams’ members.

Secondly, it was acknowledged in this study that team members have had little to no team training. Time and finance were again highlighted in this study as two factors affecting team efforts. However, this problem needs to be addressed among these teams, given the known fact that practitioners are inadequately prepared to enter complex settings (Kohn et al. 2000). Indeed, it was emphasised by the Institute of Medicine (1999, 2001) that the medical training, which instils a culture of autonomy for action, can thus diminish professionals’ tendencies to seek opportunities to learn to communicate, share authority and collaborate in problem-solving and quality improvement. For example, senior oncology nurses and doctors have found communication with colleagues among their most stressful and challenging concerns (Jenkins et al. 2001). Thus, sufficient training in communication and management skills is a necessity amongst medical and nursing staff in the teams investigated in this study.

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Indeed, it has been particularly suggested in literature that professionals need training and education in team working, without which the levels of psychiatric morbidity and burnout will remain high (Sharma et al. 2008a, 2008b). Team training facilitates knowledge of each other’s work (West and Pillinger 1996) and also enhances a shared understanding of the task when professionals know about their colleagues’ roles and expertise (Cannon-Bowers et al. 1993). Indeed, the teams investigated in this study have welcomed further team training initiatives such as off-site team building workshops to ensure effective communication that will get the best out of every member of the team and that will particularly enable those who are in the back rows at the MDM to feel comfortable in asking the questions.

An additional finding in this study, separate to the area of professional development in clinical and team skills, resides in the team’s training in communication skills with the patient. It has been found that there is little to no training in communication skills with the patient, particularly among the clinicians, who are faced with the daily task in breast care of giving good news one minute and bad news the next, especially to young breast cancer patients. Only up until a few years ago, doctors, unlike nurses, had not received any training in communication skills with the patient. Therefore, communication skills with the patient have been a learned skill from experience for many doctors, as well as for nurses since a proportion of them have not received any further training since their university degree. As argued by Sheldon (2005), the last time that cancer care nurses assessed their own communication skills was as students during a psychiatric rotation. However, it is important to note that experience is not sufficient and that communication skills of both doctors and nurses remain somewhat deficient, as highlighted in comments made by breast cancer patients across the three teams investigated in this study at the time they were given their diagnosis. Indeed, further research is needed to build on the importance of communication skills training with the patient in cancer care.
6.2.7 Leadership

Innovative roles for healthcare leaders are now coming to the forefront that integrates team development for the purpose of sustaining clinical productivity and patient satisfaction (Carr 1995). Fundamentally, this innovative strategy requires a shared or collaborative leadership style (Anonson et al. 2009, McCallin 2003b, Wilson and Gleason 2001), in which all sub-groups, such as surgery, radiology, pathology and oncology, within the MDT share responsibility for team processes and outcomes of patient care. Indeed, this style of leadership is evident in this study, in which each sub-group in the MDT has its own designated leader.

Regression analysis in this study revealed that leadership and supervision in the team positively predicted the level of work satisfaction only. This finding is surprising, given that the literature not only shows that this collaborative leadership style increases the levels of work satisfaction among team members (Soonhee 2002, Spreitzer et al. 1997), but that it influences the effectiveness of the participative decision-making process (Borrill et al. 2000b, Tannenbaum et al. 1996), allowing team members to become more confident and autonomous in their work (Kapko 1996), and thereby increasing their ratings of the team’s effectiveness (Ross et al. 2000). However, as mentioned earlier, the small sample size of three breast cancer teams maybe a possible reason for this lack of relationship in this study.

Furthermore, descriptive statistics in this study indicated that the role of leadership and supervision has a moderate influence over the way in which team members carry out their work in their team. To explain the moderate levels of leadership and supervision in the teams investigated, team interviews conducted in this study acknowledged that leadership is not without challenges, as was argued by a former lead clinician in this study: “Leading in a way can be very difficult sometimes because you are the one who has to say the cake is going to be cut this way... And some people don’t like that and then you create challenges...across the different disciplines within the unit” [I.D.28, Team C]. Indeed, the literature has highlighted the need to consider the difficulty in managing the different professionals and coaching them in the art of shared leadership (McCallin 2003b). It emphasises the need for greater willingness among members of flexible clinical teams to redefine professional roles and boundaries (Coombs and Dillon 2002). It also acknowledges the need for leadership training, as well as the articulation of leadership practices, in the art of shared leadership today, given the evidence which demonstrates that practices such as annual appraisal and objective setting
for each team member and six monthly follow-ups with a team leader are essential for high quality teamwork and smoother interdisciplinary working within the team (Lowe and O’Hara 2000).

It has also been suggested in this study that the qualities which the future team lead clinician must possess are approachability as well as good communication and organisational skills. Indeed, the literature has found that these skills minimise concerns about power and status (Edmondson 2003), invite and appreciate others’ contributions (Nembhard and Edmondson 2006), thus enabling enhanced clinical decision-making (Haward et al. 2003) and yielding high levels of effectiveness, innovation and better quality teamwork (Borrill et al. 2000a). In addition, it has been proposed in this study that the next team lead clinician should not necessarily be a surgeon, but possibly a radiologist, an oncologist, or even a nurse, a manager or anyone who wants it. Indeed, while doctors have traditionally been accorded and have assumed leadership of healthcare teams, regardless of their competence (Horwitz 1970), it has now been argued in the literature that no one profession should hold a monopoly on leadership and management (Lichtenstein et al. 2004, Rosen and Callaly 2005). Rather management should be performed by the person in the team best qualified, experienced and most committed to looking at the overall best interests of the team (Maister 1993) and who is prepared to follow a vision of something different to the present (McCallin 2003b); a disposition which has been acknowledged in this study.

6.3 Implications for Policy and Practice
There are practical benefits from the findings in this study.

Firstly, the findings from the data analysis of 323 patient questionnaires offer a major contribution to current evidence on Irish women’s perceptions of the care provided by multidisciplinary breast cancer teams. Since the reports into the circumstances surrounding the nine breast cancer misdiagnoses at the Midland Regional Hospital [MRH], Portlaoise, and the breast cancer misdiagnosis at the Mid-Western Regional Hospital [MWRH], Limerick (Fitzgerald 2008, HIQA 2008, O’Doherty 2008, O’Doherty et al. 2008), one national quality review of symptomatic breast disease services in Ireland has been conducted by the Health Information and Quality Authority (HIQA 2010a). While this review undertook one patient group discussion in each of the eight designated specialised breast cancer centres around the country, only an average of six patients participated in each group discussion and these patients
were selected by the teams themselves. Indeed, the report noted that the experiences of other service users may be different and may report a different reflection of the effectiveness of multidisciplinary care in all eight breast cancer centres.

Secondly, the relatively low patient scores across the dimension entitled “Emotional Support”, in particular, the informational areas about possible changes in the patients’ sexual activity, their emotions and in their relationship with their spouse or partner, highlight the need for additional medical oncology liaison nurses in all three breast cancer teams. Indeed, it was during the administration of the questionnaire that patients significantly commented on the lack of a one-to-one nurse contact that they could call on if they had any questions about their health problems during their chemotherapy, the extent to which patients felt that they did not receive sufficient emotional support and information about their nutritional needs in all three teams concerned.

Thirdly, the findings from the team questionnaire and follow-up team interviews highlight the fact that all three breast cancer teams investigated in this study are in the early stages of development as centres of excellence, in particular, Team A and Team B who have experienced “growing pains” in the last year [I.D. 18, Team A], in terms of a major reconfiguration in staffing arrangements. Moreover, the evidence supports the fact that the teams need time to work together. Primarily, healthcare professionals need to reflect on and re-evaluate their attitudes, approaches and expectations towards both traditional ways of working and professional power balances in their interprofessional settings (Molyneux 2001) and they need to develop flexible working practices (Griffiths et al. 2004), in order to achieve reliable coordination of the different elements of service delivery (Haward 2003). Going forward, team members have considered the following factors to be the most important in improving the effectiveness of how they work together as a team.

- Sufficient staffing, particularly in the area of oncology liaison nursing, radiology and pathology, as well as care assistant staff
- Role clarity and recognition
- Openness and trust both within the team and across teams
- Avoidance of a hierarchical development within the team
- Better communication of patient information between nursing staff in surgery and medical oncology and social workers
- Need for an electronic system of recording MDT decisions at the MDM
- Better time arrangement for the MDM and better time management of patient discussion at the MDM
- A revised MDM layout to facilitate participation from all parties in the MDT
- Data management of patients post-treatment attending the review clinics
- Formal reviews of how effectively the team is working
- More flexibility towards changing current practices in light of new evidence
- A team-led approach to innovation
- A visionary team lead clinician who is approachable, has good communication and organisational skills and is supportive of team members when applying for professional development courses
- Appraisal meetings
- In-house lectures, study mornings, journal clubs to up-skill the team on the latest advances in breast cancer care
- Team building exercises
- Training among doctors and nurses in communication skills with the patient in the informational areas surrounding diagnosis and clinical trials or new treatments and also in the informational areas about possible changes in the patients’ sexual activity, their emotions and in their relationship with their spouse or partner, as well as providing information about their nutritional needs.
- And finally, debriefing sessions following, for example, a very upsetting family meeting or the death of a patient, who had been an in-patient for some time. At the moment, “...there’s nothing. It’s just that door is closed. Next person is in the bed...so it’s like a bit of a conveyer belt which is quite sad” [I.D. 37, Team C].

Evidently, the National Cancer Control Programme may need to invest substantial resources in team training in all three breast cancer teams to ensure effective teamwork, thus reaping the benefits for patients and healthcare professionals. Furthermore, lessons learnt from this study should also be applied to the implementation of team working in other cancer areas as well as in other disease settings.
6.4 Limitations of the Research

This study is subject to a number of important limitations that need to be borne in mind when considering the research findings. This section examines each of these limitations and discusses their implications for the validity and generalisability of the research.

6.4.1 Single Type of Multidisciplinary Team Setting

This study was carried out in order to build a picture of the multidisciplinary team working process and, from this, to gain a more complete understanding of the factors determining the effectiveness of multidisciplinarity in the regional specialised breast cancer teams in Ireland. In doing so, the study focused on three breast cancer teams. While this approach has helped in the interpretation of multidisciplinary team working in breast cancer care, it does limit the generalisation of the findings to all eight breast cancer teams in Ireland, more so to MDTs in other cancer settings. Replicating this study in other cancer-specific MDTs would increase generalisability and confidence in the results.

6.4.2 Consistency Motif

The consistency motif arises when individuals attempt to maintain a consistent line in a series of answers. The problem with this is that evidence shows that very perceptive subjects are inclined to imagine correlations when presented with a series of events (Chapman and Chapman 1967, Jenkins and Ward 1965). Moreover, the person’s mood at that particular time may influence the individual’s responses in the questionnaire. Particularly when an individual has to respond to several scales in a single sitting, there is a risk that a transient mood state will contribute to a consistent but artifactual bias across the measures (Podsakoff and Organ 1986).

6.4.3 Small Team Sample Size

Due to time constraints in their work, as well as a reluctance to participate in this study, not all team members from the various disciplines completed the team questionnaire. Because of this, not all of the disciplines were represented in the team interviews across all three breast cancer teams. Moreover, the data obtained from the team questionnaire on the structural components of the conceptual model, specifically the team size, the team composition, in terms of the multiple disciplines involved in the breast cancer team, and the team tenure could not be analysed in relation to the other structural, team working and outcome components of the model, due to the following: the small sample size of three teams and the
fact that each team has a similar number of team members; also the small sample of size of the different professions in each discipline; and, finally, the fact that all three teams are relatively new teams, since the designation of centres of excellence in 2006/2007. Furthermore, the relationships between the team structure, team working and team outcome variables in the model had to be analysed separate to the patient outcome variables. The reason for this was that, while statistically significant differences between the teams were reported in the analysis of the patient data in section 5.4.3, it was not possible to statistically link these differences to individual team members given the small sample size of 41 team members investigated. However, the patient data was additionally explored in interviews with core team members in section 5.3, providing qualitative evidence which linked the teams to the patient outcomes, thus, supporting the theoretical model.

6.4.4 General Mental Health Questionnaire
This self-report questionnaire was used to measure an individual’s general mental health within his/her breast cancer team. Referred to as the GHQ-12, this scale measures 12 symptoms of minor psychiatric morbidity – for example, mild depression, loss of confidence and sleep disturbance. Despite being used in similar studies in the past (Graham et al. 2000, Lim and Pinto 2009, Mariko et al. 2007, Ramirez et al. 1995, 1996, Sharma et al. 2008a, 2008b), it was unsuitable in this context because it only measures a recent change in one’s own general mental health, rather than an absolute level of mental well-being. Whilst team members may have reported in interviews as exhibiting symptoms of minor psychiatric morbidity, because this situation has been in existence since the inception of the team, it was not evident from this questionnaire. Indeed, Ramirez et al. (1995) have suggested that there might be latent problems among cancer clinicians of burn-out or psychiatric morbidity. In consideration of the fact that the only team working practice that was found in this study to be a predictor of the general mental health of the team’s members was communication of the team’s long-term plans and goals, the possible beneficial effect of effective team working practices on mental well-being warrants further investigation, as argued by Ramirez et al. (1995).
6.5 Suggestions for Further Research

There exist several possible avenues to advance this study.

Firstly, before any similar research can be conducted, it is important to find an alternative screening measure to the general mental health self-report questionnaire that does not have a time scale. Ideally, it should be followed by interviews conducted by a qualified practitioner.

Secondly, the study should be replicated in the remaining five breast cancer teams in Ireland. These teams are more established, in comparison to the relatively new teams investigated in this study, who underwent a major reconfiguration in their staffing arrangements in late 2009. It would be interesting to see what team working practices are embedded in these more established teams and how effective they are, from both a team member and patient perspective. Indeed, a larger sample size of teams would facilitate the analysis of all components of the conceptual model, thus enabling the researcher to examine, in particular, the relationships between the team size, the team composition, in terms of the multiple professions involved in the breast cancer team, and the team tenure, the team working practices and both the team outcomes and patient outcomes.

Thirdly, a similar study of these three breast cancer teams should be conducted in five years time when they are more established, in order to see what team working practices they have developed and how effective they are.

Fourthly, this study should be repeated in breast cancer teams in other countries, as well as in MDTs in other cancer settings both nationally and internationally. Indeed, more research is needed to better understand how to gain the most from multidisciplinary team working in cancer care. In particular, there is a need for further research into the possible beneficial effect that the clinical nurse specialist makes on patients’ outcomes, in terms of patient coordination, information and education, especially given the fact that clinical nurse specialists are at the top end of the grading scale and are viewed as costly.

And finally, this study should be replicated in MDTs in other disease settings, both nationally and internationally, in order to strengthen the research on the effectiveness of team working practices on cross-boundary working and its impact on the multiprofessional team.
6.6 Conclusion

In all, a number of findings were unveiled in this study. Team outcomes were predicted by a number of team process variables. Specifically, the ratings of various aspects of team effectiveness were predicted by innovation & flexibility and the professional development of team members. Other team outcomes, such as work satisfaction, general mental health and the overall team effectiveness score, were predicted by the following: participation in decision-making, communication of the team’s long-term plans and goals, intra-team communication, innovation & flexibility, professional development and leadership & supervision. However, follow-up interviews highlighted challenges involved in implementing these team working processes in practice. The lack of understanding and appreciation of one another’s roles and limited communication were the most commonly cited. In addition, findings from the patient questionnaire drew attention to the lack of sufficient clinical nurse specialist staffing in the multidisciplinary team. This had an impact on maintaining communication between the team and the patient, particularly in the provision of emotional and educational support during the patient’s cancer care.

Together, the findings of this study point to a number of important implications for theory, policy and practice: the need for increased role clarity and recognition and improved communication both within and between the teams and between the teams and patients; sufficient staffing in oncology liaison nursing to support communication between the team and the patient; as well as team building exercises. If implemented, these practices would afford the opportunity for improvement in these breast cancer teams before practices that contribute to less than optimal team performance become embedded.

Through this study, evidence has been obtained that demonstrates the team working practices that are most important in improving the effectiveness of cross-boundary working in breast cancer care, while also acknowledging the challenges involved in their implementation. Moreover, this study gives direction to future research studies to achieve a better understanding of the significance of the role of interprofessional team processes in improving the effectiveness of multidisciplinary teams. The results of this study show that innovation & flexibility and the professional development of team members are key factors that predict the effectiveness of breast cancer teams in Ireland. This study will be of valuable interest to our British Columbian [BC] counterparts for it was mentioned earlier by one radiation oncologist in
BC that they could learn from us and, now with these evidence-based findings, perhaps they really can.
BIBLIOGRAPHY


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Bennett-Emslie, G. and McIntosh, J. (1995) 'Promoting collaboration in the primary care team - the role of the practice meeting', Journal of Interprofessional Care, 9, 251-256.

Benson, L. and Ducanis, A. (1995) 'Nurses' perceptions of their role and role conflicts', Rehabilitation Nurse, 20, 204-211.


Cott, C. (1997) 'We decide, you carry it out': a social network analysis of multidisciplinary long-term care teams', *Social Science and Medicine*, 45(9), 1411-1421.


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Fitzgerald, J. (2008) Management, governance and communication issues arising from the review of breast radiology services at the Midland Regional Hospital, Portlaoise, Dublin: Department of Health and Children.

Fleissig, A., Jenkins, V. and Catt, S. (2006a) ' Multidisciplinary teams in cancer care: are they effective in the UK?' Lancet Oncology, 7(11), 935-943.


HIQA (2008) *Report on the investigation into the circumstances surrounding the provision of care to Rebecca O’Malley, in relation to her symptomatic breast disease, the pathology services at Cork University Hospital and symptomatic breast disease services at the Mid Western Regional Hospital, Limerick*, Dublin: Health Information and Quality Authority.

HIQA (2010a) *National quality review of symptomatic breast disease services in Ireland*, Dublin: Health Information and Quality Authority.


Jenkins, V. A., Fallowfield, L. J. and Poole, K. (2001) 'Are members of multidisciplinary teams in breast cancer aware of each other's informational roles?' Journal of Quality Health Care, 10, 70-75.


O’ Doherty, A., O’ Brien, B. and Shore, M. (2008) Report on the circumstances that led to the decision by HSE in August 2007 to: suspend breast radiology services; initiate a clinical review of symptomatic breast radiology service; and place consultant radiologist on administrative leave at the Midland Regional Hospital, Portlaoise, Dublin: Department of Health and Children.


Sargeant, J., Loney, E. and Murphy, G. (2008) 'Effective interprofessional teams: "Contact is not enough“ to build a team', *Journal of Continuing Education in the Health Professions*, 28(4), 228-234.


APPENDIX A: TEAM QUESTIONNAIRE
Staff Information Sheet

What is the aim of this survey?
To assess your views on your Breast Cancer Team (BCT)
Note: This is not a test. There are no right or wrong answers.

Who will see my answers?
The information you give is totally confidential. No one, other than members of the research
team, will see your answers. Data will be aggregated in reports. No individuals will be
identified. Your participation in this study is voluntary. If you decide not to participate, or
discontinue to participate at any time, no penalty will be incurred.

How long will it take?
About 10/15 minutes. We ask you not to consult with colleagues when you complete it (i.e. if
you need clarifications, you can ask the researchers).

How do I fill in the survey?
Please complete the questionnaires in the order they are given to you. For each questionnaire,
read each question carefully, and give your response. Please answer all questions as openly
and honestly as possible.

What is the specific aim of each questionnaire?
There are 6 different parts, and each item aims to gather information on specific aspects of
your BCT. Specifically:

Section A: General Information about Your Breast Cancer Team
Section B: Your Biographical Details
Section C: Team Working
1. Participation in Decision-Making
2. Trust
3. Relationships
4. Communication
5. Reflexivity
6. Innovation
7. Leadership and Supervision
Section D: Work and Well-being
Section E: Team Effectiveness
Section F: Additional Comments

You may attach additional pages if necessary when answering the open questions, but please
indicate clearly which questions your answers refer to.

If you have any further questions, please feel free to ask the researchers:
Elsa Droog via email at Elsa.Droog@ul.ie or by telephone on 087-9515314
Dr. Claire Armstrong at Claire.Armstrong@ul.ie or on 061-202679
Dr. Sarah MacCurtain at Sarah.Maccurtain@ul.ie or on 061-213490
Section A: General Information about Your Breast Cancer Team

These questions help us to define the type of team in which you work

1. How many defined breast cancer teams (BCTs) do you work in?
   Please specify the number of teams ______________

2. How many people in total work in this BCT?
   Please specify the total number of whole team equivalents ______________

3. How long has this BCT been present in this hospital/centre?

<table>
<thead>
<tr>
<th></th>
<th>Less than 1 year</th>
<th>11-15 years</th>
<th>1-2 years</th>
<th>16-20 years</th>
<th>3-5 years</th>
<th>Other</th>
<th>6-10 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 If other, please specify.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

   ____________________

4. To what extent do you agree with the following statements?

<table>
<thead>
<tr>
<th>Number</th>
<th>Always false</th>
<th>Mostly false</th>
<th>Mostly true</th>
<th>Always true</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. This BCT has clear team objectives.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. You frequently work with other team members to achieve these objectives.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. There are different roles for team members within this team.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Other people in this hospital/centre recognise your team as a team</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Do you have a regular team meeting?

   _ Yes _ No

   5.1 If yes, how often does the team meeting take place?

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Less frequently than 3 months</th>
<th>Every 3-6 months</th>
<th>Every 7-12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>Weekly</td>
<td>Fortnightly</td>
<td></td>
</tr>
<tr>
<td>Monthly</td>
<td>Less frequently than monthly</td>
<td>Every 3 months</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

   5.1.1 If other, please specify.

   ____________________

6. Does this BCT have key performance indicators (PIs)?

   _ Yes _ No _ I don’t know

   6.1 List the top 3 PIs.

   _
   _
   _
Section B: Your Biographical Details

This part of the questionnaire asks for details about you and your work. This information will be used to enable us to compare the views of different groups of people and a level of diversity. It will not be used to identify you.

1. What gender are you?
   - Male
   - Female

2. What age are you?
   - 18-25 years
   - 26-35 years
   - 36-45 years
   - 46-55 years
   - 56-65 years
   - 6-10 years

3. What is your nationality?
   ____________________

4. What is your employment status with the HSE?
   Permanent full-time
   Permanent part-time
   Temporary full-time
   Temporary part-time

4.1 If part-time, please specify the number of hours worked.
   ____________________

5. What is your pattern of work with this BCT?
   Full-time
   Part-time

5.1 If part-time, please specify the number of hours worked.
   ____________________

6. How long have you worked in this BCT since it was designated a centre of excellence?
   Less than 1 year
   1-2 years
   3-5 years
   6-10 years
   11-15 years
   16-20 years
   Other

6.1 If other, please specify.
   ____________________

6.2 How long have you worked in breast cancer care?
   Less than 1 year
   1-2 years
   3-5 years
   6-10 years
   11-15 years
   16-20 years
   Other

6.2.1 If other, please specify.
   ____________________

7. What is your discipline?
   Please tick BOTH your discipline and corresponding profession.

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Profession</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast Surgery</td>
<td>Professor of Surgery</td>
</tr>
<tr>
<td></td>
<td>Consultant Surgeon</td>
</tr>
<tr>
<td></td>
<td>Special Registrar</td>
</tr>
<tr>
<td></td>
<td>Registrar</td>
</tr>
<tr>
<td></td>
<td>Senior House Officer</td>
</tr>
<tr>
<td></td>
<td>Intern</td>
</tr>
<tr>
<td>Radiology</td>
<td>Consultant Radiologist</td>
</tr>
<tr>
<td>Pathology</td>
<td>Consultant Pathologist</td>
</tr>
<tr>
<td>Oncology</td>
<td>Consultant Radiation Oncologist</td>
</tr>
<tr>
<td></td>
<td>Consultant Medical Oncologist</td>
</tr>
<tr>
<td>Nursing</td>
<td>Oncology Nurse</td>
</tr>
<tr>
<td></td>
<td>Clinical Nurse Specialist</td>
</tr>
<tr>
<td></td>
<td>Clinical Nurse Manager</td>
</tr>
<tr>
<td></td>
<td>Research Nurse</td>
</tr>
<tr>
<td>Plastic &amp; Reconstructive Surgery</td>
<td>Consultant Plastic and Reconstructive Surgeon</td>
</tr>
<tr>
<td>Administration</td>
<td>Clerical staff</td>
</tr>
<tr>
<td>Management</td>
<td>Business Manager</td>
</tr>
<tr>
<td>Other</td>
<td>Please specify:</td>
</tr>
</tbody>
</table>
Section C: Team Working

1: Participation in Decision-Making
1.1 Please tick the most appropriate response for each question. To what extent do you agree with the following statements?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. As a member in this team, I have a real say in how the team carries out its work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Most members in this team get a chance to participate in decision-making.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. My team is designed to let everyone participate in decision-making.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1.2 Please give below any comments you would like to make about participation in your team.

2: Trust
2.1 Please tick the most appropriate response for each question. To what extent do you agree with the following statements?

<table>
<thead>
<tr>
<th>Statement</th>
<th>1 Nearly 0</th>
<th>2 Quite low</th>
<th>3 50-50</th>
<th>4 Quite high</th>
<th>5 Nearly 100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am confident that members of the team are technically competent at the critical elements of their job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I am confident that members of the team will make well thought out decisions about their job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I am confident that members of the team will follow through on assignments.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I am confident that members of the team have an acceptable level of understanding of their job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I am confident that members of the team will be able to do their job in an acceptable manner.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. When members of the team tell me something, I am confident that I can rely on what they tell me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. I am confident that members of the team do the job without causing other problems.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I am confident that members of the team will think through what they are doing on the job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. I am confident that this team will treat me fairly.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. There is trust between members in this team.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. There is trust among the people I work with on a regular basis.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. We can depend on each other in this team.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2.2 Please give below any comments you would like to make about trust in your team.

3: Relationships
3.1 This section concerns the relationships in the breast cancer team in which you work and the relationships between your breast cancer team and similar teams in other hospitals. To what extent do you agree with the following statements?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The different specialties co-operate very well.</td>
<td>![Strongly disagree]</td>
<td>![Disagree]</td>
<td>![Neither agree nor disagree]</td>
<td>![Agree]</td>
<td>![Strongly agree]</td>
</tr>
<tr>
<td>2. There is a lot of disagreement and conflict between clerical staff, business managers, and medical and nursing staff.</td>
<td>![Strongly disagree]</td>
<td>![Disagree]</td>
<td>![Neither agree nor disagree]</td>
<td>![Agree]</td>
<td>![Strongly agree]</td>
</tr>
<tr>
<td>3. The different professional groups within this team (i.e. clerical staff, business managers, and medical and nursing staff) co-operate very well.</td>
<td>![Strongly disagree]</td>
<td>![Disagree]</td>
<td>![Neither agree nor disagree]</td>
<td>![Agree]</td>
<td>![Strongly agree]</td>
</tr>
<tr>
<td>4. There is a sense that irrespective of professional boundaries, staff in this team are trying to achieve the same thing.</td>
<td>![Strongly disagree]</td>
<td>![Disagree]</td>
<td>![Neither agree nor disagree]</td>
<td>![Agree]</td>
<td>![Strongly agree]</td>
</tr>
<tr>
<td>5. We share goals with colleagues from other hospitals.</td>
<td>![Strongly disagree]</td>
<td>![Disagree]</td>
<td>![Neither agree nor disagree]</td>
<td>![Agree]</td>
<td>![Strongly agree]</td>
</tr>
<tr>
<td>6. We share good practice with colleagues from other hospitals.</td>
<td>![Strongly disagree]</td>
<td>![Disagree]</td>
<td>![Neither agree nor disagree]</td>
<td>![Agree]</td>
<td>![Strongly agree]</td>
</tr>
<tr>
<td>7. We have useful debates with colleagues from other hospitals concerning how best we can provide care.</td>
<td>![Strongly disagree]</td>
<td>![Disagree]</td>
<td>![Neither agree nor disagree]</td>
<td>![Agree]</td>
<td>![Strongly agree]</td>
</tr>
<tr>
<td>8. As a result of our interactions with colleagues from other hospitals, we generate ideas of new and improved ways of providing care.</td>
<td>![Strongly disagree]</td>
<td>![Disagree]</td>
<td>![Neither agree nor disagree]</td>
<td>![Agree]</td>
<td>![Strongly agree]</td>
</tr>
</tbody>
</table>

3.2 Please give below any comments you would like to make about relationships in your team.
4: Communication
4.1 This section concerns communication in the breast cancer team in which you work. To what extent do you agree with the following statements?

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Communication in the team is very good.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. Communication between the different specialities is excellent in the team.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. Different professional groups in the team [ie. clerical staff, business managers, and medical and nursing staff] do not keep each other informed about what is going on.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. There are often breakdowns in communication here.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5. The team’s management doesn’t clearly communicate their strategic plans or goals.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>6. Medical and nursing staff are not clear about the aims of the team.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>7. Medical and nursing staff have a good understanding of what the team is trying to achieve.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

4.2 Please give below any comments you would like to make about communication in your team.

5: Reflexivity
5.1 This section concerns reflexivity in the breast cancer team in which you work. To what extent do you agree with the following statements?

<table>
<thead>
<tr>
<th></th>
<th>Always false</th>
<th>Mostly false</th>
<th>Mostly true</th>
<th>Always true</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In this team, the way people work together is readily changed in order to improve performance.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. The methods used by this team to get the job done are often discussed.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. There are regular discussions as to whether people in the team are working effectively together.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. In this team, objectives are modified in light of changing circumstances.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5. In this team, time is taken to review team objectives.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
5.2 Please give below any comments you would like to make about reflexivity in your team.

6: Innovation
6.1 Innovation and Flexibility: To what extent do you agree with the following statements?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Always false</th>
<th>Mostly false</th>
<th>Mostly true</th>
<th>Always true</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. New ideas are readily accepted here.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. This team is quick to respond when changes need to be made.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>3. People in this team are quick to spot the need to do things differently.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. This team is very flexible; it can quickly change procedures to meet new conditions and solve problems as they arise.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5. Assistance in developing new ideas is readily available.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>6. People in this team are always searching for new ways of looking at problems.</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
</tbody>
</table>

6.2 Professional Development: To what extent are the following statements true?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not at all</th>
<th>Just a little</th>
<th>Moderate amount</th>
<th>Quite a lot</th>
<th>A great deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The organisation strongly believes in the importance of training and development.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>2. People here are strongly encouraged to develop their clinical skills.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>3. People here are strongly encouraged to develop their team skills.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>4. The organisation only gives people the minimum amount of training they need to do their job.</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☑</td>
</tr>
</tbody>
</table>

6.3 Please give below any comments you would like to make about innovation in your team.
7: Leadership and Supervision

7.1 Of those people responsible for supervising and managing your work, with whom do you have the most frequent contact? Please tick one item.

- Line Manager
- Team Lead Clinician
- Nurse Service Manager
- Other

7.1.1 If other, please specify.

7.2 How often do you have formal face-to-face meetings with this person?

- More than once a day
- 2/3 times a week
- Less frequently than once a week
- Every three weeks
- Less frequently than once a month
- Once a day
- Once a week
- Every two weeks
- Once a month

7.3 To what extent are the following statements true?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not at all</th>
<th>Just a little</th>
<th>Moderate amount</th>
<th>Quite a lot</th>
<th>A great deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My supervisor/manager encourages me to use creative and innovative ways to meet patient/service needs.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
</tr>
<tr>
<td>2. My supervisor/manager regularly stresses the importance of quality of patient care.</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
</tr>
<tr>
<td>3. My supervisor/manager shares his/her knowledge and expertise.</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>4. My supervisor/manager encourages those who work for him/her to work as a team.</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
</tr>
<tr>
<td>5. My supervisor/manager provides coaching and guidance to improve my effectiveness.</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
</tr>
<tr>
<td>6. I can count on my supervisor/manager to help me with a difficult task at work.</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
</tr>
</tbody>
</table>

7.4 Please give below any comments you would like to make about leadership & supervision in your team.

Section D: Work and Well-Being

1.1 Please indicate how satisfied you are with the following statements?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Very dissatisfied</th>
<th>Dissatisfied</th>
<th>Neither satisfied nor dissatisfied</th>
<th>Satisfied</th>
<th>Very satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The recognition you get for good work.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
</tr>
<tr>
<td>2. Your team’s lead clinician/ manager.</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
</tr>
<tr>
<td>3. The freedom to choose your own method of working.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
</tr>
<tr>
<td>4. Your work colleagues.</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
</tr>
<tr>
<td>5. The amount of responsibility you are given.</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
</tr>
<tr>
<td>6. Your patients’ outcomes.</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
</tr>
<tr>
<td>7. The opportunity to use your abilities.</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
</tr>
</tbody>
</table>
1. **General Health Questionnaire (GHQ-12).** We would like to know how your health has been in general, over the past few weeks. Please answer the following questions by ticking the box that best applies to you. Have you recently…

<table>
<thead>
<tr>
<th>Question</th>
<th>Much less than usual</th>
<th>Same as usual</th>
<th>More than usual</th>
<th>Much more than usual</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Been able to concentrate on whatever you are doing?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Lost much sleep over worry?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Felt that you were playing a useful part in things?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Felt capable of making decisions about things?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Felt constantly under strain?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Felt that you couldn’t overcome your difficulties?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Been able to enjoy your normal day-to-day activities?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Been able to face up to your problems?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Been feeling unhappy and depressed?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Been losing self-confidence in yourself?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Been thinking of yourself as a worthless person?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Been feeling reasonably happy, all things considered?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**Section E: Team Effectiveness**

1.1 To what extent do you agree with the following statements?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. This team does not have much of a reputation for top quality patient care.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. There is an emphasis on patient-focused care in this team.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. This team sets extremely high standards for its staff.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. As a patient, I would be happy to have care provided by this team.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Quality is taken very seriously here.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Staff in this team are able to question the basis of what the team is doing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. The team has clear standards which staff try to meet in order to achieve excellence.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1.2 What number between 0 and 10 would you use to rate your breast cancer team, where 0 is the worst team possible, and 10 is the best team possible?

<table>
<thead>
<tr>
<th>Worst possible team</th>
<th>Best possible team</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
</tbody>
</table>

Section F: Additional Comments
1.1 Any other comments you would like to make about your experience of working within your breast cancer team?

Thank you for your participation in this research. Your time is greatly appreciated.
Staff Information Sheet

What is the aim of this interview?
To gain a deeper understanding of your views on team working in your Breast Cancer Team (BCT)
Note: This is not a test. There are no right or wrong answers.

Who will see my answers?
The information you give is totally confidential. No one, other than members of the research team, will see your answers. Data will be aggregated in reports. No individuals will be identified. Your participation in this study is voluntary. If you decide not to participate, or discontinue participating at any time, no penalty will be incurred.

How long will it take?
About 20/30 minutes.

What is the specific aim of each question?
There are 11 main questions in total and each question aims to ask your views on the following: interdisciplinary team processes in your breast cancer team [BCT]; your well-being, along the lines of work satisfaction and general mental health; and your team’s effectiveness in breast cancer care.

If you have any further questions, please feel free to ask the researchers:
Elsa Droog via email at Elsa.Droog@ul.ie or by telephone on 087-9515314
Dr. Claire Armstrong at Claire.Armstrong@ul.ie or on 061-202679
Dr. Sarah MacCurtain at Sarah.Maccurtain@ul.ie or on 061-213490

* Note:
1. The emphasis placed on certain questions maybe more or less depending on the findings of the team questionnaire.
2. The option of recording the interview will be decided by the participant on the day of the interview.
Team Working:

1. Describe your experiences of working in a multidisciplinary team environment?
   a. Your awareness of the number of people working in the team?
   b. The impact of working in two teams?

2. How are decisions about each patient arrived at?
   a. Who is consulted and who makes the final decision at the MDM?
   b. What degree of openness and trust is there in the MDT’s clinical abilities?

3. How would you describe your relationship with the different professional groups within your team?
   a. The different specialities?
   b. The administrators?
   c. The managers?
   d. Is there one or two particular individuals that you communicate most with and why?

   ➔ “Breakdowns of communication within the different teams”

   ➔ “The doctor and breast care nurse relationship in surgical care does not exist in oncology care”
      o Q. Symptom management?
      o Q. Confusing/contradictory information given by doctors?
      o Q. Help in paying for extra costs?
        ▪ Q. Entitlement to a medical card?
        ▪ Q. Travel costs?

4. How interactive are you with other breast cancer teams around the country?
   a. Getting an opinion on a patient’s diagnosis and treatment plan?
   b. Debating on evidence-based practices in breast cancer care?
   c. Generating ideas of new and improved ways of providing care?

5. How often does your team review the following and why?
   a. Getting the job done?
   b. Whether people in the team are working effectively together?
   c. Improving the way in which people work together to improve performance?
6. How innovative would you describe your team as being?
   ➔ “Often be self-led”
   a. How much time is given to professional development?
   b. How much time is given to team training?
      o Q. Communication with the patient?
         ▪ Q. Diagnosis and treatment plan...for a young patient?
         ▪ Q. Clinical trials?

7. How effective would you describe your team leader/ supervisor as being and why?
   a. In encouraging you to work as part of a team?
   b. In sharing his/her knowledge and expertise with you?
   c. In mentoring and guiding you through difficult tasks?
   ➔ “Multiple leads in the team”
   ➔ “No one really supervises/manages me but myself”

Work and Well-Being:
8. How satisfied are you working in this team and why?
9. How has your health been in general in the past few weeks?
   a. What factors would you attribute to it?

Team Effectiveness:
10. What are the factors that you consider important in making a multidisciplinary breast cancer team effective and to what extent are these evident in your team?

Other Comments:
11. Any other comments you would like to make about your experience of working in your team?
Patient Information Sheet

What is the aim of this survey?
To assess your experiences of the breast cancer services in Ireland with which you have had contact over the past four years, in order to improve the way in which our breast cancer services are delivered.
Note: This is not a test. There are no right or wrong answers.

Who will see my answers?
The information you give is totally confidential. No one, other than members of the research team, will see your answers. Data will be aggregated in reports. No individuals will be identified. Your participation in this study is voluntary. If you decide not to participate, or discontinue to participate at any time, your treatment or the services provided to you will not be affected in any way.

How long will it take?
About 15/20 minutes. We ask you not to consult with other patients when you complete it (i.e. if you need clarifications, you can ask the researchers).

How do I fill in the survey?
Please fill in the circle that best describes your recent breast cancer care experiences. Please mark only one circle unless requested otherwise. We would like current and recent breast cancer patients to respond to this survey. They must be receiving/ have received breast cancer services or treatment in one of the eight designated specialised breast cancer centres:
- Beaumont Hospital;
- Cork University Hospital;
- Limerick Regional Hospital;
- Mater Hospital (private hospital adjoining);
- St. James’s Hospital;
- St. Vincent’s Hospital (private hospital adjoining);
- University Hospital Galway;
- Waterford Regional Hospital.

What is the specific aim of each questionnaire?
There are 10 different parts, and each item aims to gather information on specific aspects of your recent breast cancer care experiences. Specifically:

Section 1: About your diagnosis
Section 2: Planning your treatment
Section 3: About your tests
Section 4: About your surgery
Section 5: About your chemotherapy
Section 6: About your radiation therapy
Section 7: Symptom management
Section 8: Your healthcare providers
Section 9: Your overall impression of your care in the past twelve months
Section 10: Your background

You may attach additional pages if necessary when answering the open question at the end of the questionnaire.

If you have any further questions, please feel free to ask the researchers:
Elsa Droog via email at Elsa.Droog@ul.ie or by telephone on 087-9515314
Dr. Claire Armstrong at Claire.Armstrong@ul.ie or on 061-202679
Dr. Sarah MacCurtain at Sarah.Maccurtain@ul.ie or on 061-213490
1. What year did you start receiving breast cancer care services or treatment?
   - 2006
   - 2007
   - 2008
   - 2009
   - 2010

2. In which of the eight designated specialised breast cancer centres did you receive breast cancer care services or treatment?
   - Beaumont Hospital
   - Cork University Hospital
   - Limerick Regional Hospital
   - Mater Hospital (private hospital adjoining)
   - St. James’s Hospital
   - St. Vincent’s Hospital (private hospital adjoining)
   - University Hospital Galway
   - Waterford Regional Hospital

ABOUT YOUR DIAGNOSIS…

This section asks about the diagnosis of your cancer.

3. When were you first told of your breast cancer diagnosis?
   - Less than 6 months ago
   - Between 6-12 months ago
   - Between 1 and 2 years ago
   - Between 2 and 5 years ago
   - More than 5 years ago

4. Who first told you of your breast cancer diagnosis?
   - Family doctor
   - Cancer specialist
   - Surgeon
   - Someone else

5. Were you told of your diagnosis in a sensitive manner?
   - Yes, completely
   - Yes, somewhat
   - No

6. When you were first told of your illness, did someone put you in touch with other care providers who could help you with anxieties and fears?
   - Yes, completely
   - Yes, somewhat
   - No
   - I had no anxieties or fears

PLANNING YOUR TREATMENT…

The following questions refer to the planning of your breast cancer treatment, after the diagnosis was made.

7. Sometimes more than one care provider helps patients plan their breast cancer treatment. Who was involved in most of your treatment planning? (Please mark only one)
   - Cancer specialist/ Surgeon
   - Someone else (Please specify): _______________

8. Did someone discuss different treatments for breast cancer with you?
   - Yes, completely
   - Yes, somewhat
   - No

9. Did you understand the information you were provided regarding the various treatment options?
   - Yes, completely
   - Yes, somewhat
   - No

10. Were you given enough information about therapies for treating breast cancer?
    - Yes, completely
    - Yes, somewhat
    - No

11. Were you involved in decisions about your care as much as you wanted?
    - Yes, completely
    - Yes, somewhat
    - No

12. Did your care providers take your family or living situation into account in planning for your treatment?
    - Yes, completely
    - Yes, somewhat
    - No

13. How much opportunity did your care providers give your family or friends to be involved in your care and treatment?
    - Not enough
    - Right amount
    - Too much
    - Family or friends were not involved
14. Do you think the care providers knew enough about therapies for treating breast cancer?
   - Yes, completely
   - Yes, somewhat
   - No

15. If you had questions about clinical trials or new treatments for your breast cancer, did you feel comfortable talking with the staff about them?
   - Yes, completely
   - Yes, somewhat
   - No
   - I didn’t have questions

16. Was your case reviewed by a multidisciplinary team of specialists/health professionals consulting together prior to making a final decision on the treatment plan?
   - Yes
   - No treatment plan completed
   - No
   - Not sure

17. After you knew what your treatment was going to be, do you feel you had to wait too long to get your first appointment for treatment?
   - Yes, completely
   - Yes, somewhat
   - No

18. If you had to wait for your first appointment, did someone explain why?
   - Yes, completely
   - Yes, somewhat
   - No

19. If you had to travel for any tests or treatments, did your care providers consider your travel concerns when planning for your treatment?
   - Yes, completely
   - Yes, somewhat
   - No
   - Didn’t have to travel

ABOUT YOUR TESTS…

20. Did your care provider explain why you needed tests in a way you could understand?
   - Yes, completely
   - Yes, somewhat
   - No
   - Didn’t have tests

21. After the tests were done, did someone explain the results in a way that you could understand?
   - Yes, completely
   - Yes, somewhat
   - No
   - Didn’t need explanation
   - Never received results
   - Didn’t have tests

ABOUT YOUR SURGERY…

22. Did you have surgery after your breast cancer diagnosis?
   - Yes
   - No (Go to Q. 26)

23. If you had surgery, did you have it at this hospital or clinic?
   - Yes, only at this hospital or clinic
   - At this hospital or clinic AND another hospital or clinic
   - No, at another hospital or clinic only

24. Were you given enough information about how long you would have to wait until the day of your surgery?
   - Yes, completely
   - Yes, somewhat
   - No
   - Didn’t have to wait

25. Were the results of your surgery explained in a way you could understand?
   - Yes, completely
   - Yes, somewhat
   - No
ABOUT YOUR CHEMOTHERAPY…

Chemotherapy may include care at the hospital, the clinic, OR pills taken at home.

26. Have you had outpatient chemotherapy during your cancer treatment?
   - Yes
   - No (Go to Q. 34)

27. If you had chemotherapy during your cancer treatment, did you have it at this hospital or clinic?
   - Yes, only at this hospital or clinic
   - At this hospital or clinic AND another hospital or clinic
   - No, at another hospital or clinic only
   - No, I only take pills at home (Go to Q. 32)

28. When you went for your chemotherapy, did you usually have your blood test(s) during the same visit?
   - Yes
   - No

29. How long did you usually have to wait from your scheduled appointment until your chemotherapy treatment?
   - Less than 30 minutes
   - Between 30 minutes and 60 minutes
   - Between 1 and 3 hours
   - More than 3 hours

30. How often did you wait longer than expected for your chemotherapy treatment?
   - Never
   - Sometimes
   - Usually
   - Always

31. If you had to wait for your chemotherapy, do you think the staff did everything they could to make you feel comfortable?
   - Yes, completely
   - Yes, somewhat
   - No
   - Didn’t have to wait

32. Did someone tell you how to manage any side effects of chemotherapy?
   - Yes, completely
   - Yes, somewhat
   - No
   - Didn’t need explanation

33. Do you think the staff did everything they could to help you with your chemotherapy side effects?
   - Yes, completely
   - Yes, somewhat
   - No
   - Didn’t have side effects

ABOUT YOUR RADIATION THERAPY…

34. Have you had radiation therapy during your cancer treatment?
   - Yes
   - No (Go to Q. 41)

35. If you had radiation therapy during your cancer treatment, did you have it at this hospital or clinic?
   - Yes, only at this hospital or clinic
   - At this hospital or clinic AND another hospital or clinic
   - No, at another hospital or clinic only
   - No, I only take pills at home (Go to Q. 32)

36. How long did you usually have to wait from your scheduled appointment until your radiation?
   - 15 minutes or less
   - Between 15 and 30 minutes
   - Between 30 and 45 minutes
   - Between 45 and 60 minutes
   - More than 60 minutes

37. How often did you wait longer than expected for your radiation treatment?
   - Never
   - Sometimes
   - Usually
   - Always

38. If you had to wait for your treatment, do you think the staff did everything they could to make you feel comfortable?
   - Yes, completely
   - Yes, somewhat
   - No
   - Didn’t have to wait

39. Did someone tell you how to manage any side effects of radiation therapy?
   - Yes, completely
   - Yes, somewhat
   - No
   - Didn’t need explanation

40. Do you think staff did everything they could to help you with your radiation therapy side effects?
   - Yes, completely
   - Yes, somewhat
   - No
   - Didn’t have side effects
SYMPTOM MANAGEMENT…

41. During your cancer treatment, if you had pain, was it usually severe, moderate, or mild?
  - Severe
  - Moderate
  - Mild
  - Didn’t have pain during my cancer treatment (Go to Q. 43)

42. Do you think the staff did everything they could to control your pain or discomfort?
  - Yes, completely
  - Yes, somewhat
  - No
  - Didn’t have pain

43. Did you get enough information about possible changes in your physical appearance?
  - Yes, completely
  - Yes, somewhat
  - No
  - Doesn’t apply

44. Did you get enough information about possible changes in your sexual activity?
  - Yes, completely
  - Yes, somewhat
  - No
  - Doesn’t apply

45. Did you get enough information about possible changes in your emotions?
  - Yes, completely
  - Yes, somewhat
  - No
  - Doesn’t apply

46. Did you get enough information about your nutritional needs?
  - Yes, completely
  - Yes, somewhat
  - No
  - Doesn’t apply

47. Did you get enough information about possible changes in your relationship with your spouse or partner?
  - Yes, completely
  - Yes, somewhat
  - No
  - Doesn’t apply

48. Did you get enough information about possible changes in your work or usual activities?
  - Yes, completely
  - Yes, somewhat
  - No
  - Doesn’t apply

49. Did you get enough information about possible changes in your energy level?
  - Yes, completely
  - Yes, somewhat
  - No
  - Doesn’t apply

50. Did you want but NOT receive information about any of the following services? (Mark all that apply)
  - Counseling/support (social workers, psychologists)
  - Spiritual support
  - Dietitian
  - Speech therapist
  - Occupational therapist
  - Physical therapist
  - Support groups
  - Palliative care
  - Other

51. Did you feel comfortable talking with the staff about complementary, alternative, or nontraditional therapies?
  - Yes, completely
  - Yes, somewhat
  - No
  - I don’t use complementary therapies

YOUR HEALTHCARE PROVIDERS…

For the following questions, please think about the care providers you have had at this hospital or clinic.

52. How many different doctors have you had visits with for your breast cancer treatment?
  - One
  - Two
  - Three
  - Four or more

53. Did you know who was in charge of your care for each of your therapies?
  - Yes, completely
  - Yes, somewhat
  - No
<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>54. How well coordinated was the referral of your case between specialist groups?</td>
<td>Poor, Fair, Good, Very good, Excellent, No referral between specialist groups</td>
</tr>
<tr>
<td>55. During your cancer treatment, did someone at this hospital or clinic put you in touch with other care providers who could help you with anxieties and fears?</td>
<td>Yes, completely, Yes, somewhat, No, I had no anxieties or fears</td>
</tr>
<tr>
<td>56. How often were your care providers familiar with your medical history?</td>
<td>Never, Sometimes, Usually, Always</td>
</tr>
<tr>
<td>57. How often were your care providers aware of your test results?</td>
<td>Never, Sometimes, Usually, Always</td>
</tr>
<tr>
<td>58. How often were you given confusing or contradictory information about your health or treatment?</td>
<td>Never, Sometimes, Usually, Always</td>
</tr>
<tr>
<td>59. How often did you know who to ask when you had questions about your health problems?</td>
<td>Never, Sometimes, Usually, Always</td>
</tr>
<tr>
<td>60. How often did you know what the next step in your care would be?</td>
<td>Never, Sometimes, Usually, Always</td>
</tr>
<tr>
<td>61. Did you feel you could trust your care providers with confidential information?</td>
<td>Yes, completely, Yes, somewhat, No</td>
</tr>
<tr>
<td>62. Did your care providers treat you with dignity and respect?</td>
<td>Yes, completely, Yes, somewhat, No</td>
</tr>
<tr>
<td>63. Did you get as much help as you wanted in figuring out how to pay for any extra costs for your breast cancer?</td>
<td>Never, Sometimes, Usually, Always, Doesn’t apply</td>
</tr>
<tr>
<td>64. Did a care provider go out of his or her way to help you or make you feel better?</td>
<td>Yes, completely, Yes, somewhat, No</td>
</tr>
<tr>
<td>65. If you had a visit with your family doctor during your cancer treatment, did you feel your family doctor knew enough about your breast cancer care?</td>
<td>Yes, completely, Yes, somewhat, No, Doesn’t apply</td>
</tr>
<tr>
<td>66. Did you feel that your care providers at this hospital or clinic did everything they could to treat your breast cancer?</td>
<td>Yes, completely, Yes, somewhat, No</td>
</tr>
<tr>
<td>67. Overall, how would you rate the quality of care at this hospital or clinic during your cancer treatment?</td>
<td>Poor, Fair, Good, Very good, Excellent</td>
</tr>
<tr>
<td>68. Would you recommend the healthcare providers at this hospital or clinic to your family and friends?</td>
<td>Yes, completely, Yes, somewhat, No</td>
</tr>
</tbody>
</table>
YOUR OVERALL IMPRESSION OF YOUR CARE

Now please think about all the breast cancer care you have received for your cancer.

69. Did you receive all of the services you thought you needed for your breast cancer treatment?
   - Yes, completely
   - Yes, somewhat
   - No

70. Overall, how would you rate the quality of all of your care?
   - Poor
   - Fair
   - Good
   - Very good
   - Excellent

71. Do you feel you were given sufficient privacy during your care?
   - Yes, completely
   - Yes, somewhat
   - No

72. Were you provided with sufficient information regarding your patient rights and responsibilities?
   - Yes, completely
   - Yes, somewhat
   - No

73. What number between 0 and 10 would you use to rate this hospital or clinic, where 0 is the worst hospital or clinic possible, and 10 is the best hospital or clinic possible?

<table>
<thead>
<tr>
<th>Worst possible hospital/clinic</th>
<th>Best possible hospital/clinic</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

74. Would you recommend your healthcare providers to your family and friends?
   - Yes, completely
   - Yes, somewhat
   - No

YOUR BACKGROUND...

In order to be sure we have survey responses from a variety of people, we are asking you to provide some information about your background. Remember, your individual responses will not be shared with anyone.

75. In general, how would you rate your health?
   - Poor
   - Fair
   - Good
   - Very good
   - Excellent

76. Thinking about your treatment, was it for:
   - A first time breast cancer diagnosis
   - A repeat breast cancer diagnosis

77. How many times did you attend this outpatient clinic during your cancer treatment?
   - One
   - Two
   - Three
   - Four
   - Five to nine
   - Ten or more

78. For this treatment you have been referring to, were/are you treated as a:
   - Public patient
   - Private patient
   - Something else
   - Not sure

79. Are you male or female?
   - Male
   - Female

80. In which age group do you (the patient) belong?
   - 18 to 19 years
   - 20 to 29 years
   - 30 to 39 years
   - 40 to 49 years
   - 50 to 59 years
   - 60 to 69 years
   - 70 to 79 years
   - 80 years or older

81. Is there anything else you would like to tell us about your breast cancer care services?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
APPENDIX D: BOXPLOTS SHOWING OUTLIERS IN FINDINGS OF THE TEAM QUESTIONNAIRE
Staff Information Sheet

What is the aim of this survey?
To assess your views on your vascular team (VT)
Note: This is not a test. There are no right or wrong answers.

Who will see my answers?
The information you give is totally confidential. No one, other than members of the research team, will see your answers. Data will be aggregated in reports. No individuals will be identified. Your participation in this study is voluntary.

How long will it take?
About 10/15 minutes. We ask you not to consult with colleagues when you complete it (i.e. if you need clarifications, you can ask the researchers).

How do I fill in the survey?
Please complete the questionnaires in the order they are given to you. For each questionnaire, read each question carefully, and give your response. Please answer all questions as openly and honestly as possible.

What is the specific aim of each questionnaire?
There are 11 different parts, and each item aims to gather information on specific aspects of your vascular team. Specifically:

Sections A & B: Team composition and biographical details
Section 1: Participation in decision-making
Section 2: Trust
Section 3: Relationships
Section 4: Communication
Section 5: Reflexivity
Section 6: Innovation
Section 7: Leadership and supervision
Section 8: Work and well-being
Section 9: Additional comments

You may attach additional pages if necessary when answering the open questions, but please indicate clearly which questions your answers refer to.

If you have any further questions, please feel free to ask the researchers:
Elsa Droog via email at Elsa.Droog@ul.ie or by telephone on 087-9515314
Dr. Claire Armstrong at Claire.Armstrong@ul.ie or on 061-202679
Dr. Sarah MacCurtain at Sarah.Maccurtain@ul.ie or on 061-213490
A. General information about your Vascular Team
   These questions help us to define the type of team in which you work

1. How many defined vascular teams (VTs) do you work in?
   Please specify the number of teams ____________

2. How many people in total work in this VT?
   Please specify the total number of whole team equivalents ____________

3. How long has this VT been present in this hospital/centre?

<table>
<thead>
<tr>
<th>Less than 1 year</th>
<th>11-15 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2 years</td>
<td>16-20 years</td>
</tr>
<tr>
<td>3-5 years</td>
<td>Other</td>
</tr>
<tr>
<td>6-10 years</td>
<td></td>
</tr>
</tbody>
</table>

   3.1 If other, please specify. 
      _______________________

4. To what extent do you agree with the following statements?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Always false</th>
<th>Mostly false</th>
<th>Mostly true</th>
<th>Always true</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. This VT has clear team objectives.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. You frequently work with other team members to achieve these objectives.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. There are different roles for team members within this team.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. Other people in this hospital/centre recognise your team as a team</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

5. Do you have a regular team meeting?
   _Yes_ No

   5.1 If yes, how often does the team meeting take place?

<table>
<thead>
<tr>
<th>Weekly</th>
<th>Quarterly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fortnightly</td>
<td>Other</td>
</tr>
<tr>
<td>Monthly</td>
<td></td>
</tr>
</tbody>
</table>

   5.1.1 If other, please specify.
      _______________________

6. Does this VT have key performance indicators (PIs)?
   _Yes_ No I don’t know

   6.1 List the top 3 PIs.

   _
   _
   _
B. Biographical details

This part of the questionnaire asks for details about you and your work. This information will be used to enable us to compare the views of different groups of people and a level of diversity. It will not be used to identify you.

1. What gender are you?

- Male
- Female

2. What age are you?

- 18-25 years
- 26-35 years
- 36-45 years
- Over 65

3. What nationality are you?

- Irish
- Nigerian
- British
- Chinese
- Indian
- Japanese
- Pakistani
- Other

3.1 If other, please specify.

__________________

4. What is your employment status with the HSE?

- Permanent full-time
- Permanent part-time
- Temporary full-time
- Temporary part-time

4.1 If part-time, please specify the number of hours worked.

__________________

5. What is your pattern of work with this VT?

- Full-time
- Part-time

5.1 If part-time, please specify the number of hours worked.

__________________

6. How long have you worked in this VT since it was designated a centre of excellence?

- Less than 1 year
- 1-2 years
- 3-5 years
- 6-10 years
- 11-15 years
- 16-20 years
- Other

6.1 If other, please specify.

__________________

6.2 How long have you worked in vascular care?

- Less than 1 year
- 1-2 years
- 3-5 years
- 6-10 years
- 11-15 years
- 16-20 years
- Other

6.2.1 If other, please specify.

__________________

7. What is your discipline?

Please tick BOTH your discipline and corresponding profession.

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Profession</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vascular Surgery</td>
<td>Professor of Surgery</td>
</tr>
<tr>
<td></td>
<td>Consultant Surgeon</td>
</tr>
<tr>
<td></td>
<td>Special Registrar</td>
</tr>
<tr>
<td></td>
<td>Registrar</td>
</tr>
<tr>
<td></td>
<td>Senior House Officer</td>
</tr>
<tr>
<td></td>
<td>Intern</td>
</tr>
<tr>
<td>Radiology</td>
<td>Consultant Radiologist</td>
</tr>
<tr>
<td>Nursing</td>
<td>Nurse</td>
</tr>
<tr>
<td>Other Professions</td>
<td>Vascular Technician</td>
</tr>
<tr>
<td></td>
<td>Research Nurse</td>
</tr>
<tr>
<td>Administration</td>
<td>Administrative/ Clerical staff</td>
</tr>
<tr>
<td>Management</td>
<td>Business Manager</td>
</tr>
</tbody>
</table>
Section 1: Participation in Decision-Making
1.1 This part concerns how much participation in decision-making there is in your team. Please tick the most appropriate response for each question. To what extent do you agree with the following?

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. As a member in this team, I have a real say in how the team carries out its work.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>2. Most members in this team get a chance to participate in decision-making.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>3. My team is designed to let everyone participate in decision-making.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
</tbody>
</table>

1.2 Please give below any comments you would like to make about participation in your team.

Section 2: Trust
2.1 This part concerns how much trust there is in your team. Please tick the most appropriate response for each question. To what extent do you agree with the following?

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am confident that members of the team are technically competent at the critical elements of their job.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>2. I am confident that members of the team will make well thought out decisions about their job.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>3. I am confident that members of the team will follow through on assignments.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>4. I am confident that members of the team have an acceptable level of understanding of their job.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>5. I am confident that members of the team will be able to do their job in an acceptable manner.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>6. When members of the team tell me something, I am confident that I can rely on what they tell me.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>7. I am confident that members of the team do the job without causing other problems.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>8. I am confident that members of the team will think through what they are doing on the job.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>9. I am confident that this team will treat me fairly.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>10. There is trust between members in this team.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>11. There is trust among the people I work with on a regular basis.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>12. We can depend on each other in this team.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
</tbody>
</table>
2.2 Please give below any comments you would like to make about trust in your team.

Section 3: Relationships

3.1 This section concerns the relationships in the vascular team in which you work and the relationships between your vascular team and similar teams in other hospitals. To what extent do you agree with the following statements?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The different specialties co-operate very well.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. There is a lot of disagreement and conflict between administrators, managers, and medical and nursing staff.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. The different professional groups within this team [ie. administrators, managers, and medical and nursing staff] co-operate very well.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. There is a sense that irrespective of professional boundaries, staff in this team are trying to achieve the same thing.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5. We share goals with colleagues from other hospitals.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>6. We share good practice with colleagues from other hospitals.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>7. We have useful debates with colleagues from other hospitals concerning how best we can provide care.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>8. As a result of our interactions with colleagues from other hospitals, we generate ideas of new and improved ways of providing care.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

3.2 Please give below any comments you would like to make about relationships in your team.
Section 4: Communication
4.1 The following statements are about communication in the vascular team in which you work. To what extent do you agree with the following?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Communication in the team is very good.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>2. Communication between the different specialities is excellent in the team.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>3. Different professional groups in the team [ie. administrators, managers, and medical and nursing staff] do not keep each other informed about what is going on.</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. There are often breakdowns in communication here.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5. The team’s management doesn’t clearly communicate their strategic plans or goals.</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>6. Medical and nursing staff are not clear about the aims of the team.</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>7. Medical and nursing staff have a good understanding of what the team is trying to achieve.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

4.2 Please give below any comments you would like to make about communication in your team.

Section 5: Reflexivity
5.1 The following statements are about reflexivity in the vascular team in which you work. To what extent do you agree with the following?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Always false</th>
<th>Mostly false</th>
<th>Mostly true</th>
<th>Always true</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In this team, the way people work together is readily changed in order to improve performance.</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>2. The methods used by this team to get the job done are often discussed.</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>3. There are regular discussions as to whether people in the team are working effectively together.</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>4. In this team, objectives are modified in light of changing circumstances.</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>5. In this team, time is taken to review team objectives.</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
</tbody>
</table>
5.2 Please give below any comments you would like to make about reflexivity in your team.

Section 6: Innovation

6.1 Innovation and Flexibility: To what extent do you agree with the following?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Always false</th>
<th>Mostly false</th>
<th>Mostly true</th>
<th>Always true</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. New ideas are readily accepted here.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. This team is quick to respond when changes need to be made.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. People in this team are quick to spot the need to do things differently.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. This team is very flexible; it can quickly change procedures to meet new conditions and solve problems as they arise.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Assistance in developing new ideas is readily available.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. People in this team are always searching for new ways of looking at problems.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6.2 Professional Development: To what extent are the following statements true?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not at all</th>
<th>Just a little</th>
<th>Moderate amount</th>
<th>Quite a lot</th>
<th>A great deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The organisation strongly believes in the importance of training and development.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. People here are strongly encouraged to develop their clinical skills.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. People here are strongly encouraged to develop their team skills.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. The organisation only gives people the minimum amount of training they need to do their job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6.3 Please give below any comments you would like to make about innovation in your team.
Section 7: Leadership and Supervision

7.1 Of those people responsible for supervising and managing your work, with whom do you have the most frequent contact? Please tick one item.

- Line Manager
- Team Lead Clinician
- Other

7.1.1 If other, please specify.

__________________

7.2 How often do you have formal face-to-face meetings with this person?

<table>
<thead>
<tr>
<th>More than once a day</th>
<th>2/3 times a week</th>
<th>Less frequently than once a week</th>
<th>Every three weeks</th>
<th>Less frequently than once a month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Once a day</td>
<td>Once a week</td>
<td>Every two weeks</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7.3 To what extent are the following statements true?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Just a little</th>
<th>Moderate amount</th>
<th>Quite a lot</th>
<th>A great deal</th>
</tr>
</thead>
</table>

1. My supervisor/manager encourages me to use creative and innovative ways to meet patient/service needs.

2. My supervisor/manager regularly stresses the importance of quality of patient care.

3. My supervisor/manager shares his/her knowledge and expertise.

4. My supervisor/manager encourages those who work for him/her to work as a team.

5. My supervisor/manager provides coaching and guidance to improve my effectiveness.

6. I can count on my supervisor/manager to help me with a difficult task at work.

7.4 Please give below any comments you would like to make about leadership & supervision in your team.

Section 8: Work and Well-Being

8.1 Please indicate how satisfied you are with the following?

<table>
<thead>
<tr>
<th>Very dissatisfied</th>
<th>Dissatisfied</th>
<th>Neither satisfied nor dissatisfied</th>
<th>Satisfied</th>
<th>Very satisfied</th>
</tr>
</thead>
</table>

1. The recognition you get for good work.

2. Your team’s lead clinician/ manager.

3. The freedom to choose your own method of working.

4. Your work colleagues.

5. The amount of responsibility you are given.

6. Your patients’ outcomes.

7. The opportunity to use your abilities.
8.2 **General Health Questionnaire (GHQ-12).** We would like to know how your health has been in general, over the past few weeks. Please answer the following questions by ticking the box that best applies to you. Have you recently…

<table>
<thead>
<tr>
<th>Question</th>
<th>Much less than usual</th>
<th>Same as usual</th>
<th>More than usual</th>
<th>Much more than usual</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Been able to concentrate on whatever you are doing?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Lost much sleep over worry?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Felt that you were playing a useful part in things?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Felt capable of making decisions about things?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Felt constantly under strain?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Felt that you couldn’t overcome your difficulties?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Been able to enjoy your normal day-to-day activities?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Been able to face up to your problems?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Been feeling unhappy and depressed?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Been losing self-confidence in yourself?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Been thinking of yourself as a worthless person?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Been feeling reasonably happy, all things considered?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**Section 9: Additional Comments**

9.1 Any other comments you would like to make about your experience of working within your vascular team?

---

If you have any suggestions regarding this questionnaire, please comment below:

1. 
2. 
3. 
4. 

Thank you for your participation in this research. Your time is greatly appreciated.
APPENDIX F: POSITIVE SCORES AND CHI-SQUARE TESTS FOR ALL ITEMS IN EACH DIMENSION OF CARE ACROSS ALL THREE BREAST CANCER TEAMS

“Access to Care”

<table>
<thead>
<tr>
<th>Items</th>
<th>ALL 3 Breast Cancer Teams</th>
<th>Team A</th>
<th>Team B</th>
<th>Team C</th>
<th>Between-Groups Analysis Chi-Square Test</th>
</tr>
</thead>
</table>
| Q. 17 | P = 89%  
F = 286/320 | P = 93%  
F = 97/104 | P = 84%  
F = 96/115 | P = 92%  
F = 93/101 | Pearson Chi-Square = 6.65  
df = 2  
Asymp. Sig. = 0.036 |
| Q. 19 | P = 75%  
F = 170/228 | P = 78%  
F = 64/82 | P = 64%  
F = 52/81 | P = 83%  
F = 54/65 | Pearson Chi-Square = 7.60  
df = 2  
Asymp. Sig. = 0.022 |
| Q. 29 | P = 84%  
F = 150/178 | P = 87%  
F = 53/61 | P = 67%  
F = 39/58 | P = 98%  
F = 58/59 | Pearson Chi-Square = 21.77  
df = 2  
Asymp. Sig. = 0.000 |
| Q. 30 | P = 61%  
F = 109/179 | P = 45%  
F = 28/62 | P = 53%  
F = 31/58 | P = 85%  
F = 50/59 | Pearson Chi-Square = 21.89  
df = 2  
Asymp. Sig. = 0.000 |
| Q. 31 | P = 91%  
F = 101/111 | P = 93%  
F = 51/55 | P = 90%  
F = 43/48 | P = 88%  
F = 7/8 | N.S. |
| Q. 36 | P = 93%  
F = 190/205 | P = 95%  
F = 77/81 | P = 83%  
F = 52/63 | P = 100%  
F = 61/61 | Pearson Chi-Square = 15.05  
df = 2  
Asymp. Sig. = 0.001 |
| Q. 37 | P = 59%  
F = 121/205 | P = 61%  
F = 49/81 | P = 48%  
F = 30/63 | P = 69%  
F = 42/61 | N.S. |
| Q. 38 | P = 87%  
F = 116/134 | P = 92%  
F = 59/64 | P = 80%  
F = 41/51 | P = 84%  
F = 16/19 | N.S. |
| Q. 69 | P = 90%  
F = 286/318 | P = 89%  
F = 92/104 | P = 85%  
F = 96/113 | P = 97%  
F = 98/101 | Pearson Chi-Square = 8.96  
df = 2  
Asymp. Sig. = 0.011 |
### “Coordination & Continuity of Care”

<table>
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<th>Items</th>
<th>ALL 3 Breast Cancer Teams</th>
<th>Team A</th>
<th>Team B</th>
<th>Team C</th>
<th>Between-Groups Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td>Chi-Square Test</td>
</tr>
<tr>
<td>Q. 14</td>
<td>P = 92%</td>
<td>P = 97%</td>
<td>P = 85%</td>
<td>P = 96%</td>
<td>Pearson Chi-Square = 14.09</td>
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<tr>
<td></td>
<td>F = 293/317</td>
<td>F = 100/103</td>
<td>F = 96/113</td>
<td>F = 97/101</td>
<td>df = 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Asymp. Sig. = 0.001</td>
</tr>
<tr>
<td>Q. 16</td>
<td>P = 87%</td>
<td>P = 100%</td>
<td>P = 81%</td>
<td>P = 80%</td>
<td>Pearson Chi-Square = 23.31</td>
</tr>
<tr>
<td></td>
<td>F = 275/317</td>
<td>F = 103/103</td>
<td>F = 91/113</td>
<td>F = 81/101</td>
<td>df = 2</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>Asymp. Sig. = 0.000</td>
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<tr>
<td>Q. 53</td>
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<td>P = 94%</td>
<td>P = 76%</td>
<td>P = 91%</td>
<td>Pearson Chi-Square = 17.12</td>
</tr>
<tr>
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<td>F = 273/314</td>
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<td>F = 84/110</td>
<td>F = 92/101</td>
<td>df = 2</td>
</tr>
<tr>
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<td></td>
<td></td>
<td>Asymp. Sig. = 0.000</td>
</tr>
<tr>
<td>Q. 54</td>
<td>P = 96%</td>
<td>P = 99%</td>
<td>P = 92%</td>
<td>P = 96%</td>
<td>N.S.</td>
</tr>
<tr>
<td></td>
<td>F = 277/289</td>
<td>F = 96/97</td>
<td>F = 85/92</td>
<td>F = 96/100</td>
<td></td>
</tr>
<tr>
<td>Q. 56</td>
<td>P = 75%</td>
<td>P = 79%</td>
<td>P = 53%</td>
<td>P = 93%</td>
<td>Pearson Chi-Square = 44.76</td>
</tr>
<tr>
<td></td>
<td>F = 232/311</td>
<td>F = 81/103</td>
<td>F = 57/107</td>
<td>F = 94/101</td>
<td>df = 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Asymp. Sig. = 0.000</td>
</tr>
<tr>
<td>Q. 57</td>
<td>P = 80%</td>
<td>P = 84%</td>
<td>P = 64%</td>
<td>P = 93%</td>
<td>Pearson Chi-Square = 30.06</td>
</tr>
<tr>
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<td>F = 248/310</td>
<td>F = 86/102</td>
<td>F = 68/107</td>
<td>F = 94/101</td>
<td>df = 2</td>
</tr>
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<td></td>
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<td></td>
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<td>Asymp. Sig. = 0.000</td>
</tr>
<tr>
<td>Q. 58</td>
<td>P = 85%</td>
<td>P = 89%</td>
<td>P = 79%</td>
<td>P = 88%</td>
<td>N.S.</td>
</tr>
<tr>
<td></td>
<td>F = 267/313</td>
<td>F = 92/103</td>
<td>F = 86/109</td>
<td>F = 89/101</td>
<td></td>
</tr>
<tr>
<td>Q. 59</td>
<td>P = 78%</td>
<td>P = 85%</td>
<td>P = 61%</td>
<td>P = 87%</td>
<td>Pearson Chi-Square = 26.31</td>
</tr>
<tr>
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<td>F = 65/107</td>
<td>F = 88/101</td>
<td>df = 2</td>
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<td>Asymp. Sig. = 0.000</td>
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<td>Q. 60</td>
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<td>P = 88%</td>
<td>P = 64%</td>
<td>P = 94%</td>
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</tr>
<tr>
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<td>F = 69/108</td>
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<td>Asymp. Sig. = 0.000</td>
</tr>
<tr>
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<td>P = 83%</td>
<td>P = 82%</td>
<td>P = 72%</td>
<td>P = 95%</td>
<td>Pearson Chi-Square = 18.43</td>
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<td>Asymp. Sig. = 0.000</td>
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</tbody>
</table>
### “Information, Communication & Education”

<table>
<thead>
<tr>
<th>Items</th>
<th>ALL 3 Breast Cancer Teams</th>
<th>Team A</th>
<th>Team B</th>
<th>Team C</th>
<th>Between-Groups Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td>Chi-Square Test</td>
</tr>
<tr>
<td>Q. 8</td>
<td>P = 88%</td>
<td>P = 88%</td>
<td>P = 82%</td>
<td>P = 94%</td>
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<td></td>
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<td>F = 95/116</td>
<td>F = 95/101</td>
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<tr>
<td>Q. 9</td>
<td>P = 84%</td>
<td>P = 86%</td>
<td>P = 81%</td>
<td>P = 85%</td>
<td>N.S.</td>
</tr>
<tr>
<td></td>
<td>F = 269/320</td>
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<td>F = 94/116</td>
<td>F = 86/101</td>
<td>df = 2</td>
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<tr>
<td>Q. 10</td>
<td>P = 86%</td>
<td>P = 90%</td>
<td>P = 78%</td>
<td>P = 90%</td>
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<td>P = 90%</td>
<td>P = 70%</td>
<td>P = 91%</td>
<td>Pearson Chi-Square = 12.98</td>
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<tr>
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<td>F = 161/197</td>
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<td>F = 59/84</td>
<td>F = 41/45</td>
<td>df = 2</td>
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<tr>
<td>Q. 18</td>
<td>P = 79%</td>
<td>P = 94%</td>
<td>P = 69%</td>
<td>P = 72%</td>
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</tr>
<tr>
<td></td>
<td>F = 98/124</td>
<td>F = 45/48</td>
<td>F = 40/58</td>
<td>F = 13/18</td>
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<tr>
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<td>P = 91%</td>
<td>P = 84%</td>
<td>P = 93%</td>
<td>N.S.</td>
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<tr>
<td></td>
<td>F = 283/317</td>
<td>F = 94/103</td>
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<td>F = 94/101</td>
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<td>Q. 21</td>
<td>P = 88%</td>
<td>P = 88%</td>
<td>P = 84%</td>
<td>P = 91%</td>
<td>N.S.</td>
</tr>
<tr>
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<td>F = 95/113</td>
<td>F = 92/101</td>
<td>df = 2</td>
</tr>
<tr>
<td>Q. 43</td>
<td>P = 80%</td>
<td>P = 80%</td>
<td>P = 77%</td>
<td>P = 82%</td>
<td>N.S.</td>
</tr>
<tr>
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<td>F = 219/275</td>
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<td>F = 74/96</td>
<td>F = 72/88</td>
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<tr>
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<td>P = 57%</td>
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<tr>
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<td>P = 77%</td>
<td>P = 58%</td>
<td>P = 77%</td>
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<td>P = 78%</td>
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<td>F = 210/289</td>
<td>F = 75/96</td>
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### “Physical Comfort”

<table>
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<th>Items</th>
<th>ALL 3 Breast Cancer Teams</th>
<th>Team A</th>
<th>Team B</th>
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### “Emotional Support”

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Pearson Chi-Square: 29.58
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### “Respect for Patient Preferences”

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APPENDIX G: HISTOGRAMS ON THE DISTRIBUTION OF THE PATIENTS’ POSTIVE SCORES ACROSS EACH DIMENSION OF CARE

![Histogram of Access to Care](image)

- **Mean**: 0.83
- **Std. Dev.**: 0.205
- **N**: 322

![Histogram of Coordination & Continuity of Care](image)

- **Mean**: 0.84
- **Std. Dev.**: 0.224
- **N**: 321
APPENDIX H: BOXPLOTS ON THE DISTRIBUTION OF THE PATIENTS' POSITIVE SCORES ACROSS EACH DIMENSION OF CARE
APPENDIX I:  HISTOGRAM ON THE DISTRIBUTION OF THE PATIENTS’ OVERALL HOSPITAL SCORE RATINGS