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Developing Interprofessional Collaboration: An Action Research Approach to Change in Residential Care

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Developing Interprofessional Collaboration: An Action Research Approach to Change in Residential Care

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Developing Interprofessional Collaboration: An Action Research Approach to Change in Residential Care

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Abstract

This thesis presents a study which aimed to develop interprofessional teams to drive organisational change at residential care facilities in order to gain insight into the processes involved, as well as the factors influencing them. It is unrealistic to create a team and expect team members to immediately act in a collaborative way to address team goals, yet the development process has been largely overlooked in the literature. This thesis addresses this gap. Healthcare providers at three residential care facilities for older people were invited to become involved in the study and teams were successfully set up at two facilities. The teams engaged in action research cycles over eight months. Data collection over the action research cycles included field notes, group discussions, interviews, and questionnaires. An examination of the data revealed the development of interprofessional collaboration to be a process involving increasing levels of power-sharing, co-generation of knowledge and team psychological safety, where the growth of each fed into the growth of the others. Team psychological safety, which is a team atmosphere of respect, trust and safety, acted as a catalyst in the process. Boundary spanning activities between subgroups within the team and across team boundaries were also vital. The development of interprofessional collaboration was inhibited and propelled by a number of forces originating from inside the team and from the organisational, institutional and economic environment in which the teams were operating. These included management support, organisational culture, market forces, the effectiveness of boundary spanning, team leadership, logistical issues and ingroup identification with subgroups within the team. Implications for practice include the need for acknowledging the importance of team psychological safety and garnering management support at all levels in any attempt to develop interprofessional collaboration within teams.

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Glossary of Terms

ADoN	Assistant Director of Nursing
CCM	Clinical Care Manager
DoH	Department of Health
DoH&C	Department of Health and Children (Name of Department of Health previous to 2011)
DoN	Director of Nursing
EBP	Evidence Based Practice
ESRI	Economic and Social Research Institute
EU	European Union
GP	General Practitioners
HIQA	Health Information and Quality Authority
HSE	Health Service Executive
MD	Managing Director
NCAOP	National Council for Ageing and Older People
NESF	National Economic and Social Forum
OECD	Organisation for Economic Co-operation and Development
PDC	Practice Development Co-ordinator

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CHAPTER 1 - INTRODUCTION TO THE THESIS

1.1 INTRODUCTION TO THE CHAPTER

This thesis describes a journey which lasted several years and took me on an exploration through a number of fields of research. To begin the journey, I took an objective stance as a researcher and examined the behaviour of nurses in their use of research information. I finished my journey as an action researcher, engaged in developing interprofessional collaboration at residential care facilities, completely enmeshed in the study and very much involved with the other research participants. In this thesis, I present the contextualised meaning I constructed from my own experiences and those of others. In keeping with the customary approach in action research, I tell the story using the active voice, as I am describing cycles of action research in which I was fully involved (McNiff and Whitehead 2009).

This chapter provides the background to, and an overview of, the journey. I begin by outlining the background to the study, including my background, an outline of my aims and objectives, and a description of the context of the study. I conclude with an overview of the chapters.

1.2 MY PERSONAL BACKGROUND

At first glance, I am an unlikely candidate to engage in an action research study concerned with collaboration between healthcare practitioners. For a start, I am not a healthcare practitioner; my primary degree is a science degree, and apart from a brief period of training in a hospital laboratory, I have never worked in the healthcare field. Yet, this study is set in the healthcare sector. Secondly, my science degree and early career in research laboratories dictated a positivist stance on research, while action research with its participatory worldview is very different. It is a collaborative venture where both researcher and participants are embedded in the research in order to generate practical solutions to practical problems and engage in learning in the process (Greenwood and Levin 2007).

To outline how a science graduate came to undertake an action research doctoral study in interprofessional collaboration, a brief overview of my career is called for, beginning with my days in research laboratories. Research, as far as I was concerned then, was about dependent and independent variables in a controlled laboratory environment. In fact, I was unaware, during my education and early career, of any other research paradigm. Nevertheless, I felt the dearth of other perspectives, as I became more and more unsettled with the disconnect between my work on diabetes and obesity in laboratories and 'real life'. Although I wasn't aware of it at the time, I was articulating a pragmatic philosophical view of the world, as the pragmatists view meaning as grounded in practice and emphasise the importance of social context in any investigation (Peirce 1955, Rorty 1999). These tenets are also at the core of action research which emphasises the importance of involving individuals as participants rather than subjects in research (Reason and Bradbury 2006).

I took the first step in a journey away from laboratories and positivism, and towards action research with its participatory worldview when, after undertaking some classes, I began to work in market research. It was a baby step, as the job entailed a lot of quantitative data generation and statistical analysis, but I was out of the controlled laboratory environment and undertaking studies on people in their social context. Nevertheless, I was still undertaking research on people rather than with them.

Another career change to consultant, several years later, was an additional step towards action research as the knowledge I was generating for clients had to be practical and actionable. This is the type of knowledge at the heart of action research (Reason and Bradbury 2006). This was also when my interest in collaboration began. I worked with personnel from colleges and healthcare institutions, first to identify opportunities within the markets in which they were operating, and then in their strategic planning activities. Co-operation and collaboration with other institutions was almost always a feature of the strategic planning activities with the result that I led a number of collaborative attempts and was involved in others, across both the education and healthcare sectors. I saw first-hand the benefits that can be gained from collaboration, despite the inherent difficulties in getting individuals from diverse backgrounds and from different organisations to work together. A move back to Ireland from the US brought with it a return to education, through enrolment in a Masters/PhD by research. This resulted in my engagement in mixed methods research and the expansion of my own worldview on

research due to my exposure to qualitative data collection and analysis. The results of the study highlighted the difficulties Irish nurses face when attempting to undertake evidence-based practice. My experience in collaborative ventures prompted me to consider the development of collaboration between healthcare professionals through action research as a possible means of addressing these difficulties. I designed a study centred on interprofessional collaboration in residential care for older people, transferred to the PhD register and embarked on my journey into the world of action research. This journey has by no means been easy, but it has been rewarding, as it has allowed me to address my feelings of uneasiness due to the disconnect between my research and real life.

1.3 WHY INTERPROFESSIONAL COLLABORATION?

There is a lack of conceptual clarity within the literature on what constitutes an interprofessional team. Some define it as a team of health and social care professionals working together (Ovretveit 1997a) while others suggest that the term implies collaboration in terms of interdependency, synergy and integration within the team (Barrett et al. 2005). In this thesis, I take an interprofessional team to mean the latter and distinguish it from a multiprofessional team. Individuals in multiprofessional teams make decisions independently and then share them; individuals in interprofessional teams make decisions collectively and share responsibility for them (Thylefors 2005). An interprofessional team can be viewed as one in which there is mutual respect and trust, an understanding of the professional roles of others, open communication and shared language (Hewstone and Browne 1986, Barrett and Keeping 2005, Sheehan et al. 2007).

Although it is sometimes assumed that teamwork, and by extension interprofessional collaboration, provides a universally beneficial approach to healthcare, the reality is more complex. In fact, it has been shown that a team based approach is not always the best approach (Jelphs and Dickinson 2008, Nijstad 2009). Nevertheless, the health needs of individuals are often complex, requiring the intervention of more than one practitioner. Additionally, the community and culture within which individuals live should be taken into account, which usually requires the knowledge and skills provided by several health and social care professions (Barrett et al. 2005).

Various outcomes of interprofessional collaboration have been investigated. These are broadly categorised as patient, professional, organisational and system outcomes (D'Amour et al. 2005). Despite a range of studies where interprofessional collaboration has not been found to be beneficial (Barr et al. 2005, Zwarenstein et al. 2009), there is increasing evidence that interprofessional interventions have impacted positively on patient outcomes (Zwarenstein et al. 2005, Zwarenstein et al. 2009, World Health Organisation (WHO) 2010). Collaborative practice has been shown to reduce complications, length of hospital stays, duration of treatments and improve outcomes for those with chronic diseases (WHO 2010).

Interprofessional collaboration can also impact upon professional outcomes. Suter and Deutschlander (2010) note that there is ample evidence to suggest that interprofessional interventions can increase staff satisfaction by improving workplace quality and collaboration. Molyneaux (2001), for example, describes an interprofessional initiative to improve the discharge of stroke patients and reports increasing collaboration and better working relationships between professionals. Nonetheless, there are also examples in the literature of interprofessional initiatives that were found not to impact positively on professional relationships. If some professions are benefiting more than others, this can lead to dissatisfaction and a withdrawal from the collaborative process (Freeth 2001). Miller et al. (2008) in a study on interprofessional collaboration in a number of hospitals, notes that nurses in particular, did not engage with or benefit from the process. Gibbon (1998) suggests that gains from interprofessional collaboration are frequently third party gains such as improvements in patient care or organisational gains, rather than what he considers first party gains which are gains for the individual profession. Nevertheless, being on a team that works well together to achieve goals can create a less stressful working environment for individual staff members (Borrill et al. 2000).

At an organisational level, interprofessional collaboration can provide a more co-ordinated service to patients and clients (Cook et al. 2001, WHO 2010). At a team level, interprofessional teams are generally more innovative than uniprofessional ones, and can encourage improvements in practice organisation-wide (Borrill et al. 2000). There is also evidence to suggest that at a system level interprofessional interventions reduce patient care costs and impact positively on provider recruitment and retention (Suter and Deutschlander 2010, WHO 2010).

In addition to the potential advantages of interprofessional collaboration listed above, it has been suggested that an interprofessional approach is an effective means of addressing the health and social care needs of the elderly and vulnerable, due to the complexity of their needs (Waters and Luker 1996, Paul and Peterson 2001). Accordingly, it merits consideration in attempts to improve care in residential care facilities for older people. Additionally, collaboration has also been found to be beneficial to patients in pain management (San Martin Rodriguez et al. 2008) and attempting to address pain management was one of the original objectives of the study.

1.4 THE PURPOSE OF THE RESEARCH

The aim of the study was to develop interprofessional teams to drive organisational change at residential care facilities for older people in order to gain insight into the processes involved, as well as the factors influencing them.

Interprofessional teams can take many different forms (Hammick et al. 2009a). In this thesis I examine one particular type of team, namely a project team. A project team is defined by Hackman (1990) as a temporary team set up to address a task. The task in this case was the improvement of care within individual residential care facilities.

My objectives were to:

- Set up a multiprofessional team at each facility.
- Facilitate the development of interprofessional collaboration within the teams and gain insight into the development process.
- Develop a multifaceted, evidence-based intervention to improve pain management through interprofessional collaboration.
- Improve staff knowledge about pain management.
- Foster interprofessional work practices which may be applicable to other issues in long term care for older people, for example dementia care and continence care.
- Examine the factors that influence the success or failure of the interprofessional approach.

By taking this approach I aimed to address several gaps in the literature. Firstly, Reeves et al. (2009a) note that there is very little use of social theory in interprofessional studies. Yet interprofessional collaboration is a social process. Pragmatism is a philosophy which is concerned with individuals in their social context and this is the philosophical perspective that I take. Accordingly, I utilise a number of social theories within the thesis including social identity theory and organisational knowledge creation

theory. Secondly, studies on interprofessional collaboration often disregard the social environment within which teams are operating (San Martin Rodriguez 2005, Greenfield et al. 2010) but by taking a pragmatic philosophical stance, I take account of this social context.

Thirdly, Oandasan et al. (2006) note that interprofessional studies are generally in situations where healthcare providers are geographically co-located. There is limited research in work environments where care providers are not based at the same location and come from different organisations. This study investigates such a situation. It took place in residential care facilities for older people where a number of care providers who were involved were not staff at the facilities, instead attending to provide services to clients.

Finally, Lemieux-Charles and McGuire (2006) highlight that there is a gap in the literature on how to create and maintain successful multiprofessional teams. In a similar vein, Zwarenstein et al. (2009) and King et al. (2010) express concern about the dearth of research on the process of the development of interprofessional collaboration. This thesis aims to address these gaps by examining the development of interprofessional teams.

1.5 THE CONTEXT: OLDER CARE AT NATIONAL AND INTERNATIONAL LEVEL

The action research described in this thesis took place in three residential care facilities for older people. Accordingly, in this section, I situate the study within the national and international policyscape on care of the older person.

It has been argued that social policy on older people in Ireland has been influenced by pervasive ageist stereotypes (Quin et al 1999, Considine and Dukelow 2009). Considine and Dukelow (2009 p.384) note that policy discourse frequently classes the older population as a "significant economic problem and social burden" rather than a resource. This tendency is not limited to Irish social policy and is a common international phenomenon. Indeed as Smith (1996 p.2) highlights:

> *"The various experiences of old age have truly become inseparable from cultural representations of aging. Western cultures, aging, old age and death are all so inextricably related that it becomes nearly impossible to separate individual, phobic responses from social constructions and aging practices from ageism."*

Consequently, ageing cannot be regarded simply as a biological phenomenon but also as a cultural one (Smith 1996).

Within this cultural contest, Irish government policy on older care is highly influential and will likely remain so, as the number of people aged over 65 has been projected to more than double in the next thirty years. This is a concern as older people make most use of the health services, accounting for almost half of hospital beds, although they make up just over a tenth of the population (HSE 2010a). Coupled with an ageing population are socio-economic changes occurring in Western society that impact on the provision of care to older people. These include increasing female participation in the labour force, smaller families resulting in lower number of carers within the family and an increasing tendency for older people to live alone rather than with family members (Walker and Warren 1996, Tarricone and Tsouros 2008).

1.5.1 NATIONAL POLICY ON OLDER CARE PROVISION

In Ireland, care of the older person occurs in a number of settings, for example, in acute care settings, at inpatient and outpatient rehabilitation centres, at home with home help and in residential care facilities. Individuals may move back and forth between care settings (Easton 1999). Since 1968, with the publication of the *Report of an Inter-Departmental Committee on Care of the Aged* (Inter-Departmental Committee on Care of the Aged 1968), social policy on older care in Ireland has shifted from an emphasis on institutionalised care towards an emphasis on caring for older people in their own community, especially in their own homes (Quin et al 1999). In some cases home care is not possible and accordingly, the provision of residential services that can substitute for home care in those cases is emphasised (Department of Health and Children 2001, HSE 2010b). In addition to emphasising delivery of care at home, recent policy on care of the older person has shifted away from a focus on provision of services to the aging population as a whole towards a focus on person-centred care, which is the provision of care tailored to individual needs (National Economic and Social Forum (NESF) 2005).

Despite rhetoric in policy documentation highlighting the importance of community and person-centred care, the government has been accused of failing to take on their responsibilities with regard to care of the older person and appears to be retreating from care provision (Ombudsman 2010). Due to the government's failure to meet the demand for places within public residential care facilities, the older-care sector has become

increasingly privatised with the result that many older people have had to avail of private nursing home care whilst not adequately financially supported (Ombudsman 2010). The retreat away from care provision can be partially attributed to financial issues as health services in Ireland have struggled for decades with cost containment (Fahey 1998). Underfunding of care of the older person, even during times of economic plenty, has been a consistent issue and the Irish government's spending on care of the older person is low in comparison to other OEDC (Organisation for Economic Co-operation and Development) countries (NESF 2005). This low level of spending has put pressure on the sector (Tussing and Wren 2006). The 2001 Health Strategy (Department of Health and Children 2001) contained a commitment to extend funding for care of the older person but this has proven to be empty rhetoric as there has been a cap on public sector employment since 2002 (Tussing and Wren 2006).

Issues with underfunding have been compounded by economic difficulties due to a recession that began in 2008 and is ongoing (Economic and Social Research Institute (ESRI) 2010). Arguably, within difficult economic times, social progress should be given the same focus as economic progress (Commission of the European Communities 1994). However, it appears that within the current economic climate in Ireland, the development of social policy is less of a priority (Considine and Dukelow 2009). This is evidenced by the abolishment or implementation of budgetary restrictions on key agencies established in the previous two decades in order to combat social exclusion and discrimination. Accordingly, despite the rhetorical emphasis on providing person-centred care and care at home, the community care system remains too underdeveloped and underfunded to achieve this aim successfully (NESF 2005). This has led to increasing pressure on the residential care sector as well as a high degree of dependence on care provision by family members, despite the fact that families are not being given adequate support to undertake the role (Considine and Dukelow 2009).

As well as a lack of funding, government action on care of the older person has been underpinned by a lack of clarity on the rights and responsibilities of individuals and the government with regards to the financial aspects of older care provision (NESF 2005). Virpi and Doyle (2007) argue for the importance of achieving this clarification as the sector is becoming more complex due to increasing numbers of private care providers. In recent years, the government has made inroads in addressing this issue and the introduction of the *Nursing Home Support Scheme Act 2009*, has added some clarity to

financial support provided to families with regard to long term care for older people in both private and public residential care facilities. Nevertheless, it appears that despite this new legislation, there are questions surrounding the rights of individuals to care provision which have yet to be clarified (Office of the Ombudsman 2010).

1.5.2 SITUATING IRISH POLICY ON CARE OF THE OLDER PERSON WITHIN AN INTERNATIONAL CONTEXT

Irish policy on aging and care of the older person is influenced by international policy. Influences include the World Health Organisation (WHO), the United Nations (UN) and the European Union (EU) (Quin et al 1999).

The emphasis within WHO policy is on "active aging" which is "the process of optimising opportunities for health, participation and security in order to enhance quality of life as people age" (WHO 2002 p.12). The onus is placed on society as a whole to provide support and opportunities to older people in order to allow them to maintain autonomy, independence and quality of life and to prolong their life expectancy. Additionally, governments are encouraged to take a community-based approach to care. As discussed in the previous section, this community emphasis has been reflected in Irish Government policy documentation on provision of care to the older person.

The United Nations *Madrid International Plan on Action on Ageing, 2002*, calls for a society for all ages where older people are treated with the same respect and access to opportunities available to other members of society. This notion necessitates the inclusion of older people in the policy making process. In Ireland, beginning with The National Council for the Aged in 1981, a number of advisory bodies have been created and given the remit to advise the Minister of Health on issues relating to ageing and care of the older person in Ireland (Quin et al 1999). The Office for Older People is the agency currently in place. These bodies consult with older people and draw from this population in their membership, ensuring that older people in Ireland have some say in policy matters.

There are significant differences between countries in the European Union in social policy on the care of older people due to fundamental differences in government ideologies. Nevertheless, a common thread is a growing focus on person centred care, greater inclusion of older people in the development of policy, a convergence of social

care and health care services with regard to older care and a preference for home care rather than residential care provision (NESF 2005, OECD 2005, Glendinning 2010). Also common in EU member states however, is the under-resourcing of home care delivery and an expectation that family members should be responsible for much home care provision, albeit with some financial support (Glendinning et al 2009).

1.5.3 PROVISION OF RESIDENTIAL CARE TO OLDER PEOPLE IN IRELAND

Residential care for older people in Ireland is provided in acute hospitals and residential care facilities in the public, private and voluntary sectors. Public facilities are funded by the Health Service Executive (HSE), which in turn is answerable to the Department of Health (DoH), previously called the Department of Health and Children (DoH&C). Private residential care facilities, as their name suggests, are privately owned and run (HSE 2008). Facilities in the voluntary sector usually receive most of their funding from the government but can be run by private organisations such as religious orders (Convery 2001).

Residential care facilities differ from acute care facilities in a number of ways. Clients in residential care are generally older than those using community based services and require more assistance in activities of daily living. They often have complex care issues that require input from a number of health and social care professionals (Wunderlich and Kohler 2001). Clients are often resident at the facilities in comparison to the shorter stays seen in other settings (Easton 1999). Unlike acute care, residential care facilities do not have physicians on staff. Residents receive their medical care from general practitioners (GPs) who commonly visit them in the facility but are usually not involved in daily care decisions.

A number of different health and social care staff can be employed at residential care facilities. Core staff include nurses and care assistants. Nursing staff are required since care must be supervised by a registered nurse on duty (Health Information and Quality Authority (HIQA) 2009). Nurses have an important role with regard to administration and storage of medications, in the creation of individualised care plans, and in liaising with family members (Ashurst 2006, HIQA 2009). Although it is not required, HIQA (2009) recommends that nurses undertake a postgraduate qualification in care of the older person.

Care assistants provide personal care rather than nursing care and are very involved in the daily life of residents (Tarricone and Tsouros 2008). Care staff, under the new HIQA regulations must begin training to FETAC Level 5 or equivalent within two years of commencing employment (HIQA 2009).

Some private residential care facilities employ professionals such as physiotherapists, occupational therapists, dieticians and speech and language therapists (Ashurst 2006). Alternatively, residents can be provided with access to professionals not directly employed at the facilities.

There is a wide diversity in the staffing mix and staff to resident ratio across long term care facilities in Ireland (Murphy 2006). There have been concerns raised at the low nurse to care assistant ratio in private residential care facilities which results in a dependence on lower-qualified staff (National Council for Ageing and Older People (NCAOP) 2006). Additionally, it has been noted that care provision for older people in Ireland is generally fractured with little multi-disciplinary working evident (O'Neill and O'Keeffe 2003, NCAOP 2005b). Consequently, there is increasing focus at policy level on advocating that care provision across professional boundaries is seamless and integrated. Although policy documentation does not advocate for interprofessional collaboration specifically, the recently introduced *National Quality Standards for Residential Care Settings for Older People in Ireland* (HIQA 2009) note the importance of providing an integrated and holistic service for residents. Similarly, government policy documentation stresses integrated care provision (DoH&C 2006, 2008, HSE 2009, McDaid et al. 2009). Greater co-operation between healthcare disciplines is especially emphasised in the current transition to a community-based primary care service (DoH&C 2001).

There have also been recent changes in the regulation of older care provision. Before 2007, the HSE was responsible for the regulation of private residential care facilities while there was no inspection of public facilities. Deficits in nursing home care and institutional abuse had come to light in the preceding years, such as the Leas Cross Nursing Home scandal, which were reported extensively in the media (O'Neill 2006). This led to calls for effective development and policing of standards of care (Tussing and Wren 2006). In response, the Health Information and Quality Authority (HIQA) was established in May 2007 and one of its immediate responsibilities was to co-ordinate standards development for all residential care facilities for older people. HIQA

undertook a consultation process in order to develop standards, leading to the publication of draft standards in March 2008 and a final document in February 2009 (HIQA 2009). HIQA then took responsibility for inspections in July 2009. According to a report commissioned by Nursing Homes Ireland (Prospectus Strategy Consultants 2010), the new guidelines have raised standards in the sector. The HIQA process of developing and implementing standards overlapped with the action research cycles of my study.

Government policy has an impact on values and behaviour within organisations, since as it changes, management and staff within organisations must bring organisational practices into line with the new policy direction (Scott 2003). Hence, greater emphasis on multiprofessional working and person-centred care at a government level has a bearing on organisational culture within residential care facilities, as management and staff within these facilities must attempt to integrate these values into organisational culture and adjust practices accordingly (HSE 2010b). Similarly, increased regulation of the sector can shape organisational culture within residential care facilities due to the changes in routine behaviours as well as the values and assumptions underpinning these behaviours that may be required in order to meet the standards set by the regulatory body (D'Aunno et al 2000).

1.6 AN OVERVIEW OF THE THESIS

There are two studies described in this thesis. Only a brief overview is given of study 1. Study 2[1], the action research study was conceived as a means of examining the ideas that emerged from study 1, namely that developing interprofessional collaboration could improve practice in residential care. That is not to say that the results of study 2 are used to 'prove' or 'disprove' the ideas that emerged from study 1. As Bassey (2003) highlights, the study of singularity cannot be used to predict probabilities. Additionally, due to the complexity of organisations, there is no one correct way to organise and achieve organisational change (Coghlan and Brannick 2010). Nevertheless what can emerge from action research cycles are what Bassey (2003 p.117) refers to as "fuzzy generalizations". So although I will not be able to generalize the results of study 2 to all residential care facilities, aspects of the research may be contextualized to facilities that share certain features with the facilities in the study.

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[1] In the early chapters of this thesis when it is necessary to distinguish between the studies, they are referred to as study 1 and study 2. Otherwise, as it is the main focus of the thesis, study 2, is referred to as 'the study' or 'the action research study'.

I begin the thesis with an overview of the literature on organisational change. This is because organisational change was a concern in both research studies. The literature in chapter 2 informed the data analysis of study 1, which was an investigative study into nurses' use of research information in decision-making. It also informed the research approach taken in study 2, an action research study to undertake planned change in residential care. I outline how planned change is often mistakenly viewed as a top-down, prescriptive approach to change. However, in reality it can fall anywhere within a three dimensional framework. This depends on how much of the focus is on systems or people, whether change is focused on individual, team or organisational behaviour and whether attempts at change come from the top-down or bottom-up. Since my focus in this thesis is on a team approach to change, I introduce social identity theory as a means of examining individuals' behaviour within groups. I also introduce boundary spanning as a theoretical tool for exploring how they behave with regard to the boundaries of those groups. I conclude with a discussion on individual, organisational and system-level factors that can impact on organisational change. To do so, I draw on Lewin's (1948) conceptualisation of factors as forces driving or restraining change efforts.

Cycles of action research can be preceded by a pre-step which is when the context and purpose of the action research is established (Coghlan and Brannick 2010). By informing the research approach of study 2, study 1 became part of the pre-step for the cycles of action research that took place in study 2. Study 1 is discussed in chapter 3. I briefly outline the results of study 1 and describe how those results, and the conclusions I drew from them, informed the approach I took in study 2. I describe how I became cognisant of the importance of three factors: power disparities within healthcare teams; the information-seeking preferences of practitioners; and the importance of management support. I outline how, to take account of these factors, I focused on an action research approach with interprofessional collaboration at its heart.

In chapter 4 I address the literature on interprofessional collaboration. I discuss the lack of conceptual clarity around the terms interprofessional collaboration and interprofessional team. I describe my conceptualisation of interprofessional collaboration by drawing on Himmelman's (2001) view of collaboration as existing on the interdependent end of a spectrum of interactions between individuals. The spectrum also includes networking, co-ordination and co-operation. I suggest that the term interprofessional team should not be used to describe any team of professionals working

together and that the term multiprofessional team is more appropriate if team members are not collaborating. Multiprofessional teams can be regarded as co-operating and co-ordinating and if they learn to work together in a more interdependent and synergistic way, they can be viewed as interprofessional teams. In this way a multiprofessional team can develop into an interprofessional team and this contention is central to my thesis. My synthesis of the literature resulted in a theoretical framework which utilises the team development literature to conceptualise this development process. I draw on Tuckman's (1965) model and emphasise two activity tracks during team development, namely teamwork and taskwork.

This provides a means of distinguishing between interprofessional 'teamwork' which is concerned with the processes of interaction between team members and interprofessional 'collaboration' which not only takes account of these interactions, but also how they impact on goal achievement ('taskwork'). Within this theoretical framework, the various forces internal and external to the team that drive or restrain the process of development are also visualised. In this chapter, I also introduce Edmondson's (1999) concept of team psychological safety. Although it is not generally a feature in the interprofessional collaboration literature, it emerged as important in the study.

In chapter 5 I discuss the methodological considerations of my approach. The work of Peirce and other pragmatists including Dewey and Mead underpins my research and my pragmatic view of the world. I explore the pragmatic tenets that informed my thinking and link those tenets to the action research approach I took. This approach reflects Coghlan and Brannick's (2010) description of classical action research and is influenced by principles of participatory action research.

In chapter 6 I outline my attempts to set up multiprofessional teams at three facilities with a view to engaging in action research cycles culminating in the development of successful interprofessional teams. I describe how, despite my experience with collaborative initiatives and my review of the literature, I failed to take into account that this pre-step to the action research cycles could be just as vulnerable to restraining forces as the action research cycles themselves. I soon had to acknowledge the influence of the restraining forces, as my attempt to set up teams was only successful in two out of three facilities. In this chapter I discuss the forces at work: the presence or absence of

sponsors and champions; the presence of trust and a view that change was necessary; economic forces; and regulatory forces.

In chapter 7 I discuss the action research cycles at the two remaining facilities. I utilise the framework discussed in chapter 4 to examine the team development process. This allowed me to conceptualise three central intermeshed processes in interprofessional team development: the development of team psychological safety; an alteration in power relationships with empowerment of lower status team members; and the co-generation of knowledge within the team. The role of team psychological safety as a catalyst emerged as important.

I continue my analysis of the action research cycles in chapter 8, focusing on the forces that facilitated or prevented the multiprofessional teams from developing into interprofessional teams and achieving their goals. A number of forces were at work including: changing team membership; ingroup identification of professionals with their professional group; the efficiency of boundary spanning activities; leadership within the teams; management behaviour; management support; organisational culture; market forces; and institutional forces.

Chapter 9 forms my discussion and conclusion and I outline my key findings. I articulate the importance of team psychological safety as a catalyst in the development of interprofessional collaboration and provide a model for the development process. This model is based on positive feedback between team psychological safety, power-sharing and knowledge co-generation. I show that boundary spanning is a vital activity and that in interprofessional team development it is important to take account of all boundaries, not just those around professional groups. I also discuss the impact of the surrounding environment on the development process and follow with a consideration of the implications of these findings for practice and policy. Finally, I deliberate on the action research approach taken in the study.

An overview of my research approach is provided in Figure 1 which outlines the pertinent thesis chapters.

Development of the research proposal for study 1 (Ch 3)

→

Study 1 = An investigation into nurses' use of research information in their decision making

→

Interview and questionnaire data collected, analysed and triangulated (Ch 3)

↓

Identification of three residential care facilities as research sites (Ch 6)

←

Study 2 = An action research approach to improving care

←

Development of the research proposal for study 2 based on the analysis of data from study 1 and a review of the literature. Study 1 now becomes part of a pre-step for study 2. (Ch 2,3,4 & 5).

↓

Collection of data using interviews, questionnaires and group discussions to establish context and purpose (Ch 6)

→

One facility drops out (Ch 6)

→

A team set up at each of the other two facilities to take part in the action research (Ch 6)

↓

Thesis completed

←

Additional data collected, analysed and synthesised after action research cycles complete (Ch 7, 8 & 9)

←

Action research undertaken at the facilities consisting of cycles of constructing, planning action, taking action and evaluating action at each facility. Data collection and analysis, individual reflection and group reflection occurs throughout (Ch 7)

FIGURE 1: AN OVERVIEW OF THE RESEARCH APPROACH

CHAPTER 2 – A REVIEW OF THE LITERATURE ON ORGANISATIONAL CHANGE

2.1 INTRODUCTION TO THE CHAPTER

As outlined the previous chapter, my investigations took the form of two separate studies. The literature on organisational change outlined in this chapter is pertinent to both studies. The first study, which subsequently formed part of the pre-step for an action research study, was concerned with the use of research evidence in nursing practice. Introducing such research into practice often involves organisational change. Study 2 was an action research study where the aim was to take an interprofessional team approach to generate organization-wide changes in care provision in residential care facilities for older people.

Although the literature in this chapter informs the analysis of my findings in both studies, its primary use was to inform my action research methodology. In designing my research approach I had to make a number of decisions. Although the process itself was not a linear one, with many iterations and dead ends encountered, for clarity I present it in linear form in Figure 2. This will aid the reader's understanding of the review of the literature covered in this chapter and chapter 4.
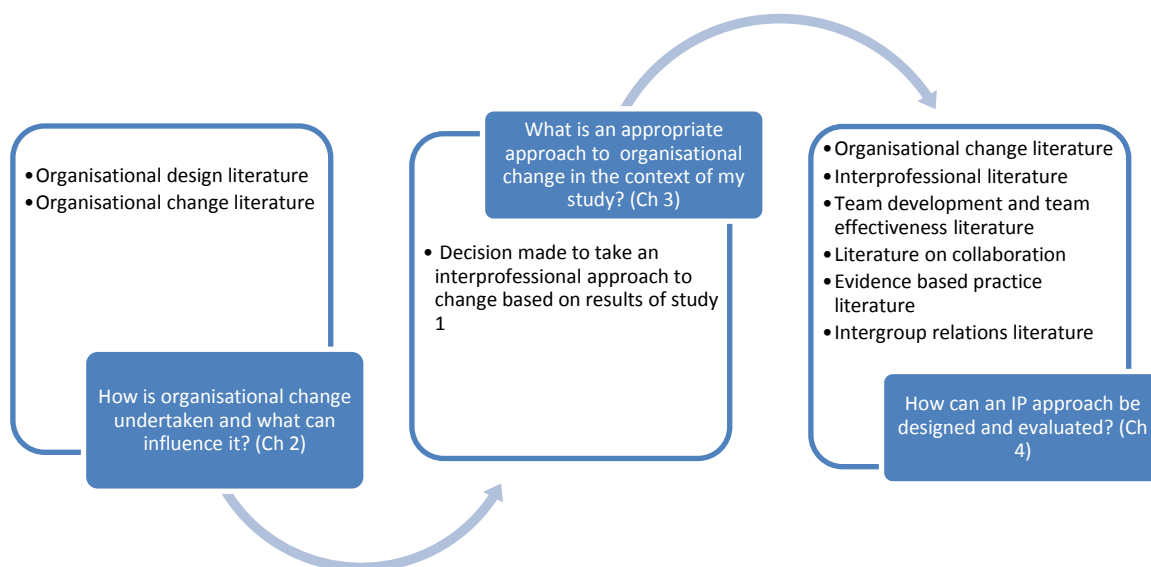
FIGURE 2: THE LITERATURE INFORMING THE RESEARCH APPROACH

There are two main sections in this chapter. I first give an overview of the various approaches to organisational change. I focus on planned change efforts as this was the approach taken in this study through the use of action research. I continue in section 2.3 with a review of some of the factors that can impact on change efforts once they are underway.

Perspectives within organisation theory are not only categorised differently by different writers but, as Hatch (1997) points out, the boundaries of the different perspectives are in constant flux, making categorisation difficult. Consequently, within this chapter I refer to a number of schools of thought, but the terminology I use is by no means universal.

2.2 A PLANNED APPROACH TO CHANGE

Proponents of different schools of thought on organisational theory and behaviour have tried to argue that their perspective is the 'best way' to examine organisational structure and behaviour and as Drucker (2000, p.9) notes, the search for "the one right organization" continues to this day. Burnes (2004a) however, warns us to be wary of any proposition which purports to fit all organisations in all contexts. Hosking (2006 p.4) criticises the lack of "openness to multiple paradigms and to dialogue between paradigms" in the organisation studies literature. Similarly, Beer and Nohria (2000) stress that there is no universal model to describe or predict how people will act in any organisational scenario and suggest that there is much to be learned from taking account of various perspectives on organisational change. Change within organisations is a complex phenomenon and it cannot be planned or predicted according to one overarching theory (Grieves 2010).

Essentially, views on organisational change can be viewed as constructed by individuals engaging personally with the theory of change as well as engaging with change initiatives in action. Weick (2000) provides an example of this phenomenon when discussing the ongoing adjustments that occur constantly in organisations. He notes that different definitions of these adjustments are dependent on the perspectives of the observer. They are defined by some as examples of emergent change, in other words change that occurs perpetually, and by others as examples of periods of normal organisational functioning between episodes of transformational change. Bearing this in

mind, although I classify my research approach as falling under the category of planned change, I suggest that planned change cannot be regarded as a prescriptive approach.

Planned change occurs where a need for change is recognised and a systematic attempt is made to address this need. It has been criticised as a top-down, linear, prescriptive approach that suppresses innovation and adaptive processes. Many of these criticisms of planned change seem to originate from a simplistic view of it as a unified theory driven by the same assumptions (Burnes 2004b, Grieves 2010). Boonstra (2004) for example, describes all planned change as a linear process where decision-making is formalised and influenced by top management. Decisions are mostly made for economic or technical reasons, and the focus is on changing formal structures. Essentially, he describes it as a process where employees have very little say and little interest in getting involved. Although this description could apply to a limited number of planned change initiatives, it by no means describes the overall approach. Organisation development, for example, falls under the umbrella of planned change yet rather than viewing change as a top-down prescriptive process, researchers in this field consider participation and mutual learning of the utmost importance (Coghlan and Shani 2010). In fact, Kurt Lewin, who is often viewed as the father of planned change, advocates a participative and collaborative approach taking account of the voices of all stakeholders (Lewin 1948). Indeed, from Lewin's work, many types of planned change have emerged which are underpinned by different, and in some cases contrasting, assumptions (Burnes 2004a).

Other criticisms of planned change come from the belief that the planned change perspective views organisations as existing in states of inertia followed by brief bursts of programmatic, planned change where one state of being is replaced by another (Kanter et al. 1992, Weick 2000). Some related criticisms are of Lewin's (1951) three-step model of change which consists of the three steps of unfreezing, moving and refreezing as it is assumed that Lewin viewed organisations as existing in stasis between periods of change (Burnes 2004b). Lewin (1951 p.308) in fact, argues that organisations exist in quasi-stationary equilibrium and accepts that "group life is never without change, merely differences in the amount and type of change exist".

There can also be an assumption that all planned change is based on a linear model. Pettigrew (2000), for example, criticises planned change by noting that change should not be approached as a series of planned events but instead as complex non-linear

processes which cannot be anticipated. He argues for a focus on the sociological, contextual and temporal aspects of change. Once again this criticism, although appropriate for some planned change efforts cannot be said to be applicable to all. Lewin (1951) was conscious of the unpredictable nature of change as well as its temporal aspects, viewing change in terms of a constant flow. Additionally, complexity theory which emphasises the interrelatedness of organisational subgroupings and the complexity inherent in organisational life is not incongruous with a planned approach to change. Accordingly, it is a perspective adopted by many researchers in planned change efforts (Grieves 2010).

Based on these arguments, I suggest that planned change approaches can be conceptualised within a three dimensional framework. Although the dimensions have often been presented in the literature as dichotomous, I propose a continuum in each case as more appropriate:

- Dimension 1: A focus on systems ←——→ A focus on people
- Dimension 2: A focus on individuals ←——→ A focus on the organisation
- Dimension 3: Top-down change ←——→ Bottom-up change

Figure 3 illustrates the framework. The figure represents the choices that a researcher must make in designing a planned change approach:

- Is the focus on changing the mechanics of a system or attempting change through a social focus on relationships and emotional states of individuals? Or a combination of both (Dimension 1)?

- How much of the focus is on individuals, groups or the whole organisation (Dimension 2)?

- Is change attempted from the top, the bottom or some combination of both (Dimension 3)?
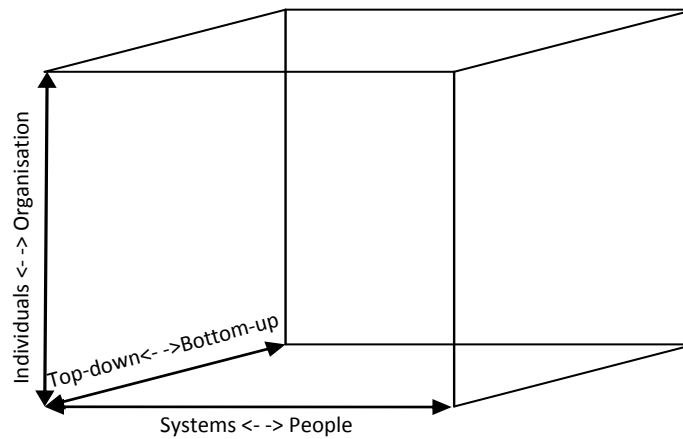
FIGURE 3: A THREE DIMENSIONAL FRAMEWORK OF PLANNED CHANGE APPROACHES

The overall approach to change depends on the choice of approach within each dimension. In the following subsections I discuss each of the three dimensions. Within cycles of action research I focused on changing both systems and people in dimension 1, utilised a team approach, thus took a group focus in dimension 2 and aimed for a combination of a top-down and bottom-up approach in dimension 3. In the following discussions I place particular emphasis on the literature that influenced those choices in the design and implementation of my action research approach.

2.2.1 DIMENSION 1: FOCUSING ON SYSTEMS, PEOPLE OR A COMBINATION OF BOTH

There are numerous approaches to research on organisational change, each founded on different perspectives of organisational reality where organisational structures and people are viewed in different ways (Grieves 2010). Organisational structures are:

> "*the formal elements of organizations, the rules and procedures that are designed to guide or restrict the behaviour of people.....Structure can include the organization's prescribed roles, job assignments, rules for proceeding, decision-making powers, reporting relationships, communication channels, hiring and retention practices, career paths and other practices that attempt to channel people towards organizational ends*" (Cohen 2000 p.178).

Changing these formal structures in order to leverage organisational change can be described as a taking a 'hard' approach to change (Hirschorn 2000). Examples of hard approaches to change in healthcare include: mergers, which bring about major structural changes (Begun et al. 2003); changing clinical guidelines, which are the written protocols that give direction for clinical practice (Grol 2001); or introducing computerised patient care records systems (Larkin and Callaghan 2005). 'Soft'

approaches, on the other hand, focus on changing organisational culture by changing the attitudes, behaviours and beliefs of individuals (Hirschorn 2000). Soft approaches to change in healthcare include guided reflection and clinical supervision, as these activities can be designed to raise the awareness of practitioners of their own practice (Clarke and Wilson 2008).

Hard and soft approaches to change should be regarded as existing on a spectrum rather than a dichotomy as most change efforts involve a combination of both (Cohen 2000, Francis 2000). The types of outcomes that are deemed necessary should dictate the particular approach. Paton and McCalman (2006) offer a useful heuristic for locating change on a spectrum, illustrated in Figure 4. As the complexity of the change environment increases, so should a bias towards softer methodologies. Likewise, a requirement for behaviour change necessitates a strong focus on interpersonal relations while a more simple technical change requires a greater focus on structure. This means that very technical issues, like those that can be defined as engineering or scientific, should be addressed by an approach located to the very left of Figure 4 which focuses on systems only. Paton and McCalman (2006) note that these changes are rare, since people are usually involved in some way. Similarly, changes that only involve people should be addressed using techniques at the far right of the spectrum. Once again these are rare, since people generally interact with systems in their working day. Most change situations exist in the intermediate grey area of the spectrum and therefore call for a combination of hard and soft solutions.
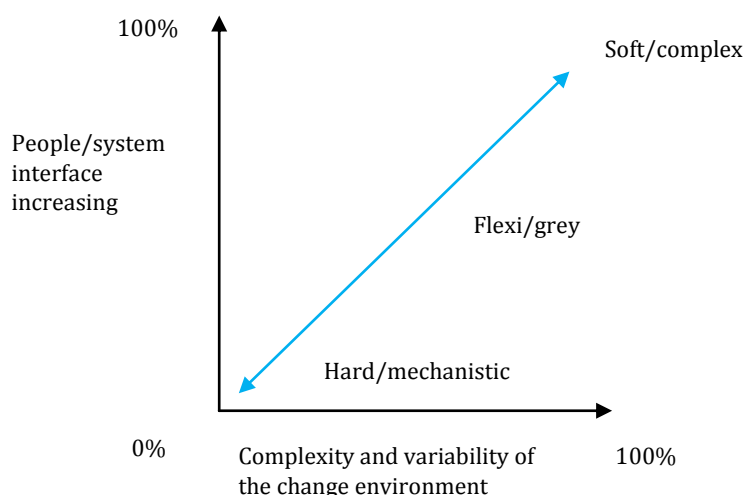
FIGURE 4: THE CHANGE SPECTRUM (PATON AND MCCALMAN 2006, P.21)

Healthcare organisations and by extension, residential care facilities for older people, are generally rather complex, bureaucratic organisations (x-axis) and the service nature of the industry means that there is a high people/system interface (y-axis), suggesting that appropriate approaches to change should be located somewhere in the grey area of Paton and McCalman's (2006) model illustrated in Figure 4. Nevertheless, attempts at changing practice in the healthcare environment have often been systems-based. Early approaches to evidence based practice (EBP) provide examples. The focus was on providing updated or new clinical guidelines to practitioners in the expectation that by changing the 'rules' for clinical practice, changes in practice would automatically occur. This approach did not meet with much success (Grol 2001). Provision of guidelines resulted in some cases, in positive feedback from clinicians, but overall, few significant improvements in patient care (Thompson et al. 2000). Even when guidelines were introduced at national level and were backed up by policy documentation, change at practice level did not necessarily follow. A study on the use of clinical guidelines introduced at a national level across Scotland determined that only when the system change was accompanied by softer approaches, such as training aiming to changing the attitudes and behaviour of practitioners, was their introduction successful (Ring et al. 2006). These conclusions are echoed elsewhere in the literature and there is general acknowledgement that implementation of change in healthcare is more successful when the change efforts focus on both hard and soft solutions (Feder et al. 1999, Titler and Matthews 1999).

2.2.2 DIMENSION 2: A FOCUS ON INDIVIDUALS, TEAMS OR THE ORGANISATION

Although he acknowledges that change management cannot be easily subdivided into sub-disciplines with clear boundaries Burnes (2004a) offers three schools of thought on change: the individual perspective school, the open systems school and the group dynamics school. Those in the individual perspective school, as the name suggests, concentrate on changing individual behaviour. This can be done through changing the environment within which the individual is embedded or facilitating individuals to examine their own attitudes and beliefs. Practical examples include offering financial incentives to individuals or training programmes to encourage reflecting on and changing individual behaviour (Burnes 2004a, Grant 2010). Within the open systems perspective, organisations are viewed in their entirety, and as open to their external environment. They are regarded as composed of interrelated and interacting subsystems

where changes in one subsystem impacts on the others. Those attempting change must take account of the interconnectedness of the various subsystems with a view to achieving overall maximization rather than focusing on single subsystems (Burnes 2004a). Total Quality Management is an approach that fits within this perspective. This approach involves taking a view of change as a continuous, long-term process. An organisation is analysed, resulting in work practices across the whole organisation being reorganised with the needs of clients and patients in mind (Kimberly and Minvielle 2003).

Within the group dynamics school, organisational change is brought about through team efforts (Burnes 2004a). The approaches are based on the reasoning that most human endeavour in organisations occurs in the context of groups and that individual behaviour, beliefs and attitudes are influenced by group norms and values. Group dynamics approaches to change interventions can be very effective in the healthcare field (Firth-Cozens 2001).

These three schools of thought are by no means mutually exclusive. The idea of an organisation as a system open to its environment can, for example, fit with a group approach to change (Burnes 2004a). Accordingly, the choice of where to focus change efforts is offered as a continuum ranging from individuals to the organisation in Figure 3. In the research approach in this study, I set up work groups to undertake organisational change efforts so my approach sits in the middle of the continuum. Accordingly, in the remainder of this section, I discuss issues of group behaviour, by drawing on the literature on social identity and boundary spanning.

2.2.2.1 SOCIAL IDENTITY THEORY AND BOUNDARY SPANNING

People constantly define and redefine their environments though interaction with each other (Peirce 1955). Consequently, to understand the behaviour of individuals, it can be useful to understand the behaviour of the groups to which they belong. Schein (1999 p.14) reasons that:

> *"Beliefs, values and behaviour of individuals are often understood only in the context of people's cultural identities. To explain individual behaviour, we must go beyond personality and look for group memberships and the culture of those groups".*

Social identity theory provides a useful socio-psychological perspective on group behaviour and the behaviour of individuals within groups. In this theory, individuals

categorise themselves and others as being part of various social groups (Turner 1982) and identification with a group is regarded as "the psychological process underlying group phenomena" (Hogg 2006 p.117). Groups can be based on many factors such as demographic, organisational and professional. The social identity of an individual is different from personal identity which "differentiates the unique self from all other selves" (Jenkins 2008 p.112). Social identity makes up part of this personal identity of an individual and can be conceived as: "consisting of those aspects of his self-image, positively or negatively valued which derive from his membership of various social groups to which he belongs" (Tajfel 1978 p.443).

Hogg (2006) notes that social identity theory takes account of two theoretical perspectives that are related but categorised separately: intergroup theory and self-categorisation theory. Intergroup theory is rooted in Sumner's work on ethnocentrism where groups are viewed as organised into ingroups and outgroups (Sumner 1906 cited in Brewer 1986). Group members focus on ingroup similarities and intergroup differences and evaluate their own groups and others based on these attributes (Tajfel and Turner 1986, Hogg 2006). Individuals aim to maintain positive relationships within their ingroups but react to outgroups negatively (Brewer 1986). Tajfel and Turner (1986 p.17) suggest that "the aim of differentiation is to maintain or achieve superiority over an outgroup on some dimensions". An example is the way that healthcare professionals highlight their professional differences. I discuss this point in more detail in chapter 4.

Self-categorization theory suggests that individuals categorise themselves into groups, and in this way develop a shared social identity. This shared identity can be either positive or negative which impacts on self-perception (Tajfel and Turner 1986). Individuals identify with more than one group at a time. Depending on social circumstances, an individual may identify more with one group than another at a particular moment in time, and their identification with any group varies over time (Tajfel 1982a). An individual may, for example, identify strongly with their professional identity while in the workplace, as well as concurrently identifying with other groups based on attributes such as gender, age and ethnicity, but their identification with their professional identity may reduce in a social situation away from the workplace.

Social identity theory represents a move away from a traditional view of ingroup and intergroup interactions as dependent on personalities of individual group members,

towards a view of a social identity held collectively (Hogg 2006). Their social identity may impact more on the decisions, expectations and values of an individual than their personality (Korte 2006). Thus, social identification has practical implications in attempts at change since behaviour and attitudes of individuals are influenced by group affiliation (Reicher 1982). This argument supports Lewin's (1948) assertion that it is more efficient to focus on groups than targeting individuals in attempting change.

Groups have boundaries and Fontaine et al. (1997) highlight that one of the dangers of a team approach is that these boundaries can create barriers to information flow and behaviour change. As a result, improvements can be limited to a single team rather than occurring throughout an organisation. Care must be taken to encourage effective communication between the team and the rest of the organisation. Consideration must also be given to the other groups that exist within organisations and the boundaries that surround them. Boundaries can exist between hierarchical management levels and aggregate levels i.e. "the individual, the face-to-face working team, the interdepartmental group of teams and the organization" (Coghlan and Rashford 2006 p.3).

Interaction across group boundaries is generally conceived in terms of boundary spanning. This is a concept which is utilised in the open systems literature to examine activities across team and organisational boundaries (Carlile 2002) and in the social identity literature to examine intergroup relations (Richter et al. 2006). I draw from both areas of research.

Boundary spanning can occur through the use of boundary objects or the activities of boundary spanners. Boundary objects are artefacts which can be used to cross boundaries (Heldal 2010). Boundary objects in healthcare can include items such as patient records, information technology systems, medical protocols, x-rays and patient samples. Effective boundary objects are based on a shared language, allow different groups to learn about their dependencies and differences and facilitate transformation of knowledge (Carlile 2002). Levina and Vaast (2005) suggest that some boundary objects are designated boundary objects, in other words they are designed to span different boundaries. Others are previously used by one group or another and only emerge as boundary objects when put to use by other groups.

Coghlan and Rashford (2006) highlight the role of key individuals who cross boundaries between different subsystems and in doing so, link them. These key individuals can be described as boundary spanners. Boundary spanners are individuals or groups who interact across group boundaries with others outside the group (Friedman and Podolny 1992). Boundary spanners are described by Adams (1976 cited in Friedman and Podolny 1992) as boundary role persons, and he assigned two functions to them. They are regarded as acting as a representative of perceptions and ideas of one group to another and acting as a conduit of influence between the groups. Miles (1980) argues for other functions of boundary role persons. Firstly, they may act in the function of primary information-provider on group activities to those outside the group. Secondly, they can act as a buffer against external forces and threats. Thirdly they can act as an information gatekeeper, by summarising and distilling information from the outside environment for the group. Fourthly they may help in transactions by securing necessary resources and facilitating group outputs and finally they may act as a linker and co-ordinator between the group and the external environment.

Marrone (2010) has combined the research on boundary spanners and divides boundary spanning activities into three main categories: representation, co-ordination of task performance and general information searching. Representation is where boundary spanners advocate for the group by negotiating for resources, negotiating for support for group decisions and looking for feedback on team activities. Co-ordination of task performance involves interaction with others in order to achieve team goals. General information searches, also referred to as information gatekeeping activities are those which involve seeking knowledge and expertise from outside the group. Ancona and Caldwell (2007) add one more activity to this list, namely guard activity. These are individuals who keep information and activity inside the group and are generally found in teams where security and secrecy are paramount, for example in highly competitive environments. This boundary spanning activity, which is probably more accurately described as boundary blocking, was not a feature of the teams in this study as we were not working in a situation that required secrecy. For the purposes of this study, I will utilise the first three categorisations of representation, co-ordination and gatekeeping.

Boundary spanners can be nominated within an organisation or group, or can take on the role themselves (Levina and Vaast 2005). Different boundary spanning activities may be distributed among different individuals while others do not engage in any

(Ancona and Caldwell 2007). Individuals attempting to negotiate between groups must identify with both groups. Consequently, role conflict is commonly associated with boundary spanning activities (Friedman and Podolny 1992).

As boundary spanning links a team and its external environment, it is an important activity when teams attempt to implement change at an organisation-wide level. Team members must persuade others outside the team of the value of change and work across team boundaries to coordinate activities (Ancona and Caldwell 2007). Additionally boundary spanning may be required to gather information from outside the team and to inform others of the team's progress (Golden and Veiga 2005). Accordingly, it has been suggested that teams that engage in effective boundary spanning activities can be more successful than those that do not (Marrone, 2010).

2.2.3 DIMENSION 3: TOP-DOWN AND BOTTOM-UP APPROACHES TO CHANGE

Top-down are management-led efforts at organisational change and bottom-up approaches are staff-led. A growing recognition that management-led changes are difficult to achieve has resulted in a move in recent years away from this type of prescriptive change. Schein (1999) and Hatch et al. (2008) argue that these approaches may not be the best to take and offer as proof the lack of success of many management-led attempts at change. Instead, approaches involving staff in decision-making about change have become more popular (Martin 1999, Mabey and Mayon-White 2004).

Just as the systems/people dichotomy is a misnomer, assuming that change is either top-down or bottom-up does not allow for examples of change efforts with varying combinations of staff/management involvement. Pettigrew (2000) notes that even with top-down strategic change efforts, customisation of the change strategies must occur with staff on the front line. Similarly, Weick (2000) argues change should be regarded as something that occurs on the front line and is certified by management rather than created by management.

The move towards inclusiveness appears to reflect a general trend towards a flatter organisational design with fewer management levels, as well as a push in recent years for more consensus-building styles of management (Grieves 2010). Nonetheless, it appears that bureaucracy still remains a common feature in healthcare. Organisations in this sector tend to have hierarchical management structures which discourage participative decision-making in change initiatives (Ennis and Harrington 1999,

Lamothe and Dufour 2007). This is reflected in residential care facilities for older people, where management through control rather than consensus has been reported as common (Jervis 2002). Staff have reported excessive managerial control with correspondingly low autonomy for staff, low involvement in decision-making and poor supervisor support (Culp et al. 2008).

Bearing in mind the high degree of management control in day to day activities in the healthcare sector, one might legitimately ask: 'Is it better to take a top-down or bottom-up approach to change?' Chelluri (2006) notes that this question still remains unanswered, and there are many examples of both successful and unsuccessful change initiatives that took one approach or the other. Top-down changes have the advantage of speed, since only a limited number of people are involved in decision-making, and they have the weight of management mandates behind then. However, staff may not see the relevance of the change initiatives to their practice and may not be clear on their role in the process (Chelluri 2006). This can have a negative impact, since if mangers cannot persuade staff of the value of change and are perpetually thwarted by a lack of interest on the front line, they will not continue to support change efforts themselves (Pettigrew 2000). Accordingly, support from staff is essential in ensuring that changes are accepted and become embedded in practice (Cummings 2004).

Bottom-up approaches to change have been shown to improve employee attitudes and have led to lower absenteeism, higher quality services, and improvements in decision-making and problem-solving skills of staff. Staff can also be more supportive of change efforts in which they have an active voice. As Burke (2010 p.117) states: "if you own the decision, you're likely to implement it". However, these approaches may be perceived by managers as a threat to their authority, who may not, as a result, support the initiatives (Longest 1998, Pettigrew 2000, Cummings and Worley 2001). Additionally, staff may be uncomfortable in a position that they see as confrontational (Saebo and Titlestad 2004, Philibert 2008). Management support is important since an innovation is more likely to become routine practice if there is support from top management and active involvement from top and middle management (Greenhalgh et al. 2004).

Bero et al. (1998) in a review of change in healthcare found evidence to suggest that a combination of top-down and bottom-up work best. Philibert (2008) contends that bottom-up approaches allow identification of problems and solutions in the local

context, while top-down approaches situate changes within a larger environment that involves staff and management at all levels. Equally, Wyman (1998) argues that when undertaking strategic change, top-down and bottom-up approaches must be adopted concurrently. The top-down approach is necessary to develop strategy while the bottom-up approach is necessary to redesign work processes.

Successfully combining top-down and bottom-up approaches is not easy and there are numerous examples of failed attempts across the literature (Sminia and Van Nisterlrooji 2006). There are a range of difficulties that must be overcome. Including staff in decision-making about changes requires a consensus approach which can be difficult to achieve since it takes time and commitment (Paton and McCalman 2006). Additionally, although facilitative rather than directive leadership styles have been associated with success in change management, it may be difficult for managers to adopt this type of style (Higgs and Rowland 2005). Dealing with change on the interface between the top and bottom can also result in stress and increased workload for middle management (Conway and Monks 2010).

2.3 WHAT INFLUENCES CHANGE EFFORTS?

In the previous section I discuss some of the choices open to those undertaking change and present a three dimensional framework to conceptualise planned change efforts. In my discussion of the framework, I focus primarily on the literature that informed my research approach and consequently argue for the benefits of combining a focus on concurrently changing systems and the behaviour and attitudes of people, initiating change through team efforts and combining top-down and bottom-up approaches to change. In this section I discuss the forces that can impact on change efforts once they are underway.

In order to help conceptualise these forces, I utilise Lewin's (1951) Force Field Model of Human Behaviour as this thesis is concerned with 'process' and the model takes into account the dynamic nature of change efforts and the forces acting on them. His model is illustrated in Figure 5 (adapted from Lewin 1951 p.310).
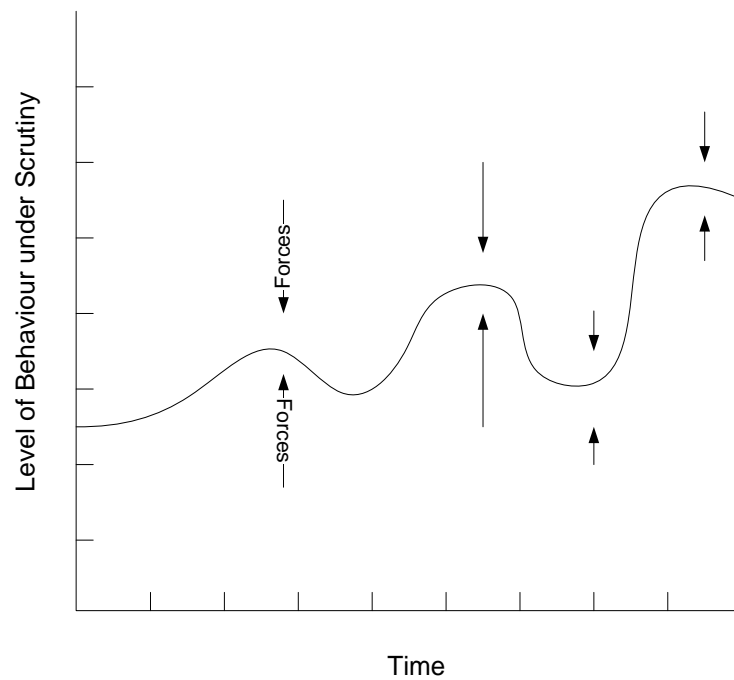
FIGURE 5: LEWIN'S FORCE FIELD MODEL

Lewin conceived the model as a way of illustrating his proposition that "behaviour is conceived of as a change of some state of a field in a given unit of time" (Cartwright 1951 p.161). A field consists of an individual and his psychological and physical environment, or a group and its environment. Status quo is maintained by restraining forces that act on the field and changes in individual or group behaviour are brought about by driving forces. Behaviour exists in 'quasi-stationary equilibrium' as it is constantly fluctuating due to changes in the forces acting on it. Lewin likens behaviour changing through time to a river which "continuously changes its elements even if its velocity and direction remain the same" (Lewin 1951 p.310). The graph in Figure 5 represents changes in behaviour over time. Behaviour is influenced by a number of driving and restraining forces illustrated by the arrows.

Lewin (1951) also postulated that certain circumstances could be symbolised by channels and gates. These circumstances, such as the flow of information to a group, can be modulated by 'gatekeepers'. These gatekeepers are "in power to make the decision between 'in' or 'out'" (Lewin 1951 p.300). In these situations, it is on the gatekeepers that the impact of forces is important. Lewin's conception of gatekeeping is analogous to the notion of boundary spanning activities described in section 2.2.2.1.

There are many of forces that can act on people, groups, or organisations engaged in change. In the following sections, I discuss the attitudes of individuals towards change, organisational culture, institutional forces and market forces.

2.3.1 PEOPLES BEHAVIOURS AND ATTITUDES TOWARDS CHANGE

Kelly's (1955, 2003) Personal Construct Theory (PCT) which draws on the work of Dewey (1938) envisions "man as his own scientist" who creates meaning by continually formulating constructs or hypotheses about the events in his life in order to make sense of the world, and to some extent predict it (Kelly 2003 p.19). People perceive similarities and differences between events, looking at events as what they are and also what they are not. In other words they view something as more like x than y, the two ends of a dichotomous construct. By adulthood, individuals have an understanding of the world based on a complex personal construction system of numerous dichotomous constructs. These guide behaviour and can be revised in light of new experience. Each person's construction system and their expectations of the world are based on their own individual experiences, but interaction with others generally involves mutual reconstruction of personal constructs in order to create shared understanding (Kelly 1955). Accordingly, there can be commonalities which can be socially constructed. This means that even people with very different experiences may construct the same event similarly (Raskin 2002).

It has been long recognised that individuals may not be motivated to accept change. As Machiavelli (1970 p.176) advised in the 16th Century: "You should see to it that changes retain as much as possible of what is old". Kelly (1995) hypothesises that the tendency of individuals to find some change difficult can be related to their personal construction system. Although personal constructs undergo constant readjustment, some constructs are fundamental to individuals' identity and how they view the world and these core constructs are difficult to change (Butler 2009a). Kelly (1955) views threat as an awareness of the possibility of imminent change in core constructs. People may feel threatened or anxious when faced with events which are difficult to interpret within their current construction system and would require major changes in the system. Individuals are more likely to conserve the system they have than make major changes and are likely to respond to such threats with hostility (Butler 2009b). Change in healthcare practices can be difficult to achieve. Taking nurses as an example, Parker (2002 p.140) points out that traditional, routine practices provide a deep level of

comfort to nurses "in the face of the personally confronting nature of nursing work". This suggests that these practices form part of core constructs for many nurses, making them difficult to change.

It has been suggested that reconstruction of the core constructs of individuals, which in turn supports behaviour change, can occur through the development of a personal understanding of the implications of change (Butler 2009b). If individuals have a clear understanding of the needs that are being addressed and the expectations for change, this allows them to understand the 'rules of the game' and consequently, understand processes and predict outcomes (Bounds et al. 1996). Butler (2009a) suggests that a process of reflexivity on the part of those implementing change, and those experiencing it, can enhance this understanding.

2.3.2 ORGANISATIONAL CULTURE

Organisational culture is a contested term and one which is likely to remain so. As Detert et al. (2000) note, the fluidity, complexity and fragmentation of theory on organisational culture is increasing with time. The nuances in definitions and perspectives are many. Analogies are commonly used to describe organisational culture which has been likened to the personality of an individual (Kilman 1982) and the glue which holds organisations together (Dawson 1996). Schein (1999 p.14) sees it as "a powerful, latent and often unconscious set of forces that determine both our individual and collective behaviour, ways of perceiving, thought patterns, and values". Hatch and Schultz (1997) contend that the notion of organisational culture is constantly evolving and socially constructed and thus can mean different things to different groups or different individuals. Stanford (2010) concurs, giving the example of Richard Fuld who took over Lehman Brothers and set about creating a culture built on teamwork where he wanted staff "to think and act and behave like owners" (Stanford 2010 p.5). However, as Stanford highlights, the notion of teamwork and behaving like an owner do not mean the same thing to all. The constructed meanings of organisational culture are not something that can easily be managed (Stanford 2010).

Despite these conceptual difficulties, there is some agreement that organisational cultures are created by leaders (Schein 1999). Additionally, there is some consensus on how to view its constituent parts. A useful working definition is provided by Schein (1999). He views organisational culture as existing at three levels, those of artefacts,

espoused values and shared tacit assumptions. He maintains that the superficial level, assumptions can be made about the culture of an organisation based on its artefacts such as the office plan, the way people dress and the décor of the office. The espoused values of an organisation, such as those contained in mission statements, can also provide information about its culture. However, he argues that the shared tacit assumptions have to be examined in order to understand culture at a deeper level. Shared tacit assumptions are the shared values, beliefs and assumptions of individuals in the organisation (Schein 1999).

Within the concept of culture, the idea of 'norms' is frequently referred to. Organisational norms guide behaviour within organisations and are:

> *"Shared expectations of behaviour and rules of conduct such as presentation, dress codes, time-keeping and attending meetings. These denote what is desirable and appropriate in certain situations and act as unstated guidance, social regulation and mechanisms of control"* (Parkin 2009 p.122).

It is generally accepted that organisational culture impacts on change efforts but there are various perspectives on the nature and extent of the effect. Pfeffer (2004) points out that a cohesive culture can lead to the phenomenon of 'groupthink' (Janis 1972 cited in Pfeffer 2004) where a group of people in striving for agreement can fail to consider potential alternatives. Ideas that are not in keeping with that culture can be rejected out of hand, even if they are legitimate. Other researchers focus on defining the type of culture conducive to change. They are not always in agreement. Jones R.A. et al. (2005) for example, found that employees in cultures where there is more of an emphasis on interpersonal relations are more open to changes while in contrast, Alas and Vadi (2006) found that good interpersonal relations are less important than cultures that are task-oriented in successful implementation of change.

Nonetheless, proposed within the literature there are a number of elements of organisational culture conducive to change. Weick and Sutcliffe (2001) promote 'mindfulness' in organisations. This notion incorporates the acknowledgement of failures, a move away from simplistic interpretations and an acknowledgement of the expertise of frontline staff. In healthcare, Hamer and Collinson (2003) argue that a culture where value is placed on innovation and research use is one which is supportive of change. Scott-Cawiezell et al. (2006) take a different perspective and highlight the importance of communication and trust in order to ensure patient safety. Similarly, Forbes-Thompson et al. (2007) in a study comparing high and low performing nursing

homes, found that high provision of information and facilitation of communication was important in change efforts. Kitson (2002) suggests that a healthcare organisation which is patient centred, where people are valued and where continuing education occurs is regarded as an ideal prevailing culture for introducing change.

The examples provided above focus on individual elements that make up organisational culture. Stanford (2010) argues that this does not provide satisfactory answers as culture is complex and multidimensional. A number of writers have concentrated instead on attempting to define, in a holistic sense, cultures conducive to change. Ghoshal and Bartlett (2000 p.218) argue that continuous change and regeneration is essential in success and that companies must be in a state of "dynamic imbalance". This state is created by constant questioning of embedded practices at top management level. Similarly, Nonaka et al. (2000 p.26) highlight the importance of an atmosphere of "creative chaos" where individuals continually question existing practices. Handy (1985 p.315) states that organisations with a "climate of experiment" adapt easily to change. These have an atmosphere of "curiosity, forgiveness and trust" (Handy 1985 p.315). Curiosity he defines as an atmosphere where people feel they can question practices, forgiveness means that failures are regarded as learning experiences and forgiven rather than punished, and trust means that people are given the power to make change. This is similar to Schein's (2004) notion of psychological safety. This view of organisational change is influenced by Lewin's (1951) model of unfreezing, moving and refreezing. Unfreezing is the step where the motivation to attempt change is created and Schein describes psychological safety as an integral part of this step as impacting on "the sense of being able to see a possibility of solving the problem" (Schein 2004 p.320).

Whatever the type of culture, it is important to take it into account in any attempt to make changes within an organisation (Waldman et al. 2005) since "culture puts boundaries on which change goals and methodologies are or are not legitimate" (Zeira and Avedisian 1989 p.35). This has been found to be true in studies where mismatches between implementation efforts and organisational cultures have led to failures in change initiatives (Krumbholtz and Maiden 2001).

Waldman et al. (2005) argue that organisational culture in healthcare can be very different to organisational culture in business. Subcultures within different professional groups, for example, are common and the subcultures can often be in conflict. This creates difficulties as change efforts can be interpreted differently by different

subcultures (DiBella 1996, Elsmore 1999). Blame cultures are also common in healthcare (Scott-Cawiezell et al. 2006) and blame cultures are the antithesis of the 'climates of experiment' and 'psychological safety' described by Handy and Schein. Senge (1990) argues that the types of cultures common in healthcare organisation are not conducive to learning and making improvements.

2.3.3 THE EXTERNAL ENVIRONMENT

Organisations can be viewed as comprised of a series of levels. These levels are described by Coghlan and Rashford (2006) as "the individual, the face-to-face working team, the interdepartmental group of teams and the organization". The external surroundings form another level (Coghlan and Rashford 2006). All of these levels are interrelated and accordingly group interactions are shaped by organisational structures and culture which in turn are shaped by the surrounding environment. Shaping also occurs in the other direction (Perlow 2004, Coghlan and Rashford 2006). Accordingly, any investigation of group interactions should take the organisational context into account, as well as the broader political and economic context within which organisations operate (Pettigrew 1985, Coghlan and Rashford 2006).

Early approaches to organisational design generally failed to take environmental considerations into account and effectively regarded organisations as closed systems, a view that began to be rejected in the sixties (Zeithaml et al. 1988). Katz and Kahns (1966) open systems model which recognises that organisations interact continually with their external environment has influenced much organisational theory thinking since then (Grieves 2010). From this viewpoint, organisations are regarded as never in a state of true equilibrium, but in a constant fluctuating state.

Despite a general recognition that organisations and the individuals within them are influenced by forces external to the organisation, there is debate on the nature of these forces. From the viewpoint of economists, behaviour is motivated by economic forces while from the viewpoint of institutional theorists, human behaviour is constrained by institutional forces such as professional roles, government regulation and funding structures (D'Aunno et al. 2000, Wholey and Burns 2003).

Institutional theory states that organisations and those within them are subject to institutional forces external to the organisation which shape the organisations in such a way that they resemble each other (Zucker 1987). Bruton et al. (2010 p.422) provides a definition of institutions as understood within institutional theory:

> *"The term 'institution' broadly refers to the formal rule sets, ex ante agreements, less formal shared interaction sequences and taken for-granted assumptions that organizations and individuals are expected to follow. These are derived from rules such as regulatory structures, governmental agencies, laws, courts, professions, and scripts and other societal and cultural practices that exert conformance pressures".*

Individuals have agency in their decision-making but draw on rules and common practice in order to guide their behaviour and in doing so, replicate these same rules and practices. Within the healthcare sector the institutional forces at work on organisations include funding structures, government regulation at organisational and professional level, ownership structures and management structures (Scott 2003, Gardner 2009). The influence of institutional forces ensure that there are institutional similarities between healthcare organisations such as the work undertaken by different professions, levels of professional autonomy, management structures, safety standards and auditing procedures (Scott 2003, Hanssen and Helgesen 2011).

Institutional theory helps explain similarities between organisations in a field but has been criticised for the assumption that individuals within organisations are "over-socialised and slavishly devoted to the reproduction of habits" (Battilana et al. 2009 p.67). It has been suggested that market forces are also of importance. Nevertheless, there is some debate on the interaction and different level of influence of institutional and market forces (D'Aunno et al. 2000, Alexander and D'Aunno 2003, Bruton et al. 2010).

Markets can be described "as social structures within which actors enter into exchanges for a product or service" (Wholey and Burns 2003 p.106). This thesis is concerned with research at three residential care facilities, two of which were privately run and consequently, influenced by market forces. The healthcare environment, even in stable economic times, is characterised by cost cutting and limited resources (Hamer and Collinson 2003). Paradoxically, healthcare is also a growth industry, as demand is generated by an ageing population (Central Statistics Office 2007) as well as

improvements in medical knowledge and technology which make more interventions possible (Gul and Darzi 1998). Healthcare organisations must be able to respond to fluctuations in the environment caused by market forces by being adaptable and flexible (McConnell 2002). Better responses to environmental fluctuations correlate positively with financial success (Tan and Tiong 2004).

2.4 SUMMARY

This chapter gave an overview of literature pertinent to undertaking organisational change in healthcare. Change is a complex process and consequently can be approached in a variety of ways. In my investigations on improving care in a number of residential care facilities through the development of interprofessional teams, I undertook a planned approach to change. I investigated the literature on how such approaches can be conceptualised.

Although it has been suggested that planned change is a linear, management-led, prescriptive approach, I offer evidence to suggest that this is not so. Planned change efforts can exist anywhere within a three dimensional framework based on the degree to which the change efforts are focused on systems or people, the degree to which the change is top-down or bottom-up and the degree to which the focus is on single individuals, groups or the organisational as a whole.

Once a change initiative is underway, there are forces both within and outside the organisation that can influence it. Lewin's (1951) Force Field Model provides a way to visualise these forces while taking account of the fact that change is a process rather than a single event. Individuals' attitudes can be important and personal construction theory describes discomfort with change in terms of personal construction systems which are based on an individual's past experience. Some constructs within a personal construction system are known as core constructs. Changes that require an alteration to those constructs can be regarded as threatening by individuals, which in turn may make them react with anxiety and hostility to such changes.

Organisational culture can also be influential and changes that are not in keeping with it can be difficult to implement. Some organisational cultures are more conducive to change than others. Organisations are subject to influences from their external environment and accordingly, forces from the external environment can drive or restrain change efforts. These consist of a combination of institutional and market forces.

As outlined in the previous chapter, my investigations took the form of two separate studies. Study 1 is discussed in the next chapter in light of its influence on the design of the research approach in study 2.

CHAPTER 3 – MY MOTIVATION FOR UTILISING INTERPROFESSIONAL COLLABORATION TO BRING ABOUT CHANGE

3.1 INTRODUCTION TO THE CHAPTER

My inquiry consisted of two studies, study 1 and study 2. Study 1 was an examination of the complexities of implementing evidence-based practice and was undertaken between April 2006 and July 2007. The study examined the topic through the uniprofessional lens of nursing. The results highlighted for me the importance of interprofessional care and led me to take an interprofessional approach in study 2, an action research study. In this way, although initially a stand-alone project, study 1 became part of the pre-step to the action research cycles in study 2. In this chapter I describe the journey I took from a uniprofessional research perspective towards an interprofessional one. To do this, I begin with an overview of the first study and describe how some of the results and conclusions fed into the research approach developed for the cycles of action research undertaken in study 2. Since this chapter only provides an overview of the features of study 1 salient to the design of study 2, two papers describing the research more thoroughly are included in Appendix A, as well as a summary of study 1 results in Appendix B.

3.2 BACKGROUND

Healthcare practitioners have been slow to adopt research evidence into their daily practice (Rycroft-Malone 2006). This has created a gap between what is known through research to be best practice and what is actually occurring in the healthcare environment (Landrum 1998, Buchan 2004). This research-practice gap is a cause for concern as evidence has shown that patients who receive evidence-based care have better outcomes (Heater et al. 1988, Moynihan 2004).

Evidence-based practice "takes into consideration a synthesis of evidence from multiple studies and combines it with the expertise of the practitioner as well as patient preferences and values" (Melynk and Fineout-Overholt 2011 p.4). My aim in study 1 was to examine whether nurses in one region of Ireland were adopting evidence-based practice by integrating research evidence into their practice. Study 1 objectives were to:

- Identify whether nurses/midwives use research-based evidence to support practice.
- Identify the mechanisms used to gain research-based evidence.
- Identify the influencing factors in using evidence to support decision-making in practice.
- Inform educational, managerial and research policy for nursing and midwifery.

The study consisted of two phases: a qualitative phase and a quantitative phase. In the qualitative phase of the research I conducted semi-structured interviews with twenty nine nurses from across the nursing spectrum, to gain insight into their use of research information to make changes in practice. The second stage of the study was a survey design. I distributed a questionnaire to a disproportionate stratified random sample of 1,356 nurses in the Cork and Kerry region. The response rate was 29% ($n = 388$).

3.3 A DISCUSSION OF THE RESULTS OF STUDY 1

In this section, I provide a brief overview of the features of the results of study 1 which are relevant to the action research approach ultimately developed for study 2. The research approach of study 2 is discussed in chapter 5. A more detailed description of the results of study 1 can be found in Appendices A and B.

3.3.1 INFORMATION-SEEKING BEHAVIOUR OF PARTICIPANTS: THE IMPORTANCE OF OTHER PEOPLE

Wilson (1999) describes information-seeking as a journey from uncertainty to a higher level of certainty. The results of the study highlighted the information-seeking behaviour of nurses. Nurses in study 1 rarely used sources of primary research such as internet databases or journals, echoing the results of other studies (Pravikoff et al. 2005, Turner et al. 2008). Peirce (1997a) notes that one first must experience doubt that current behaviour is appropriate in order to change one's behaviour. The results of the study indicated that routine decisions did not create this doubt, hence nurses did not question their behaviour. Practitioners were satisfied with making decisions based on their own experience or that of their colleagues, whether those decisions were evidence-based or not. This implies that they must be encouraged to look at routine practices in order to review and make necessary changes.

Interview participants questioned their non-routine practice more often, as there was a greater degree of doubt involved. However, information searches to inform changes in

practice were more focused on finding enough information to make a decision than finding the best evidence. This information-seeking behaviour has been previously described as 'satisficing' (Prabha et al. 2007). The fact that participants engaged in satisficing suggests that it is important to make research evidence readily available within the practice environment so that even a superficial search can result in solutions based on best evidence.

As highlighted in the previous chapter, the attitude of individuals can impact on change efforts. Lewin (1948) notes that having correct knowledge does not necessarily lead to a change in perception or behaviours. This was highlighted in the study as some participants reported that even when provided with best evidence, they might choose not to change their practice. Consequently, simply expecting practitioners to change their practice by directing them to do so rather than encouraging them to have an active part in decisions on change can be unsuccessful.

3.3.2 BARRIERS TO USING RESEARCH EVIDENCE TO MAKE CHANGES IN PRACTICE

There were a number of barriers identified by study participants. Those of relevance to the development of study 2 are discussed in this section.

3.3.2.1 ACCESS TO BEST EVIDENCE

Participants reported that the merits of the mode of information delivery, rather than the content of the information itself impact on whether it is used to inform changes in practice. Participants catalogued difficulties accessing evidence including a lack of time, poor interpretative skills and lack of access to resources, especially internet databases.

A number of writers have suggested that providing nurses with the training and tools to look up and interpret research information themselves is the key to encouraging evidence-based changes in practice (Bishop and Freshwater 2003). Others have asked if it is necessary for all nurses to know how to look up, appraise and implement research information themselves, since they can undertake best practice by using research information provided for them (Ciliska 2006). The results from study 1 indicated that they much prefer doing the latter to the former. Research information that was already pre-processed, for example, by a practice development team, was valued more highly and utilised more frequently by participants. They reported that this type of information

was packaged in a way that made the research data highly usable, and they did not have to use their own, possibly poor, skills in accessing and interpreting it.

Expectations in the field of evidence-based practice have begun to move away from placing responsibility for appraisal and use of research information on individuals, to making it the responsibility of the professions (Rodgers 2000). This is due in some part to a growing recognition that a dependence on individuals to implement change can be ineffective (Aita et al. 2007, Rycroft-Malone 2008). As a result, there is an emerging recognition of the influence of interpersonal and organisational influences on how nurses make changes in their practice (Parahoo 2000, Rycroft-Malone et al. 2002, Greenhalgh et al. 2004). Accordingly, those attempting change in healthcare must take account of the social context, for example, the social features of information exchange between professionals and the role of management in the process of change.

3.3.2.2 SUPPORT AT MANAGEMENT LEVEL

Management support emerged as an important influencing factor on participants' use of research in practice. Participants who felt their managers were supportive of research use looked up and used more research than those who felt their managers were less supportive. Participants also highlighted that managers who were overly concerned with administrative functions were less willing and able to advance evidence-based changes in care. These results support the results of other studies which note that support from management is an important influencing factor on research use, and management who are committed to research are facilitators (Bryar et al. 2003, Dopson and Fitzgerald 2006). Nevertheless, there was a point of divergence between my results and others. In a review of the literature, Dopson and Fitzgerald (2006) found that higher level managers have very little influence over the use of research evidence but that middle managers have an important role to play in encouraging their staff to use research, while I found that support from both levels of management was important. Middle managers were instrumental in creating a local culture of research use within an organisation. Higher level managers facilitated staff to update themselves through study days and higher education, encouraged the development and updating of practice guidelines, mandated practice evaluations and ensured adequate staffing.

3.3.2.3 POWER TO MAKE CHANGES IN PRACTICE

In a changing Irish healthcare system, there is an emphasis on empowering nurses. Certainly, there are more opportunities for autonomous practice, one example being the

introduction of advanced nurse practitioner roles (National Council for the Development of Nursing and Midwifery 2001). However, nurses must in most cases, work closely with other professionals and other nurses. Tracey (2006) found that despite changes in the Irish system, participants reported an unchanging balance of power between nurses and physicians, favourable to physicians, and that a power shift between nurses and management is widening in favour of management. Begley (2001), in another Irish study notes that this type of hierarchical structure does not appear to be changing and has detrimental effects on teamwork, autonomous work practice and professionalism.

Lack of authority to change practice and lack of support from medical staff within the team have been documented by nurses as barriers to the use of research evidence in practice (McClery and Brown 2003, Glacken and Chaney 2004, Hutchinson and Johnston 2004). In many cases, nurses in study 1 reported their position as subordinate to physicians and reported that management structures were generally hierarchical in nature. This impacted negatively on their ability to work autonomously to implement evidence-based changes in practice and points to the need to address power relationships in any approach to change.

3.4 THE JOURNEY FORWARD – A CHANGE IN THE RESEARCH FOCUS FROM UNIPROFESSIONALISM TO INTERPROFESSIONALISM

I will describe in the next chapter how my research is underpinned by the philosophical tenets of pragmatism. Pragmatists hold that theories cannot merely exist in the realm of the intellect but must be tested to prove their worth (James 2000). Congruent with this view of the world, I felt that simply investigating the reasons why nurses say they do not always follow current best practice was only one step in the research process. It was an important one, since as Cummings (2004) highlights, to successfully effect change, the factors that impact on change and their degree of influence must first be identified. I addressed that aim in study 1 by identifying, in the context of the Irish healthcare system, some explanation of the theory-practice gap in nursing. Informed by the results of my research and a review of the literature, I sought to take the next step. I aimed to develop a way of implementing change which could address issues with support and power, not ignore nurses' dependence on other people for information and acknowledge their preference for pre-packaged information. In relation to this next step, there were three questions I then had to address: 'How to do it?'; 'Where to do it?'; and 'What to focus on?'

To answer this question, I began by looking at models already in existence. There are a number of models in the evidence-based practice literature on implementation of research information to address the theory-practice gap and in the organisational change literature on implementation of change (Greenhalgh et al. 2004, Bondmass 2010). Some models suggest that ideas spread passively and that change happens primarily due to exposure. Initial approaches used in advancing evidence-based practice were based on this assumption (Ferrence 2001, Bettencourt et al. 2006). Researchers concentrated on methods of data production and dissemination such as producing evidence-based guidelines in the expectation that making the evidence available would ensure its application in practice (Haines and Jones 1994). Centres around the world such as the Cochrane Centre have disseminated meta-analyses, systematic reviews and best practice guidelines, in order to package evidence and make it more easily available to healthcare professionals. Although there were some instances of success, this approach has not led to wide-scale changes in practice as expected (Parahoo 2000, Brown and McCormack 2005). Although it is obviously impossible to implement evidence-based practice without access to good quality information, it has become increasingly clear that simply making the information accessible to healthcare professionals is not sufficiently motivating for them to adopt it. The focus of activity has shifted to include healthcare professionals' behaviour and ways to change this. As a result, recent efforts to improve evidence-based practice have embraced more active approaches which involve, for example, incremental cycles of change or complete overhaul and redesign of existing systems (Standing Medical Advisory Committee 2001, Shojania and Grimshaw 2005).

Bearing this in mind, and informed by the literature outlined in the previous chapter, I determined that a planned approach to undertaking evidence-based change was the next step in my research. As discussed in chapter 2, there are a wide range of possible means of approaching planned change. This chapter and the next two outline the particular elements of my approach. In the following sections, I discuss how the issues identified in study 1 informed my approach.

3.4.1.1 THE FIRST BUILDING BLOCK – RECOGNISING THE IMPORTANCE OF POWER

Study 1 highlighted difficulties nurses had when attempting change due to imbalances in power relationships with others, physicians in particular. This is a common theme in the literature. Medicine is the profession that holds the most power within healthcare

(Baxter and Brumfitt 2008) and challenges to this traditional power structure can cause conflict (Gibbon 1998). Zwarenstein and Reeves (2006) note that attempts to make improvements in practice often take a uniprofessional approach and therefore fail to appreciate the barriers that can occur through interaction with other professional groups. Additionally, Greenwood (1984) and Badger (2000) recommend caution on the part of nurses attempting emancipatory changes since their own ability to implement the changes may be limited by a lack of power. It seemed likely that if I attempted change with a group of nurses, power imbalances between nurses and other professionals could create barriers. It was important therefore to explore and address this issue from the outset.

A review of the literature reveals that power is complex and contested as a theoretical concept and is manifested in a wide range of possibilities in practice. It has been traditionally viewed as a finite resource in a repressive zero-sum relationship where winners exercise control and domination over losers (Eyben et al. 2006). More recently, it has been suggested that power does not always have negative and repressive connotations (Stewart and Rigg 2011). Gaventa (2004) highlights the importance of thinking of power as a continuum rather than a dichotomy of powerful and powerless. Power in human relationships does not necessarily mean that an individual in a dominant role has power 'over' another. Power can also viewed in a positive light in the sense of power 'to', power 'with', or power 'within' individuals (Gaventa and Cornwall 2006). Power 'to' refers to the power to act; in other words, the degree to which individuals exercise control over their own life. Power 'with' refers to acting in concert with others, for example within a team, to gain collective power. Power 'within' is related to the self-worth of individuals which in turn can influence their ability to recognise their power to exercise agency or work in concert with others to build power (Veneklasen and Miller 2002).

Gaventa and colleagues, within the Institute for Development Studies at the University of Sussex in the UK, have developed a 'power cube' to conceptualise power as a multi-dimensional concept rather than the uni-dimensional concept of zero-sum dominance of one person or group over another. Within this perspective, power is regarded as something within individuals which can be liberated through participation and they can choose to use it in a positive or negative way. Each side of the power cube represents a dimension, and power is in flux as each of the dimensions interrelate continually with

one another. The dimensions represent the levels, spaces and forms of power as well as the relationship between them (Gaventa 2003). The power cube is illustrated in Figure 6.
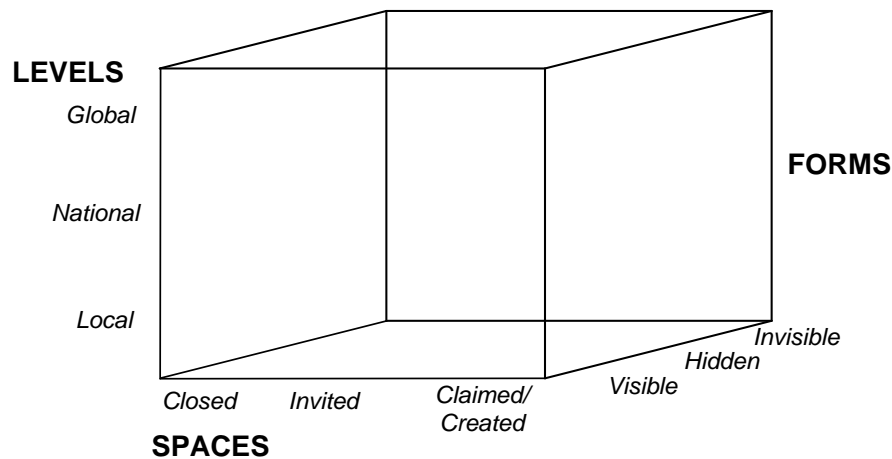
FIGURE 6: THE POWER CUBE (GAVENTA 2006 P.25)

"The forms dimension refers to the ways in which power manifests itself, including its visible, hidden and invisible forms" (Gaventa 2011 p.8). The notion of forms of power is based on the argument that one cannot merely examine the exercise of power through participation in decision-making arenas but must also take into account those who are not present. Visible forms of power are seen during decision-making in public spaces, for example within meetings. Hidden forms of power are utilised by those with power to exclude others from the decision-making space, for example though rules and regulations (Veneklasen and Miller 2002). Within the healthcare arena, it has been shown that utilisation of jargon or professional-specific language can exclude some professions from decision-making (Atwal and Caldwell 2002), highlighting the use of such language as a means of exercising hidden forms of power. Invisible power is another form of power and is the result of acceptance of powerlessness by those who experience it. This notion is described across various fields of research by Lukes (1974), Tajfel (1982a), Hofstede (1997), Gaventa (2006) and Roberts et al. (2009). Those not exercising power can conform to the views of those in dominance and view their powerlessness as normal or unchangeable (Veneklasen and Miller 2002). This can be because they choose to or because they are not aware that their scope for action is

limited. This type of power can be challenged if the powerless question the legitimacy of the power relationships.

The spaces dimension refers to forums for decision-making and action. Spaces include closed spaces such as management meetings where decisions are made without consultation with others in the organisation. Invited spaces are those spaces where those with power invite others in order to consult with them. Powerless groups can also claim spaces where they can discuss issues of concern. The spaces within which decisions are made are not neutral and are influenced by the context of the power relations that envelop them, as those who decide which spaces are optimal and how those spaces are bounded wield power by making this decision (Gaventa 2006). Additionally, the decisions on who to invite into decision-making spaces represent a form power utilisation (Huxham and Beech 2008, Lotia and Hardy 2008).

The levels side of the cube takes into account the different layers within which power is manifested, as well as the interrelationship between them. Gaventa (2005) notes that there are numerous levels but provides local, national and global as examples. Within the healthcare arena for example, recommendations issued by the World Health Organisation can influence national policy and local practice (Harris et al 2000).

There are interrelationships between all the dimensions of the cube. In the spaces dimension, those who are excluded from the closed spaces where power is exercised, for example may, in the forms of power dimension be unaware of their exclusion or may accept their powerlessness (Eyben et al. 2006). Gaventa (2011) argues that to study power and to attempt to change it, one must take into account all three dimensions of the cube, which can be challenging. He notes that "strategies for alignment along one axis may contribute to mis-alignment on another" (Gaventa 2011 p.25). He advocates for continuing reflection on the shifting power relations in order to dynamically adjust strategies to address the misalignment.

Issues with power relationships were identified by participants in study 1. This indicated a need to address power disparities in attempts at change. Eyben et al. (2006) contend that power relationships can be adjusted by altering the way people interact with each other. Taking a team approach to change can be a means of achieving this. Callan et al. (2007) argue that engaging healthcare staff from all professional groups, especially those with low professional status, in negotiations on change is important and Drury and

Reicher (2005) found that participation in group activities can result in empowerment for individuals. Similarly, Lewin (1948, 1951) believes that the behaviour of individuals is shaped by the groups of which they are part. He suggests that change can be more easily accomplished by focusing on groups rather than individuals. Greenhalgh et al. (2004) in an extensive review of the organisational change literature, found that successful implementation of change is more likely if it is done through teams. For these reasons, a team approach to change provided a starting point for moving forward with my research. However, teamwork can have a positive or negative influence on evidence-based practice, depending on the dynamics within a team (Veeramah 2004). The challenge was therefore to design an effective team approach.

Bennis (2000) emphasises collaboration as the lynchpin of effective change in a complex world. Interprofessional collaboration has been advocated as a way to address difficulties with power imbalances in change initiatives, and a means of involving all professional groups in change (Sitzia 2001, Dopson and Fitzgerald 2006). Consequently, I resolved to develop interprofessional teams as a potential means of addressing power differentials. Nonetheless, power would continue to be a topic of interest throughout study 2, since even though power disparities can be addressed by successful interprofessional collaboration, they can also act as obstacles in preventing its development (Hammick et al. 2009a).

3.4.1.2 THE SECOND BUILDING BLOCK – ACKNOWLEDGING NURSES INFORMATION-SEEKING PREFERENCES

There can be an assumption in some change efforts that many minds are better than one to address an issue. However, without relevant knowledge and information, individuals "may be simply pooling their ignorance and pleading their special interests" (Dunphy 2000 p.125). Consequently, equipping people with the best evidence to inform collaborative efforts to change practice is paramount. Accepting that it is unrealistic to assume that practitioners will significantly change their information-seeking behaviour, I had to find a way to ensure that teams involved in the action research study used the best evidence to inform their efforts. The results of study 1 highlighted that participants were highly unlikely to look up research information themselves. A number of issues were involved including time constraints, limited access to research information and limited skills to find and interpret such information. These tendencies are reflected in a number of other studies in the nursing literature but are not limited to nurses alone as physicians, physiotherapists and occupational therapists have shown similar preferences

(Haynes and Haines 1998, Maher et al. 2004). In Study 1, participants were most likely to source information from other people, especially colleagues. They also favoured information that was pre-processed and pre-packaged in a form that made it applicable to practice, such as clinical guidelines. In planning my approach, I could make a reasonable assumption that if research information was provided to participants in a way that they found accessible, they would be more likely to use it.

Participants in study 1 reported that practice development co-ordinators[2] and clinical nurse specialists[2] disseminated research information to nursing staff and spearheaded change initiatives. Participants spoke positively about these efforts. Thus, it appeared they were open to receiving research information from individuals whose remit includes promoting EBP.

A number of organisations have adopted an approach to introducing evidence-based changes based on a single person or single role. A Health Trust in Northern Ireland responded to the results of a study by Glacken (2002) on the research and development capacity of the Trust by introducing research and development link nurses. In a similar programme in the US, a new role of clinical informationist, an information technology specialist with healthcare knowledge, was developed as a means of delivering evidence-based information to clinicians (Giuse et al. 2005). Likewise, a healthcare organisation in Canada created an Office of Nursing Research staffed by a nurse researcher whose responsibility was to review existing literature with a view to its implementation in nursing practice (Alberta Association of Registered Nurses 1997). Positive feedback from staff was a feature of all the approaches.

In acknowledgement of the information-seeking preferences of healthcare professionals, I determined that the research evidence to inform change should be made available mostly through one person. Due to the fact that I had easy access to research information and the skills to access and interpret it, my role on the interprofessional teams could be to access research information, package it, and distribute it to team members to inform discussion on change.

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[2]These nursing roles are dedicated to promoting best practice (Commission on Nursing 1998, National Council for the Professional Development of Nursing and Midwifery 2007).

A second feature of the information-seeking behaviour of participants in study 1 was also important in the context of the action research cycles to come. Participants reported that they rarely questioned routine practices and rarely sought information on their validity. To ensure that routine practices are up to date, an active approach to critically appraising them is required. The process of reflecting on practice and learning through experience can change the socially constructed view of accepted practice (Eyben et al. 2006). I determined to encourage team members to examine and reflect on routine practices during action research cycles.

Study 1 participants favoured easily accessible, practical knowledge. Advancing evidence-based practice is not an attempt to supplant this knowledge, but add to it. Although there are arguments within the field as to the merits of different types of information to inform evidence-based practice (Kitson 2002) there is a common consensus that practitioner expertise is an essential element. Accordingly, my approach to change had to facilitate the integration of practitioner expertise and research information. Not only that, but in taking a team approach I had to ensure that the expertise of all groups of professionals on the team was taken into account. Being aware of and respecting other professionals' knowledge has been highlighted as a characteristic of interprofessional collaboration (Pollard 2008, Oandasan et al. 2006), making it an appropriate vehicle for improving practice through the integration of research information and expertise from various professional groups.

3.4.1.3 THE THIRD BUILDING BLOCK – ACKNOWLEDGING THE IMPORTANCE OF MANAGEMENT SUPPORT

As outlined in the previous chapter, whether to take a top-down or bottom-up approach to organisational change is an issue under debate. There are examples in the literature of both top-down and bottom-up approaches to interprofessional interventions. Molyneaux (2001), for example, describes the successful bottom-up approach of an interprofessional team of allied health professionals of which she was part. Lax and Galvin (2002) also describe a bottom-up approach in the community setting. The project had some success, but there were difficulties due to a lack of managerial support for the bottom-up approach. The authors found that a lack of power to make decisions at team level because of this lack of support, impacted negatively on interprofessional collaboration and on the achievement of goals.

Gibb et al. (2002) describe a top-down approach to interprofessional care in a study on a community mental health team, set up in response to UK government directives. They found that teamwork was enhanced, resources were better managed and decision-making was improved. Nevertheless, they note that the teams did not become true interprofessional teams. Despite shared goals, they continued to use different assessments, different client pathways, separate lines of accountability and separate care notes, ensuring that decision-making was not shared.

It appears that whether one takes a top-down or bottom-up approach to change, co-ordination between managers and staff is essential for success (Dunphy 2000). An action research approach supports participation by staff, but participants in study 1 also highlighted the importance of management support for change. In moving forward with attempting change, I deemed it essential to gain management support from the beginning and ensure that the teams co-ordinated with management on team activities. The results of study 1 also suggested that support had to come from both higher level and middle managers. Before beginning cycles of action research, I planned to gain support from clinical care managers (CCMs) at middle management level and managing directors (MDs) at top management level.

3.4.1.4 PUTTING THE BLOCKS TOGETHER

Before approaching individual facilities, the broad strokes of my approach were in place. The approach was to be a planned, participatory approach to change, which encouraged interprofessional collaboration, sought buy-in from both management and staff, incorporated reflection within the research process and made access to research evidence easier. An action research approach could incorporate all these elements and was the approach ultimately taken, as is described in chapter 5.

3.4.2 WHERE TO DO IT AND WHAT TO FOCUS ON?

Once I had worked out my approach, the next step was to decide where and how to apply it. No one area of practice emerged from study 1 as needing an intervention more than another. However, there are gaps in the literature relating to interprofessional collaboration in specific areas of practice. There are numerous examples of studies set in the acute hospital setting where interprofessional teams are made up of staff members based at the facilities, but few in settings such as residential care, where the different professionals are not co-located (Reeves et al. 2009b). A number of researchers point to

the appropriateness of an interprofessional approach in care of the older person due to the fact that many older people, especially those in residential care, have complex care needs and multiple chronic conditions which cannot be served by individual professions alone (Waters and Luker 1996, Richardson and Montemuro 1997, Paul and Peterson 2001). The area of residential care for older people, therefore, presented itself as an area rich in opportunity for research on interprofessional collaboration.

Choosing an issue to focus on came next. Not all topics are appropriate for teamwork. If an individual can accomplish a goal more effectively than a team, then a team approach is inappropriate (West 2001, Nijstad 2009). To extrapolate from this, if a task does not require the collaborative input of more than one group of professionals, then an interprofessional approach is inappropriate. Since I was taking an interprofessional approach, I had to focus on an issue sitting at the boundaries between professions, where more than one group or professionals are involved in decision-making.

I was concerned with choosing the issue on which to focus change efforts without practitioner or resident input, since my aim was to take a participatory approach to research. Nevertheless, I had to apply for funding and ethical approval which would have been difficult without a topic. Ultimately, I chose pain management as an area to research as it crosses professional boundaries and has been shown to be poor in residential care facilities. Even though pain management is one of the leading specialities worldwide in pursuit of evidence of effectiveness (Royal College of Anaesthetists and The Pain Society 2003), pain often goes undetected (Cook et al. 1999) or under-treated (Nygaard and Jarland 2005) among client of residential institutions for care of the older person. A systematic review of research findings has suggested that the prevalence of persistent pain is higher among residents of residential care facilities than in their peers in the community (Fox et al. 1999). This leads to detrimental effects on residents' quality of life. A review of the literature revealed no studies on interprofessional approaches to pain management in residential care for older people in Ireland.

3.5 SUMMARY

This chapter described the journey from a uniprofessional research focus in study 1 to an interprofessional one in study 2. In study 1, I examined nurses' use of research

evidence. Participants emphasized a number of difficulties that they had making evidence-based changes in practice. Many of these were a result of the people with whom they worked and issues relating to the organisational environment, such as management support. To address some of the barriers to effecting change, I designed the broad strokes of a planned change approach based on interprofessional collaboration. Built into the approach was an acknowledgement of the importance of management support, a recognition of nurses' preferences for obtaining information for decision-making from other people and their preferences for receiving research information in pre-packaged form.

Since my decision was to centre my research approach in study 2 on interprofessional collaboration, in the next chapter I examine the literature on this topic that informed the design of my approach and my data analysis.

CHAPTER 4 - A FRAMEWORK OF INTERPROFESSIONAL COLLABORATION

4.1 INTRODUCTION TO THE CHAPTER

As outlined in the previous chapter, after undertaking research on nurses' use of research, my focus shifted from nursing practice to interprofessional collaboration. Interprofessional collaboration is a contested concept and Hammick et al. (2009b) emphasise the importance of spelling out one's understanding of it. In this chapter I aim to outline my comprehension of the concept.

I begin with a discussion on the meaning of interprofessional collaboration in this thesis. I then go on to examine the supportive and constraining forces that can impact on interprofessional initiatives. I conclude with a framework for the development of interprofessional collaboration which informs the design of the action research intervention and data analysis.

4.2 AN EXPLORATION OF THE CONTESTED TERRAIN OF INTERPROFESSIONAL COLLABORATION

Interprofessional practice, interprofessional collaboration, interprofessional working, collaborative care, joint planning, and integrated care are only a few of the large number of terms used in the literature to describe interventions where different professionals work together (Thannhauser et al. 2010). Often these terms are used interchangeably, which can devalue their meaning (Reeves et al. 2007, Scott and Hofmeyer 2007).

A review of the literature reveals a widespread practice of referring to interprofessional collaboration without clarification of meaning. In a recent edition of the Journal of Interprofessional Care, for example, a comparison of five articles with interprofessional team or interprofessional practice in their titles revealed only one article (Legare et al. 2011) within which the authors articulate their understanding of interprofessional. In the other articles (Brown et al. 2011, Cameron 2011, Clark 2011, Fougner and Horntvedt 2011), there was no clarification of the concept and the terms interprofessional team and interprofessional practice could refer to any mixed group of professionals working

together. Clark (2011) distinguishes between teamwork and collaborative practice, but he does not outline what he means by each or how the shared decision-making and shared responsibility he mentions, fit into either. Similarly, Cameron (2011) defines interprofessional education but only gives us a sense of what interprofessional collaboration entails in practice. Fougner and Horntvedt (2011) in turn, describe boundary blurring and an understanding of roles within the teams in their study, but any link to interprofessional collaboration is implied rather than elucidated.

The practice of not clarifying one's understanding of 'interprofessional' and 'interprofessional collaboration' implies that the concepts are self-explanatory, yet reading a cross-section of papers reveals different assumptions underpinning the term. A number of authors have attempted to provide clarity by distinguishing between the prefixes 'multi' and 'inter'. 'Multi' implies different professionals working in parallel. 'Inter' implies a collaborative approach where decisions are made collectively and responsibilities are shared (Thylefors 2005, Scott and Hofmeyer 2007). Yet there is no universal agreement on the use of these terms. Ovretveit is often cited in the interprofessional literature yet he defines interprofessional working as communication and co-operation between different professionals with a common purpose (Ovretveit 1997a). He goes on to describe a broad range of teams that could fall under the umbrella of interprofessional working. Similarly, Goldman et al. (2009 p.152) in a report on the preliminary stages of a scoping review provide a rather circular definition of interprofessional collaboration as "interacting together with the explicit purpose of improving interprofessional collaboration". This definition, like Ovretveit's, could describe any group of different healthcare professionals working together, rather than a group working in an interdependent way, as defined by those who distinguish 'inter' from 'multi'.

This lack of conceptual clarity is not limited to the interprofessional field. Huxham and Vangen (2001) note that there is no consistency across the many fields where collaboration is studied on conceptualising what it means. As Gardner (2005) notes, it is a complex concept that is poorly defined and is used differently by different people. It describes a range of strategies of working together including networking, co-ordinating, co-operating and interdependency. Himmelman (2001, 2002) argues that rather than

using the notion of collaboration to define all interactions in this spectrum, it should be distinguished from networking, co-ordinating and co-operating. He envisions them as existing on a continuum of increasing interdependency with networking on one end and collaboration on the other. He defines networking as an information exchange between parties. Co-ordinating involves more involvement and goes beyond information sharing to include an alteration of activities. Co-operating reflects yet another level of involvement; as well as sharing information and altering activities, partners share resources. He argues that collaboration involves greater interdependency and is defined as: "Exchanging information, altering activities, sharing resources, and enhancing the capacity of another for mutual benefit and to achieve a common purpose "(Himmelman 2002 p.3). Thus, it can be regarded as an interdependent synergistic relationship between individuals. He argues that collaboration can result in betterment and empowerment of those in the collaborative process and notes that trust is an important element in the process.

Himmelman (2002) believes collaboration is appropriate in certain circumstances but is not necessarily the best strategy in every circumstance. He suggests that establishing conceptual differences between networking, co-ordinating, co-operating and collaborating aids in the decision of which approach is appropriate in any particular circumstance.

D'Amour et al. (2005) in a review of the healthcare literature note that although collaboration is a contested term, a number of themes recur. They found that it is commonly regarded as an emerging process involving the concepts of partnership, interdependency and shared power. This indicates that views correlating with Himmelman's conceptualisation of collaboration as the most interdependent type of interaction, though not universal, are common. Ni Mhaolrúnaigh (2002b) suggests that this view of collaboration, implying interdependency and mutual understanding as it does, is appropriate in the interprofessional field. Barrett and Keeping (2005 p.19) offer a definition of interprofessional collaboration in keeping with this view:

> *"It involves complex interactions between two or more members of different professional disciplines. It is a collaborative venture in which those involved share the common purpose of developing mutually negotiated goals achieved through agreed plans and monitored and evaluated according to agreed*

procedures. This involves pooling of knowledge and expertise to facilitate joint decision-making based upon shared professional viewpoints".

This is a useful definition of the concept which views interprofessional collaboration as more than working together, co-operating or co-ordinating. It outlines what interprofessional collaboration means in the context of this thesis.

Interprofessional collaboration can occur within and outside teams (Oandasan et al. 2006). My thesis is concerned with collaboration within teams. Consequently, in the following section I discuss the literature on interprofessional teams.

4.2.1 DEFINING AN INTERPROFESSIONAL TEAM

The terms groups and teams are sometimes used interchangeably, sometimes as a means of distinguishing one from the other, and sometimes one is described as a subset of the other (Nijstad 2009, Jelphs and Dickson 2008). As outlined in chapter 2, I draw from social identity theory to inform my views on group dynamics and accordingly, a group is taken to mean:

> *"A collection of individuals who perceive themselves to be members of the same social category, share some emotional involvement in this common definition of themselves and achieve some degree of social consensus about the evaluation of their group and of their membership in it"* (Tajfel and Turner 1986 p.15).

A team, I take to mean something different. West and Poulton (1997 p.206) sum up the characteristics of a team as it is viewed within this thesis:

> *"First members of the team have collective responsibility for achieving shared aims and objectives in relation to their work. Necessarily they must interact with each other independently in order to achieve those shared objectives, ideally through regular team meetings. Team members have more of less well-defined roles, some of which are differentiated from one another and they have an organisational identity as a work team with a defined organisational function".*

As they are conceptualised by these definitions, a team can be a group and a group a team, depending on whether there is a shared identity, shared goals and well defined roles. Additionally, groups can exist within teams or teams within groups. For example, a nurse on a multiprofessional team may also identify with a group of nurses within the team. All team members may also identify themselves as healthcare professionals, in which case the team exists within a group.

An interprofessional team is a particular type of team, but exactly what it constitutes is not entirely clear as there is lack of conceptual clarity within the literature. Accordingly, this section draws together information from a variety of sources to provide a baseline characterisation of an interprofessional team.

Drawing on those writers who, like Himmelman (2001, 2002) view collaboration as a synergistic relationship, creates a picture of an interprofessional team that has collaboration and interdependency at its core. Sheehan et al. (2007) in a comparison of multiprofessional and interprofessional teamworking, note that interprofessional teams use inclusive language and share information continually. This leads to shared understanding and shared decision-making between team members. In multiprofessional teams, on the other hand, team members work in parallel but not collaboratively. They draw on information supplied by other professionals to make decisions, but make those decisions individually rather than as a team. D'Amour et al. (2005) also highlight the collaborative nature of decision-making in interprofessional teams.

An awareness of the scope of practice of others facilitates communication, co-operation and collaboration across professional boundaries and is an important feature of interprofessional teams (Ni Mhaolrúnaigh 2002b, Hammick et al. 2009a, MacDonald et al. 2009). Hammick et al. (2009a) highlight that professionals within an interprofessional team must also have a knowledge of and confidence in their own role in order to feel comfortable engaging with other professionals. They also stress the importance of mutual respect and note that shared leadership is common in interprofessional teams. Barrett and Keeping (2005), providing one of the more comprehensive discussions on interprofessional team characteristics, suggest that trust and mutual respect, open and honest communication, shared power, and an effective means to deal with conflict within a team are essential. Additionally they suggest that knowledge of professional roles, willing participation, and confidence in their own role, on the part of team members characterise interprofessional teams.

Based on this literature, an interprofessional team can be viewed as one in which decisions are made together, leadership can be shared, team members understand their own roles and others, there is mutual respect within the team, team members are collectively responsible for team goals, they share information from individual professional silos and share a common language.

There is some debate regarding the membership of interprofessional teams. Although there is general acceptance that health professionals and/or social care professionals should be represented, there have been arguments for the importance of involving patients and clients as well as non-professionals and policy makers (Meads and Ashcroft 2005, Hughes 2007). Rawson (1994) notes that that the term professional conjures up images of people working in a specialist capacity, possessing a distinct body of knowledge with a particular ideology. He argues however, that the term should not be used too strictly and should include all those involved in care. Service users for example can be included on an interprofessional team due to the expertise that they can provide about their own situations (Lax and Galvin 2002). Similarly, care assistants or family members can be said to possess 'lay knowledge', the knowledge gained through experiences of being in a place and situation (Oliver 1999). Accordingly, I use the term 'professional' loosely in this thesis and include care providers and receivers such as administrators, healthcare assistants, clients and family members in acknowledgement of the expertise they possess.

Inclusion of patients on the team can be one aspect of interprofessional teams that can set them apart from other teams. Shaw (2008) suggests that there is a gap between the rhetoric that patients should be members of healthcare teams and the situation in reality, where patients are only included to a limited extent. Although healthcare professionals may regard themselves as focused on the best interests of patients, views on what these interests actually comprise of often differ (Howe 2006). Mathias et al. (1997 p.124) note that:

> *"Needs cannot be properly defined or appropriately met without the involvement of [patients, clients, carers and other relevant people in their lives]".*

Including patients in interprofessional teams can ensure that patients themselves can represent their own views.

There is debate around the nature and degree of patient involvement in healthcare teams related to a "poor conceptualisation of the role of the patient/client/family in the collaboration process" (D'Amour et al. 2005 p.126). Any attempt to include patients in healthcare teams must take into account that they must be willing and able to become

involved. Mathias et al. (1997) argue that patients or clients are best able to be part of an interprofessional team if they have knowledge about the issues, confidence and skills to make decisions and the interpersonal skills to deal effectively with different professionals. They note though, that these attitudes, knowledge and skills differ between different service users. On the same theme, Howe (2006) notes that the personal characteristics of patients, for example impaired capacity or deteriorating health, may affect their ability or desire to be involved in an interprofessional team. This was exemplified in a study by Scott et al. (2003) on autonomy in residential care for older people where increasing dependency caused by ill-health and frailty meant that many residents did not want to be involved in decisions about care. This suggests that including residential care clients in interprofessional collaboration may pose difficulties.

4.3 HOW CAN INTERPROFESSIONAL COLLABORATION BE STUDIED?

In a review of the literature, D'Amour et al. (2005) found a number of theoretical frameworks on collaboration in healthcare emerging from different conceptual backgrounds such as organisational theory and social exchange theory. Some focus on the negotiations between individuals in the collaborative process itself while other focus on the elements that make up and impact on collaboration. Change can also be used as the lens through which to examine interprofessional collaboration since frequently interprofessional collaboration involves attempts at change. Greenhalgh et al. (2004) in an extensive systematic review of the literature on change processes in health service organisations identified a number of theories utilised including diffusion of innovations theory and sense making theory. Alternatively, interprofessional collaboration can be conceptualised using the team effectiveness literature. Effective teams can be seen as those that reach their goals and at the same time have positive benefits for team members (Cohen et al. 1996).

There are a number of frameworks and models of interprofessional collaboration in existence. Many existing frameworks focus on contextual factors. For example, the World Health Organisation's (2010) framework views collaborative practice as shaped by environmental, working culture and institutional support mechanisms. Potential outcomes of collaborative care are listed as improved communication, improvements in staff satisfaction and well-being, improvements in the working environment, and

improvements in relationships between staff and management. Although the framework illuminates important elements of interprofessional collaboration, it fails to take account of the process involved.

Another classification system is the one proposed by Freeth et al. (2005) to establish the effectiveness of interprofessional education initiatives. It focuses on outcomes which consist of:

- learners' views on the IP learning experience

- modification of attitudes between participant groups and team approaches

- acquisition of knowledge or skills

- behavioural changes

- changes in the delivery of care in an organisation

- benefits to service users in terms of care improvement (Freeth et al. 2005)

If one substitutes 'practitioner' for 'learner', this classification can provide tools to determine the effectiveness of interprofessional practice interventions. Nevertheless, an output-focused framework such as this one does not capture the complexity of the process of interprofessional collaboration and also ignores context.

A framework that focuses on process is that of Milward and Jeffries (2001) who argue that conceptualising teamwork must occur at the cognitive level rather than through behaviour observation. They look at teams in terms of a shared mental model which means that a team as an entity must have awareness of its roles, goals, strengths and weaknesses, be capable to reflect on processes and knowledge and change them if required. This model does not focus on context-specific aspects of team behaviour such as the nature of team meetings, and instead focuses on cognitive processes such as team self-regulation. Milward and Jeffries (2001) also developed a survey based around this model and because of their elimination of contextual elements from the equation they argue that their findings are generalisable and transferable. Although there is merit in the argument that the cognitive aspects of team development are important, the impact of context is too important to be ignored. This is evident from the literature where contextual factors have been found to impact significantly on interprofessional collaboration (Oandasan et al. 2009).

Hammick et al. (2007) in a systematic review use a Presage-Process-Product model adapted from Dunkin and Biddle's (1974 cited in Ni Mhaolrúnaigh 2001) model of learning to compare interprofessional education programmes. This model, unlike many others, allows an examination of the three elements of context (presage), process and outcomes. Nevertheless, it applies specifically to teaching and learning (Ni Mhaolrúnaigh 2001), making it difficult to apply to interprofessional collaboration in the practice environment.

Clearly, there are a large number of theoretical perspectives and models that can inform studies on interprofessional collaboration, but there are commonalities among many of them. Most studies on collaboration focus either on describing the collaborative process or defining the attributes and factors that impact on effective collaboration (Huxham and Vangen 2001). Within this thesis, I outline my efforts to develop interprofessional collaboration but to focus on either process or impacting factors would provide only a partial picture. Hence, the theoretical framework that informed by research took both into account. In the remainder of the chapter, I discuss this framework.

4.3.1 THE IMPORTANCE OF PROCESS

If the concept of an interprofessional team is rooted in collaboration, simply putting a number of different professionals together is not sufficient reason to term them an interprofessional team (McCallin 2006). Collaboration is a complex, multifaceted, dynamic and often iterative process that must be nurtured (Huxham 2003). A group must undergo a development process where they learn to share decision-making, share leadership, take shared responsibility for goals and trust each other (Gardner 2005, Miller and Cohen-Katz 2010). Focusing on and reflecting on the process of interprofessional team development can reap dividends for practitioners (Barr 1997), but this is an area that has received little attention in the literature (Zwarenstein et al. 2009, King et al. 2010).

One of the objectives of my study was to implement changes in practice. Just as the development of interprofessional collaboration takes time, so too does achieving change. Yet, studies on change management have until recently, almost ignored temporal aspects of change (Pettigrew 2000). Greenhalgh et al. (2004), in response to this gap in the literature, recommend that investigations into change should not be outcome based, but instead should attempt to illuminate process. In this they echo the

recommendations of Lewin (1948) who advocated for a similar focus on process and highlighted that the learning and understanding that can be achieved during the process of change is often as, if not more, important than the actual change achieved.

To conceptualise the processes occurring in the study, I draw from the literature on team development. Within this literature, teams are seen as going through "some version of evolution" (Schein 2004 p.71). This development is conceptualised within a number of models including staged models such as Tuckman's (1965) model where teams are described as progressing through a number of stages. Ephross (2005 p.34) describes the stages as "maps but not compasses"; some teams may pass through stages in a linear fashion while others may cycle through stages. Additionally, Tuckman (1965) notes, that teams do not necessarily go through all the stages, and that: "the value of the proposed model is that it represents a framework of generic temporal change within which… explorations can be nested" (Tuckman 1965 p.399).

Alternatively, punctuated equilibrium models such as Gersick's (1988) describe teams first going through a period of inertia followed by a transition phase where they redesign their work patterns and engage differently with their environments. This stage occurs halfway between the group's initialisation and the final deadline. If they emerge successfully from the transition stage, it leads to improved performance and greater output. It has been argued that staged and punctuated equilibrium models are not mutually exclusive and that teams can, in fact, be viewed as following both (Chang et al. 2003, Morgan et al. 1993).

Bar a few examples (Farrell et al 2001, Greatrex 2001, Weinreich 2004, Miller and Cohen-Katz 2010), where it has been argued that interprofessional team must go through a process of group development before being able to function collaboratively and effectively, there is limited use of team development models within the healthcare field. Farrell et al. (2001) criticize this low use, highlighting the usefulness of these models as tools. Certainly within other fields, models emphasising stages or phases have been commonly used to study collaboration (Hibbert et al. 2008). The low use of Tuckman's model in healthcare is surprising since it has been used extensively in other fields due to its functionality and adaptability (Bonebright 2010). I use the stages of development within Tuckman's (1965) model as a useful core around which to structure a discussion on interprofessional team development.

The purpose of my study was to develop interprofessional teams to undertake organisational change in order to gain insight into the process. This meant that two concurrent processes were occurring, namely the development of interprofessional teamwork and the attempts to achieve organisational change. Since these processes are interlinked, it is important to consider both. Accordingly, around the stages of team development core I emphasise the idea of two separate "activity tracks" (Morgan et al. 1993 p.282) which occur concurrently. This concept is present in Tuckman's (1965) work but is developed further by Morgan et al. (1993), and it informs the first part of the discussion below.

The first activity track involves the operational skills required to engage with tasks, for example, interacting with equipment and dealing with policies and procedures. Team members develop the means to accomplish tasks and take steps to do so. This can occur through learning to work with equipment, idea generation, information-seeking, problem solving, hypothesis generation, decision-making and task-coordination (Juliá and Thompson 1994, Marks et al 2001, Ericksen and Dyer 2002). Morgan et al. (1993) refer to this as 'taskwork'. Within this thesis taskwork activities refer to the activities undertaken by team members to achieve improvements in practice in the residential care facilities.

The second set of activities are 'teamwork' activities. Teamwork refers to "the interactions, interdependencies, relationships, co-operation and co-ordination of teams" (Morgan et al. 1993 p.283). Team members engage in activities that build their relationships, improve their communication with other team members and resolve conflict. Teamwork activities may change the power dynamics within the team (Juliá and Thompson 1994, Marks et al. 2001) and as the team develops, communication and co-ordination should improve (Morgan et al. 1993, Juliá and Thompson 1994). In interprofessional teamwork, this set of activities leads to the development of interdependency between team members (Hammick et al. 2009a).

Juliá and Thompson (1994) discuss taskwork and teamwork activities in interprofessional teams under the labels of task functions and maintenance functions. They argue that the success of interprofessional teams is dependent on success in both tracks. Thus, to encourage effective team functioning, attention must be paid to both. Within effective teams, teamwork and taskwork activities occur concurrently rather than

sequentially and as the teams mature the tracks converge and become almost indistinguishable (Morgan et al. 1993, Juliá and Thompson 1994).

Taking account of the teamwork and taskwork activity tracks offers a way to distinguish between interprofessional teamwork and interprofessional collaboration. Interprofessional teamwork is concerned with the interactions and relationships within teams. Interprofessional collaboration involves not only these processes, but also involves taskwork activities.

The two activity tracks occur within the stages of group development (Morgan et al. 1993). Tuckman (1965) envisioned four stages of group development namely forming, storming, norming and performing and Tuckman and Jensen (1977), in a later revision of the model, added a fifth stage of adjourning.

The orientation stage of team development is termed the norming stage by Tuckman (1965). It is the stage during which team members engage in the teamwork activities of getting acquainted and establishing relationships with leaders and each other. They also orientate themselves to the task by assessing the situation and defining goals. Miller (2003) notes that in this stage, team members depend on roles and norms established outside the team, as team norms have not yet been established. Schein (2004), who terms this stage of team development 'group formation', notes that in this stage, individual team members are highly dependent on the team leader to provide direction.

The storming stage of team development is characterised by conflict in both teamwork and taskwork as team members may behave with hostility towards each other and demonstrate resistance to undertaking task activities. Conflict can occur over priority setting, leadership and hidden agendas. It can also represent an expression of individuality as group members resist group formation (Tuckman 1965, Walker and Mathers 2004, Hammick et al. 2009b).

During the norming phase of team development, the conflict dissipates and more cohesiveness develops within the team. Schein (2004) suggests that it is during this stage, which he terms 'building behavioural norms' that team members begin to develop a common language and team norms are established. Team norms are: "Standards shared by group members which when crystallized, that is, highly agreed upon by group

members, permit the group to regulate member behaviour" (Cohen and Bailey 1997 p.257).

During this norming stage, individual team members begin to exchange ideas and opinions more openly, which enables them to develop their interpersonal relationships and establish their roles. This enables them to address tasks more effectively (Tuckman 1965, Morgan et al. 1983). Hammick et al. (2009b) note that it is in this stage in the development of interprofessional teams that leadership may begin to be shared.

The performing stage is characterised by a focus on task performance. The development of interpersonal relations that occurs in the teamwork track throughout the stages of team development allows the "interpersonal structure [to] become the tool of task activities" (Tuckman 1965 p396). This is the stage in which interprofessional teams are working in a collaborative way (Hammick et al. 2009a), but they may take longer than other teams to get to this point as greater diversity within teams can lead to a longer time achieving the performing stage (Northcraft et al. 1995).

The final stage of team development is an adjourning stage which represents the stage at which the team is disbanded (Tuckman and Jensen 1977). Roles are terminated, tasks are complete and team members can experience feelings of accomplishment or disappointment (Tuckman and Jensen 1977, Nijstad 2009).

4.3.2 FORCES THAT IMPACT ON THE DEVELOPMENT OF INTERPROFESSIONAL COLLABORATION

In the preceding section, I presented the development of an interprofessional team as a relatively straightforward process, but in reality collaboration is mired in ambiguity and complexity which makes it difficult to develop (Huxham 2003). Often collaboration falls short of its potential to reduce costs and increase efficiency, responsiveness and innovation (Sandfort and Milward 2008) and is continually impacted by the influence of numerous factors (Willumsen 2008). The theoretical perspective which forms the basis for my research is pragmatism (discussed in chapter 5). One of the principles of pragmatism is that human behaviour must be examined in the context of the social environment. I suggest, based on this principle, that research on the process of interprofessional collaboration cannot be conducted in isolation, and contextual factors must be taken into account.

As outlined in Figure 5 in chapter 2, Lewin (1951) views behaviour as influenced by driving and restraining forces. These forces are multifaceted and complex in interprofessional collaboration, and emanate from within the team and from its environment (Oandasan et al. 2006). Kozlowski and Ilgen (2006) note that all interactions involved in responding to a task can be influenced by the environment, and the nature of the task activity dictates the degree to which this occurs. Teamwork activities have also been shown to be shaped by driving and restraining forces. For example, the dynamics involved in building interpersonal relationships can be influenced by the attitudes and cultural beliefs developed by different professionals during their time in education and from working with peers within their own professions (D'Amour et al. 2005). Much current research on interprofessional collaboration focuses on forces within the team such as tensions between professions, while less research has been conducted on organisational and systemic forces. As a result, these forces are poorly understood (Thannhauser et al. 2010). In the remainder of this chapter, I outline the forces originating from both inside and outside the team, which impact on attempts to work collaboratively.

4.3.2.1 INTERNAL TEAM FORCES – THE IMPORTANCE OF SOCIAL IDENTITY

In chapter 2, I introduced social identity theory as a means of examining behaviour within teams and between teams and their environment. Additionally, it has been recognised that the process of collaboration is "heavily loaded with identity issues" (Beech and Huxham 2003 p.29). Although these issues can be related to individual identity, as it has been shown that the attitude of individual team members can impact on interprofessional collaboration (Freeth 2001, Hall 2005), it appears that social identity issues are of great significance, evidenced by the extensive emphasis within the interprofessional literature on professional identity. In this section, I discuss how social identification with groups within teams can impact on interprofessional collaboration.

Hibbert and Huxham (2010) point out that groups in collaborative efforts often come from different traditions, and the degree of compatibility of these traditions can impact positively or negatively on attempts at collaboration. Healthcare professionals are generally educated in a 'silo' system. In other words, each discipline goes through the education system separately. As a result each discipline is trained to look at caring for patients and clients through their own theoretical lens. The 'cure-related' medical perspective is for example very different to that of the 'care-related' nursing perspective

(Gardner 2005). Within the higher education system, students are socialised and learn the behaviours, values, language, tools and attitudes of their own profession from educators, other students and practitioners. In this way they learn to identify with their professional ingroup (Jacobsen 2009) and they also learn to stereotype those in other professions (Hall 2005, Jacobsen 2009). The boundaries around professional groups introduced in training and education are then maintained through professional socialisation patterns in working life (Gulliver et al. 2002). Communication can also be an issue in multiprofessional and interprofessional teams as different professions can use jargon, abbreviations and language that are not accessible to other professions (Gibbon 1998, Atwal and Caldwell 2002, Kenny 2002). Different professions can also have different value systems, and as a result have a different approach to problem solving and value different types of information differently (Hall 2005). These issues can result in confusion among individuals and disharmony in teams as well as jeopardizing patient care (Dawson 2007, Kvarnström 2008).

Individuals' beliefs about the status of their group is important, as well as their views on the permeability of the group boundaries and their belief in the possibility of other alternatives (Tajfel 1974). Boundaries between healthcare professional groups are relatively impermeable, as transfer between the groups is difficult (it is difficult for a nurse to become a physician etc.). It has been suggested that without transfer options, group members identify even more strongly with their existing ingroup (Cairns 1982, Tajfel and Turner 1986). Tajfel and Turner (1986) argue that individuals strive to emphasise the positive attributes of their ingroup and this has been true in healthcare with professional groups self-assessing their own group more positively than they assess other professional groups (Streed and Stoecker 1991).

Agreeing and adopting changes in multiprofessional teams can be difficult as each professional group require the changes to be compatible with their own professional values and ways of working (Greenhalgh 2004). Likewise, strong identification with one's own profession and negative stereotypes of other professions can result in resistance to team transformation into an interprofessional team (Hogg 2006, Miller et al. 2008, Cooper 2009). In fact, a multiprofessional team can actually function as a space for inter-group conflict where group members actively work to maintain their original group identities.

Hibbert and Huxham (2010, 2011) recommend that those in collaborative efforts should reflect on the traditions they each bring with them to the collaborative space, and suggest that finding commonalities among the traditions may be a means of facilitating success in collaboration. In teams this involves the acknowledgement of subgroup boundaries within the team. As highlighted in chapter 2, boundary spanning activities can allow interaction across these boundaries but there is some debate on what the ultimate aim should be in addressing subgroups within teams. According to Hogg (2006) individuals must feel a sense of belonging; otherwise they are unlikely to behave as group members. Hean and Dickinson (2005) suggest that there are different ways to achieve this sense of belonging: team members can be encouraged to see themselves as part of the superordinate group rather than their professional groups; the boundaries between professional groups can be highlighted in order to allow team members to identify strengths and weaknesses of their own and others groups; or a combination of both where the aim is for team members to identify equally with the team and with their own professional group. They report that there is some evidence for the success of the latter approach, although they stress that the approaches are not mutually exclusive and can be used at different times with the same groups.

A role is "the expected pattern of behaviours associated with members occupying a particular position" (Mullins 2007 p.96). Role blurring often occurs in interprofessional teams where one professional may undertake some of the skills, knowledge and tasks of another (Paul and Peterson 2001). Some argue that role blurring can lead to confusion, insecurity, conflict and burn-out (Howarth et al. 2006) while others argue that some role blurring can be beneficial as tasks can be shared with greater ease (Nancarrow 2004).

Power is a complex issue within interprofessional teams (Hammick et al. 2009a). Power is important in taskwork as individuals involved in change management must have the authority to make decisions; otherwise delays occur (Lax and Galvin 2002). Teamwork activities within multiprofessional teams are also influenced by power disparities which have been identified as causes of difficulties in collaborative efforts (Baggs and Schmitt 1997, Blue and Fitzgerald 2002, San Martin Rodriguez 2005). Traditionally healthcare is provided through a hierarchical structure with physicians at the top of the hierarchy (Paul and Peterson 2001, Baxter and Brumfitt 2008). Collaboration has shared power at its heart (Himmelman 1994), with the result that the distribution of power shifts during collaborative initiatives (Willumsen 2008). A threat of a loss of status can cause those in

high-status groups to behave in a way to guard against that happening (Tajfel and Turner 1986). Since interprofessional care can represent a loss of power for physicians, they may find it difficult to see any benefits in this erosion and thus, resist it (Hall 2005, Sirota 2007). As care moves away from a hospital based acute model into the community, the power of medicine is reduced as this move generally is associated with a lower involvement of physicians in care (Baxter and Brumfitt 2008).

4.3.2.2 INTERNAL TEAM FORCES - TRUST

For successful collaboration, individuals must acknowledge, understand and have respect for the roles, knowledge, skills, identities and responsibilities of others (Kvarnström 2008, Lax and Galvin 2002, Hall 2005). Numerous studies have shown that this knowledge and respect does not always exist within teams (Kvarnström 2008, Coe and Gould 2008, Larkin and Callaghan 2005). Mutual respect and trust are mentioned across the interprofessional literature and it has been suggested that trust is essential in collaboration (Loxley 1997, Willumsen 2008, Huxham and Beech 2008). Conversely, lack of trust and lack of respect for others can prove problematic when developing interprofessional collaboration (Gibbon 1998, Hall 2005, Kvarnström 2008).

Various arguments for the importance of trust exist across the literature. Luhmann (2000) sees trust as a means of reducing life's complexity since without it, one would have to determine the whole truth about every situation. Trust can be regarded as a rational strategy since the cost of not trusting in all situations would be severely limiting both to the individual and to society (Frankel 2009). It has been argued that trust is a necessity in an increasingly complex world as it provides predictability, the ability to co-operate and serves as an integrative force in bringing people together (Zucker 1987, O'Hara 2004, Paul and McDaniel 2004).

Perspectives on trust differ across disciplines, and the literature contains a range of conceptualisations of the term (Zazzali 2003). It is a knotty, multifaceted concept and been variously described as a behaviour, an attitude, a psychological condition, a relationship, a dependence, a belief and a variable (McKnight et al. 1998, Zazzali 2003, Rousseau et al. 1998, Costa and Anderson 2011). Rousseau et al. (1998) reviewing literature across a number of disciplines note two commonalities in definitions of trust: there is a willingness on the part of individuals to take a risk and be vulnerable; and they

have confidence in their expectations of the behaviour of others. In other words they believe that they will not be harmed by the actions of others.

This view of trust is rooted in the psychology of individuals. Trust within teams has not received the same attention (Webber 2002, Costa and Anderson 2011). However, it has been argued that trust is essential in developing successful human social relations and is important in the development of collaboration (Zucker 1987, Paul and McDaniel 2004). Accordingly, it should also be regarded as a collective attribute (Jones and George 1998, O'Hara 2004). As such it "is applicable to the relations among people rather than to their psychological states taken individually" (Lewis and Weigert 1985 p.968).

Although Langfred (2004) has shown that high levels of trust in a team can sometimes decrease team effectiveness on task attainment due to increased autonomy of members and a reluctance of team members to monitor each other, the bulk of the evidence suggests that the creation of trust within teams generally has a positive impact on team effectiveness (Jarvenpaa and Leidner 1999, Costa et al. 2001, DeJong and Elfring 2010, Mach et al. 2010). Jones and George (1998) assert that mutual trust can allow groups of individuals to optimize advantages gained from co-operation. Higher levels of trust within teams has been associated with better communication, greater cohesiveness (Mach et al. 2010), greater team effort (DeJong and Elfring 2010), greater satisfaction and commitment (Costa et al. 2001), greater co-operation (Bierly et al. 2009) and higher creativity (Barczak et al. 2010).

Teams with diverse membership have been shown to be less effective than those that are more homogenous (Williams and O'Reilly 1998, Webber 2002). Curseau and Schruijer (2010) have demonstrated that difficulties in developing trust are often at fault. This is a concern, as it has been highlighted that establishing trust is difficult within multiprofessional teams in healthcare because of differences in professional perspectives and disparities in power and status (Paul and McDaniel 2004). The evidence suggests that if trust can be built within a team, then the greater commitment to cohesiveness, co-operation and commitment could facilitate interprofessional collaboration.

Team psychological safety is a concept developed by Edmondson (1999) and is related to trust. Although trust and mutual respect rather than team psychological safety are the

concepts usually drawn upon in the interprofessional literature, team psychological is a concept of relevance when examining multiprofessional teams in healthcare (Edmondson 1999). The concept is derived from the work of Schein (Schein and Bennis 1965, Schein 1987, 1999, 2004) who argued that individuals must feel a sense of safety in order to engage in organisational change. Framed within the notion of change is the belief that individuals must engage in learning. Schein (2004 p.320) sees an important role for psychological safety in this process as individuals must be confident and feel safe that they can engage in "learning something new without loss of identity or integrity". It has been suggested that such a climate is essential in change and innovation, and studies have found a positive correlation between innovation and psychological safety (Baer and Freese 2003). This link to learning behaviour is also what concerns Edmondson and she builds on Schein's work, transferring the notion to the team space. She characterises team psychological safety as "a team climate characterized by interpersonal trust and mutual respect in which people are comfortable being themselves" (Edmondson 1999 p354). She argues that the construct of team psychological safety can be applied to all types of teams whether those teams are engaged in change efforts (Edmondson et al. 2001) or not (Edmondson 1999).

Individuals face small risks regularly in their working life as they commonly face situations where the outcome is uncertain (Edmondson 2002). Response to this ambiguity can involve admitting ignorance or uncertainty and seeking help. This can bring with it the risk of appearing incompetent, negative, ignorant, intrusive or disruptive. Many examples abound of an unwillingness to take risks in healthcare, which results in the non-reporting of errors. This can lead to patient safety issues (Edmondson 1999). Additionally, reluctance on the part of team members to express their views out of a fear of ridicule has been linked to failures in interprofessional team work (Morrow et al. 2005). Team psychological safety describes an atmosphere within a team where individuals are willing to take the risk of admitting uncertainty or reporting negative outcomes. Within such an atmosphere individuals can feel comfortable taking this risk in the expectation that they will not be censured and that others will not think less of them. It does not imply that individuals must agree or that there is are no issues within a team. Rather, it means that individuals are more likely to hold productive discussions as their focus is not on self-protection (Edmondson 1999,

2002, Edmondson et al. 2001, Nembhard and Edmondson 2006). Nembhard and Edmondson (2006) suggest that team psychological safety can facilitate collaboration in healthcare teams.

Examining and reflecting on mistakes can lead to learning and to change. This can be a difficult process if team members are quick to assign blame, but can be facilitated by a climate of team psychological safety (Tucker and Edmondson 2003, Tjosvold 2004). Situations that could otherwise lead to conflict can instead be a source of learning in teams where team members feel psychologically safe (Mu and Gynawali 2000). It can also lead to positive attitudes towards change. Quality improvement efforts can be negatively impacted by workload and lack of time, but Nembhard and Edmondson (2006) in a study on healthcare teams in intensive care units found that despite these negative forces, staff were willing to engage in quality improvement efforts if there was psychological safety within the unit.

Team psychological safety and trust within a team are related but not identical concepts. Edmondson (2002) notes that the three elements of timeframe, object of focus and level of analysis distinguish team psychological safety from trust. She argues that trust influences individuals' anticipation of the consequences of actions across any timeframe, including into the future. Psychological safety on the other hand influences how individuals decide on actions based on short-term personal consequences. For example, healthcare practitioners may decide not to speak up to highlight suspected errors or poor practice out of fear of personal consequences and in doing so, lose sight of the long term consequences for patients.

Edmondson (2002) explains the object of focus in terms of who is given the benefit of the doubt in a situation. If an individual trusts others, he gives them the benefit of the doubt that they will behave in a trustworthy way, thus the focus is on the potential actions of others. If an individual feels a sense of psychological safety, he is given the benefit of the doubt by others, even when expressing confusion or ignorance. The focus is on the internal feelings of the individual; he feels safe to be himself. Trust and team psychological safety are distinguishable as an individual may feel others to be trustworthy, but still not feel a sense of psychological safety.

Trust is usually studied as a psychological phenomenon from the point of view of a dyad of trustor and trustee where a trustor is an individual the trustee is either an

individual or an entity such as an organisation (Lewis and Weigert 1985, Costa and Anderson 2011). Edmondson (2002) notes that psychological safety, on the other hand, revolves around a socially constructed belief within a group rather than a dyad.

There is a relationship between trust and team psychosocial safety with trust impacting positively on psychological safety (Edmondson 2002). Respect also impacts on team psychological safety since an atmosphere of mutual respect is one in which individuals are more confident that their opinion will be valued (Edmondson 2002).

Trust, respect and understanding develop from day to day interaction with others in care provision (Ovretveit 1997b). This trust is developed by professionals getting to know each other not only on a personal basis, but on a professional one as well. Knowing each other on a professional basis entails developing knowledge about the roles and value systems of other professionals (D'Amour and Oandasan 2005).

4.3.2.3 INTERNAL FORCES – TEAM LEADERSHIP

Leadership can be defined as "a process of social influence whereby a leader steers members of a group towards a goal" (Bryman 1992, p.2). Good leadership within an interprofessional team is important (Hall 2005, Gray 2008a, Johanson 2008). Views of leadership differ depending on how one views collaboration. On some teams there is a single leader, usually a physicians or manager, while others have a more distributed and collaborative form of leadership (Triantafillou 2004, Canadian Interprofessional Health Collaborative 2010). Borrill et al. (2001) in large scale study of teams across different healthcare domains report that although a distributed form of leadership is associated with better team processes and more success in achieving outcomes, both models work as long as there is clarity in leadership. Conflict over leadership results in very poor team effectiveness (Borril et al. 2001).

Good leadership is difficult and not often see in multiprofessional teams (Ovretveit 1997a, Borrill et al. 2001). It involves a plethora of skills including the ability to focus on teamwork and taskwork concurrently by setting clear goals, keeping the team on task, involving all team members in discussions, clarifying roles, and ensuring the right people are included when building the team (Gray 2008a, Johanson 2008, Oandasan et al. 2006). A good leader is expected to keep team members focused on the goals, while

encouraging them and making them feel valued. He or she must also span team boundaries and actively engage with the external environment, acting as an "ambassador and diplomat" (Engel 1994 p. 68). Leaders in interprofessional teams also need to be able to recognise and address issues that can emerge from the interaction between different professionals, as conflict is not unusual in team development (Hall 2005, Johanson 2008).

4.3.2.4 FORCES EXTERNAL TO THE TEAM

Teams, interprofessional and otherwise, operate in environments that can be constraining or supporting (D'Amour et al. 2005). Constraining and supporting forces can stem from within organisations or from the environment external to the organisations.

From a practical perspective, healthcare facilities can provide a complex arena for interprofessional collaboration. Teams in healthcare, and especially those in residential care are often made up of professionals with different work schedules and often from different organisations (Triantafillou 2004). Additionally, some staff members, like physicians, may rotate through organisations for a finite length of time (Milward and Jeffries 2001) and there can be high staff turnover in healthcare organisations (Gibbon 1998). These factors can make scheduling team meetings difficult and cause difficulties with practical aspects of team functioning (Reeves et al. 2007, Miers and Pollard 2009). Practical issues can impact just as much on the success of an interprofessional intervention as interpersonal issues (Baxter and Brumfitt 2008, Johanson 2008).

Time constraints have also emerged as factors in limiting the involvement of participants in collaborative efforts (Cowley et al. 2002, Street and Blackford 2001). Atwal and Caldwell (2002) in a study on collaboration between professionals noted that time emerged as a crucial reason why many professionals reported that they could not attend multiprofessional meetings. In organisations where there is already an emphasis on communication and time for meetings, teamwork is enhanced (Pullon et al. 2009). The geographic location of team members can also impact upon the success or failure of interprofessional initiatives with a shared geographic location benefiting interprofessional collaboration (Cook et al. 2001, Larkin and Callaghan 2005).

Johanson (2008) recommends establishing the practical parameters of an initiative from the outset. Regular face to face contact should be taken into account in this process

since the more time people have to communicate, the more time they have to build trust (Gardner 2005).

The systems within which different team members operate can be important. Different professional groups in multiprofessional teams often have individual protocols, working procedures and reporting structures (Triantafillou 2004). Larkin and Callaghan (2005) argue that teams made up of different professionals should attempt to integrate protocols and policies. Otherwise there is a danger that collaboration will not be as effective and issues will become confused. Similarly, integrated information systems where all disciplines can record and access patient notes on the same system has been shown to aid in effective interprofessional collaboration (Molyneux 2001, Larkin and Callaghan 2005).

Organisational structure is thought to have an influence on collaborative efforts. It appears that organisations with flatter and more flexible hierarchies enable interprofessional collaboration more than those with more traditional vertical hierarchies, although this is an area where more research is needed (Rushmer et al. 2004, San Martin Rodriguez et al. 2005). Millward and Jeffries (2001) highlight that hierarchical structures can be influential when team members, dealing with particular issues, may have to answer to the team leader, to their own line manager and to higher level management, all of whom may have different values and opinions.

The support of management is important. Freeth (2001) notes that management may not be fully behind interprofessional initiatives because by its nature, an interprofessional initiative requires that team members be empowered to make decisions, and managers may not be willing to facilitate this. Organisational leadership supportive of an interprofessional agenda improves the chances of success (D'Amour and Oandasan 2005, San Martin Rodriguez et al. 2005, Bleakely et al. 2006).

San Martin Rodriguez et al. (2005) and Greenfield et al. (2010) highlight the dearth of empirical evidence to link the characteristics of organisations and the development of interprofessional collaboration. Nevertheless, it appears that the culture of an organisation can impact on collaborative efforts. Studies have found that interprofessional teams are constrained by bureaucratic cultures with rigid thinking, while interprofessional collaboration is facilitated in cultures where learning is encouraged (Kellett 1993, Howe 2006).

As outlined in chapter 2, individuals in organisations are impacted by institutional forces in their external environment. This can impact on collaborative efforts since institutional forces influence professional roles and professional autonomy (Hanssen and Helgesen 2011). Additionally, government policy can affect implementation of interprofessional innovations since political mandates can impact on how individuals work together to effect change (Greenhalgh 2004).

Market forces can also impact on interprofessional collaboration. Healthcare systems frequently shift in response to external economic factors. If the external factors are negative in nature, this can impact on interprofessional teams by, for example, a reduction in resources for training and a lack of resources to support interprofessional initiatives (Clark et al. 2002).

4.4 THEORETICAL FRAMEWORK

The various elements discussed in this chapter are drawn together in Figure 7. Interprofessional team development is viewed as a process where members of a multiprofessional team learn to work together in a collaborative way to address goals. As outlined in section 4.3.1, two activity tracks, namely teamwork and taskwork, are involved. Activities in the interprofessional teamwork track involve the activities which facilitate interpersonal collaboration within the team. Activities in the taskwork track are the activities that team members engage in to address tasks. The development process is buffeted and aided by various forces internal and external to the team, represented by the orange and green arrows in the diagram.

I utilise this framework to inform my attempts to develop interprofessional collaboration. I also utilise it in data analysis. Thannhauser et al. (2010) identify a lack of consensus on what should be measured when investigating interprofessional collaboration. Hackman (1990) suggests that measuring task efficacy only provides one part of the picture. He suggests that to get a complete picture of team effectiveness one must also explore the interpersonal relationships within teams. In a similar vein, Juliá and Thompson (1994) argue that to judge interprofessional team effectiveness, the outcomes of both activity tracks must be evaluated. Thus, in evaluating this study, I examine the process of team development through both activity tracks, as well as the forces impacting on this development.

Driving Forces

Internal Team Forces
Forces External to the Team

Multiprofessional Team Characteristics

Teamwork Activity Track

Team Development Process

Taskwork Activity Track

Interprofessional Team Characteristics

Internal Team Forces
Forces External to the Team

Restraining Forces
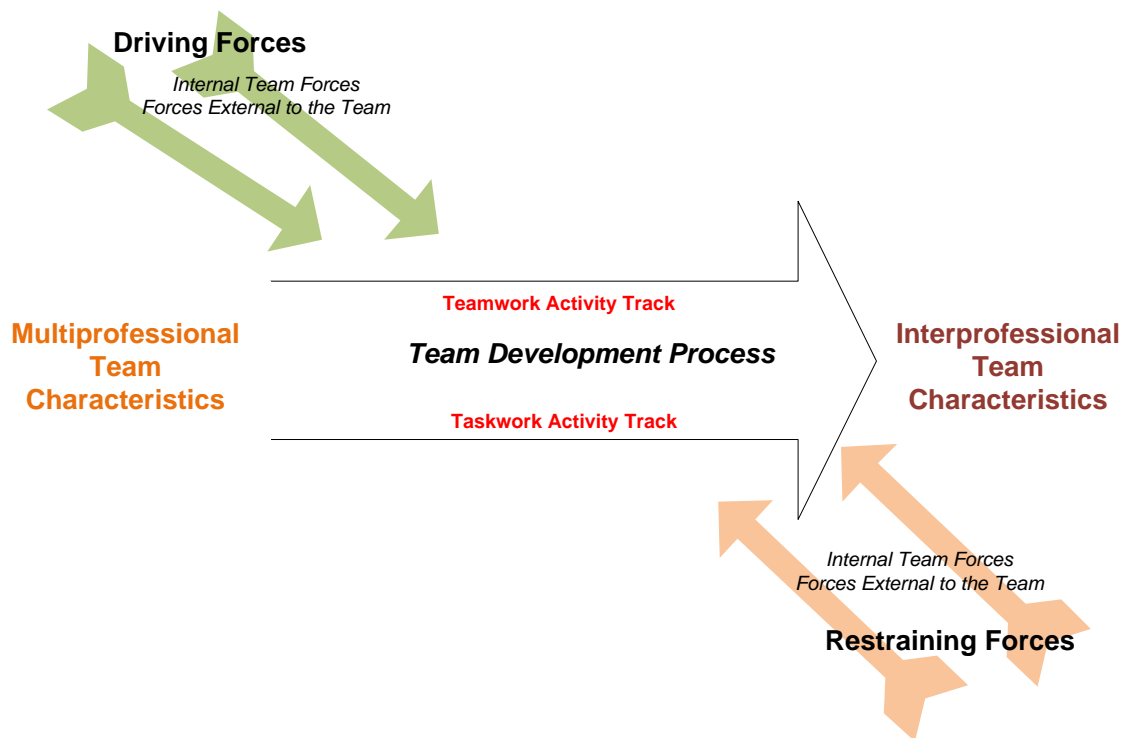
FIGURE 7: THEORETICAL FRAMEWORK

4.5 SUMMARY

There is a lack of conceptual clarity within the literature on interprofessional collaboration and what constitutes an interprofessional team. Based on a review of the literature I provide a working definition where an interprofessional team is regarded as a team of individuals who make decisions together, understand their own role and others, have mutual respect for each other, communicate openly with each other, share responsibility for team goals, share information, share leadership and share a common language. The individuals can be from different professional groups and can also include non-professionals such as administrators, healthcare assistants, clients and family members. The team goals can range from improving the care of individual patients to organisation-wide improvements in practice.

The existing frameworks of interprofessional collaboration tend to focus on either the process of collaboration or the elements that impact upon teamwork. I argue that both should be taken into account and I present a framework that includes both. At the heart of the framework is the notion of team development since I differentiate between multiprofessional working, which is when different professionals work together on a team, and interprofessional collaboration, which implies a synergistic and interdependent relationship between team members. If team members on a multiprofessional team are learning to work together in an interdependent, collaborative way, then the team is developing into an interprofessional team. Team development is represented by Tuckman's (1965) model with particular emphasis on the two concurrent activity tracks of teamwork and taskwork. Also included in the framework are the driving and restraining forces that act on the development of interprofessional collaboration. The forces can be internal to the team as well as originating from the environment in which the team is embedded.

CHAPTER 5 - METHODOLOGICAL CONSIDERATIONS

5.1 INTRODUCTION TO THE CHAPTER

In this chapter I describe the theoretical framework and research approach to the thesis. As outlined in chapter 3, my inquiry consisted of two studies with study 1 a pre-step, investigative study and study 2 consisting of cycles of action research. This chapter establishes the theoretical background and a justification for the action research approach.

5.2 MY EPISTEMOLOGICAL STANCE

At the foundation of a research study is epistemology, which is the theory of knowledge underpinning the research (Crotty 2000). The epistemological stance I take is social constructionism.

Many researchers who take a constructionist stance, and in particular a social constructionist stance, are concerned with verbal and non-verbal communication. As a result they focus on language and symbols (for example Hatch 1997, Hosking 1999). Although I acknowledge the importance of communication, my focus is not specifically on studying the verbal and non-verbal communication between participants. Instead, the constructionist view that informs this study is based on Crotty's (2003) definition which holds that meaning is constructed. Essentially, objects "may be pregnant with potential meaning but actual meaning emerges only when consciousness engages with them" (Crotty 2003 p.43). As the person engaging with and the object being engaged with are both important in the construction of meaning about the object, a constructionist view entails treating the researcher as an integral part of the research (Sun 2009).

A social constructionist view of reality develops the idea of construction of meaning further, by taking account of social interactions. Meaning is viewed as continually constructed through social interactions and accordingly is embedded in society (Crotty 2003). Individuals from birth interact with "a specific cultural and social order" (Berger and Luckmann 1980 p.46) which is an "ongoing human production" (Berger and Luckmann 1980 p.49) socially constructed by the individuals within it. Thus an individual is shaped by this culture and in turn shapes it.

Interprofessional collaboration as discussed in the previous chapter is a debated construct. An interprofessional team cannot be said to have 'objective' meaning as a concept and each interprofessional team is shaped by the social context within which it exists. Social constructionism emphasises the way that existing culture and social order influences our thinking (Crotty 2003). Madnani (2009) notes that in research, social constructionism is appropriate in attempts to raise consciousness, especially when the issue under consideration is shaped by social behaviour. My thesis examines how members of teams mutually negotiate their way through finding a new way to work together in order to make organisation-wide changes. I examine how we came to terms with a socially constructed view of what interprofessional collaboration meant to us within the context of the surrounding environment, the internal team dynamics and the team goals we set ourselves.

I chose action research as my research approach. This choice is justified in the next section.

5.3 JUSTIFICATION FOR USING ACTION RESEARCH IN THIS STUDY

Waterman et al. (2001) in a review of the literature, identified two fundamental characteristics shared across action research studies: action research is a cyclical process involving an action intervention, and it is a participatory process with researchers and research participants both taking part. Thus, it constitutes a move away from the more traditional forms of research where there are researchers and subjects and a clear division between them. Instead, researchers and participants co-operate to bring about change while at the same time generating knowledge (Reason and Bradbury 2006). This move has been described as a paradigm shift embracing a participatory worldview (Holter and Schwartz-Barcott 1993, Reason and Bradbury 2006). Action research differs from traditional research in that it "has different purposes, is based in different relationships and has different ways of conceiving knowledge and its relation to practice" (Reason and Bradbury 2006 p.1).

Action research is concerned with the generation of knowledge about a social system through change of that system (Lewin 1948). It is characterised by collaboration and a desire to generate practical solutions to context-specific problems (Hart and Bond

1995), which made it an ideal research approach in my case, as interprofessional collaboration involves a focus on both teamwork and taskwork activity tracks.

On the taskwork track, I was concerned with having teams identify issues and make evidence-based changes in practice. Action research is practical and concerned with the production of actionable knowledge (Greenwood and Levin 2007) and it is this focus on actionable rather than academic knowledge which makes it an ideal vehicle for examining evidence-based changes. 'Traditional' research differs in that it "often appears to be about people rather than for them" (Seymour and Davies 2002 p.586). The inherent assumption in traditional research appears to be that science should have a one way influence on practice. This may account for the poor uptake of research into practice and the low rates of practitioner engagement in research (Seymour and Davies, 2002). It can be argued that when knowledge is generated through action research as opposed to traditional research, the disconnect between research and practice is eliminated. As Holter and Schwartz-Barcott (1993 p.303) highlight in relation to nursing: *"If the ultimate purpose in developing nursing knowledge is to improve nursing practice, then knowledge that is validated and revised through practical application is extremely important for knowledge in nursing".*

Fals Borda (2006) notes that at the 1997 World Congress on Participatory Action Research in Colombia, participants felt that action research was ideal for focusing on the overlaps between disciplines. Although he was referring to the boundaries between the arts and the sciences, his ideas can equally be extended to the boundaries and overlaps between professionals in healthcare. Thus, action research is an ideal approach to examining the teamwork track in the development of interprofessional collaboration because of the common emphasis on participation, reflection, negotiation and group decision-making (Watts and Jones 2000, Yang and Yin 2006).

Reducing power inequalities is also a shared aspect of action research and interprofessional collaboration (Gaventa and Cornwall 2006, Hammick et al 2009a). Developing interprofessional collaboration entails having different health and social care professionals work together towards common goals with a focus on sharing power and developing mutual trust and respect (Barrett and Keeping 2005). In healthcare, power generally sits in the hands of the medical profession and there is little in the way

of in-depth knowledge sharing across professional boundaries, especially outside of individual patient care issues (Pollard et al. 2005). Developing interprofessional collaboration therefore, generally entails a shift in the status quo with resultant changes in interactions between the various professionals involved. This can happen through action research since one of the goals of this research approach is to bring about "the transformation of individual attitudes and values, personality and culture" (Fals Borda 2006 p.32).

Collaboration does not happen automatically simply by putting different professionals together (Atwal and Caldwell 2002), but has to be nurtured by encouraging the participation of all team members over time (Salas 1997). Action research emphasises reflective participation in an emergent process (Watts and Jones 2000, Reason 2006), which can allow the space and conditions for interprofessional collaboration to develop. In any group there are differences between the attitudes, skills, background and other attributes of group members (Hackman 1990). A diversity of backgrounds may pose difficulties when trying to develop mutual understanding (Coghlan and Shani 2005), achieve agreement on identifying and prioritising issues, and make and evaluate changes (Coghlan and Brannick 2010). In interprofessional groups differences among individuals are often conspicuous across professional boundaries, with individuals identifying strongly with their own profession, making them less amenable to the views of other professionals (Cooper 2009). Co-ordination, communication and collaboration in multiprofessional healthcare teams can be more problematic than in uni-professional teams because of differences in language, perspective, goals, interests, expectations and views (Atwal and Caldwell 2002, Illes and Auluck 2004). Gray (2008a, 2008b) argues that developing collaborative relationships within groups depends on developing an appreciation of the differences between the parties within the groups and taking advantage of these differences to problem-solve. Action research can be a means of achieving this, as the participatory aspect of action research is not about consensus but rather about developing an understanding and respect for the differences that exists within groups. This can lead to the development of new knowledge among all participants (McDonagh and Coghlan 2006, Greenwood and Levin 2007). Greater understanding of the roles of others can result (Greenwood and Levin 2007), which can aid the development of interprofessional teamwork (Sheehan et al. 2007).

The term action research does not in fact define one particular set of research techniques. There are a wide range of approaches but they are not mutually exclusive and elements and techniques from different approaches can be combined (Greenwood and Levin 2007, Coghlan and Brannick 2010). In this section I outline my action research approach.

Action research cycles have been depicted in various ways by different authors but generally consist of a series of three or four steps in each cycle. In this thesis, I use Coghlan and Brannick's (2010) conceptualisation of spirals of action research, illustrated in Figure 8. The process consists of a pre-step followed by action research cycles each comprising of four steps: constructing, planning action, taking action and evaluating action. I chose this framework of action research because the authors acknowledge the presence and importance of a pre-step. The design of the action research approach undertaken in study 2 was influenced by the results of study 1, and the pre-step in Coghlan and Brannick's (2010) model provides a means of conceptualising this influence.
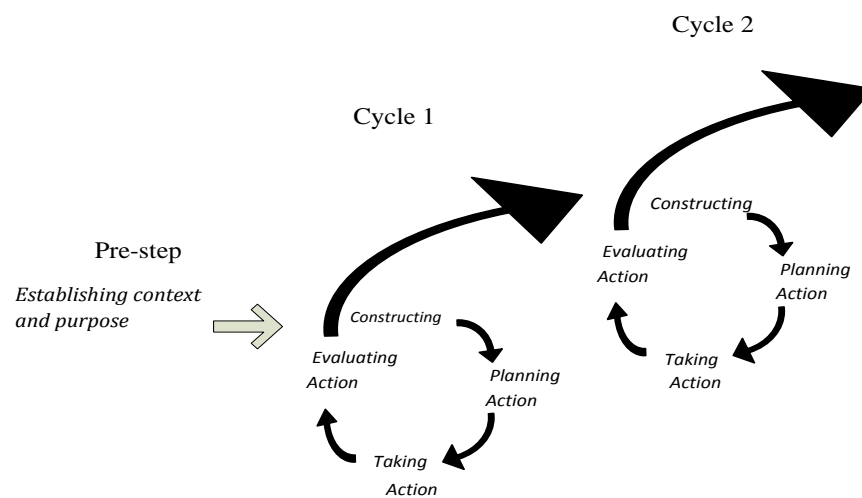
FIGURE 8: SPIRALS OF ACTION RESEARCH CYCLES (ADAPTED FROM COGHLAN AND BRANNICK 2010 P.10)

The pre-step is concerned with establishing the context and purpose of the action research and includes developing relationships and setting up groups with which to

work. The constructing step of an action research cycle is a collaborative venture and involves construction of the issues to be tackled. Planning the action is the next step followed by taking action, both of which should happen collaboratively. Evaluation of the action occurs next and this in turn can feed into other cycles of action research.

Figure 8 is a useful way of conceptualising action research but Coghlan and Brannick (2010) caution against interpreting and executing cycles in a linear fashion and note that there are often cycles of action research occurring concurrently as well as cycles happening within cycles. They use the metaphor of a clock to explain the concurrency of cycles of action.

> *"The hour hand which takes 12 hours to complete its cycles may represent the project as a whole. In a large complex project it may take several years to complete its cycle. The minute hand, which takes an hour to complete its cycle may represent phases or particular sections of the project. The second hand which completes its cycle in a minute may represent specific actions within the project e.g. a specific meeting or interview. As with the clock, where the revolutions of three hands are concurrent, and where the revolutions of the second and minute hands together enable the completion of the hour hand, the short-term action research cycles contribute to the medium-term cycles which contribute to the longer-term cycle"* (Coghlan and Brannick 2010 p.11).

This point is effectively illustrated by my inquiry. As I described in chapter three, study one, once undertaken, became a pre-step for study two. Part of the pre-step was also carried out before beginning the action research cycles, when I engaged in data collection within each of the three facilities in order to establish context and purpose for the action research. Study 2 can be viewed in terms of one cycle of action research but within this cycle were others. The teams undertook a number of initiatives and engaged in at least one cycle of action research for each initiative. Some cycles ran sequentially, some concurrently and some contained other cycles within them. This complexity is illustrated in Figure 9 which draws upon the clock metaphor. Indeed, the distinct steps illustrated in the figure are a simplification of the process since many steps overlapped or were not as well delineated as they are conceptualised.

Development of research question, study 1: An examination of nurses' use of research information in decision-making

Data collected to feedback to participants and to get feedback from them on their views of the research

Second Hand

Obtaining ethical approval

Literature review, evidence-based practice.

Pre-step, study 1

Constructing, study 1

Evaluating action, study 2

Minute Hand

Study 1 (Pre-step for study 2)

Action research cycles, facility C

Planning action, study 1

Identification of study populations

Taking action, study 2

Action research cycles, facility B

Designing interview questions and schedule

First action research cycles planned in group discussions and first meetings

Planning action, study 2

Hour Hand

Taking action, study 1

Data collection – interviews with nurses

Study 2

Questionnaire development

Collaborative agreement achieved on purpose of project.

Constructing, study 2

Evaluating action, study 1

Questionnaire distribution

Action research teams set up

Data analysis

Data collection – interviews to establish context, group discussions to establish context and purpose

Pre-step, study 2

Obtaining ethical approval, Literature review undertaken

Development of research question study 2 – Developing interprofessional collaboration: an effective way to bring about changes in practice?

FIGURE 9: ILLUSTRATING THE CONCURRENCY OF CYCLES OF ACTION RESEARCH WITHIN THE STUDY

My action research approach falls under the umbrella of classical action research outlined by Coghlan and Brannick (2010). Classical action research is closely linked with the work of Lewin who was concerned with the generation of knowledge about a social system through change of that system (Lewin 1948). It is described as:

> *"A collaborative change management problem solving relationship between researcher and* [participants][3] *aimed at solving a problem and generating new knowledge. The researcher and* [participants][3] *engage in collaborative cycles of planning, taking action and evaluating"* (Coghlan and Brannick 2010 p.44).

Despite placing my approach within classical action research I also draw inspiration from a number of other action research modalities including pragmatic action research (Greenwood and Levin 2007), cooperative inquiry (Heron and Reason 2006), and participatory action research (Fals Borda 2006, Koch and Kralik 2006).

The integration of elements of these approaches in combination with a social constructionist epistemology means that the study was not simply about diagnosing problems and solving them but became as much about examining the social processes at work. Bushe and Marshak (2009), in an examination of organisational change through the lens of organisation development (OD), provide a useful means of examining different types of change practices and note that they can be 'diagnostic' or 'dialogic'. Older, more classical forms of OD view organisations as biological, open systems and take a problem-oriented approach to change. Within these approaches, the emphasis is on producing objective data in order to identify a verifiable reality of how things are and what must be done to change them. These are 'diagnostic' approaches to change. Within post-modern 'dialogic' approaches on the other hand, data are not gathered in an attempt to diagnose the system within the organisation. Instead, reality is viewed as socially constructed and data are viewed as a means of raising "collective awareness of the multitude of perspectives and discourses at play" (Bushe and Marshak 2009 p.353). The focus is not on problems within the organisation but on exploring collective experiences and aspirations of participants in change processes. This entails creating an environment within which such exploration can occur. 'Dialogic' change approaches do not attempt to change individual behaviour directly. Rather, they are underpinned by the assumption that if individuals can share and explore their perspectives on reality with others, consciousness-raising and an alteration in individual perspectives can occur due to the social construction of shared beliefs. This in turn can lead to behaviour changes.

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[3]In the original definition, the term 'client' is used, which I have changed to 'participants'. I was not engaged as a consultant by the organisations within which the action research occurred so the term participants is more appropriate to my particular approach.

Thus, within 'dialogic' OD, behaviour changes result from a type of shared reorientation of perspectives and beliefs about the reality of an organisational state of affairs and why and how that reality should change.

Although my research approach was designed to sit within classical action research, it cannot be said to be a 'diagnostic' approach to change. Nevertheless, there is one element of 'diagnostic' OD included, namely an emphasis on problem-solving which was particularly obvious at the outset of the study. This was due to the fact that the teams set up for the study set out to identify issues within each organisation they wished to address. This emphasis on problem-solving became less important as the study progressed since in the initial stages of the study, I failed to take account of how difficult it would be to develop interprofessional collaboration and this oversight became more obvious as the teams began to work together. As described in the previous chapter, two activity tracks occur when a team is brought together to address an issue, namely teamwork and taskwork (Morgan et al. 1993). My primary focus at the outset was on the taskwork element of team activities as I was more concerned with the practical implications of attempting change. Nonetheless, despite a problem-centric focus, unlike those working within 'diagnostic' OD, I did not view reality as something that could be objectively measured or verified. Instead, I viewed reality as socially constructed and transitory. By coming to the recognition that developing interprofessional collaboration would be a difficult process, I realised that I had to place greater emphasis on the empowerment of participants and the development of an environment within which participants could engage as equals in discussions and decision-making. As action research cycles began, my acknowledgement of this and my subsequent focus on empowerment, meant that I embraced many of the notions inherent in participatory action research and cooperative inquiry which include valuing diversity, valuing the perspectives of others, and the redistribution of power (Reason 1998, Fals Borda 2006).

Coghlan (2011) notes that many of the more contemporary action approaches that exist within the action research spectrum, such as cooperative inquiry, can be regarded as 'dialogic' OD. He highlights the fact that within these approaches, the emphasis is on construction of meaning by individuals on their subjective reality and how and what they wish to change in that reality. Accordingly, despite my initial focus on problem-solving, my acknowledgement of the importance of democratic engagement and empowerment meant that within cycles of action research, my aim had to be to create a

space within which team members felt confident and comfortable discussing their perspectives on reality and how to undertake change. I also acknowledged the importance of setting my sights beyond what Argyris and Schön (1974) term 'single-loop learning', which is when individuals simply implement strategies to address an issue, to 'double-loop learning' which is when issues are regarded in their social context and changes occur as a result of changing attitudes. Consequently, the way we undertook change at the facilities involved in the study can be viewed as a 'dialogic' approach to change within Bushe and Marshak's (2009) conceptualisation of change processes.

Another important element in the framing of my research approach is a pragmatist theoretical position. Although some action research writers acknowledge the contribution of Dewey to the foundations of action research, few look at the pragmatists who in turn influenced him (Greenwood and Levin 2007). I suggest that the philosophical thinking of Peirce has much to offer modern forms of action research, and my approach is constructed around a number of elements of his pragmatic view of the world, some of which were expanded or transformed by Mead and Dewey. The elements, derived from Peirce (1997 a,b,c,d, 1955) are as follows:

- Meaning is determined by practice
- The pragmatist world is a world of communication and interaction to be explored and made best use of
- Inquiry into human behaviour must take social context into account
- Inquiry has a co-operative element
- Inquiry can be inductive, deductive and abductive
- Knowledge is dependent on the perspective of the observer and the best explanations come from looking at something from different perspectives.

In the following sub-sections I explore these concepts further. In doing so, I aim to show how these axioms have informed action research in general, and my approach in particular.

5.4.1 MEANING IS DETERMINED BY PRACTICE

The central tenet that underpins the thinking of pragmatists is that meaning is determined by practice rather than theoretical conceptualisation (Popkin and Stroll 2003). In other words, an ideology can be accepted if it works in practice, thus ideas

should be tested (James 2000). Although here is no single form of pragmatism, and significant differences exist between the thoughts of different pragmatist philosophers, they all agree on this central tenet.

Peirce (1955) thinks in relational terms i.e. if something, then something. Therefore, he argues that the nature and behaviour of an object are best explained in terms of its relations. He echoes the view of constructionists in asserting his principles of phenomenology which state that before an object "comes into relations with others" its attributes and capabilities are only possibilities rather than actualities (Peirce 1955 p.76). Consequently, meaning can only be understood through practice (Peirce 1955, 1997c, d).

These ideas in themselves are not new. Seventeenth century scientists like Francis Bacon argued for the importance of the practical and social aspects of sciences rather than simply the intellectual one (Knight 1989). Nevertheless, for Peirce and early pragmatists who were operating around the turn of the 20th Century, the foundation of their philosophy was a rebellion against the abstractions of philosophical thought. Their concern was with real life; to them, theories were merely instruments, not answers (Russell 1984, May and Powell 2008). Action researchers take a similar stance. Lewin, for example, argues that a theory is adequate "if one can make predictions from it and prove these predictions experimentally" (Lewin 1951 p.184). Greenwood and Levin (2007) note that action research practitioners privilege practice over theory. Thus, rather than engaging in research in order to describe situations or predict behaviour, action researchers gain understanding by actually undertaking change in co-operation with participants.

Although finding practical solutions to issues is one aim of action research, Hart and Bond (1995) describe a developmental shift over time from the earlier types of action research which were focused on solving problems to more recent types of action research which have more of an emancipatory focus. Thus, modern views have resulted in the expansion of the aims of action research in its various forms to include personal transformation, consciousness raising, empowerment, positive social transformation and the production of knowledge (Reason and Bradbury 2006, Fals Borda 2006, Koch and Kralik 2006, Somekh 2006, Reason 2006). In this way they have moved closer to pragmatic ideals as expressed by Dewey (1997a p.229):

"The use of intelligence to liberate and liberalize action is the pragmatic lesson. Action restricted to given and fixed ends may attain great technical efficiency; but efficiency is the only quality to which it can lay claim…. Action directed to ends to which the agent has not previously been attached inevitably carries with it a quickened and enlarged spirit. A pragmatic intelligence is a creative intelligence, not a routine mechanic".

Greenwood and Levin (2007 p.105) warn that the local knowledge of participants can be "a mixed bag", some of which of useful and some not. Similarly, although information generated through experimental means is useful in action research, Park (2006) warns this type of knowledge can carry with it the dangers of been viewed as superior and can be used to control. Consequently, both local, practical knowledge and research information should be critically evaluated and used in combination (Greenwood and Levin 2007). An action research approach facilitates this process. The merits of research information can be discussed and debated in the context of changes in practice. Consequently, practical knowing can "consummate the other forms of knowing in action in the world" (Reason 1996 p.9) and action research can be a means of motivating healthcare professionals to reflect on their own practice. This is an essential component of implementing evidence-based changes and developing collaboration (Gray 2008b, Melynk and Fineout-Overholt 2011).

Pragmatism is not the only philosophy that embraces the practical as well as the theoretical. Critical theorists also embrace it, but their view of the world is that of:

"a battleground of hegemonic interests. In this world there are striking disparities in the distribution of power…This is a world torn apart by dynamics of oppression, manipulation and coercion" (Crotty p.63).

The world of the pragmatists in contrast, is focused on building on the positive rather than battling the powers that be. It is a view of the world where humans are seen to be doing their best to cope with their environment and where beliefs are regarded simply habits of acting and thus are mutable. It is a world of communication and interaction to be explored and made best use of (Rorty 1999). Human potential is regarded as positive and human effort should be focused on improving the lot of all (Kim and Sjostrom 2005).

This view of the world influenced my epistemological assumptions. I conceive power as something that can be wielded in both a positive and negative way, rather than something that is exercised in a dominant relationship of winners over losers. This can

be related to my pragmatic view of the world, as this conceptualisation of power favours co-operation over competition (Eyben et al. 2006). My pragmatic view of the world also influenced my methodological choices. In study one in the pre-step, rather than focusing on barriers to evidence-based practice as many previous researchers in the field have done, I took a solutions-focused approach to the topic. Reason and Bradbury (2006) contend that action research is suited to those researchers who want to focus on making positive changes in the world. In designing study two, I chose an action research approach with the idea of encouraging care providers to work in a collaborative way to examine and improve organisational practices.

5.4.2 INQUIRY INTO HUMAN BEHAVIOUR MUST TAKE SOCIAL CONTEXT INTO ACCOUNT

Construction of meaning occurs within a social and historical perspective for those taking a social constructionist epistemological standpoint (Marshall et al. 2005). Our context is said to mould us, providing us with a collective meaning to which we add our own (Crotty 2003). Context is also of interest to Peirce (1955). He did not hold with a theory of consciousness existing merely in the mind. Instead, he placed the inquirer firmly in the world and examined the relationship between the inquirer and his perspective on his world. Pragmatism is concerned with how meaning is constructed for an individual through that relationship (Dunn 1998). Greenwood and Levin (2007) note that this concept is present in both pragmatism and action research. Reason and Bradbury (2006 p.7) argue a similar point and use the term 'participatory worldview' to describe their contention that reality is co-constructed from number of elements namely "the primal giveness of the cosmos and human feeling and construing".

In study one, I examined why a theory-practice gap appears to exist in nursing. Some models for evidence-based practice, such as those proposed by Chilvers et al. (2002) and Stetler et al. (2001), are constructed around the individual while contextual factors are ignored. However, the results of my inquiry led me to recognise the validity of Meads (1934) assertions that individual behaviour is in fact part of a social phenomenon. This led me to reject models focused on individual behaviour, which in turn sparked my interest in developing interprofessional collaboration to address a particular theory-practice gap.

I then had to choose how to proceed. In an expansion of Peirce's ideas, Mead (1934) states that the behaviour of individuals can only be understood in terms of the behaviour

of the social group and that this behaviour evolves constantly in response to individuals' experiences and environment. In turn, he describes society as that which emerges from communicative social acts between the individuals which make it up. Similarly, Dewey (1997b p.191) compares society to a biological organism and describes an individual as "a member of the organism, and, just in proportion to the perfection of the organism, has concentrated within himself its intelligence and will". From a pragmatic perspective groups must be studied in their social context. Action research facilitates this. As Lewin (1951) argues, judgement, understanding and perception are all dependent on context. He notes that situations are impacted by factors at different times and with differing force. He also contends that events are given psychological meaning through interpretation based on the "larger unit of events of which this action forms a part" (Lewin 1948 p.82). Bearing this in mind, I chose to conduct research with groups within their social environment and rather than simply focusing on interprofessional collaboration, to also take account of the many forces acting on its development.

Coghlan and Brannick (2010) assert that to undertake action research in organisations, a researcher must acknowledge and try to understand the historical and political context of issues while accepting that this understanding will be in itself contextual, and consequently is open to reinterpretation. Meaning must be regarded as transitory since new meanings emerge from the different perspectives that arise from looking at the past from different temporal standpoints (Mead 1934). Our view of the reality of the past, therefore, is constantly in flux as our situations change. Study 1 helped to identify forces impacting on individuals' ability to make changes in their practice. The meanings derived from analysis of data generated in study 1 were re-interpreted and built upon by data generated in study 2. Reinterpretation continued during and after the cycles of action research at the facilities.

In recognition of the fact that practical knowing is contextual, neither pragmatists nor action researchers attempt to claim universality for knowledge generated through their research. Instead, generated knowledge is regarded as "cautious in its claims, sensitive to variations and open to reinterpretation in new contexts" (Somekh 2006 p.28). This view is not dissimilar to that of Guba and Lincoln's (1998) on generalization in qualitative research. They argue that since human behaviour is heavily influenced by the context in which it occurs, a concept which leads them to question the value of context-free generalizations. This builds upon Cronbach's arguments that "When we give proper weight to local conditions, any generalization is a working hypothesis, not a

conclusion" (Cronbach 1975 p.125). Nevertheless, theories that emerge from action research studies can sometimes be transferrable to other situations (Koch and Kralik 2006). The results of the action research study described in this thesis may be useful in similar contexts and it is envisioned that the results may also add to theory on the development of interprofessional teams.

5.4.3 INQUIRY HAS A CO-OPERATIVE ELEMENT

Rorty defines the purpose of pragmatic inquiry as:

> *"To achieve agreement among human beings about what to do, to bring about consensus on the ends to be achieved and the means to be used to achieve those ends"* (Rorty 1999 p.xxv).

These views on co-operation in pragmatic inquiry began with Peirce (Mounce 1997). Dewey expanded on them throughout his life and the central theme in his work was his belief in the importance of the democratic process in all spheres of life (Shields 1999). He argued that all individuals were scientists in their own right (Dewey 1991) and one of the major differences between action research and traditional research is this view that individuals have an important contribution to make to the research process (Reason and Bradbury 2006). The discourse between researcher and participants shapes the direction of the research and can result in co-generation of knowledge and testing the validity of that knowledge in practice (Greenwood and Levin 2007).

Study 1 and a review of the literature highlighted that healthcare professionals often engage in habitual, routine work practices without questioning them and when they do question them, they approach colleagues to provide answers (Friedman 2006, Koch and Kralik 2006). Knowledge within the healthcare environment is as a result a socially constructed common knowledge held by members of a profession on 'how things are done' by that profession. Action research allows practitioners to question the status quo and create new knowledge based on input from all professional groups (Gardner 2005). Additionally, engaging in organisational change can be difficult, but as Lewin (1948) notes, an individual is more likely to change their attitudes and beliefs if they are actively engaged with others in addressing an issue. Work groups, such as those set up in action research, can be a successful means of developing and leading change (Leeman et al. 2007).

Empowerment of stakeholders can occur in action research initiatives (Reason and Bradbury 2006, Bradbury Huang 2010). Empowerment, like power, is a multidimensional concept of which there is no one universally accepted definition (Page and Czuba 1999). It can be broadly defined as: "a progression that helps people gain control over their own lives and increases the capacity of people to act on issues that they themselves define as important" (Luttrell et al. 2009 p.16). Within Gaventa's (2011) description of power, it can involve gaining power to, power within and power with. Hur's (2006) synthesis of theory across the psychological and social sciences field provides a useful typology for an examination of empowerment. He describes empowerment as both a process and an outcome and his description evokes the image of weights being added to the higher side of an unbalanced scale until a tipping point is reached and the side descends. Individuals go through a number of stages beginning with becoming aware of the existence of limited power. They then consider the potential of altering that state and take action to alter it. This leads to a new status quo. Hur (2006) acknowledges that there are differing views in the literature on the most effective strategies for progressing through these stages. The strategies can be influenced by perspectives on power, so for example Gaventa's (2011) 'power to' perspective discussed in chapter 3, which is envisioned as the power to act in a situation is linked to empowerment strategies based on increasing skills and knowledge. The 'power with' perspective, which is the collective power gained from acting with others, is linked to mobilization with others. 'Power within', which is the recognition of one's own agency, is linked to increasing individual consciousness and self-dignity (Luttrell et al. 2009, Gaventa and Cornwall 2006).

Collaborative ventures are more successful when major power disparities are not a feature of the collaborative relationship (Huxham and Beech 2008), yet interprofessional collaboration occurs within a healthcare culture where power disparities are common and power sits mostly in the hands of the medical profession (D'Amour et al. 2005, Miller et al. 2008). It is commonly accepted that in the development of interprofessional collaboration, empowerment of professionals traditionally vested with less power must occur (Hall 2005). McCray (2003) suggests that practitioners must first understand the nature of their power relationships. Action research can be a means of developing this type of understanding with its focus on reflection, participation and mutual respect. Thus, an action research attempt at developing interprofessional collaboration can be a means of creating a space to

facilitate the development of power with others. Reflection within the group can promote individual consciousness which can develop power within and group activities can develop power to.

5.4.4 INQUIRY CAN BE INDUCTIVE, DEDUCTIVE AND ABDUCTIVE

There is general agreement that action research should contribute to theory-building as well as problem solving (Koch and Kralik 2006, Coghlan and Brannick 2010) and that this dual contribution is one of its strengths (Whyte 1991). There can however, be different expected outcomes and roles for theory in action research. Koch and Kralik (2006) describe their work on chronic illness as theory generation. Lewin's work on the other hand can be regarded as verification of theory, which Gustavsen (2006) argues is not how action research should be conducted. He suggests that theory should be a vehicle to "test ideas, generate new associations and generally enrich our thoughts and actions" (Gustavsen 2006 p.19).

Peirce's pragmatist philosophy shed some light for me on the role of theory in action research. He argues that inquiry should consist of several types of reasoning: inductive, deductive and abductive. Inductive reasoning is reasoning where one derives inferences from specific cases and develops theory from them. Abduction is described by Peirce as the "operation of adopting and explanatory hypothesis" (Peirce 1955 p.151) and he goes on to define it as a type of logical inference which could be equated to educated guessing − fact C is observed; if fact A were true then fact C would also be true; therefore fact A could be true. He argues that a number of reasonable hypotheses can be developed from infinite possibilities through abduction, reformulated through inductive reasoning, and explored through a deductive examination of their application in practice. Furthermore, he argues that conclusions may be reframed through further theory development and subsequent re-examination in practice. He also argues that before approaching a problem, one should review current knowledge:

> *"to make a systematic study of the conceptions out of which a philosophical theory may be built in order to ascertain what place each conception might fitly occupy in such a theory, and to what uses it is adapted"* (Peirce 1955 p.316).

Essentially, he sees a role for theory both in informing practice and in being developed through practice. Greenwood and Levin (2007) argue for this dual role for theory in action research. They note that solving collective problems generally occurs without the benefit of most of the collective knowledge and theoretical groundings of members of a

community, a dearth that can be addressed through action research. They also argue for the production of new theory through co-generation, analysis and testing of knowledge by participants in action research.

Study 1 was informed by models and theories existent in the literature on the factors that impact upon nurses' use of research information in decision-making. As outlined in chapter 3, questionnaire and interview data gained from nurses during study 1 allowed reframing of those theories and led me to construct a theory on how care could be improved in the healthcare environment. This in turn informed the design and implementation of an interprofessional action research approach to improving care, thus inductively examining the theory in practice as endorsed in Peirce's pragmatic writings. This examination was done collaboratively with participants during action research cycles, allowing the group to modify and amend the theories.

I should make it clear that the ideas that emerged from study 1 were not tested in the positivist sense to 'prove' their veracity. Instead the ideas were used to inform the construction of the particular action research approach I took, and subsequently to inform the conceptual model I present in chapter 9 for examining and reflecting on the processes and outcomes of the action research cycles. Peirce states that:

> *"The best that can be done is to supply a hypothesis, not devoid of all likelihood, in the general line of growth of scientific ideas, and capable of being verified or refuted by future observers" (*1955 p.2).

The findings and conclusions from my thesis therefore, have to be taken in light of the pragmatist view of the world, where truth and meaning are context-specific, provisional and mutable.

5.4.5 KNOWLEDGE IS DEPENDENT ON THE PERSPECTIVE OF THE OBSERVER AND THE BEST EXPLANATIONS COME FROM LOOKING AT SOMETHING FROM DIFFERENT PERSPECTIVES

Unlike rationalists and empiricists who view knowledge as absolute and independent of perspective, Peirce (1955, 1997b) takes a constructionist view of the world since he argues that knowledge is dependent on the perspective of the observer. How the world appears is a combination of how it is and how it is observed. Peirce (1955, 1997b) also believed that the accumulation of a number of perspectives lead to greater meaning. Of course, most research endeavours to achieve this greater meaning since as researchers, we tend to build on and expand the work of others. Additionally, there are generally a

number of participants in any research project, each giving their own perspective on an issue. Nevertheless, action research takes the idea of the accumulation of perspectives a step further. Rather than meaning derived solely by researchers in a data analysis phase, knowledge is co-generated through the interaction of researchers and participants in action research cycles. Meaning is therefore constructed dynamically. This "cogenerative research" process is arguably one of the great strengths of action research (Greenwood and Levin 2007 p.134) and resonates with the beliefs of Mead and Dewey that meaning is derived socially rather than as a solitary act (May and Powell 2008). This aspect of pragmatism and action research is particularly relevant in an attempt to develop interprofessional collaboration, since the different perspectives of all professional groups must be taken into account in order to facilitate collaborative working (D'Amour and Oandasan 2005).

Individual reflection should arguably be present in all research but where action research differs from most other types of research is that group discussion is an integral part of the process. Space and time are created for group reflection where meaning from actions can be constructed and reconstructed by participants. This can result in mutual learning for researchers and participants (Greenwood and Levin 2007). Koch and Kralik (2006), for example, in their research with women who had experienced abuse as children found that:

> *"Group reflection facilitated emancipatory knowledge when the women recognized connections between their experiences of abuse and realised that they were not alone in these experiences"* (Koch and Kralik 2006 p.131).

They also argue that group reflection can be useful in moving discussions beyond immediate practical problems and so enable participants to engage in to double-loop learning which results in changes in attitudes and behaviours, rather than simply single-loop learning which does not (Koch and Kralik 2006). Greenwood and Levin (2007) note that an outcome of action research can be the development of improved understanding and a shared language, both essential in interprofessional collaboration. In my inquiry, group discussion and reflection occurred during study 2 which allowed the framing and reframing of assumptions, co-generation of knowledge and opportunities to revisit the co-constructed meanings. Emphasising interprofessional collaboration meant that different perspectives were actively sought within an environment of mutual respect as different practitioners sought to understand the roles and views of others.

Section 5.4 outlined the principles that form the basis of my theoretical approach. In the following section, I discuss organisational knowledge creation theory which draws on many of these same principles.

5.5 ORGANISATIONAL KNOWLEDGE CREATION THEORY

In organisational knowledge creation theory, individuals come together to interact and reflect on their practice (Roberts 2006). Knowledge creation occurs dynamically through this interaction of individuals within their social context (Nonaka and Von Krogh 2009) with the result that organisations can be regarded as knowledge creation entities (Nonaka et al. 2000).

Nonaka et al. (2000 p.7) distinguish knowledge and information by suggesting that when information is "put into a context, it becomes knowledge". Furthermore, knowledge is regarded as that "which results from the justification of belief, and if it enhances the capacity to act, define and solve problems" (Nonaka and Von Krogh 2009 p.642).

Nonaka acknowledges the influence of the pragmatists on his thinking (Nonaka and Von Krogh 2009) and his view of knowledge echoes the view of Peirce, Dewey and Mead who contend that meaning is derived from contextualised human action and interaction. Nonaka and Toyama (2003) argue, like Peirce (1955) that knowledge created through a combination of views from different perspectives is more robust than meaning derived from one perspective. Consequently, within organisational knowledge creation theory, diversity in groups is regarded as a positive feature. Different perspectives, knowledge and interests are viewed as a source of innovation and creativity in problem solving (Roberts 2006).

Tacit and explicit knowledge are two forms of knowledge explored within organisational knowledge creation theory. The former is personal, intuitive knowledge that is difficult to communicate and is generally learned through demonstration (Polanyi 1962, Lam 2000). Nonaka and Von Krogh (2009 p.635) describe this knowledge as "unarticulated and tied to the senses, movement skills, physical experiences, intuition, or implicit rules of thumb". Explicit knowledge can be communicated explicitly and can be transferred and stored easily in a codified form (Polanyi 1966, Nonaka 1994, Nonaka and Von Krogh 2009). Nonaka and Von Krogh (2009) note that these two forms of knowledge should not be regarded as mutually exclusive and explicit categories. They

argue that they exist on a continuum where they interact and enhance each other. They also argue that much tacit knowledge can in fact be made explicit.

The space within which knowledge is created is termed 'ba' by Nonaka and colleagues (Nonaka et al. 2000, Nonaka and Toyama 2003) and an organisation can be visualised as comprising of various ba. Knowledge conversion through social interaction within these spaces can lead to the creation of new collective knowledge (Lam 2000, Nonaka et al 2000) which can result in new social practice which, over time, may become a part of organisational norms (Nonaka and Von Krogh 2009). Nonetheless, group members must often learn to overcome a lack of trust, time and resources in the creation of new knowledge (Nonaka and Von Krogh 2009).

5.6 ETHICAL ISSUES IN ACTION RESEARCH

The previous section dealt with organisational knowledge creation theory. In this section I discuss ethical issues that I encountered in the course of my research.

Action research is a dynamic process which can change as the research process progresses. Accordingly, predicting the ethical issues that may arise can prove difficult (Morton, 1999). It has been argued that existing ethical committee protocols do not sufficiently address the complexity of the action research process which has been described as an "organic process which takes on its own distinctive pattern" (Coghlan and Shani 2005 p.534). Within the context of my research, communication with the ethical committee was difficult as ethics committee protocols were structured around more traditional forms of research.

Williamson and Prosser (2002) highlight that it can be difficult to preserve anonymity and confidentiality in action research as researchers and participants are generally in collaboration. They suggest that due to the political nature of change, it can be difficult to promise that no harm will come to any participants and this was of concern to me. A number of participants, recognising that their comments could be viewed as negative by management and a wider audience, were concerned that this could have negative repercussions for them if anonymity was not preserved. I discussed the matter with the participants and my supervisors and as a result of those discussions have striven to ensure that the facilities cannot be identified by my descriptions within this thesis. Individuals are identified only by codes and in certain cases where it is pertinent to highlight their profession, I do not identify the individual's code, in order to preserve

anonymity. Furthermore, even though some individuals in the organisations and on the teams were male, I refer to everyone using the female pronoun.

The concept of informed consent can also pose difficulties since the organic nature of action research means that it can be difficult to predict in advance exactly where the research journey will take the participants (Williamson and Prosser, 2002). However, as participants were actively engaged in all decisions, they were able to steer the direction of the research themselves and decide how much they wanted to be involved, reducing this concern.

The nature of the dual activities involved in action research, action and research, can raise an ethical dilemma, as a researcher may have to prioritise one over the other. If it is the researcher who defines what constitutes an improvement, this may cause the prioritisation of the researchers aims over those of the participants (Grundy, 1982; Hart and Bond, 1995). I addressed this concern by requesting continuing input from all participants and establishing from the beginning that participants controlled the direction of the research. As will be outlined in chapter 7, although the original focus was on improving pain management, at both facilities the teams moved away from a narrow focus on pain. Instead they identified changes they wished to undertake in areas they felt should be addressed by a multiprofessional team, highlighting their control over the direction of the research.

5.7 SUMMARY

In summary, in this chapter I have provided an overview of my action research approach with special emphasis on the pragmatic philosophical tenets that underscored it. I justified my choice of action research as a methodology and although the approach I used was broadly a classical action research approach, I drew on elements from several different traditions of action research. I clarified my rationale for doing this, which was to fit the approach to the research question, something which should be the first concern of a researcher. I went on to outline the role of action researchers and some of the ethical dilemmas that I faced due to the dual aims of action and research and the collaborative and evolving nature of the research.

As outlined in section 5.3, a pre-step establishes context and purpose for an action research study. Study 1, described in chapter 2 formed part of the pre-step for the action research cycles in study 2. The remainder of the pre-step is described in the following

chapter as I outline my efforts to engage in cycles of action research at three residential care facilities. Included in the chapter is a description of the research methods used in data collection.

CHAPTER 6 - THE PRE-STEP: SETTING CONTEXT AND PURPOSE AND ESTABLISHING MULTIPROFESSIONAL TEAMS

6.1 INTRODUCTION TO THE CHAPTER

Cycles of action research are preceded by a pre-step which involves establishing the context and purpose for the action research cycles, and describing the relationships developed and the teams set up (Coghlan and Brannick 2010). In chapter 3, I described how study 1 formed part of a pre-step to my inquiry by informing the design of an action research approach, thus establishing the broad strokes of context and purpose. In chapters 4 and 5, I discussed how the literature on interprofessional collaboration and methodological considerations informed my thinking on how these broad strokes could be refined into a research plan. This chapter continues the description of this journey and outlines the remainder of the pre-step of my inquiry by describing how the broad strokes were executed in finer detail within each of three facilities that participated.

As outlined in chapter 1, I aimed to develop interprofessional teams to undertake organisational change at three residential care facilities for older people, in order to gain insight into the process and the driving and restraining forces shaping it. In this chapter, I describe the process of consultation and data collection at the facilities, undertaken prior to the commencement of cycles of action research. Part of this process involved setting up a multiprofessional team at each facility to decide on and implement changes. These were project teams as defined by Hackman (1990) who describes them as temporary teams which are set up to perform a specific task and have members who hold different positions in an organisation. Staff from within the organisations and associated care providers[4] from outside the organisations were invited to become members of the teams.

I conclude the chapter with an analysis of the forces impacting on my efforts to set up the teams. The analysis is covered separately in this chapter rather than integrating it into the analysis of the action research cycles in the following chapters because there are two different processes under scrutiny. In this chapter, I discuss the readiness and appetite for change within facilities included in the study. In my analysis of the action

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[4] I use the term 'associated care providers' throughout this thesis to describe practitioners such as GPs and physiotherapists who were not staff at the facilities but visited to provide services to residents.

research cycles in the next two chapters, I am more concerned with the dual processes of teamwork and taskwork, in other words the development of the multiprofessional teams into interprofessional teams and the concurrent activities involved in achieving team goals.

I begin this chapter with a description of the three facilities involved in the study and the data collected.

6.2 DESCRIPTION OF FACILITIES

The three facilities involved in the study are termed A, B and C. Facility A was a public residential care facility whereas Facilities B and C were private. As Silverman (2010) highlights, it is not uncommon for researchers to draw on connections they have previously established and this is how these three facilities were chosen. Colleagues of mine were acquainted with the managing directors (MDs) at all three organisations These colleagues spoke to the MDs about the study which facilitated my access to the facilities. Details of the three facilities are provided in Table 1.

6.3 DATA COLLECTION AT THE FACILITIES

Action researchers often use both qualitative and quantitative data collection methods (Reason and Bradbury 2006). Scrutinizing human behaviour is a complex process and using only one method provides a partial picture of the phenomenon. Using more than one data collection strategy, as occurred in this study, can provide a richness of detail resulting in greater understanding and insights that might otherwise be missed (Halcomb and Andrew 2005, Hanson et al. 2005, Tashakkori and Teddlie 2003). Thus, the rigour of the study was enhanced by gaining different perspectives from different types of data gathering (Eden and Huxham 1996, Williamson 2005).

	Facility A	Facility B	Facility C
Type of Facility	Public	Private	Private
Total number of beds	150	60	50
Number of care staff	76 nurses + 36 care assistants + 1 physiotherapist + 1 activities therapist	20 nurses + 31 care assistants	6 nurses + 17 care assistants + 1 physiotherapist + 1 health and safety officer
Associated care providers (during pre-step)	GPs, Dietician, Speech and Language Therapists, Pharmacist, Public Health Nurses (palliative care and wound care), Practice Development Co-ordinator.	GPs, Physiotherapists, Chiropodist, Pharmacist, Dietician, Public Health Nurses (palliative care and wound care).	GPs, Pharmacist, Chiropodist, Pharmacist, Dietician, Public Health Nurses (palliative care and wound care).
The built environment	Several wards, each with a nurses station- staff worked exclusively on a single ward.	Two nurses stations– staff were assigned to a station each shift.	A single nurses station to serve the whole facility.
Overall Manager	Director of Nursing (DON)	Managing Director (MD)	Managing Director (MD)
Care Manager	Assistant Directors of Nursing (ADON)	Clinical Care Manager (CCM)	Clinical Care Manager (CCM)
Ownership structure	Public facility, part of the Health Service Executive (HSE).	3 people on board of directors. MD was one of owners.	11 people on board of directors. MD (during pre-step) was one of owners. Subsequent MD was not.
Proportion of cognitively intact: cognitively impaired residents[5]	30:70	50:50	15:85

I carried out a phase of pre-intervention data collection at each facility before commencing action research cycles, collected data during action research cycles and carried out a phase of post-intervention data collection once the cycles were completed. Data collection was carried out in this manner for a number of reasons:

- To establish context, a component of the pre-step at each facility.
- To allow comparison of pre- and post-intervention data. Post-intervention data collection served as an evaluating action step.
- To keep track of developments in teamwork and taskwork during action research cycles.

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[5] These can only be estimates as for the purposes of this project, the residents were not tested for cognitive impairment using a standardised test such as the Mini-mental (Folstein et al. 1975). Instead, staff were asked to estimate the numbers. These proportions were also dynamic over the course of the project as some residents died, others moved into the facilities and some moved home after several months as they were only in residential care to recover from surgery or other physical trauma.

Data collected is outlined in Table 2 and a timeline of data collected is included in Appendix C.

TABLE 2: DATA COLLECTED AT EACH FACILITY

Pre-interventions

Facility A	Facility B	Facility C
Field notes : conversations with director of nursing, clinical care coordinator, staff and associated care providers; notes of meetings and activities; my reflections.	Field notes: conversations with MD staff and associated care providers; notes of meetings and activities; my reflections.	Field notes: conversations with MD, staff and associated care providers; notes of meetings and activities; my reflections.
Interviews with 10 residents (transcribed)	Interviews with 12 residents (transcribed)	Interviews with 7 residents (transcribed)
Questionnaires for staff and associated care providers (120 Distributed, 45 (38%) returned)	Questionnaires for staff and associated care providers (60 distributed, 22 (37%) returned)	Questionnaires for staff and associated care providers (32 distributed, 15 (47%) returned)
	1 group discussion with 10 staff and associated care providers (transcribed)	1 group discussion with staff and associated care providers (transcribed)

During Interventions

Facility A	Facility B	Facility C
N/A (Interventions did not occur)	Field notes: 6 team meetings, conversations with team members, my reflections and group reflection	Field notes: 7 team meetings, conversations with team members, my reflections and group reflection
	Evaluation documents to evaluate each initiative (10 distributed, 6 returned)	Evaluation documents to evaluate each initiative (16 distributed, 14 returned)

Post-Interventions

N/A (Interventions did not occur)	Field notes: conversations with team members and managers and my reflections	Field notes: conversations with team members and CCM and my reflections
	Interviews with 6 team members and MD	Interviews with 4 team members
	Questionnaires for staff and associated care providers (60 distributed 19 (32%) returned)	Questionnaires for staff and associated care providers (27 distributed, 5 (19%) returned)

6.3.1 INTERVIEWS

Semi-structured interviews were used before and after the cycles of action. Semi-structured interviews are characterized by a list of questions that are asked of every participant whose answers can be explored further as the interviewer deems appropriate with other unscripted questions (Parahoo 1997, Morse and Field 2002). The approach allowed me, for each set of interviews, to ask each participant the same questions, allowing comparisons between the answers, while still allowing me the freedom to

explore issues that arise during the interview in greater detail. Stringer (2007) equates interviews with guided reflection. Participants were guided through reflection on their actions, motivations, feelings and perspectives.

6.3.1.1 INTERVIEWS WITH RESIDENTS

I held semi-structured interviews with residents before initiating the action research cycles to obtain the residents' perspectives on how their pain was currently managed. This was to set the context for the study. The aim was to interview at least 10% of residents at each facility. Nursing staff judged the ability of residents to speak with me based on their knowledge of the level of cognitive impairment of each resident. Before the interviews, I or one of the nursing staff gave information sheets about the project to the cognitively intact residents. We explained the study to them and advised them that they could choose to be interviewed or not. Two residents in Facility A and one resident in Facility C did not wish to be interviewed. The exclusion criteria and the opt-out option meant that I was able to interview only 7% ($n = 10$) of residents at Facility A, but interviewed 20% ($n = 12$) of residents at Facility B and 15% ($n = 7$) of residents at Facility C.

The interviews were held at the residential care facilities, either in the residents own rooms or a neutral venue. The interviews were semi-structured in nature. Because the initial focus of the study was on improving pain management at the facilities, the interviews centred on this topic.

There are advantages and disadvantages to using interviews in data collection. They have the advantage of providing in-depth data on a topic. However, there can be issues with social desirability bias where a respondent says what might be socially desirable rather than what is actually the case (Miles and Huberman 1994). This may be particularly true in discussions about pain since it has been found that underreporting of pain is common among older people (Buffum 2007). I was conscious of this possibility in interviews and sought to minimise it. The importance of unhurried and positive communication about pain in addressing the issue of underreporting has been highlighted, as well as the use of a pain assessment tool (Ersek 1999, McDonald and Fedo 2009). During interviews, which lasted from 20 minutes to 1 hour, I encouraged the residents to talk in depth about their pain and pain management. I also used a coloured analogue scale (CAS) for the assessment of pain intensity, as it has shown to be an effective tool in assessing pain in older adults including those who are cognitively

impaired (Scherder and VanManen 2005). This tool was used with permission (personal correspondence with Patricia McGrath, Hospital for Sick Kids, Toronto, Canada, April 2008). I asked residents to indicate the location of their pain, their current pain and their worst and least pain in the previous 24 hours in keeping with advice from Goucke et al. (2005). I recorded the interviews and transcribed them in full. Interview questions and an image of the CAS tool are included in Appendix D.

6.3.1.2 INTERVIEWS WITH TEAM MEMBERS

I held semi-structured interviews with team members after the cycles of action research were complete. The interviews served as an evaluating action phase of the action research. All interviews but one were held at the residential care facilities in a private room and took from 45 minutes to 90 minutes. One interview was held over the phone. Participants were asked to evaluate the initiative as a whole and were asked about their role, the organisational structure and culture, their views on teamwork and their views on the forces that impacted on the team. The interview questions are listed in Appendix B. In two cases the interviews were group interviews with two people present. As outlined in Table 2, six team members were interviewed in Facility B and four were interviewed in Facility C.

The MD at Facility B was also interviewed to obtain her feedback on the project. The MD at Facility C was replaced near the end of the action research cycles. The team discussed whether to involve the new MD in the study. We decided that as the initiative was near completion and the new MD expressed a desire not to be involved in day to day care decisions at the facility, we did not ask her to become involved. As a result, I did not interview her. The CCM in place at Facility C at the end of the study declined to be interviewed.

6.3.2 GROUP DISCUSSIONS

I explored current pain management strategies in pre-intervention group discussions in facilities B and C with care providers. A group discussion was not held in Facility A as the study terminated early at that facility. I requested the help of the CCM at Facility B to set up the discussions. As illustrated in Table 2, ten people attended with representatives from nursing and care staff as well as a physiotherapist and a public health nurse from outside the facility. Most of the staff present were not working that shift but the CCM and MD arranged for them to attend and the time spent at the group

discussion was included as normal working time in their wages. This demonstrates the high degree of commitment of management to the study. I requested help from the CCM at Facility C to set up the group discussion. She delegated the responsibility to the health and safety officer at the facility. There were four people present at the beginning of the group discussion, all of whom were working at the facility that day. There were three present at the end as one nurse had to leave to see to a resident. Only staff were represented with no associated care providers attending.

As facilitator I utilised a list of questions to guide discussions. These questions focused on three areas, namely pain management, evidence-based practice and interprofessional collaboration. The list of questions is included in Appendix D. The discussions were recorded and transcribed verbatim. A colleague attended each group discussion session and took detailed notes to allow easy identification of the speakers on the tape.

The discussions resulted in data constructed through the interaction of a group of people. This can have the advantage of reflecting everyday life where opinions and meaning are generally co-generated through conversation with others (Brewerton and Milward 2001). The interaction allowed participants to share ideas which resulted in the emergence of new ideas (Gray 2009). Additionally, the discussions gave me an opportunity to observe interactions between participants (Kitzinger 2005).

Group discussions can have the disadvantage of generating data that is not topic specific as it takes a skilled facilitator to keep the group on topic (Brewerton and Milward 2001). I found it difficult to accurately determine at the time whether the direction of the dialogue was productive or not. However, in data analysis I found that most of the discussion was relevant. There can also be issues with group effects where some participants may be reluctant to speak up while others may forcefully express their views, and there is the possibility of 'groupthink' where participants can reach a consensus and fail to critically judge it (Nijstad 2009). I attempted to counteract this issue by requesting input from all attendees and to critically reflect on the discussions as they were occurring.

Gray (2008a) suggests that 'search conferences' can be an effective means of establishing common purpose in collaboration while Greenwood and Levin (2007) argue that they can allow researchers to tailor action research interventions to local situations. At each facility, the group discussions and the first meeting were structured

in a similar way to search conferences as described by Greenwood and Levin, (2007). They provide six elements as a guide:

> *"Creating a shared history; creating a shared vision of a desirable future; creating a view of what would be the probable future if nothing were done; identifying action plans for addressing the focal problem; creating a collective prioritization process in which participants choose among alternative action plans; initiating concrete change activity and structuring a follow-up process"* (Greenwood and Levin 2007 p.142).

The time involved was less than Greenwood and Levin would recommend for a search conference as they suggest one to two days whereas the group discussions in my inquiry were only two hours in length and the first meeting at each facility was an hour in length. Nonetheless, Greenwood and Levin (2007) also state that there is no one right way to conduct a search conference, suggesting that my approach was legitimate.

During the group discussions, some action plans were discussed and tentatively agreed upon, people were asked to volunteer to become part of the action research group and meeting dates were arranged.

6.3.3 FIELD NOTES

Throughout the action research process I kept field notes. Silverman (2010 p.231), cites Spradley's (1979 cited in Silverman 2010) advice to make four types of field notes namely:

- Short notes made at the time.
- Expanded notes made as soon as possible after each field session.
- A field work journal to record problems and ideas that arise during each stage of fieldwork.
- A provisional running record of analysis and interpretation.

I took short notes during or shortly after interactions with participants in interviews, group discussions, team meetings and other conversations or phone calls. The short notes were used as a guide to create expanded notes and in the case of team meetings, they were also used to create minutes of the meetings.

These notes served as a descriptive account of the action research. Description is not enough in action research, as an action researcher must make sense of the story (Coghlan and Brannick 2010). Consequently, reflection is an integral part of action

research. In reflection an action researcher must bear in mind that their personality, motivation, skills and experience can influence the outcomes of the research process (Coghlan and Shani 2005).

Dewey (1938) describes reflection as turning over a subject in one's mind and giving it careful consideration and argues that research questions must be addressed by designing an approach where reflection is a key element. In a similar vein, Heron and Reason (2006) argue that reflection can be used as a validity procedure in action research, as participants can acknowledge their current knowledge and reflect on how that is changing. Schein (2006 p193) argues for "self-insight and a healthy scepticism" in order to effectively engage in reformulation of hypotheses in action research and avoid being influenced too strongly by preconceptions.

My reflection was recorded in my field notes. I adapted the following questions from Gibbs (1988) reflective cycle to prompt reflection:

- What happened?
- How do I feel about it?
- What was good and bad about the experience?
- What sense can I make of the situation?
- Were my skills up to it?
- What could I do differently?

Group reflection was carried out during the evaluation step of the action research cycles for each initiative undertaken by the teams and I took notes during the discussions. Reflection can aid in gaining insight into meaning about events and actions and allow those doing the reflection to become more aware of their own attitudes and behaviours (Somekh 2006). Consequently, I hoped that reflection could allow participants to become aware of power disparities and role boundaries and that growing awareness could feed positively into the development of interprofessional collaboration.

During group reflection, we used the following questions, adapted from Palmer et al. (1994) as a guide:

- What happened?
- Is it a success so far?
- What else has to be done?

- What actions did different people take?

- Did everyone understand their own role and everyone else's?

- What was difficult about the experience?

- What worked well?

- Did we work well together as a team?

- Would we do anything differently if we were to do it again?

6.3.4 QUESTIONNAIRES

Although action researchers do not generally use questionnaires due to their non-collaborative nature, Gray (2009) notes that it is valid to use them when evaluating the effect of an action research intervention. In my case, I used questionnaires as a means of quantifying changes in knowledge about pain. Questionnaires were issued before the beginning of the first and after the end of the last cycle of action research. Response rate is recorded in Table 2.

I used an adaptation of the validated 'knowledge and attitudes regarding pain' questionnaire (Ferrell and McCaffery, 2000). This is a questionnaire which tests staff on their knowledge and preconceptions about pain using a series of true/false and multiple choice questions. The pre-intervention questionnaire for nurses, GPs and physiotherapists was adapted by the removal of irrelevant questions. The pre-intervention questionnaire for care assistants was shorter, with questions related to the specifics of nursing and medical care removed. The post intervention questionnaire for each group was the same as the pre-intervention questionnaire with the addition of a number of open-ended questions asking for feedback on the project. These questions were added to get some feedback from outside the multiprofessional change management team at each facility, but were mostly left blank by respondents.

The questionnaires functioned as a means of establishing whether staff learned anything new about pain. For that reason they were simply graded by hand and the mean score calculated. The questionnaires are included in Appendix E.

Self-completion questionnaires have the advantage of being easier and quicker to use and analyse than qualitative interviews or observation data. Accordingly, the questionnaire was a rapid means of gathering data from individuals outside the team (Bowling 2002, McColl et al. 2001, Parahoo 1997). The disadvantage of the absence of

the interviewer however, is that neither the respondents nor the researchers can ask for clarification or expansion of questions and answers (Parahoo 1997). Additionally, choices are pre-coded which means that some respondents may have to choose answers that do not fully represent their views. However, these were not major concerns in the study as most questions on the questionnaire were fact based. Questionnaires have been criticised as they do not provide the same depth and breadth of information possible from interviews or observational studies (Bowling 2002, Nancarrow and Brace 2000, Parahoo 1997). In my case, I used questionnaires simply as a measurement tool and conducted interviews to explore topics in depth.

As well as the questionnaires to assess knowledge and attitudes on pain, I asked team members at Facilities B and C to reflect individually and record their reflections on an evaluation document which consisted of a number of open ended questions. Questions were adapted from Palmer et al.'s (1994) model of reflection. The evaluation document is included in Appendix E. The number of evaluation documents distributed and returned is recorded in Table 2.

The following sections describe the pre-step activities at each facility. At Facility A my attempts to set up a multiprofessional team were unsuccessful in contrast to Facilities B and C, where the pre-step resulted in the creation of a team at each facility.

6.4 PRE-STEP, FACILITY A

In August 2007, during conception of the action research project, I spoke with the director of nursing (DoN) in Facility A. She expressed a high level of interest in having the multiprofessional change management initiative occur at the facility.

In September 2007, in order to address a large budget shortfall, the Health Service Executive implemented a recruitment freeze. This meant that job vacancies that arose were not recruited for and filled. Facility A was a public facility which meant that the recruitment freeze applied to all job vacancies there, including those resulting from maternity leave and career breaks. In December 2007, The HSE announced the end of the recruitment freeze, but continued with a "robust employment control framework", as described by Mary Harney, Minister for Health (p.2, Dáil Eireann 2007). In practice, this meant that the HSE continued to exert tight control over employment, and vacancies continued to remain unfilled.

In March 2008, the pre-step of project 2 at Facility A began with a discussion with the Director of Nursing. I requested access to begin collecting data at the facility and to set up a multiprofessional team to examine pain management. She expressed concern about the difficulties created by lower than normal staffing levels due to the recruitment freeze. Additionally, there was another research study occurring at the facility which could possibly impact on the ability of staff to become involved in both. Nevertheless, she felt that these issues were surmountable and it was decided that we should move ahead with the project. I invited her to become a team member but she felt that changes should be conceived and developed by staff. Thus, although she was supportive of the project, she was not actively involved.

When I asked for the name of a staff member who could be the contact person within the facility, I was introduced to a clinical nurse manager 1 (CNM1) who was manager of one of the four wards. She was interested in having a small role in the initiative and was very helpful in setting up information sessions and introducing me to staff. When I asked if she would be interested in a larger role, for example attending and chairing meetings, she felt that she was too busy to commit to that level of involvement.

I held a number of information sessions in April 2008 with staff as well as associated care providers to inform them about the project. A large number of nursing, care and physiotherapy staff and one GP attended. All attendees at the information sessions were invited to become team members. A GP and the physiotherapy staff expressed interest but no nurses or care assistants volunteered, citing time constraints due to the staffing embargo as a reason. As outlined in Table 3, I continued over the following months to attempt to attract nursing and care assistant volunteers to the project, with no success.

Month	Activity
Sept 2007	Initial contact to determine if there was interest in being involved in the project
March 2008	Meeting with director of nursing to introduce project Conversations with staff regarding project to generate interest
April 2008	Distribution of consent forms and information sheets to staff and associated care providers. Information sessions and conversations with staff and associated care providers GP and physiotherapy staff express interest in becoming team members.
May-July 2008	Discussion with the practice development coordinator (PDC) for public residential facilities for care of the older person in the region. She agrees to become a team member. Data collection – questionnaires to staff and associated care providers. Poor response rate (13%). Volunteers sought among nursing and care staff for team membership in letter accompanying questionnaires. No volunteers. Distribution of consent forms and information sheets to residents. Interviews with residents. Discussions held with the CNM1 and several staff nurses and a care assistant regarding the lack of interest among staff in the project. Lack of time and some discomfort with the approach to change cited as reasons.
Aug 2008	Attempts to get volunteers for the team – conversations with CNM and PDC. No volunteers
Sept – Oct 2008	Second batch of questionnaires distributed.
Oct 2008	Newsletter sent to staff informing them of progress so far and requesting volunteers for team. No volunteers
Nov and Dec 2008	Conversations with staff, PDC and DoN about lack of interest in the project
Jan 2009	After conversation with PDC and the DoN, a decision was made to terminate project. I agreed to provide information on pain to clinical development co-ordinator so she could pass it on to staff if she wished.

In January 2009, I held discussions with the DoN and the practice development co-ordinator (PDC) to discuss the future of the project. It emerged that changes were being initiated by the practice development co-ordinator to align practices with HIQA standards in pain assessment and management in all public residential care facilities in the region. This raised questions about the logic of having a different set of changes occurring in one facility. During discussions we decided that this and the constraints imposed by low staff numbers made it impractical to continue the project. I agreed to provide information on pain to the PDC so she could utilise it in the change process if she wished. This ended my engagement with Facility A.

In September 2007 I made initial contact with the MD of Facility B to determine if there was interest in the project. She was very interested in becoming involved. In July 2008, the pre-step of project 2 at Facility B was initiated. The steps involved in the pre-step are outlined in Table 4.

TABLE 4: PRE-STEP TIMELINE, FACILITY B

Month	Activity
Sept 2007	Initial contact to determine if there was interest in being involved in the project
July 2008	Met with MD and CCM to discuss the project. Conversations with staff to generate interest. The CCM distributed consent forms to staff and associated care providers. Questionnaires sent to staff and associated care providers
August 2008	Pre-Intervention Data Collection – Interviews with residents
September 2008	Pre-Intervention Data Collection – Group discussion with staff and associated care professionals. Ten attended.
Oct 2008	Team set up and action research cycles initiated.

The membership of a team has been shown to impact on its effectiveness (West 2001, Howe 2006). It was important to have a number of different care providers on the team, in order to create the potential for the development of interprofessional collaboration. Because the initiative involved power-sharing and shared decision-making I hoped to involve GPs as they traditionally have the most power in healthcare decision-making (Paul and Peterson 2001), and care assistants as they have the least (Tiemeyer 2008).

During the group discussion, a number of attendees volunteered to be on the multiprofessional change management team. I also contacted all associated care providers who did not attend the group discussion and asked them to be team members. Two GPs agreed to ask their registrars to attend, since the GP registrars were the representatives from the practice who visited residents at the facility. The palliative care team asked that I inform them of team meetings with the intention of sending a representative nurse if possible (They were invited to all meetings but were unable to attend any). There were thirteen team members in total with a good mix of care providers from across the spectrum. Several individuals joined the team after the first meeting when invited to do so by other team members. The final team membership is shown in Table 5.

| **Staff** |
| 1 CCM |
| 3 Nurses |
| 4 Care assistants |

Staff
1 CCM
3 Nurses
4 Care assistants

Associated Care Providers
1 Physiotherapist
1 Physiotherapist student on clinical placement
2 GP registrars

Other
1 Researcher

6.6 PRE-STEP, FACILITY C

I approached management at Facility C first in October 2008, and the CCM and MD were enthusiastic about the initiative and eager to get involved. I informed them that I would be finishing action research cycles at Facility B first before starting action research cycles at Facility C and both were agreeable.

The CCM, whom I will refer to as CCM X left the facility in April 2009 while I was collecting the pre-intervention data, and this impacted somewhat on the initiative. Although I had no problems interviewing residents as I engaged the help of the MD of the facility, I had difficulties getting questionnaires to staff as CCM X agreed to distribute them, but never did so. She was replaced by CCM Y who did not prioritise distributing the questionnaires and who did not seem enthusiastic about the project. This was evidenced by the fact that although she was invited to all meetings, she attended none and the fact that she never answered e-mails and rarely returned phone calls regarding the project. (CCM Y was in turn replaced by yet another manager, CCM Z in May 2010 during the post-intervention stage of data collection).

Month	Activity
Oct 2008	Initial contact to determine if there was interest in being involved in the project
Nov 2008	Met with managing director, clinical care manager and lead care assistant to discuss the study
January 2009	Pre-intervention data collection – questionnaires given to CCM X for distribution. Distribution did not occur.
February 2009	Several follow-up conversations with CCM X.
March 2009	Questionnaires again given to CCM X. Distribution did not occur.
April 2009	CCM X left the facility
May 2009	Met with new clinical care manager (CCM Y) to discuss the study. Third batch of questionnaires given to her. She distributed them in June 2009.
June –July 2009	Pre-intervention data collection - Interviews with residents
September 2009	Pre-intervention data collection - Group discussion with staff. Four staff attended.
Oct 2009	Team set up. Action research cycles initiated.

Concurrent with data collection at the facility, I extended invitations to staff and associated care providers to join the multiprofessional change management team. A number of nurses and care assistants expressed interest, as well as the physiotherapist and the health and safety officer employed at the facility. CCM Y was in place at this time and was also invited to join the team. Although she accepted, she never attended meetings. Two residents were invited to join the team halfway through the initiative and one agreed. Invitations were extended to GPs to join the team who stated that they did not have the time to attend. Team membership is shown below in Table 7. We had a different mix of care providers than at Facility B. Eleven staff were team members, but there were no associated care providers in attendance at any meeting. The absence of GP's and the CCM meant that we did not have membership from the traditional power bases in healthcare (Paul and Peterson 2001). We did, however, have a resident involved, as team reflection on the initiative at Facility B had highlighted for us the importance of resident involvement.

TABLE 7: TEAM MEMBERSHIP, FACILITY C

Staff 4 Nurses 4 Care assistants 1 Physiotherapist 1 Health and safety officer
Associated care providers None
Other 1 Researcher 1 Resident

Action researchers can be outsiders or insiders. Insiders are researchers who are also practitioners. My role was that of an outsider entering a situation in order to facilitate change. This can have benefits and drawbacks (Coghlan and Brannick 2010).

Outsiders are unfamiliar with individuals, structures, politics and jargon within organisations (Coghlan and Brannick 2010) and I found this lack of knowledge a problem in all three facilities. It was particularly problematic when I encountered difficulties involving practitioners in the multiprofessional teams and when attempting to collect data. In the next section, I discuss my analysis of data from the pre-step and discuss the forces at work in facilitating or preventing me from setting up multiprofessional teams within the facilities, some of which related to my own lack of familiarity with them.

6.7 DATA ANALYSIS

A qualitative data analysis package, NVivo7 (QSR International 2006) was used to analyse qualitative data. Interview data, group discussion data, meeting minutes, field notes and evaluation document data were analysed together in NVivo. The data were analysed consistent with the approach described by Miles and Huberman (1994). This is a systematic methodical approach to analysis which consists of three concurrent flows of activity: data reduction, data display and conclusion drawing/verification.

First I familiarised myself with transcripts by reading and re-reading. During this step I made notes and, informed by the data and my literature review, created themes within which to code the data. In step 2, in NVivo, I deconstructed the data into meaningful text segments and coded the segments into the themes. This was followed by a process of reorganising the themes into categories and subcategories. During that process, I used diagrams to allow interpretation of emerging patterns. Although it may appear from my description that the process was neat and linear, the steps were in fact overlapping and iterative and the final coding structure for each study only came after several constructions and reconstructions of the themes. A copy of the coding structure and some of the intermediate steps are included in Appendix F.

As described in chapter 4, I developed an integrated theoretical framework of interprofessional collaboration by drawing from the literature on team development, interprofessional collaboration and organisational change. At the heart of the framework is the concept that a team develops from a multiprofessional team to an

interprofessional one. I utilise Tuckman's (1965) model as a useful means of conceptualising this development. Within my framework is the concept of two concurrent activity tracks during team development (Morgan et al. 1993). One track is termed interprofessional teamwork and is concerned with the development of interprofessional collaborative working and one is termed taskwork and is concerned with achieving a tangible goal. I draw on Lewin's (1951) force field model to conceptualise the driving and restraining forces acting on the two activity tracks. The theoretical framework is illustrated in Figure 7 in chapter 4. In the remainder of this chapter and in the next, I outline how this framework was utilised and adjusted during data analysis.

6.8 PRE-STEP THEMES – FORCES IMPACTING ON THE PROCESS OF TEAM FORMATION

There were a number of driving and restraining forces at work at each facility. The combined impact of these forces resulted in the idea of introducing change through interprofessional collaboration being accepted or rejected. Before approaching staff and associated care providers, the possibility of not being able to set up a team due to the effect of restraining forces was something I had simply not considered, naively as it emerged. This is indicated in my theoretical framework illustrated in Figure 7, which only takes account of the possible driving and restraining forces during the team development process. I had failed to take into account that setting up a multiprofessional team to attempt change was in fact a change in itself, and so would be subject to the same forces. As a result, I had not included that step in my framework.

My experiences at the facilities resulted in a reconfiguration of my framework. This is illustrated in Figure 10. Data analysis allowed me to identify patterns in the data regarding the forces at work in driving or restraining the formation of multiprofessional teams at the facilities. Guided by these patterns I coded the data into themes. These are listed below the figure. It must be acknowledged that this is somewhat artificial. I draw from system theory in recognising that organisations are complex, multidimensional environments and I accept that neatly compartmentalising the individual forces implies a disregard of their interconnectedness. Nonetheless, I have chosen to conceptualise the forces in this manner to provide myself with a useful roadmap for exploring the different contextual elements, in the understanding that they are all interrelated.
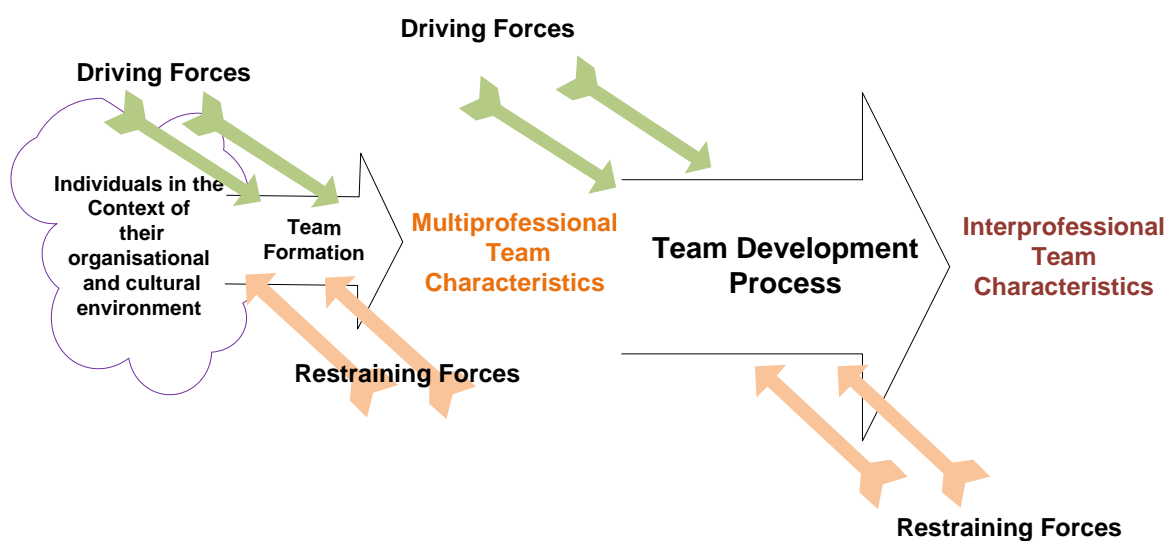
Themes: Driving and Restraining Forces in Team Formation

- **Personal Construction Systems**
- **Sponsors and Champions**
- **Establishing Trust and a Compelling Case for Change**
- **External Forces**
- **Systems and Processes in Current Delivery of Care**

Setting cycles of action research in motion at Facility A proved an insurmountable task while the process of setting up a multiprofessional team at facilities B and C was relatively easy in comparison. In the remainder of this chapter, I discuss the forces listed in Figure 10.

6.8.1 PERSONAL CONSTRUCTION SYSTEMS

Kelly's Personal Construct Theory (PCT) described in chapter 2, proposes that people develop a personal construction system through experience and may feel threatened or anxious when faced with events which are difficult to interpret within their current system. As a result, individuals are more likely to wish to conserve the personal construction system they have, rather than make major changes.

By challenging staff at Facilities A and C to become involved in decision-making about change, rather than simply implementing directives, I was likely challenging their

personal constructs on how change should occur. Conversations with the DoN, PDC and staff at Facility A revealed that the director of nursing had taken over management relatively recently and under the previous regime, practice changes had been infrequent. Under the new director of nursing, changes were occurring but were undertaken in a very specific way. In any change initiative that there can be four major constructive roles: sponsors who provide support and legitimacy, agents who carry out the change, targets who accommodate it and advocates who support the change but do not have the same power as sponsors (Salisbury 1996, Conner 1998, Luo 2006). Organisational norms at the facility meant that change management at the facility was co-ordinated by the PDC who acted as the change agent with the DoN sponsoring the change. The PDC decided what changes needed to be made, gathered the literature and then decided how the change would be made. The clinical nurse managers, staff nurses and care assistants implemented the changes and thus were targets as in Conner's (1998) model. If other professionals were involved, they were also targets as they were consulted for ratification, rather than being involved in the decision process.

I was suggesting a different mode of change management with staff involved as agents rather than targets of change. Although it was difficult for me to establish exactly why staff at Facility A were unwilling to become involved in the study as they did not speak to me in depth about it, some conversations revealed discomfort on their part because my approach to change was different to what they were used to. This suggests that their core constructs were being threatened.

In contrast, staff at Facility B were familiar with being agents rather than targets of change. Within organisational norms, change initiatives were common at the facility and a committee structure was usually used to make decisions on change. Staff were included on the committees and were given autonomy and power to lead within their own scope of practice. Sponsorship was necessary since proposed changes had to go through the MD for approval, but staff felt she was approachable so that was not, in general, regarded as an issue. My proposed interprofessional approach was somewhat different to what normally occurred at Facility B in that the proposed team would take its membership from outside the staff complement and include associated care providers. Nevertheless, it was similar enough to what generally occurred that individuals involved did not express a feeling of being threatened by the reconstruction of their personal constructs on how change should be enacted.

Changes at Facility C were enacted much like at Facility A. Practice development changes only seemed to occur if mandated by outside pressures such as standards imposed by regulatory bodies. Changes tended to be mandated by management, who were the agents and sponsors, while staff were the targets and did not have much input into the decision-making. This was demonstrated by one staff member who referred to changes as 'new rules', indicating that she regarded changes in terms of directives to be obeyed rather than something that she had a voice in or an active part in developing.

Clearly there were also other forces at work since if it was simply down to discomfort of individuals due to attempting change in a new way, I would have been unable to set up a change management team at Facility C. Yet, staff did get involved and join the team. Other forces are discussed in the following sections.

6.8.2 THE DRIVING AND RESTRAINING POWER OF SPONSORS AND CHAMPIONS

Conner (1998) suggests that change agent must find the correct sponsors and build their commitment to the change. Sponsors in upper management are important in providing support, time and resources and their support can have a positive impact on change efforts (Greenhalgh 2004, Steinfeld et al. 2009). Indeed, French and Bell (1984) argue that top management support is essential to the success of any change initiative. When I met with the DoN, at Facility A she expressed commitment to the change initiative but did not become actively involved. She referred me to one of the clinical nurse managers for practical aid. Both she and I felt at the time that this was an appropriate decision as she stated that her presence at team meetings could make staff less likely to participate in decision-making. I speculated later however, when meeting staff who were often unaware of management commitment to the initiative, that this lack of awareness could have been damaging. Existing views of staff views on how change should occur centred on expectations of management mandated top-down change. Yet a lack of active and visible advocacy at top management level meant that my project fell outside these expectations.

My position as an outsider researcher obliged me to find a staff member willing to provide material aid on the project and become actively involved in developing it at the facility, in other words, someone to partner with me as an internal change agent. I was also searching for individuals to champion the initiative as a change is more likely to be adopted if it is supported by key individuals who will champion it (Greenhalgh 2004,

Dopson et al. 2008). This was difficult as there is very little research on how outsiders can identify and energise potential champions (Greenhalgh 2004). The CCM1 at Facility A, whom the DoN thought could be my link within the facility provided aid, but due to time constraints, she did not see her role as an active one in setting up a multiprofessional team. My conversations with other staff to find someone join the team and to champion the initiative proved fruitless. This was partially due to my unfamiliarity with staff and procedures at Facility A, one of the disadvantages of being an outside researcher (Wye and McClenahan 2000, Coghlan and Brannick 2010). Within a few months I was questioning my abilities as a researcher and felt frustrated and ready to give up.

At Facility B, both MD and CCM were fully supportive of the change management initiative which made it easy to get it off the ground. Both provided practical support, in setting up the group discussion, introducing the project to residents and distributing questionnaires to staff. The MD introduced me to a number of staff and also came to the beginning of the group discussion, introduced me to everyone and vocalized her support for the project. The CCM for her part, quickly became my link in the facility and actively championed the initiative. Similarly, the MD at Facility C was vocal in her support. She introduced me to many staff and residents and explained the aims of the study to them. She also helped organise my data collection at the facility. The CCM (CCM X) expressed support for the initiative but did not back this up with material support. She left shortly after cycles of action research began and was succeeded by CCM Y who again did not provide any practical support. This lack of support from the CCMs did not have much impact on the initiative during the pre-step of the project because of the support from the MD.

At Facility B, the CCM and at Facility C, the health and safety officer acted as change agents and champions for the project. In each case, I asked them to partner with me in the change agent role as internal change agents because they had expressed enthusiasm about the project and took it upon themselves to provide practical help. Their aid was invaluable and I could not have proceeded without it. At the outset, we discussed our roles and established role boundaries. My role was to gather data, organise meetings, provide evidence, keep momentum flowing, liaise with associated care providers regarding meetings and chair meetings initially. Their roles were to inform staff about meetings, follow up with team members on assigned tasks between meetings, provide

guidance and practical aid to team members between meetings, liaise with the MD and champion the initiative at the facility. French and Bell (1984) suggest that this process of defining roles in co-ordination and control is an important one to minimise the development of tensions and diverging aims and objectives.

6.8.3 MY DEGREE OF SUCCESS IN ESTABLISHING TRUST AND A CASE FOR CHANGE

A lack of trust has been identified as a barrier to change in previous studies (Gilley et al. 2009) and it is questionable whether I established trust at Facility A regarding the project. There was a perception among some staff that I was questioning or criticising their practice and that I would report back to upper management. This appeared to be due in some part to data collection which involved interviewing residents about management of their pain and asking staff to fill out questionnaires about their knowledge and attitudes about pain. French and Bell (1984) advise checking in on fears and anxieties in change efforts. I held information sessions with staff to enlighten them on the project and during the sessions I attempted to contest their apparent mistrust of me but their behaviour did not change, suggesting that I was unsuccessful in my attempts.

A large body of literature has shown that pain often goes undetected or undertreated among sufferers (Prkachin et al. 2007) and a number of studies have revealed the undertreatment of pain among older adults in residential care in particular (Won et al. 2004, Cadogan et al. 2005). Interviews with residents revealed attitudes leading to underreporting of pain including a reluctance to be 'a bother', a belief that pain is a normal part of the aging process, pessimism about treatment, concern about side effects, a belief that staff are too busy to help and a belief that staff know they are in pain and are already doing all they can. These attitudes are commonly reported in the literature (Buffum et al. 2007, Jones K.R. et al. 2005, Weiner and Rudy 2002, Ersek 1999). The data suggested that there was room for improvement in pain management at all three facilities.

Researchers have shown that the merits of a change must be clear to participants in order for them to become actively engaged (Ford et al. 2008, Van Dijk and Van Dick 2009). Gardner terms this a "compelling vision" (2009 p.419). Additionally, Gray (2008b) argues that individuals must be persuaded of the potential benefits of collaboration. I did not succeed in persuading staff at Facility A on the merits of getting

involved in making changes on pain management. The fact that the PDC successfully introduced changes in pain management at the facility at a later date suggests that it was the merits of my suggested collaborative approach, rather than the merits of changing pain management, that was questioned.

6.8.4 EXTERNAL FORCES

My attempts to initiate change at Facility A occurred soon after HIQA took responsibility of nursing home regulatory standards in 2007, and just after the publication of draft standards. These draft standards, and later the final standards were frequently referred to by staff at all three facilities. Staff at Facility A were particularly concerned with the regulation process since as staff at public facility, this was the first time they had been subject to the possibility of external inspection.

Post and Mahon (1980) note that regulatory agencies can act either as a buffer against change or as a catalyst for change. Certainly the latter was true in the case of the HIQA standards, as changes began to occur at all three facilities in response to their introduction. In terms of forming the multiprofessional change management team, I hoped that the introduction of the standards would help me 'sell' the necessity for change. Unfortunately, pain management is dealt with only on a limited basis in the standards (HIQA 2009), which made the argument less compelling.

The combination of the staffing embargo and introduction of HIQA regulations at Facility A meant that the staff were under increasing pressure to provide a more effective service to clients with a smaller workforce. There was a palpable feeling of frustration and anger among staff, directed at higher management in the HSE and at the government, due to the impact of the staffing embargo. Accordingly, there was no enthusiasm for taking on the extra work which would have resulted from becoming a team member.

Although Facilities B and C were also subject to HIQA standards, management had the advantage of operating their own staffing policies, so unlike management at Facility A, they were not operating with a reduced workforce. Nevertheless, the external environment was a turbulent one for all facilities. Handy (1985) argues that top-down directives are the best way to deal with a turbulent environment requiring rapid change. Mason (2006) disagrees and argues that organisations dealing with such a turbulent external environment should use less formal, bottom-up, participatory, processes to deal

with change. My experiences across all three facilities indicate that there is no one best way to deal with change in a turbulent environment. In a time of economic and regulatory turbulence for Facility A, my attempts to engage staff in participatory processes to address change were unsuccessful, while in Facilities B and C, the same approach resulted in staff becoming involved.

6.8.5 SYSTEMS AND PROCESSES IN CURRENT DELIVERY OF CARE

The logistics of care within the residential care environment had an impact on my success in setting up the multiprofessional change management teams. In acute care settings, care professionals are usually members of staff. At residential care facilities, particularly private ones, many of the care professionals are not staff members, but instead visit the facility either on a scheduled basis or when required. The non-colocation of team members can cause difficulties in interprofessional collaboration (Milward and Jeffries 2001). Although physiotherapy at Facility A and Facility C was provided by a physiotherapist on staff, physiotherapy at Facility B was provided by a practice in the town. GPs were not employed by the facilities but visited to see residents.

The logistics of gathering people together from inside and outside the facility was a concern from the outset. Additionally, the nature of the project meant that associated care providers could not be paid for attendance at meetings so I was depending on them to display altruistic behaviour where "helping involves costs not commensurate to the rewards" (Hinde and Groebel 1991 p.4). Nurses and carers at all facilities could attend during their shifts, meaning that there was no financial cost to them of attending meetings. Nonetheless, staff noted there would be what could be considered a burden of time placed on them during team meetings as those left on the floor would have to compensate for their colleagues leaving to attend meetings and those at meetings would have less time to do their daily quota of work. Thus I was also expecting altruistic behaviour from nurses and care assistants.

There is debate as to whether altruistic behaviour is ever truly disinterested, unselfish behaviour as it can be argued that individuals displaying this behaviour gain in some way themselves (Hinde and Groebel 1991, Campbell 1998). Campbell (1998) goes so far as to argue that those in the healthcare profession cannot be said to be acting altruistically in patient care since it falls within their professional scope of practice.

However, there is evidence to the contrary, since even though altruism is an inherent expectation in healthcare, practitioners can go beyond their role expectations (Reid 2005). This was evident at all three facilities, where care professionals agreed to become team members despite the financial and time burden involved.

Logistics have previously been implicated as factors in inhibiting team efforts (Atwal and Caldwell 2002, Cowley et al. 2002). Staff at Facility A gave logistical reasons for their lack of interest in becoming involved in the project. They noted that meetings would be difficult to arrange, as time available on a particular day varied depending on the needs of the residents. They were not willing to attend meetings outside their working time. They informed me that if I arranged a meeting, it could be cancelled at the last minute. As with other studies on organisational change in healthcare environments (Dopson et al. 2008), the structure of Facility A also proved to be a barrier as there were several wards, each of which operated individually. The autonomous nature of the wards made communication about the initiative difficult and would have necessitated having representatives from each ward involved. Establishing the initiative at Facilities B and C was accommodated by the more centralised nature of the work structures. Staff at these facilities worked across the entire facility and there were no sub-groupings by ward or area.

6.9 SUMMARY

Heron and Reason (2006 p.150) argue for *"authentic collaboration",* where participants are actively involved in action and this is what I was attempting to do in setting up teams at each facility. In this chapter I outline how I was unable to establish a multiprofessional change management team in Facility A but successfully set up teams in Facilities B and C.

 I describe how, despite my literature review, I did not take account of the difficulties in setting up teams. I go on to discuss these difficulties, in addition to factors that facilitated the process. These were: whether I was requiring a reconstruction of personal construction systems of individuals at the facilities; the presence or absence of sponsors and champions; success or failure in establishing trust and a compelling need for collaboration; external regulatory and economic forces; and the systems of care at the facilities.

In the next chapter I discuss the cycles of action research at Facilities B and C by examining how we developed collaboration within the teams while addressing change.

CHAPTER 7 - THE ACTION RESEARCH CYCLES: DEMONSTRATING THE IMPORTANCE OF THE TEAM DEVELOPMENT PROCESS IN INTERPROFESSIONAL COLLABORATION

7.1 INTRODUCTION TO CHAPTER

In the previous chapter I discussed the pre-step processes at each of the three facilities involved in study 2. In this chapter, I discuss action research cycles that occurred at Facilities B and C, as no cycles of action research occurred at Facility A. This chapter is, as a result, concerned more with internal team processes and how the teams brought about organisational change while the previous chapter centred around the readiness of organisations for change. Firstly, I discuss the 'bones' of team development, utilising Tuckman's (1965) model and then add 'flesh' to these bones by discussing elements of interprofessional team development as well as the resulting impacts on the team and the facility.

7.2 THE 'BONES': THE STAGES OF TEAM DEVELOPMENT

I begin this chapter with a descriptive section to briefly outline the story of team development at Facilities B and C. In this description, I draw on Tuckman's (1965) model introduced in chapter 4. Barr et al. (2005) and Jelphs and Dickinson (2008) have suggested that it provides a useful means of understanding what is occurring within a team, and highlights the importance of reflection and effective communication in order to achieve interprofessional collaboration. I am utilising this model as I wish to highlight the idea of a development process as a multiprofessional team becomes an interprofessional one and to highlight the change in team dynamics as teams mature through stages. I am not suggesting that teams go through clearly delineated developmental stages that are easily distinguishable from each other, nor that every team must go through each of these stages. In fact, Tuckman (1965) did not assert this. He presents his model as a structure within which to examine changes in team development rather than a set of prescriptive steps, and I have applied it with this use in mind.

Tuckman's (1965) model provides the bones which I will flesh out later in section 7.3 with an analysis of the development of characteristics important in interprofessional

team development in this study, namely team psychological development, power-sharing and co-generation of knowledge.

7.2.1 TEAMWORK AND TASKWORK: THE STORIES

As outlined in chapter 4, during team development there two concurrent activity tracks: teamwork activities and taskwork activities (Morgan et al. 1993). Taskwork activities are the activities which are task related, and in the context of this study are the activities directed at implementing changes in practice at the facilities. Teamwork activities are the activities which lead to improvements in team cohesion, co-ordination and interaction or, in the context of this study, the development of interprofessional collaboration. These activities are described in this section.

Between October 2008 and May 2009, six team meetings were held in Facility B. Six team goals were agreed upon and for each of the goals, one or more cycles of constructing, planning action, taking action and evaluating action were undertaken. Of the six initiatives, four were successfully followed through to completion. One did not get beyond the planning stage due to fiscal issues and one which was taken to planning stage by the team, was then taken over by the CCM on her request, and was a success. Details are provided in Table 8.

At Facility C, over an eight month period from October 2009 to May 2010, seven team meetings were held. Four team goals were set and cycles of action research were undertaken in order to address these goals. Only one goal was achieved. Details are provided in Table 9.

At the first meetings at both facilities, I explained what was involved in action research and interprofessional collaboration and made it clear that they would decide as a team what to change and how to do it. I stressed the fact that reflection would form part of the evaluation steps of the cycles.

My reflection on the initiative at Facility B lead to a few refinements in the approach at Facility C. An interprofessional training session, for example, was held at Facility B but in evaluating it, participants questioned the merits of having such training. Therefore, no such training was held at Facility C. Additionally, we undertook a team evaluation of pain management using the Australian Pain Society documentation (Goucke et al. 2005) at Facility C. I introduced this documentation at the first meeting to stimulate discussion

on proposed changes because at one point in Facility B, the team struggled with idea generation. I also highlighted the merits of including residents and/or family members from the outset since this was identified as something we had not achieved at Facility B.

In chapter 2, I described Paton and McCalman's (2006) change spectrum which places change efforts on a continuum of hard (system-focused) to soft (person-focused), based on the complexity of the environment and the degree to which people interact with the system. I argued that incorporating both hard and soft approaches was appropriate in healthcare, and by extension, at the facilities in this study. Interestingly, the teams at each facility, without prompting, set the agenda of change to target both systems and people. At Facility B, system changes were undertaken through the introduction of a pain assessment tool. Changing attitudes was attempted through the development of a family support group, training sessions on interprofessional collaboration and pain assessment and the introduction of a booklet about hip replacement. At Facility C, system changes were attempted by attempting to introduce new policies and procedures on medication reviews and communication with the out-of-hours GP service. Staff, resident and family attitudes towards pain were focused on in developing booklets on pain management and attempts to set up training sessions.

Rather than discuss each team goal and its cycles of action research separately, I discuss the study from the perspective of team development. This means that the overlapping cycles of action research are discussed chronologically in sections 7.2.1.1 and 7.2.1.2. The discussion is integrated into Tables 8 and 9 which highlight the two concurrent tracks of taskwork and teamwork during team development at both facilities.

TABLE 8: FACILITY B, STAGES OF TEAM DEVELOPMENT

MONTH	TASKWORK ACTIVITIES,	TEAMWORK ACTIVITIES
October 2008	Traditional brainstorming in teams does not produce a greater quantity of ideas or better ideas than effort on an individual basis. This is mainly due to *production blocking* because people have to wait their turn to speak and often forget ideas or fail to generate new ones (Diehl and Stroebe 1987, Nijstad et al. 2003). Recognizing this, I asked individuals to come to the meeting with ideas. **1st Team Meeting:** • Action plan developed. • 1st change discussed and agreed: contracture prevention programme *(Constructing, initiative 1).* • 2nd change discussed and agreed: implementation of pain assessment tool for cognitively impaired residents *(Constructing, initiative 2).* • Data gathering activities agreed: head nurse to collect data on the type of pain medication prescribed to residents. Contracture prevention programme planning was undertaken by team members during the month *(Planning action and taking action initiative 1).* I undertook a literature review on pain assessment tools *(Planning action, initiative 2, cycle 1).*	At this meeting, we displayed interpersonal behaviours typical of the forming stage of team development (Morgan et al. 1993). By collecting data and discussing goals, we were aligning ourselves to the task (Tuckman 1965, Morgan et al. 1983). As individuals, we were guarded in our interchanges and spent time discussing meeting structures, our expectations, team behaviours and team membership. We were attempting to gather information about each other and to begin to establish team norms (Forsyth 1990). Additionally, in this first meeting, the team deferred to the CCM and she assigned most of the tasks. This is common in the forming stage of team development. Due to the unfamiliarity of the new team structure, members seek reassurance from a powerful team member (Tuckman 1965). In the healthcare field that is generally someone with status such as a physician, nurse manager or nurse practitioner (Berger et al. 1993).
November 2008	2nd Team Meeting: • Evaluation of contracture prevention programme *(Evaluating action, initiative 1).* • Discussion of literature on pain assessment tools for cognitively impaired older people *(Planning action, initiative 2, cycle 1).* • Presentation of results of pain medication review. Two pain assessment tools were implemented and evaluated by team members and other staff during the month *(Taking action initiative 2, cycle 1).*	In the second meeting, many of the characteristics of the forming stage of team development were still present. We were still displaying tentativeness in our interactions and displaying the lack of trust that characterises team dynamics in the forming stage (Tuckman 1965, Forsyth 1983). Additionally, we had not fully established team norms and agreed on roles and although goals had been established, team members were not yet working together effectively to address them. There was some loss of energy evident when comparing this meeting to the first one.

December 2008	3rd Team Meeting:

December 2008	3rd Team Meeting: • Evaluation of pain assessment tools *(Evaluating action initiative 2, cycle 1; constructing initiative 2, cycle 2).* • 3rd change agreed: Family support group *(Constructing, initiative 3).* • Agreement on the need for training on interprofessional collaboration for team members *(Constructing, initiative 4).* A third pain assessment tool was implemented and evaluated by team members and other care providers during the month *(Planning and taking action, initiative 2, cycle 2).* Interprofessional training set up *(Planning action, initiative 4).*

A discernible loss of momentum occurred between the second and third meetings. When I discussed the loss of momentum with a number of team members, there were several reasons suggested and some tensions which were not obvious in the meetings were revealed. These were tensions regarding roles within the team and a feeling among staff that the workload was unbalanced:

> *So far to date nursing staff are doing all the tasks* (Team Member 7, Facility B)

This assertion was endorsed in a conversation with the GP team member who referred to her role as more reflective than active. The storming stage of team development is one of conflict and disagreement within the team and tension between individuals becomes evident (Tuckman 1965). We appeared to have entered this stage. Additionally, there were questions among some team members as to what goals we should be addressing. This questioning of goals and tasks is a common feature of the storming stage of team development (Tuckman 1965, West 2004).

During the period between meetings 2 and 3, most team members discussed these issues with other team members and at meeting 3, we had an open discussion where we agreed as a team on ways to address them and move forward. We had moved into the norming stage of team development which is a stage where team members develop effective ways to work together (Bonebright 2010) At this meeting, communication became less guarded.

Most of the team members, when discussing the project after its completion referred to the storming stage but did not think of it as a time of conflict. Rather it was regarded as a time where we decided to re-evaluate and restructure:

> *I had a feeling once that we were struggling and then we moved forward* (Team Member 5, Facility B).
>
> *It lost focus there a little bit* (Team Member 9, Facility B).

Mead (1934) notes that discord can be useful in group situations as it can lead to greater sensitivity to the needs of others. Consequently, if the storming stage is successfully negotiated, it can result in more open communication and the development of a means to address conflict (West 2004), both of these are typical features of IP collaboration (Barrett and Keeping 2005). It has also been noted that dealing with difficulties and conflict allows for learning in interprofessional teams (Kvarnström 2008).

Jan 2009	4th Team Meeting: • Workshop on interprofessional collaboration was held *(Taking action, initiative 4)*. • Evaluation of pain assessment tools *(Evaluating action, initiative 2, cycle 2; Constructing, cycle 3)*. • 4th change agreed: A resident booklet on recovery from hip replacement *(Constructing, initiative 5)*. I undertook a literature review on family interactions in residential care and team members discussed setting up a family support group with family members *(Planning action, initiative 3)*.	By meeting 4 we were showing cohesion on task attainment. Additionally team norms had become established. Although it is difficult to establish a boundary between the norming and performing stages of team development, which is one of the criticisms of Tuckman's model (West 2004), we appeared to have passed into the performing stage. A team in the performing stage becomes a *"functional instrument for performing the task"* (Tuckman 1965 p.396). Several team members, all from different professions, were working together in a flexible fashion in order to achieve their goal, features characteristic of this stage (West 2004).
February 2009	Final pain assessment tool trialled and evaluated *(Taking action and evaluating action, initiative 2, cycle 3)*. Staff gathered examples of booklets to inform our hip replacement booklet development *(Planning action, initiative 5)*	
March 2009	5th team meeting • Discussion on literature around family expectations of care. Family support group implementation plans developed *(Planning action, initiative 3)*. • Discussion on examples of booklets sourced by team members. Topic of booklet agreed: hip replacement *(Planning action, initiative 5)*. Further evaluation of final pain tool *(Evaluating action, initiative 2)*. Family support group implementation taken over by the MD *(Taking action, initiative 3)*.	At meeting 5 discussions were open and frank. Clearly trust between team members had grown. This, and our success in achieving goals indicated that we were still in the performing stage of team development.
April 2009	Booklet developed and evaluated *(Taking action and evaluating action, initiative 5)*.	
May 2009	6th (final) team meeting • Hip booklet evaluated *(Evaluating action, initiative 5)*.	The adjourning stage of team development is when the task is completed and delivered (Tuckman and Jensen 1977). The adjourning stage can be characterised by feelings of accomplishment or disappointment (Nijstad 2009). Overall, team members were pleased with their performance.

TABLE 9: FACILITY C, STAGES OF TEAM DEVELOPMENT

MONTH	TASKWORK ACTIVITIES,	TEAMWORK ACTIVITIES
October 2009	I asked staff at Facility C to come to the first meeting with ideas for team tasks in order to balance the effects of production blocking (Nijstad et al. 2002). 1st team meeting: • Action plan developed. • 1st change agreed: Improving communication with the out-of-hours G.P. service *(Constructing, initiative 1, cycle 1).* • Other potential changes discussed *(Constructing, initiatives 2 and 3.* The out-of-hours G.P. service communication form and policy was discussed and developed by team members and other staff (Planning and Taking Action, initiative 1).	At the first meeting, there was guarded behaviour on the part of team members, typical of the forming stage of group development (Tuckman 1965, Morgan et al. 1993). There was also some defensive behaviour which can be common in this stage of team development and is a common response to the uncertainty of proposed change (Vince and Broussine 1996, Gilley et al. 2009).

November 2009	Family members of residents and residents were invited to become team members - Posters were put up in the facility and team members extended personal invitations.
	2nd team meeting:
	• Evaluation of the new out-of-hours G.P. service communication policy *(Evaluating action, initiative 1, cycle 1).*
	• Further changes agreed and planned:
	   o Staff training on pain assessment and management to be arranged *(Constructing, initiative 2).*
	   o Medication review policy to be established *(Constructing and planning action, initiative 3).*
	   o Development of booklet on pain for residents and families with input from residents and family members *(Constructing, initiative 4, cycle 1).*
	• Content of pain training sessions discussed and agreed *(Planning action, initiative 2).*
		There were no obvious tensions between team members at team meeting 2 and in discussions with other team members in the weeks afterwards, they did not report any tensions within the team. Team members were showing some concern about organisational issues as there was a lot of uncertainty and instability in the facility due to management and staff turnover, a difficult economic climate and adoption of new HIQA standards. Nonetheless, within the team, members seemed relatively open in their communication, appeared comfortable with team norms and appeared to be working towards a common purpose (Nijstad 2009). I theorised that perhaps the team was in the norming stage of team development without having passed through a storming stage.

December 2009	Family members and residents again invited to become involved. Pain training session developed *(Taking action, initiative 2)*. Pain training sessions discussed with CCM Y *(Taking action, initiative 2)*. Medication review policy developed *(Taking action, initiative 3)*. Family members' feedback sought on booklet *(Planning action, initiative 4, cycle 1)*.	
January 2010	3rd team meeting: • The out-of-hours G.P. service communication policy reviewed and amended *(Evaluating action, initiative 1, cycle 1; Planning and taking action, initiative 1, cycle 2)*. • Medication review policy evaluated *(Evaluating action, initiative 3)*. Medication review policy passed to CNM Y for ratification and for her to send to pharmacists and GPs for ratification *(Evaluating action, initiative 3)*. Pain training discussed with CCM Y *(Taking action, initiative 2)*. Evaluation of amended out-of-hours G.P. service communication policy documents *(Evaluating action, initiative 1, cycle 2)*. The new out-of-hours G.P. service communication policy documentation given to CCM Y for ratification *(Evaluating action, initiative 1)*.	By meeting 3 only one member, bar me, had been to all three meetings. At meeting 3 the other attendees were all new to the team. Accordingly, we had to spend time again discussing team and meeting structure and expectations. Communication difficulties between team members were also highlighted as information from previous meetings had not been passed on. I questioned my theory that we were performing effectively as a team.
February 2010	4th Team meeting – first meeting with a resident attending • Plan for a booklet on pain management for residents developed *(Planning action, initiative 4)*. Pain training discussed with CCM Y *(Taking action, initiative 2)*. The out-of-hours G.P. service communication documentation given to pharmacist by CCM Y (Evaluating action, initiative 1). Health and safety officer left facility. Resident booklet on pain developed (Taking action, initiative 4, cycle 1).	At meeting 4, I had to re-evaluate my theory that we had entered the norming stage of team development without passing through a storming stage. It appeared that we were still in the forming stage of team development as team members had to be made aware again of their responsibilities and obligations. We had to once again renegotiate roles and team norms because of the fluidity in team membership (Tuckman 1965). Additionally, we were not engaging in open and honest communication as staff members had become guarded in their communication, which appeared to be due to the presence of the resident. Progress on three initiatives had become stalled, indicating that the team performance was inefficient (Hackman 1990), another feature of the forming stage.

March 2010	Resident booklet evaluated by staff and amended *(Evaluating action, initiative 4, cycle 1; Planning and taking action, initiative 4, cycle 2).* Family booklet on pain developed *(Taking action, initiative 4, cycle 2).* Staff booklet on pain developed *(Taking action, initiative 4, cycle 2).*	
April 2010	5th Team meeting • Booklets evaluated *(Evaluating action, initiative 4, cycle 2).* Pain training discussed with CCM Y *(Taking action, initiative 2).* The out-of-hours G.P. service communication documentation discussed with CCM Y. All booklets evaluated by staff and residents *(Evaluating action, initiative 4, cycle 2).* All booklets amended *(Planning and taking action, initiative 4, cycle 3).* CCM Y was replaced by CCM Z.	At meeting 5, communication was becoming more open and staff were more comfortable with inclusion of the resident in conversations about difficulties at the facility. In the previous meeting the resident had been focused on sharing information about her own pain and had not offered her opinion on change management issues. However, in this meeting she entered into team discussions and individual tasks and team goals were agreed on collaboratively. We appeared to have finally entered the norming stage of team development characterised by agreement on team norms and common purpose, having skipped the storming stage.

May 2010	6th and 7th (final) team meeting
	• Booklet evaluated *(Evaluating action, initiative 4, cycle 3).*
	Booklets given to CCM Z for distribution to residents, family members and staff (Booklets were finally distributed in July 2010).
		It is difficult to say if we entered the performing stage of team development because even though the team was working together more effectively, we were not particularly successful in achieving our goals with only one being reached. Typically this stage is also exemplified by a positive attitude within the team (Nijstad 2009) but this was difficult to maintain because of the pressure from forces outside the team.
		Meeting 7 represented the adjourning stage of team development. We evaluated the pain management study as a team. Team members had mixed feelings about the success of their efforts but, by and large, were disappointed. There was a general feeling that some learning had been achieved by team members but that the initiative had not resulted in organisation change or contributed to the learning of those outside the team:
		    For those who attended the meeting, it was useful but otherwise no
		    (Team Member 11)

By using Tuckman's (1965) model, I have outlined how team development followed paths similar to those previously described by other researchers (Bonebright 2010). Tuckman's model, as a generic team development model, can only provide a starting point for the analysis. To put flesh on the bones, I examine the development of characteristics of interprofessional teams. It was a process where some of the characteristics listed in Figure 11 such as shared decision-making and information sharing, began to manifest themselves gradually and there was not a tipping point at which the multiprofessional team at either facility 'became' an interprofessional one.

As discussed in chapter 4, there is no conceptual clarity in the literature on what constitutes an interprofessional team. Consequently, I drew information together from a number of sources to outline the characteristics of interprofessional teams. These characteristics are described in chapter 4 and listed below in Figure 11.

> - **Common goal**
> - **Mutual trust**
> - **Use of inclusive language**
> - **Effective means of dealing with conflict**
> - **Shared understanding between team members**
> - **Team members have confidence in their own role**
> - **Shared leadership**
> - **Team members make decisions together**
> - **Team members share professional knowledge and communicate effectively**
> - **Team members have an understanding of the professional roles of other team members**

FIGURE 11: CHARACTERISTICS OF INTERPROFESSIONAL TEAMS

Although it has been acknowledged that the development of interprofessional teams takes time (Barr 1997), many researchers discuss interprofessional team characteristics in static terms. Power, for example, is often referred to within the interprofessional literature in terms of power imbalances acting as a barrier to collaboration (Hall 2005), rather than being studied in dynamic terms. Likewise, poor communication and lack of trust between team members have been blamed for disharmony among team members and limited development of interprofessional collaboration (Cook et al. 2001, Atwal and Caldwell 2002). Effective communication and trust on the other hand, have been less often studied as emergent characteristics of teams.

A tenet of this thesis is that most of these interprofessional team characteristics listed in Figure 11 are not static but are dynamic. Hence, they can be regarded as phenomena

that can be cultivated. This was highlighted over the course of the study, where the team at Facility B did not exhibit these characteristics at the outset, but did at the end. At Facility C, the development process was limited, and only some of characteristics of interprofessional teams were obvious within the team by the end of the study.

I was guided by the literature on characteristics of interprofessional teams in my data analysis. Analysis of study data allowed me to group these characteristics into three themes. The first is 'team psychological safety', an emergent state. Emergent states as defined by Marks et al. (2001 p.357) "are properties of the team that are typically dynamic in nature and vary as a function of team context, inputs, processes and outcomes". Mutual trust, the use of inclusive language and an effective means of dealing with conflict, as listed in Figure 11, are all characteristics of team psychological safety. Team psychological safety is discussed in section 7.3.1.

The other two themes describe processes: 'co-generation of knowledge' and 'transformation in power relations'. Co-generation of knowledge incorporates the concepts of shared language, shared understanding, shared goals and a greater understanding of the roles of other team members from Figure 11. Additionally, the continual sharing of professional knowledge, as well as effective communication, are important factors in the process of co-generation of shared knowledge. This theme is discussed in section 7.3.2.

Finally, the two concepts of shared leadership and shared decision-making are united under the theme of transformation in power relations. This theme is discussed in section 7.3.3. I begin with a discussion of team psychological safety as it emerged during the study that this acted as a catalyst for the development of the other characteristics of interprofessional teams.

7.3.1 DIMINISHING WARINESS: TEAM PSYCHOLOGICAL SAFETY

As outlined in chapter 4, for a multiprofessional team to become an interprofessional one, team members must work collaboratively together across professional boundaries (Cook et al. 2001, Mach et al. 2010). Accordingly, to develop interprofessional collaboration, team members must be able to trust that they can take the risk to engage in discussion and decision-making within and outside their professional base, without fear of negative consequences such as personal censure, humiliation or risk to their reputation. This atmosphere of trust and safety is referred to as team psychological

safety (Edmondson 1999) and in it, individuals are comfortable asking questions, seeking feedback, highlighting failures and sharing information. The development of team psychological safety within the teams at Facilities B and C was an important catalyst in the development of understanding and power-sharing across professional boundaries and consequently, in the development of interprofessional collaboration. In the following subsections, I discuss initial levels of team psychological safety, its growth, and the forces that drove or restrained that growth.

7.3.1.1 SETTING THE SCENE FOR AN EXAMINATION OF TEAM PSYCHOLOGICAL SAFETY: A DESCRIPTION OF PROFESSIONAL BOUNDARIES WITHIN THE TEAMS

In this section I begin my analysis of the development of interprofessional collaboration at Facilities B and C with a description of the professional boundaries within the teams. This sets the scene for further discussions in this chapter on team psychological safety and the other elements of interprofessional team development.

The literature suggests that professional identification is essential in interprofessional collaboration, since this collaboration involves different healthcare and social care professionals reflecting on their own professional roles in order to acknowledge and reconcile different professional viewpoints and knowledge (D'Amour and Oandasan 2005). Fournier (2000) describes boundary creation as a means of maintaining this professional identity. Boundary creation can cause difficulties as different professionals can resist interprofessional collaboration in an effort to defend their own professional territory (Allan et al. 2005, Barrett and Keeping 2005). The boundaries between professions can become focal points for conflict and can serve as barriers to the creation of trust, knowledge transfer and power-sharing and in this way inhibit the development of interprofessional teams (Hall 2005, San Martin Rodriguez et al. 2005, Jelphs and Dickinson 2008). Accordingly, focusing on the social identification behaviours of team members that result in boundary creation can be a useful means of examining multiprofessional teams. Alternatively, professional socialisation theory, which holds that boundaries created through education in separate silos are maintained by socialisation patterns in the workplace, can be drawn on to examine team members behaviour (Jelphs and Dickinson 2008). However, in this study, professional socialisation was not a distinctive feature of interactions within the team. This appeared to be a result of the fact that at many team meetings, there was only one representative from each professional group present. This meant that team members had to socialise and interact with members of different professional groups rather than just their own,

which in turn meant that professional socialisation was not obvious in team interactions. In contrast, team members made it immediately obvious that they were identifying with their own professional group and making assumptions about other groups, making social identification theory a more appropriate lens through which to examine interactions within the team space.

Team members at both facilities knew each other and almost all had worked together before the study began. Kelly's (1955) personal construct theory proposes that individuals compare current situations to previous ones in an attempt to understand and predict, in order to guide action. Prior experience of working with other team members can either facilitate or hinder the development of trust within groups as individuals assume that the behaviour of others will take the same pattern of behaviour as it has done in previous interactions (Zucker 1986, Ephross 2005, Pullon et al. 2009). Nevertheless, assumptions are not necessarily linked to prior interactions between individuals as people may depend on stereotypes of others as a shortcut to deciding whether they are trustworthy (Zucker 1986, Williams 2001).

Due to previous interactions, team members at Facility B and Facility C had already developed their personal constructs regarding trustworthiness of other team members. Interestingly, their language indicated that it was stereotyping based on profession, rather than their personal experiences with other individuals, that informed their constructs influencing their views of other team members. This was highlighted by a conversation with the MD at one of the facilities:

> *I spoke to her to see if a date next week or the week after would suit her instead because I wanted more than two days' notice to contact the associated care providers. However, she was anxious to get moving with it and expressed a belief that the GPs would not have the time so would not show up so it was pointless holding off to suit them* (Field Notes, October 2008).

This tendency to assume that all members of a profession would behave in the same way as highlighted in the above comment, or have the same attitude, as highlighted in the comment below, was common at both facilities:

> *I'm not underestimating the GPs but I know the GPs don't want to sit there and listen to stuff about mobilizing and doing this or that, you know* (Team Member 4, Facility B).

Social identity theory as outlined in chapter 2, provides a means of examining this phenomenon as it represents a move away from a traditional view of interactions

between and within groups as dependent on personalities of group members, towards a view of social identity held collectively. Social identity is defined by Tajfel (1981 p.255) as:

> *"that part of the individuals' self-concept which derives from their knowledge of their membership of a social group (or groups) together with the value and emotional significance attached to that membership".*

Individuals may act in a certain fashion as a result of their self-categorisation as members of a social group and may favour members of their ingroup over members of outgroups (Tajfel 1978). Hewstone and Jaspers (1982) argue that as a result, individuals will assign causality of behaviour to others due to their membership of a particular group. This was exemplified by the quotes above where assumptions were made about the behaviour and attitudes of GPs based on their professional affiliation rather than their individual personalities.

I was surprised at how strongly individuals within the team identified with their professional group and how much stereotyping of other professional groups was evident. On reflection, perhaps this should not have surprised me. By deliberately setting out to develop interprofessional teamwork, I sought representatives from each of the groups of care providers in the expectation that they would bring their own professional perspective and knowledge to the team. In doing so, I created a situation where the roles of team members were inextricably linked to their professional roles. This linkage was demonstrated when addressing team goals. For example we each took on team roles directly related to our professional roles in the development of a booklet for residents with hip replacements at Facility B. As the researcher, I undertook a literature review and presented the findings to the group. The physiotherapist outlined her role as:

> *Designing or deciding which exercises were to be put in and deciding what advice to give.*

The care assistant looked at the facets of daily living on which we gave advice, while a nurse outlined the role of the GP and nurses as providing research information and assessing medical related advice:

> *RGNs and GPs combined recent research and best practice outcomes available to us.*

The same division across role boundaries was obvious in meetings as we had a tendency

to categorise individuals by their profession in discussions, highlighted in the following comment:

> *It was interesting listening to and talking with the care assistants and nurses to see how they assess pain* (Physiotherapist, Facility B).

This categorisation occurred even when there was no added value in terms of promoting understanding in doing so, as exemplified by Team Member 3 at Facility C, in the following quote. She was referring to team members and could just have easily have categorised herself, the nurses, carers and physiotherapist as 'the team', rather than listing the groups separately:

> *There was an unsureness between us, including the nurses, myself, the carers, the physiotherapist on one hand and the clinical care manager on the other*.

Beech and Huxham (2003) suggest that that the way individuals categorise others is a dynamic process which forms and reforms, and can crystallise. This crystallisation of the views of others is not permanent but can be stable for periods, and is important in trust formation as it allows individuals to develop expectations of the behaviour of others. Consequently, although boundaries within teams can decrease trust (Huxham and Vangen 2000; Jelphs and Dickinson 2008), the crystallisation process can facilitate its growth (Beech and Huxham 2003, Zhang and Huxham 2009). The language used by team members indicated that they had crystallised views of other professional groups. As team members identified so strongly with their own professional group and had crystallised views of other groups, this created boundaries within the team as illustrated in Figure 12.

TEAM AT FACILITY B

- Care Assistants
- Nurses
- Physiotherapists
- GPs
- Clinical Care Manager
- Researcher

TEAM AT FACILITY C

- Care Assistants
- Nurses
- Physiotherapist
- Resident
- Health and Safety Officer
- Researcher
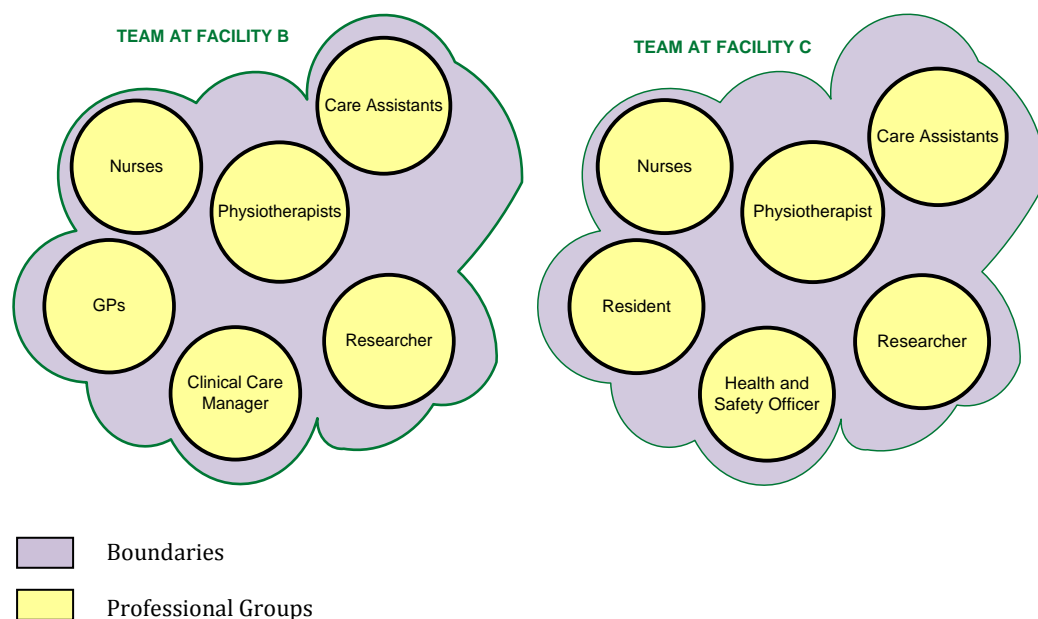
☐ Boundaries

☐ Professional Groups

What was not immediately obvious was whether, to develop interprofessional collaboration, the blurring of boundaries between professional groups was necessary. In other words, would some team members have to take on parts of the roles of other professional groups, thereby viewing their group identification differently? What emerged during the study was that it was not necessary to erode professional boundaries in the development of interprofessional collaboration, but that spanning these boundaries to nurture understanding across them was essential. Even though members within each professional group did not agree all of the time, these differences of opinion did not appear to reduce the identification of team members with their own professional group. The ingroup boundaries based on professional identification that existed within the teams at both facilities at the beginning of the study were not eroded or blurred by the end. After the cycles of action research at Facility B, the team was exhibiting the characteristics of an interprofessional team but interprofessional team development did not result in the team becoming a conventional ingroup where team members identify more with each other than those outside the team. Instead they continued to maintain their professional identity but through knowledge co-generation, which will be discussed later in the chapter, learned to recognise and utilise the differences between professions rather than attempting to dilute them. This understanding aided in achieving team goals.

This outcome adds some clarity to a debate in the literature. It has been suggested that to develop interprofessional teamwork, team members must learn to self-categorise as part of the team and derive a sense of social identity from the team as their ingroup (Barr et al. 2005). In doing so, they must learn to move towards a language of 'we' and 'us' within the team. There is debate as to whether this means that professionals must learn to identify more with the team than their own profession. Huxham and Vangen (2000) propose that collaboration between well-bounded subgroups within a team should not be expected to result in an ingroup in the conventional sense since one of the reasons to collaborate is to take advantage of the differences between group members. However, this assertion is contested, and there are those that support the importance of destroying or blurring professional boundaries within interprofessional teams.

Hall (2005) suggests that boundary blurring is inevitable in interprofessional working and therefore is something that must be dealt with appropriately. Others have argued

that for interprofessional collaboration to occur effectively that professions must be flexible in their attitudes and take on some aspects of each other's roles. In other words, within this school of thought the argument is that for interprofessional collaboration to occur, professional boundaries 'must' be blurred (Atwal and Caldwell 2002, D'Amour et al. 2005, Nancarrow 2004, Hammick et al. 2009a). There is yet another line of argument that blurring of professional boundaries leads to confusion and some team members feeling over or under-utilised. Professional identity, it is argued, should be regarded in a positive light, if each professional group is confident of their roles and where the boundaries between their ingroup and other groups begin and end. Instead of being threatened by the existence of boundaries between professional groups, interprofessional collaboration can be enhanced by it, as long as the potential contributions of each professional group are clarified, recognised and utilised (Kenny 2002, Vangen and Huxham 2003, Rushmer 2005, Callan et al. 2007).

This latter view was endorsed by my study as it became clear that what was important was that team members develop the means of working effectively across professional boundaries rather than aiming to break them down. What also became obvious through the action research cycles was the importance of the development of team psychological safety within the team space, which allowed team members to acknowledge boundaries between professional groups, and to learn to work across these boundaries without fear of censure or risk to themselves. We had lower levels of success in developing interprofessional collaboration at Facility C and I suggest that this is related to low levels of team psychological safety until late in the study.

In the following section, I discuss initial levels of team psychological safety at each facility and the influence of professional status on those levels. I continue with a discussion on the growth of team psychological safety and how that impacted on power relationships and knowledge co-generation.

7.3.1.2 INITIAL LEVELS OF TEAM PSYCHOLOGICAL SAFETY: THE IMPACT OF PROFESSIONAL STATUS

At early meetings at Facility B, although team psychological safety was still developing, there were no differences evident in the level of engagement of any of the different groups of care providers:

> *The first meeting [at Facility B] was successful I feel. Rather than just a brief introduction to the project, we ended up deciding on changes – implementing an exercise programme for residents for contracture prevention. The care assistant,*

the CCM, and the physiotherapist were very involved and had a lively discussion on how best to implement things (Field notes, September 2008).

It appeared that team psychological safety, embodied by the desire or reluctance of team members to engage in discussions, was perceived similarly by team members of all professions. In contrast at Facility C, a lack of respect and distrust across some professional boundaries was evident:

> *I think there was the major issues with the carers and the nurses that I think maybe they were unsure of trust* (Team Member 3, Facility C).

The greater levels of distrust at Facility C were manifested in lower levels of team psychological safety and very low levels for care assistants in particular. During team meetings care assistants did not contribute their opinions despite being asked directly. At first, I put this behaviour down to personality, since studies have shown that more anxious people are less likely to verbalise ideas in team settings (Camacho and Paulus 1995). However, the behaviour continued and was displayed by all care assistants who attended meetings. Furthermore, not only were care assistants reluctant to contribute, but other staff did not encourage their contributions:

> *I asked the carer who was present a number of questions to try to get her to contribute, but she didn't say much. I seem to be the only one trying to get the carers opinions - the nurses don't ever ask for it, unlike at [Facility B] where they were asked about stuff that involved daily activities of residents by all the other professionals* (Field notes, Facility C, January 2010).

To explore why there appeared to be differences across professional boundaries at Facility C, I spoke to a care assistant and other staff members. The care assistant informed me that she did not feel that as a care assistant she had much to contribute to the discussion and that the nurses were better placed to do so. She revealed that the care assistants wondered why they were invited to meetings as they were not usually involved in decision-making. Their presence was also questioned by other staff:

> *[Name of Nurse] said that the situation at facility now is that because there are fewer residents, there are less staff on the floor at any one time. This means that both a nurse and care assistant cannot attend the meeting together. I told her I thought it was important to get the opinions of the care assistants and that maybe a care assistant could come for a short while or come instead of a nurse. She wondered if sending a care assistant instead of a nurse would be useful as they do not make decisions within the facility so she thought it would be difficult for them to take the responsibility at team meetings for making decisions that could impact on other staff* (Field notes, April 2010).

Traditionally within healthcare, individual practitioners are invested with status as a result of their professional role (Paul and Peterson 2001). Physicians generally have a higher status than nurses who in turn have a higher status than care assistants (Tiemeyer 2008). Those with a higher status can garner more respect and support and accordingly have more power and influence over decision-making while those with less status can be ignored (Baron and Kerr 2003, Lichtenstein et al. 2004, Pollard et al. 2005). It has been argued that those in more powerful groups can impose their own view of the world on groups with less power, who in turn, come to accept their own position and do not seek to change it (Lukes 1974, Deschamps 1982). Subsequently, oppressed groups can respond to oppression by conforming with the beliefs of the more powerful groups, resulting in a shared belief of the inferiority of the oppressed group (Roberts et al. 2009). Tajfel (1982a) refers to this phenomenon as ingroup devaluation. As outlined in chapter 4, Gaventa (2006) attributes such group devaluation to 'invisible power' where those who are routinely excluded from decision-making due to stereotypes, values and behavioural norms, internalise this powerlessness and accept it as the status quo. This behaviour was evident at Facility C. Both care assistants and other staff were articulating a view of care assistants as having low status within the facility, resulting in the worth of their contribution to the team being questioned by themselves and others.

In healthcare teams, there is a higher personal risk for those with lower status to speak up and engage in team decision-making, as it involves running counter to the status quo. This risk makes them more likely to perceive lower levels of psychological safety within a team which results in self-censoring (Nembhard and Edmondson 2006). This view was substantiated by a staff member at Facility C in a view of care assistants as having perceptions of low psychological safety within the team:

> ***They never really spoke up at the meetings did they?***
> *That's because I think they were a little bit afraid. I don't know, something to do with the atmosphere.*

The effect of low status on a perception of psychological safety was not, on the other hand, evident at Facility B, despite the presence of care assistants on the team. To examine these differences, I looked at contextual elements since context influences the thoughts and behaviour of individuals (Dewey 1997b).

Clearly, team members were influenced by institutional forces which dictated the status of professional groups, as described above. Nevertheless, these were not the only

contextual factors at play. Each team was operating within a different organisation. In chapter 2, I outlined how organisations can be viewed as comprising of inter-related and interdependent levels and how group interactions are shaped by organisational practices which in turn are shaped by the greater environmental context (Coghlan and Rashford 2006). Layered between team norms and healthcare cultural norms were organisational norms at Facilities B and C, which impacted on behaviour within the team:

> ***And do you think this [non-contribution of carers] was to do with the project or is that the way the dynamics work in the facility anyway?***
> *I think it was to do with the dynamics in [the facility] itself…. I think they are just unsure of themselves with the nurses. Like if they said something out of place maybe they didn't want to get in trouble* (Team Member 9, Facility C).

Investigation of decision-making at Facility C revealed a very hierarchical system, where care assistants were located at the bottom of the hierarchy, the CCM at the top and nurses in between:

> *I think that anyone that was working in the house knew that the CCM was the person in charge and if the CCM wasn't on duty it was the nurse on that day who was the person in charge. And if we wanted to put anything in place or even discuss anything, we'd always have to go through the nurse and then [the CCM]* (Team Member 3, Facility C).

Care assistants were given little involvement and power in decision-making and were actively discouraged from questioning the hierarchical structures:

> *Because the carers were with the residents more than the nurses sometimes the carers … were more dominant over the nurse than they should have been. Whether right or wrong, it is the nurse on duty that is in charge so sometimes that did cause conflict on the floor, a little bit.*
> ***And was it particular nurses that were involved or particular carers?***
> *I think it was particular carers. It was all kind of an issue with, that they thought that their opinion was a little bit more important than the nurse* (Team Member 3, Facility C).

It was not only the care assistants who experienced low levels of power 'to', which is the power to act in a situation (Gaventa 2011); nurses described similar experiences. During group reflection at one meeting, a nurse discussed a difference of opinion between her and a GP over a patient care issue which resulted in the GP launching a personal attack on her. She reported that her response was to listen quietly rather than defend herself due to their respective positions on a hierarchy:

> *I said to myself: Well OK fine, you're a physician, you're higher than me so I will take this from you.*

At Facility B, although a hierarchical system of decision-making was evident, there was more interaction between those with different status:

> **So is there communication between everyone?**
> *Everybody yes but not really housekeeping. The RGN can go directly to [the managing director] if they want, but mainly -* (Team member 3, Facility B)
> *- if we have any problems, if the RGN has any problems. If they can't solve them then they can go to the senior nurse manager. Then the senior nurse manager goes to the CCM. Then CCM to the managing director* (Team Member 13, Facility B).

In addition to increased communication between the levels, At Facility B, shared decision-making was much more in evidence than at Facility C, with more input from care assistants as highlighted in the pre-intervention group discussion:

> *Like we all have our input. Like it has to be input from everyone on the things that we might see that they might not see and there's things that they'd see that we wouldn't see and that kind of thing. You have a team and everyone has some input to put into it* (Care assistant, Facility B).

In contrast to the situation at Facility C where care assistants were rarely asked to contribute or make decisions, leading to ingroup devaluation (Tajfel 1982a), at Facility B organisational norms encouraged input from care assistants in discussion and decision-making within the facility. This helped explain the differences between the engagement of care assistants in team discussions. While at Facility C, differences in status between the professionals were reflected in organisational norms, which in turn influenced team norms, at Facility B organisational norms ameliorated the effects of these traditional differences in status between the professionals on team interactions.

The effect of the organisational environment on how individuals define their professional identities has been highlighted previously (Pratt et al. 2006, Deppoliti 2008) and is reassuring in one way, as it means that traditional power hierarchies in healthcare do not necessarily have to dictate the levels of engagement of different professionals within multiprofessional teams. Nevertheless, it poses difficulties for teams in organisations where organisational norms reflect traditional healthcare norms and where, as a result, high status individuals are invested with more power in decision-making, and lower status individuals may have internalised their powerlessness, leading

to self-censoring. It is more difficult to develop interprofessional collaboration in environments such as these, since to learn more about each other's roles, develop a shared language, agree on common goals and share power (San Martin Rodriguez et al. 2005), team members must engage in open and honest discussion. This will not occur if team members do not feel safe to do so.

The dilemma in developing interprofessional teamwork is that even though trust and team psychological safety are required in order for team members to feel safe engaging in team activities and discussions, it can be difficult to achieve trust in teams with diverse membership, precisely because of that diversity (Webber 2002, Nembhard and Edmondson 2006). Trust within the teams in this study was less a matter of a psychological phenomenon, focusing on the interaction between two individuals, and more a sociological phenomenon based on the interaction of groups of professionals. This appears to be a common phenomenon in multiprofessional and interprofessional teams as a review of the literature reveals that trust is generally addressed in terms of its relationship to professional roles, professional identity and stereotypes of other professions, rather than in terms of the interaction of individual personalities (for example Molyneaux 2001, Zwarenstein and Reeves 2006, Oandasan et al. 2006). Nevertheless, the presence of professional boundaries does not have to limit the development of team psychological safety. One of the outcomes of my study, was its eventual development at Facility C, which indicates that difficulties with low trust between professional groups are possible to overcome, even in organisations not conducive to nurturing psychological safety.

In the following section, I discuss the development of team psychological safety at both facilities.

7.3.1.3 THE DEVELOPMENT OF TEAM PSYCHOLOGICAL SAFETY

As discussed in chapter 4, trust and team psychological safety are related but not identical constructs (Edmondson 2002). Trust is important in the development of team psychological safety (May and Gibson 1999), as is mutual respect (Edmondson 2002), yet it can sometimes be difficult to establish trust across ingroup and outgroup boundaries (Huxham 2003).

It has been suggested that to develop trust, an atmosphere of mutual respect is essential (Stapleton 1998, Pullon 2008). However, the step from respect to trust among

healthcare professionals is not an automatic one. In a study on interaction between nurses and physicians, Pullon (2008) found that respect was an antecedent to trust but that trust had to be earned. This was facilitated by an increase in understanding of each other's roles.

Respect within the teams at Facility B appeared to be present from the outset:

> *I think there was a lot of respect* (Team member 4, Facility B).

Trust was not as evident in the forming stage of team development at either facility. During early meetings at Facility B, we spent time discussing meeting structures, team membership and expectations, but were guarded in our interchanges. The discussions were focused on tasks and facts rather than opinions and interpersonal relations. Team members showed reluctance to discuss issues that they felt might be sensitive or critical. I struggled in meeting 2, for example, to establish the reasons for the decision at management level not to move forward with a contracture prevention programme proposed by the team. This type of tentative behaviour, demonstrating low team psychological safety is common in early team development when team members are attempting to gather information about each other and beginning to establish team norms (Morgan et al. 1993, Forsyth 1990).

Team members at both facilities acknowledged the importance of a safe space to speak where other team members listened openly without judgement:

> *Because not everyone is going to be open to saying something if there is someone there that it could be misinterpreted* (Team Member 4, Facility B).

At Facility B, team members stated that we had started with a relatively safe space to speak. As we continued to meet and work together on team initiatives the level of trust increased. The expectation that if you spoke, you would be listened to with respect, developed quickly:

> *But yeah, I think the group seemed to work quite well. That people weren't afraid to say what they felt and if they felt that the decision wasn't one they would have chosen, they tended to voice it* (Team Member 9, Facility B).

As a result, at Facility B the perception of the team space as a psychologically safe space developed over the course of the study. During the storming and norming stages of team development which occurred from meetings 2 to 4, team psychological safety

became an inherent part of group norms. In the performing stage, by around meeting 5, team members had become accustomed to this atmosphere. This meant that there was a sense that the views of all team members were to be acknowledged and valued:

> *I think that by the end of it…. there was more respect and everyone facilitated everyone to speak and whatever idea they had, be it good, bad or indifferent, they were all allowed. There was a trial period and 'will we try this' so everyone's ideas were acknowledged, respected and tried. Some of them were implemented, some of them weren't but everyone kind of seemed satisfied that at least they were given the option to run with it. So it did seem to work* (Team Member 4, Facility B).

At Facility C we started with a lower level of team psychological safety than at Facility B. It grew eventually, but only started to become part of group norms around meeting 5, when the team had entered the norming stage of group development.

> *I would have spoken more than I would normally I suppose because you had very good questions that you put forward and you listened to everybody* (Team Member 12, Facility C).

Up to that point, team members were guarded and clearly did not feel comfortable engaging in open and honest discussion. Curseu and Schruijer (2010) in a study on 174 teams found that the development of trust early in team development enhances team interpersonal relations and increases team effectiveness in achieving tasks. The teams at Facilities B and C followed this trend. The team at Facility B reported success in terms of achieving interprofessional teamwork and in achieving team goals and the team at Facility C reported much lower levels of success in both teamwork and taskwork.

7.3.1.4 THE IMPACT OF CHANGING TEAM MEMBERSHIP ON TEAM PSYCHOLOGICAL SAFETY

There are different suggestions on building trust and team psychological safety. Faraj and Yan (2009), for example, highlight that team buffering activities focusing on developing a team identity and a sense of belonging for members, are positively related to building team psychological safety. This entails such activities as involving team members in developing the team vision, developing team-specific ways of addressing conflict and recognising and celebrating progress. Developing common goals is also highlighted as a means of increasing team trust (Lewis and Weigert 1985, Curseau and Schruijer 2010), as is breeding familiarity between team members (Bierly et al. 2009) and developing an understanding of each other's roles (West et al. 2006).

Common sense dictates that some of these activities, such as developing familiarity with other team members, developing ways of addressing conflict and developing knowledge about the roles of others necessitate recurring interaction between individuals. It has also been shown, in research on virtual teams, that a lack of face-to-face contact negatively impacts on team members' ability to address conflict which can lead to reduced trust and co-operation (Bierly et al. 2009). Consequently, the literature suggests that stable team membership could be important in developing team psychological safety. This assumption was borne out during team development at Facilities B and C. As highlighted in the previous section, the initial levels of the interrelated emergent states of team trust and team psychological safety were markedly influenced by factors external to the teams, namely institutional forces and organisational norms. Team related factors were more influential in the temporal aspects of the development of trust and team psychological safety. Specifically, achieving stability in core team membership was a key factor.

It can be difficult to establish stability in healthcare teams due to staffing patterns and staff turnover (Miller et al. 2008). This became rapidly apparent at Facilities B and C as nurses and care assistants only attended if the meeting occurred while they were working. Working patterns of individual staff members changed constantly between different day and night shifts, making it impossible to schedule a meeting to coincide with the working patterns of all the staff members involved:

> *There will always be somebody missing. And then you can't really pause things and wait for that person to be there the next time there might be someone else missing* (Team Member 5, Facility B).

As outlined in the previous chapter, staffing pattern issues in residential care can be further compounded by the fact that GPs and other care providers are not staff at the facilities but instead visit the facilities to provide their services to residents. In this study, at Facility B there were several associated care providers on the team, who had to schedule time to come to the facility for the meetings:

> *Even if you were in a hospital, it's hard to get them all together. Even when they are under the same roof. So when some of us are nipping in and out and have other jobs elsewhere, it was hard* (Team member 9, Facility B).

Logistical issues could also impinge on team activities, with team members sometimes finding attendance difficult because of workload issues:

> *I suppose there were times with the nursing staff, when there was just too much going on with the patients. There was too heavy a work load and they couldn't take the time out for the meeting. But I think everyone was committed, even if they weren't at all the meetings. Clearly it's hard to try to get everyone together, something always crops up* (Team Member 9, Facility B).

> *Everyone was committed as much as they can. Because for staff to come and sit and talk during working time, that was a barrier* (Team Member 11, Facility C).

All these factors meant that we had changing team membership at each facility.

Team members who joined the teams after it established were often hesitant to immediately engage in discussions. A team member at Facility B reported feeling reluctant to share her ideas during the first meeting she attended (meeting number 3):

> *That was my idea but I thought they would be laughing at me* (Team Member 11, Facility B).

But she reported that by the end of the study she *didn't feel strange or different* within the meetings and felt that there was trust evident among team members, demonstrating that her view of team psychological safety had adjusted. This suggests that if new members are constantly joining the team, these periods of adjustment are constantly occurring. Even if other team members feel that the team meetings provide them opportunities to engage in open and honest discussions, new members do not necessarily feel the same way. The implication is that frequently changing team membership can lower overall team psychological safety.

It is not uncommon for teams to be made up of core members and peripheral members (West 2004). Peripheral members are involved intermittently but do not interact with the team enough to be considered full members while core members are considered full team members. Often, healthcare teams can have fluid boundaries through which peripheral members pass back and forth (Lemieux-Charles and McGuire 2006). What became important during this study was the existence of a core group of members.

At Facility B despite the difficulties described above there were four team members all of whom were from different professions, who attended the majority of meetings. There were two other team members who attended half the meetings, as illustrated in Table 10 below. These six individuals made up a stable core which provided continuity from

meeting to meeting. The other seven members were peripheral members and did not attend regularly. Although the intermittent presence of peripheral members meant that time was often spent going over old ground in order to ensure that people were up to date, fluidity in group attendance was not completely disadvantageous, in that new insights were gained from new points of view being introduced. These advantages and disadvantages were acknowledged by team members:

> *Yeah, if a new person came, then you had to explain from the start, explain everything from the start and maybe you waste 20 minutes doing it and maybe that person wouldn't catch up as fast with the other people there and you would like to move on and that person is asking you a few thousand questions and you would be struggling a bit. But the other side is that person might bring fresh ideas* (Team Member 11, Facility B).

Having a relatively stable core ensured that those team members could develop interpersonal relations and trust within this core. This appeared to have an impact on team psychological safety which grew with each meeting.

TABLE 10: MEETING ATTENDANCE, FACILITY B

FACILTY B	Meeting 1	Meeting 2	Meeting 3	Meeting 4	Meeting 5	Meeting 6
Team Member 1	•	•	•	•	•	•
Team Member 2	•					
Team Member 3	•	•				
Team Member 4	•	•	•	•		•
Team Member 5	•	•	•			•
Team Member 6	•		•			
Team Member 7	•	•			•	
Team Member 8		•				
Team Member 9		•	•	•	•	
Team Member 10		•				
Team Member 11			•		•	•
Team Member 12			•	•		
Team Member 13					•	

At Facility C as highlighted in Table 11, the team membership was more unstable. Although I attended all meetings, there was only one staff member who could be considered a core member at meetings 1 to 4. She did not attend the final three meetings. The other seven team members were peripheral members and attended intermittently and rarely, a fact recognised by team members:

> *The same people were not at all the team meetings* (Team member 9, Facility C).

As new members joined, which happened at every meeting up to meeting 4, there was a period of readjustment where team processes and goals were discussed repeatedly.

> *Today one person would come, whatever nurse was in charge, and tomorrow somebody else, so there was no continuity* (Team member 11, Facility C).

From meeting 4 onwards, membership stabilised. This was only possible because membership shrank to four team members and because we had no associated care providers at meetings, so we were able to hold meetings at times where the team members were all scheduled to be at the facility. Of the core membership of four who attended meetings 4 to 7, only one team member, bar me, had been to a meeting prior to meeting 4. Accordingly we had almost complete turnover in team membership halfway through the project. Research has shown that individuals in groups work more effectively if they are held accountable for their actions (Nijstad 2009) but it was difficult to enforce accountability when the same people were not coming to team meetings. When we did achieve more stability in team membership, commitment to tasks improved.

TABLE 11: MEETING ATTENDANCE, FACILITY C

FACILTY C	Meeting 1	Meeting 2	Meeting 3	Meeting 4	Meeting 5	Meeting 6	Meeting 7
Team Member 1	•	•	•	•	•	•	•
Team Member 2	•	•					
Team Member 3	•	•	•	•			
Team Member 4	•	•					
Team Member 5	•						
Team Member 6	•						
Team Member 7		•					
Team Member 8			•				
Team Member 9			•		•	•	•
Team Member 10			•				
Team Member 11				•	•	•	•
Team Member 12				•	•	•	

At Facility C, a strong sense of team psychological safety was absent up to the point where membership began to stabilise at meeting 4. Only from meetings 4 to 7, when the same members were attending, did all team members begin engaging in open and honest discussion, suggesting a link between stable membership and team psychological safety. At Facility B, where we had more stable membership, team members were more comfortable engaging in discussions in the early stages of team development, strengthening this argument.

It has been suggested that changing team membership can make it difficult for individuals to identify with the team as an ingroup (Delva et al. 2008) and that trust in collaborative ventures is susceptible to erosion when team membership changes (Beech and Huxham 2003, Miller et al. 2008). This was highlighted by Chang et al. (2011) who demonstrate that teams with more stable membership have higher levels of trust which in turn improves team performance. Healthcare teams can have high turnover, yet the impact of changing membership on team development is a neglected area of research (Lemieux-Charles and McGuire 2006). My study adds to this limited research by identifying a link between stability in team membership and team psychological safety. The study demonstrated that it was not necessary to have the same membership at every meeting. A core membership provided enough continuity to ensure that initial levels of team psychological safety could be built upon.

It has been highlighted previously that although contact between professionals may not be enough in itself to stimulate interprofessional collaboration (Sargeant et al. 2008, Waller 2010), regular contact is nevertheless needed (Barr et al. 2005). This study highlights a reason for the importance of regular contact since without core membership and the resulting team psychological safety, the opportunities to develop power-sharing and to learn though co-generation of knowledge were missing.

In the following section, I draw from social identity theory to discuss the impact of ingroup identification on the development of team psychological safety.

7.3.1.5 THE IMPACT OF INGROUP IDENTIFICATION ON THE DEVELOPMENT OF TEAM PSYCHOLOGICAL SAFETY

Earlier, I highlighted how team members strongly identified with their own professional groups consistent with Tajfel and Turner's (1986) social identity theory. However, self-categorisation is a dynamic process where the identification of individuals with the different groups to which they belong can shift depending on social circumstances (Hogg 2006, Jenkins 2008). In section 7.3.1.2 I discussed how team members identified with their professional group. In this section, I discuss other group identifications of relevance to the study.

Beech and Huxham (2003 p.33) state that *"In order to manage aims and power, build trust, and so on, existing ingroup boundaries may be, or may need to be, disturbed".* Boundaries between staff and non-staff within the team at Facility B were present at the outset. Individuals in both groups pointed out the shared characteristics within one

group, which were not held by the other group, as highlighted by one of the GPs on the team:

> *The staff here know [the residents], they certainly know them better because they know their habits and their routine and everything. But for the short time that we're here, or physio, or even pharmacy when they come in, we only see a snapshot.*

These type of comments highlighted that team members were categorising themselves into an ingroup and some other team members into an outgroup (Jenkins 2008). This was discernible in interactions at early meetings. In discussions on the assessment tool for cognitively impaired residents in meeting 2, for example, I observed two very clear camps, with the staff in one and associated care professionals in the other, as an excerpt from my field notes highlights:

> *[The GPs] did engage in discussion and gave their opinions – but not really as people with a vested interest. (there was a lot of "you could" As opposed to "we could")…. The GPS definitely put themselves in a role of offering their advice as experts. They engaged in the discussion but from the viewpoint of finding a tool for the nurses* (Field notes November 13th 2008).

Organisational affiliation within the team at Facility B is illustrated in Figure 13. The blue shading indicates the group who identified themselves, and were identified by others, as staff the facility, distinguishing them from the group who were not staff, indicated by the white shading.
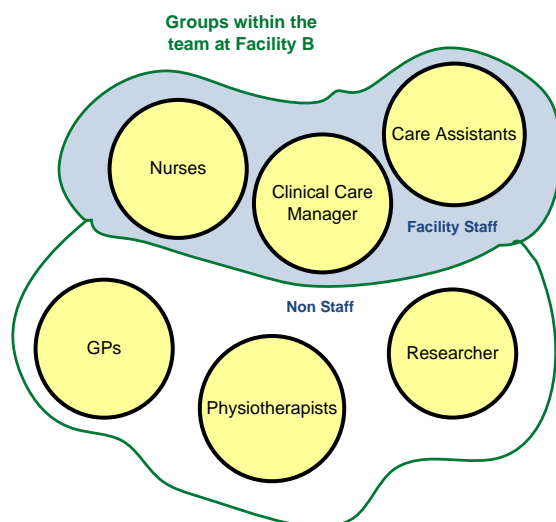
FIGURE 13: GROUPS RESULTING FROM ORGANISATIONAL AFFILIATION, FACILITY B

The presence of subgroup boundaries within teams can negatively impact on trust, especially if individuals' views on other groups have not yet stabilised due to unfamiliarity (Huxham and Vangen 2000, Beech and Huxham 2003). It can be speculated that similarly, the presence of boundaries within teams can impact on initial levels of team psychological safety. Group members exhibited wariness at sharing information within the team space at early meetings. An excerpt from my field notes illustrates this wariness and my speculations that the low level of team psychological safety could be partially attributed to a lack of trust in outgroups:

> *[Team Member 4, Facility B] and [Team Member 5, Facility B] both talked to [The MD] about the contracture prevention exercise programme and there was a decision made not to go ahead with it. Both were vague when I tried to get reasons from them. Both just said that [The MD] decided against it and [Team Member 4] said that [The MD] decided that this was not the right time to implement it. I feel there is more to it than that though but I definitely felt like an outsider when trying to get to the bottom of the story....I suppose their level of discomfort expanding on the reasons for not going ahead with the initiative may point to a certain lack of trust. The whole team structure developed for this project is a new approach in that it includes people from outside as well as staff members so maybe they just weren't comfortable speaking up in front of the other groups, especially if what one or both of them had something to say that might have been construed as critical* (Field notes, November 13th 2008).

If team members continued throughout the course of the study to align themselves according to organisational affiliation, it would have been very difficult to build team psychological safety as individuals would likely continue to exhibit reticence in front of outgroup members. By later meetings however, higher levels of team psychological safety were evident. At meeting 6 we discussed the contracture prevention programme again and this time both of the team members discussed issues more openly, showing how trust had grown within the team. In addition to this growth in trust, the boundaries between staff and non-staff had been breached. This breach had occurred, from my perspective, rather subtly, but was forcefully highlighted to me by a conversation with the MD that occurred near the end of the study.

The conversation was preceded by team activities to set up a family support group. The decision to set up the group was made at meeting 3 and as a team we spent time gathering information, discussing it and planning the initiative. We agreed to begin with a group discussion in order to explore relatives needs with them. At meeting 6, the CCM reported that she had updated the MD on our plans. On receipt of the information,

the MD took over the activities pertaining to the support group. From that point onwards, the change management team had no further input. When I discussed the plans with the MD, she was enthusiastic about the initiative but noted that setting up a family support group was a more appropriate task for staff members than non-staff members.

Her comments provided an opportunity for me to reflect on changes that had occurred in the views of team members on ingroups and outgroups within the team. In the process of team development we had refined our understanding of our own and each other's roles. Accordingly both staff and non-staff on the team began to see associated care providers as having a more active role in ongoing initiatives at the facility. The MD on the other hand had not been involved in meetings, had not experienced first-hand the shift in attitudes, and still saw associated care providers as members of an outgroup:

> *Her comments have made me realise how far we have come as a team because I felt like an outsider again, something that I had not felt for a while* (Field notes May 5th 2009).

The boundaries between staff and non-staff had been eroded, and not only for me as indicated in the comment above, but for all team members, as evidenced by the fact that no team member considered it an issue that non-staff have input into a family support group. The erosion in boundaries was also evident in language used in meetings. By meeting 3, associated care professionals and staff had begun to align themselves together on one ingroup, the change management team, rather than an ingroup and outgroup of staff and non-staff. This was indicated by their use of the pronoun 'we' rather than 'I', which has been shown to be linked to development of trust and mutual support within teams (Kvarnström and Cedersund 2006):

> *The them and us language between staff and non-staff wasn't as obvious as at the last meeting. This was [Team member 12's] first meeting and she still used 'you' rather than 'us' but the others have taken more ownership of the project. [Associated care provider] for example said 'what are* ***we*** *doing next?' (emphasis mine)* (Field notes Dec 22nd 2008).

By the end of the study, the core members expressed their desire that team meetings continue:

> ***Do you think the project helped in improving communication between you and other team members?***
>
> *It did, definitely, while it was running but I can feel the loss since it stopped....I would love, what [Team member 3] is saying, if we could get the whole team together on meetings, be it every quarter even* (Team member 4, Facility B).

Participation was difficult for associated care providers because they had to schedule time to leave their practices and attend the facility for meetings, but two were core team members and were vocal in their desire to continue interprofessional team meetings. They contended that the benefits outweighed the difficulties, showing how valuable they considered the exercise.

In Facility C, we had no associated care providers on the change management team. Non-staff members consisted of me and a resident as illustrated in Figure 14 below.
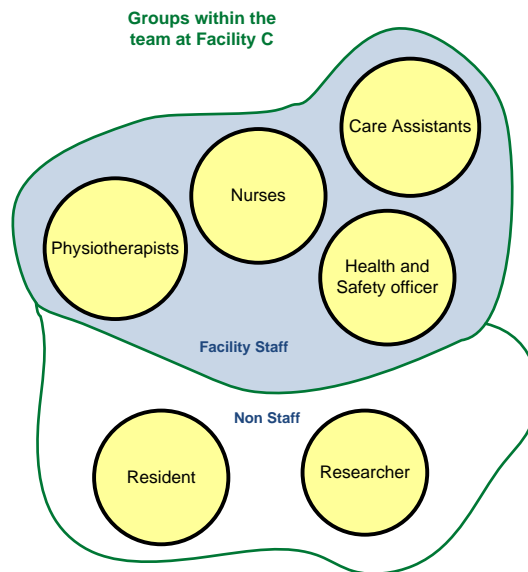
FIGURE 14: GROUPS RESULTING FROM CARE PROVIDER AFFILIATION, FACILITY C

As there were only two of us who were not staff and the resident joined the team only halfway through the initiative, boundaries between staff and non-staff were not as obvious from the outset at Facility C as they had been at Facility B. Nevertheless, they were there. When the resident joined the team first (meeting 4), there was a discernible loss in team psychological safety with all other team members exhibiting reluctance to speak openly in front of her:

> *I noticed that the staff seemed less likely to mention negatives in front of her and downplayed them. I was even doing it myself – for example, the discussion on the [out of hours GP service] policy. We all downplayed that it was based on a breakdown in communication when she asked* (Field notes, February 2010).

The resident herself expressed a sense of discomfort, suggesting that she sensed the reticence of other team members. She clearly did not immediately experience a sense of team psychological safety:

At the start I found the undertaking a little daunting.

In conversations with team members, they admitted reluctance in speaking openly in front of residents about facility management issues. One team member stated that she would not be in favour of residents getting involved in organisational change and staff development initiatives at the facility:

> *Well I prefer not to involve the relatives, not have that mix with the staff* (Team member 9, Facility C).

This suggests that the reluctance on the part of other team members was linked to a view of the resident as a member of an outgroup. Nevertheless, by the next meeting (meeting 5) and from then on, we began speaking more openly, demonstrating a growth in team psychological safety and a reduction in the barriers between the rest of the team as an ingroup and the resident as a member of an outgroup. This was highlighted by the resident in a post-intervention interview:

> *In a short time, I got to grips with the whole thing. I gained a general understanding of the role of the others who were involved as there was good co-operation among us as time went on.*

Interestingly, I did not seem to be categorised into the same outgroup as the resident either by myself or others. The outgroup was based less 'not-staff' and more on categorising the resident as a 'care receiver'. This categorisation of the client by care providers as a member of an outgroup rather than ingroup member is not unusual as it has been shown that healthcare providers often speak to patients with more reticence than they would discuss care issues with colleagues (Tannen and Wallat 1983, Sands 1994).

Willemyns et al. (2003) in a study on communication in teams highlight a relationship between high trust and low ingroup and outgroup boundaries at a single point in time. The emphasis in my study, on tracking the process of team development, allowed me to substantiate their speculation that recurring patterns of positive interaction between ingroups and outgroups allow acceptance of outgroup members into the ingroup as well as a growth in trust between the groups. As the teams developed at both facilities, there was an erosion of the ingroup and outgroup boundaries based on employee or care-receiver affiliation. By the end of the study at each facility, these boundaries had all but disappeared. Professional boundaries, as highlighted in section 7.3.1.1 did not have to

be eroded, but study results highlighted that the development of understanding across these boundaries was necessary.

7.3.1.6 SUMMARY: TEAM PSYCHOLOGICAL SAFETY

In section 7.3.1, I discussed the various facets of team psychological safety: its initial levels, its growth and the influence of various factors on both. In my discussion, I drew on social identity theory. Social identity theory holds that individuals consider themselves part of groups and accordingly draw some of their personal identity from those groups (Tajfel 1982b). I looked at the impact of social identification on team psychological safety as well as examining the reverse relationship, in other words how team development can impact on social identification of team members.

The development of interprofessional collaboration is dependent on learning with, from and about one another. This allows the development of ways to work together effectively and interdependently across ingroup boundaries and to learn to deal with power and information-sharing across those boundaries (Hammick et al. 2009a). The growth of team psychological safety as the teams developed, allowed participants to openly engage in productive discussion and reflection, even on sensitive issues or when reporting negative outcomes, without fear of censure. This ability to engage in discussion facilitated learning with, from and about one another. Observing this allowed me to conclude that team psychological safety catalysed the development of interprofessional collaboration. I discuss this process in the remainder of the chapter from the perspective of power relations and co-generation of knowledge, the other two themes that emerged in data analysis.

7.3.2 A TRANSFORMATION IN POWER RELATIONS

The development of team psychological safety was a catalyst in interprofessional team development. Nonetheless, the presence of team psychological safety in itself does not distinguish interprofessional teams from other teams, as it can be argued that any team must develop some level of team psychological safety in order to work effectively. In chapter 3, I discuss the notion of power, using Gaventa's (2011) power cube and in chapter 5, I outline how empowerment can occur if individuals become aware of their powerlessness and address it. The notions of power and empowerment are important to consider in interprofessional collaboration, because unlike team psychological safety, shared leadership and interdependency in decision-making are characteristics of

interprofessional teams seen less often in other teams (Hammick et al. 2009a). Additionally, power disparities can cause issues in multiprofessional teams and prevent the development of interprofessional collaboration (San Martin Rodriguez 2005).

In this study, there was a shift towards a shared leadership model as well as increasing shared decision-making at Facility B as individuals within the team became empowered. At Facility C, despite the eventual development of team psychological safety, there was no empowerment of care assistants and a limited alteration in power relationships among other team members. I discuss these different degrees of success in altering power relationships in this section. In my discussions, I deal mainly with formal power based on professional status and hierarchical position in the facilities. Informal power, described by Stewart and Rigg (2011) as the patterns formed by informal coalitions and negotiations that are set apart from the formal, official power hierarchy, is also known to play an important part in organisational life. Nevertheless, perhaps due to the multiprofessional nature of the teams, and the fact that individuals within the team identified so strongly with their professional groups, it was formal power that manifested itself within the study as the main source of power inequities within the teams, and thus is the focus of the discussions in this section.

As outlined in chapter 3, a transformation in power relations is usually a feature of the development of collaboration as it is defined in this thesis. Shared leadership can be a characteristic of interprofessional teams and is described as:

> "A dynamic, interactive influence process among individuals in groups, for which the objective is to lead one another to the achievement of group or organizational goals or both" (Pearce and Conger 2003 p.1).

Team members can take the lead on specific team initiatives as well as sharing the leadership of the team. Shared decision-making is generally accepted as a feature of interprofessional collaboration and members of interprofessional teams share information and make decisions interdependently, based on shared information, rather than making decisions independently and then sharing the information (D'Amour et al. 2005).

Expectations and behaviours at both Facilities B and C resembled facility norms in the forming stages of team development. In early meetings most power to make decisions and assign tasks sat with me and with the internal change agents, namely the CCM at

Facility B and the health and safety officer at Facility C. Power sat with me because the study was seen as my remit:

> *I suppose you were the one who was kind of in charge, who was running it*
> (Team Member 9, Facility B).

Power sat with the internal change agents, as they were both in management positions. This reflects Gaventas (2011) conceptualisation of power within a cube, where the spaces within which decisions are made, the team space in this case, are influenced by the power relationships at the different levels of their environment (Gaventa 2006, Huxham and Beech 2008). As the power relationships within groups can mirror the relationships within the organisation itself, this creates the potential for disempowerment of some participants (Jacobs 2010, Stewart and Rigg 2011).

Huxham and Beech (2008) note that collaboration provides the potential for the less powerful within an organisation to take on more power within a collaborative group. Similarly, Schein (2004) argues that organisational members brought together in new teams can be made aware of how organisational norms define the nature of their interactions in order to give them the opportunity to change those interactions. This can occur during a period of "culture formation" (Schein 2004 p.68) equivalent to forming, storming and norming in Tuckman's (1965) model. Developing awareness on the part of those with less power must be followed by action in order for empowerment to occur (Hur 2006). Team meetings created invited spaces (Gaventa 2006, 2011) into which individuals from all professional groups were invited with the intention of facilitating them to transform their power relations with others. Stewart and Rigg (2011) note that meetings can be a space where power is wielded through the use of language or other non-verbal communicative acts. During team meetings at both facilities, although I was leading them, I attempted to create an awareness of the potential for power-sharing by continually emphasising it in meetings. I asked for input from each individual, and tried to create an atmosphere of safety and mutual respect within the team so team members would feel comfortable engaging in the decision-making process. Additionally, I asked individual team members to take responsibility for initiatives. The CCM and Health and Safety Officer in Facilities B and C respectively, aided as they also asked team members to take responsibility for initiatives between team meetings.

These attempts highlight what Lewin (1948) refers to as the paradox of democracy where he notes the paradox inherent in wielding power over others in an attempt to

empower them: "To be able to change a group atmosphere toward democracy, the democratic leader has to be in power and has to use his power for active re-education" (Lewin 1948 p.44). Although Huxham and Beech (2008) note that this use of power can be a means of establishing stability within collaborative ventures, it can be difficult to do effectively. In an attempt at empowerment, in meeting 2 at Facility B, I attempted to expedite power-sharing by asking for a volunteer to chair meetings. A nurse only agreed under pressure from the CCM, who utilised the power that Gaventa (2011) terms power 'over' to try to develop power 'within' the nurse. The attempt was unsuccessful, substantiating Gaventas (2001) assertion that the complexities of power relationships can make empowerment difficult. I spoke with the 'volunteered' nurse before the next meeting but she stated she did not want to chair the meetings. As Lewin (1948 p.44) states:

> *"Any team atmosphere can be conceived of as a pattern of role playing. Neither the autocratic nor the democratic leader can play his role without the followers being ready to play their role accordingly".*

Power relations within a team cannot be altered unless team members recognise their own lack of power and are willing to try to empower themselves.

At Facility C there was little transformation in power relations. As outlined in section 7.3.1.2, trust between team members of different professional groups was already undermined due to conflict between professional groups. This resulted in ingroup devaluation (Tajfel 1982a) of lower status groups within the facility. Care assistants did not engage in much decision-making or any sharing of leadership either within the facility or within the meetings, thereby exhibiting invisible power, in other words, internalised powerlessness (Lukes 1974). Invisible power is difficult to supplant since people must be made aware that they can change it (Lukes 1974, Gaventa 2006) and even if they are aware, they may choose to sustain the status quo if they decide it may be in their best interests to do so (Eyben et al. 2006). Gaventa (2011) notes that the best strategies for challenging invisible power are based on raising awareness among the powerless. Similarly, Veneklasen and Miller (2002) suggest that to change invisible power, one must develop power 'within'. Power within is the power associated with an individual's self-worth (Gaventa and Cornwall 2006). Gaining power 'to' act and developing collective power 'with' others can also be viewed as empowerment (Luttrell et al. 2009, Gaventa and Cornwall 2006).

Power imbalances can be challenged within spaces where decision-making occurs (Gaventa 2006). Participatory research can be a means of achieving this since it provides an opportunity to validate individuals' knowledge and transform attitudes (Fals Borda 2006, Reason and Bradbury 2006). It entails creating an atmosphere of mutual respect which can be a means of developing team psychological safety (Edmondson 2002) which can in turn overcome the effects of differences in status since it allows discussion and negotiation (Nembhard and Edmondson 2006, Roberts et al. 2009). Yet, paradoxically, the low levels of team psychological safety through most of the study at Facility C inhibited the type of open discussion needed to change power relations, since care assistants did not feel comfortable speaking up in meetings. Tuckman (1965) and others (West 2004, Dennis et al. 2008) highlight the usefulness of a storming stage of team development where such discussion and negotiation occur. We did not go through this process at Facility C and continued to engage in polite and guarded interaction, characteristic of the forming stage of group development and low levels of team psychological safety, until a few final meetings. It has been postulated that this type of polite interaction is useful at the early stages of group development but if it continues, it can be counterproductive and result in limited debate on issues (Adams and Anantatmula 2010). Due to the difficulties developing team psychological safety at Facility C, facility norms became team norms with little argument and the same dynamics surrounding decision-making at the facility were evident in the majority of meetings. I focused on participation at Facility C and team psychological safety was eventually developed. However, by the time it was established within the team, care assistants had already stopped attending meetings, making it impossible to restructure their power relationships with others.

As the study progressed at Facility B, and team psychological safety grew, I observed team members beginning to lead discussions, decision-making and actions on particular issues. This was also recognised and acknowledged by some team members:

> **So in terms of the leadership, what type of leadership do you think was used? Was it autocratic, democratic or delagative?**
> *Well you were delegating and then democratic then after that (*Team Member 5, Facility B).

I noted this transformation of power relationships in my field notes:

> *As time goes on, team members are taking more ownership of the project, especially those that have been to a few meetings. They are making more*

decisions, volunteering for tasks and suggesting tasks for others, which they weren't doing at the beginning (Field notes, March 15th 2009).

Hackman (1990) notes that shifts in power can occur as the task types shift, as the most appropriate leader will take over. This occurred in Facility B and generally team members took on leadership on issues that fell within their areas of expertise:

> *Everyone contributed but two or three people they had power. But that was not from their personality but their experience and that was in a good way* (Team Member 11).

The team development process at Facility B was characterised by a stage where we went through some conflict and disillusionment in the process of establishment of group norms. Most models of group development include such a process. Tuckman (1965) refers to this stage as a storming stage of group development, Schein (2004) describes this type of behaviour as occurring in a group formation stage and Gersick (1988) envisioned it as a move away from uncertainty in an initial phase of group life. This behaviour does not have to be rooted in conflict, but if a multiprofessional team is to develop into an interprofessional one, it is important for team members to explore how the team operates and their own place in the team (Barr 1997). By working through such a process in a storming stage, we no longer depended on organisational norms which dictated that tasks be assigned by those higher in the hierarchy. Our group norms were still influenced by organisational norms as evidenced in the reference to the head nurse below, but were nonetheless distinct, as indicated by the rest of the quote where a number of professional groups were mentioned as sharing in team leadership:

> *Did you see anyone else as having more power?*
> *Well I saw you as leading it alright. I think [name of nurse] took on a lot too and then she is head nurse so it would be appropriate for her to do it. And what was the carers name, was it [name of care assistant]? I think the two of them took on that role a lot, and the GP too* (Team Member 5, Facility B).

Care assistants at Facility B at the outset of the study were invested with less power to lead initiatives or assign tasks within the facility. As our team developed into an interprofessional team, reflection and discussion within a team climate of increasing team psychological safety challenged team members to recognise their own powerlessness and begin developing power with and power within. We began to deconstruct organisational norms into our own group norms and consequently, care

assistants became more empowered. By the end of the study, our leadership behaviours had been reconstructed so that shared leadership had become the norm:

> *We were all sitting in a room discussing something in common rather than having, not a hierarchy, but one person telling everyone else what to do or whatever* (Team Member 9, Facility B).

This was viewed as a positive by all team members.

Residents were not team members at Facility B, but a resident was on the team at Facility C from meeting 4 onwards. Although the rhetoric of user involvement in healthcare provision is common, there are few examples of the inclusion of users in the improvement of care provision at an organisational level (Shaw 2008) and fewer still examples of inclusion of older people in these efforts (Zeitz et al. 2010). Poulton (1999) suggests that user involvement can be visualised on a hierarchical model with the lowest type of user involvement consisting of one way communication of information to service users. Stepped up from that is health education which aims to change attitudes and the next type of involvement is consultation where users are consulted on policy and structuring issues. Consumer satisfaction assessment is next, where service users evaluate services. The top two levels of consumer involvement are: participation where consumers directly interact with decision-makers on healthcare changes, and empowerment, the highest level of user involvement where healthcare providers and service users share decision-making on healthcare provision. At both Facilities B and C, I engaged with service users before cycles of action research began in order to incorporate their evaluation into changes in care provision. This falls under consultation in Poulton's (1999) model. In Facility C, we also attempted to achieve user involvement at the top of Poulton's (1999) hierarchy by including a resident on the team. The resident joined the team just as team membership stabilised and team psychological safety began to grow. She felt comfortable engaging in discussions within a short while, unlike care assistants in earlier meetings. She articulated a sense of gaining power 'within', power 'with' and power 'to':

I would like to have seen more residents involved….which maybe because of their circumstances it wouldn't have been feasible. But if you are part of it (Power with)
and your opinion is asked about these things, you have more of an interest, (Power within)
and you feel like you have been involved and you have achieved something (Power to)
(Resident Team Member).

As outlined in chapter 5, a gain in these types of power indicates empowerment. Additionally, shared decision-making was occurring within the team by the end of the action research cycles. This signifies that empowerment within the team, although limited, did occur to some extent at Facility C.

Power in interprofessional collaboration is often viewed as something that must be lost by one professional group in order for another professional group to gain (Hall 2005, Sirota 2007). It has been reported that physicians for example, can feel threatened by interprofessional collaboration due to a fear of power loss. In Gaventa's (2006) view power is not a finite resource to be transferred from one individual or group to another. Instead, the potential for power is something that rests within all of us and can be expanded through awareness building and developing communicative and collaborative alliances. The results of the study highlighted that interprofessional collaboration does not have to be viewed as a scenario involving power 'winners' and 'losers'. At Facility B, where team members felt the team had become an interprofessional team, their view of collaboration was overwhelmingly positive. Empowerment within the team was regarded positively by all team members, not just those who had become more empowered and none of those team members traditionally invested with more power within healthcare regarded themselves as 'losers' in the development of collaborative relationships. A fear of losing power can be a reason for reluctance of some to engage in developing interprofessional collaboration, but if it is made clear that transformation in power relationships do not have to be win-lose situations, these fears can be allayed.

7.3.3 THE CO-GENERATION OF KNOWLEDGE

In the previous section I discussed changes in power dynamics in the team development process from a multiprofessional to an interprofessional team and I linked these changes to the development of team psychological safety. In this section, I discuss the third theme, the co-generation of knowledge within the teams, which is also catalysed by team psychological safety.

Huxham and Hibbert (2008) describe different ways of learning during collaboration. They term one of these ways of learning as sharing-exploring where knowledge is shared between partners and new knowledge is created in the process. Action researchers describe a similar type of learning and co-generation of knowledge that occurs during action research initiatives because of meaningful involvement of

participants in the research process (Gaventa and Cornwall 2006, Greenwood and Levin 2007, Koch and Kralik 2006). One of the advantages of taking an action research approach in this study was that it created a space and place for co-generation of knowledge to occur.

I conceptualise the process of knowledge creation by drawing on organisational knowledge creation theory. Organisational knowledge creation theory, as described in chapter 5, is concerned with how the knowledge is created as individuals act and interact within their environments (Nonaka and Von Krogh 2009). Within this perspective, knowledge can be viewed as a continuum of tacit to explicit knowledge and learning is the acquisition of this knowledge by individuals (Nonaka 1994). Tacit knowledge is unarticulated, personal, intuitive knowledge and explicit knowledge is knowledge that can be codified and transferred easily (Polanyi 1966). Nonaka and associates (Nonaka 1994, Nonaka and Takeuchi 1996, Nonaka et al. 2000, Nonaka and Toyama 2003, Nonaka and Von Krogh 2009) have modelled the process of knowledge creation in organisations into the four processes of socialisation, externalisation, combination and internalisation (SECI). They argue that the process is important in allowing knowledge to be utilised by more than a single individual (Nonaka 1994, Nonaka and Takeuchi 1996, Nonaka et al. 2000, Nonaka and Toyama 2003, Nonaka and Von Krogh, 2009). The SECI model will be used in subsections 7.3.3.1 to 7.3.3.4 to examine knowledge creation in interprofessional collaboration. This model is an ideal one to use, as it is concerned with the creation of knowledge through integrating diverse perspectives. Although they use the term 'knowledge creation', I have chosen to utilise the term knowledge co-generation instead to emphasise the importance of the social element.

There is a point of divergence between my views and those expressed by those in organisational knowledge creation theory. Although knowledge creation within this theoretical perspective is viewed as socially constructed, learning is viewed simply as knowledge acquisition. From a perspective of social constructionism however, learning is not acquired but socially constructed. For this reason, although I utilise the SECI model, I extend it to create at an alternative understanding of learning as constructed rather than acquired.

Since my concern is not only with the interprofessional collaborative process, but also

with change management, I must be concerned with both process and outcome. In order to examine both process and outcome, I utilise the SECI model to examine the process of knowledge co-generation and extend it to look at learning outcomes by drawing on Argyris and Schön's (1974) conceptualisation of single and double loop learning. Single loop learning is that which is achieved from a goal driven focus where the immediate issue is addressed without necessarily addressing the underlying cause. Double loop learning takes a more reflective approach and aims to change assumptions, values and goals and in this way address underlying issues and change the status quo.

Team members in both facilities highlighted the benefits of combining different professional perspectives:

> *You need different views. If you have, no matter what we're doing, like if I wanted to do something to do with nutrition, and I only brought the chefs in here, they'd only have one view on it whereas a nurse might have another view, a carer might have another view, a family member or a resident themselves might have another view so you need to get all of those views. Yes the chefs will be trained in that area but they'll only see it from their point of view. So I think it's very important in any group that you do get a mixture* (Team Member 4, Facility B).

In doing so, they articulated a view similar to views in pragmatic philosophy and in organisational knowledge creation theory, where diversity is regarded as a positive in recognition of the fact that different perspectives enrich knowledge creation (Peirce 1997a, Nonaka and Toyama 2003). Yet, within the pragmatist and organisation knowledge creation perspectives there is little recognition of the difficulties of combining different views. In healthcare, different professions have different tacit and explicit knowledge. When different professional groups distance themselves from each other by erecting robust professional boundaries, it is difficult to communicate with each other and find ways to share this knowledge. Yet, successfully combining knowledge is an important component of effective teamwork (Oandasan et al. 2006, Nijstad 2009) and an essential element of learning "about, from and with others" (Hammick et al. 2009a p.89) in interprofessional collaboration (Barrett and Keeping 2005, Sheehan et al 2007). As Masterson (2002) points out, interprofessional collaboration means giving up exclusive claims on professional knowledge bases. To be able to say we had developed into an interprofessional team at Facilities B and C, we had to effectively co-construct our knowledge into new knowledge and engage in

learning in the process. Consequently, during interprofessional team development, we had to find a means of dealing with professional boundaries.

In the following discussion I draw from boundary spanning theory as outlined in chapter 2 to examine how team members learned to share information across professional boundaries in the externalisation step, how knowledge entered the team space in the combination step and how team knowledge co-generation resulted in organisation-wide change, also in the combination step. Boundary spanning occurs when a group interacts across its boundaries with other groups and individuals. As described in chapter 2, it is defined as a group's "actions to establish linkages and manage interactions with parties in the external environment" (Marrone 2010 p.914). Boundary spanners are individuals who act as intermediaries by spanning group boundaries. They can act as representatives of groups, co-ordinator of tasks, and information gatekeepers (Holmes et al. 1986, Friedman and Podolny 1992, Marrone 2010).

In the following subsections I discuss the knowledge creation that occurred at Facilities B and C, both within the teams and outside them. Nonaka et al. (2000) describe the four processes in the SECI model as forming a spiral. Knowledge created in one spiral can continue to trigger a subsequent spiral and so on. The first step in a spiral is socialisation which is the sharing of tacit knowledge through social interaction and this is described in the following section.

7.3.3.1 THE SOCIALISATION PROCESS IN THE CO-GENERATION OF KNOWLEDGE

At the outset of the study, Facility C had no policies documenting explicit knowledge on pain assessment and management, and Facility B had limited documentation. New care providers learned about pain practices at the facilities through socialisation. Nonaka et al. (2000), in discussing socialisation, provide the example of apprenticeship where tacit knowledge is shared through demonstration, but suggest that socialisation does not have to occur in such a formal way. Simply by interacting with others in the world, one can share tacit knowledge. This can occur through observation, application and conversation (Nonaka et al. 2000). At both facilities, socialisation around pain practices emphasised professional role boundaries, and the sharing of tacit knowledge was mostly limited to socialisation within rather than between professional groups as evidenced in the comments below taken from post-intervention interviews:

> ***Did you learn anything about pain?***

Yes. Not maybe from my profession, because I knew that already but from nurses, physios and GPs. How they understand it and how we all work with it……When [name of physiotherapist] is doing exercises now with the residents she always comes to me and tells me everything that she observed while doing exercises with them, that someone feels pain here when she is moving her leg or hand. And before I didn't have that (Care Assistant, Facility B).

I suppose one big thing that came out of it through our meeting, the amount of assessment tools the physios had that I didn't know that they had at all….I was completely unaware that they even existed because that was their area (Team Member 4, Facility B).

 This meant that before the cycles of action research, care providers tended to learn about care routines only from those in their own profession, and were mostly unaware of pain management practices of other professions within the facilities.

7.3.3.2 THE EXTERNALISATION PROCESS IN THE CO-GENERATION OF KNOWLEDGE

Externalisation is a process where tacit knowledge is articulated by individuals, to become explicit knowledge so that it can be shared with others. This occurs through dialogue and reflection (Nonaka and Toyama 2003). Within team meetings, individuals shared information, requested feedback and reflected with other team members on successes and failures in achieving team goals.

Nonaka and Toyama (2003) highlight that the process of externalisation allows individuals to question routines. As outlined in chapter 3, the results of study 1 in the pre-step drew my attention to the fact that participants rarely questioned their routine practices and one rationale for taking an action research approach in this study was to create a space within which this could happen. Externalisation allows individuals to identify contradictions between their own views and others and contradictions between their behaviours and the articulated knowledge (Nonaka et al. 2000, Nonaka and Von Krogh, 2009). This was obvious at both facilities. As a result of discussions within the team space, team members reframed their knowledge and attitudes on pain:

I suppose it emphasized to me that pain really is individual to each person. I suppose that was the big thing really with it. And that pain is not just physical pain (Team Member 4, Facility B).

It made us all aware that some of the residents aren't able to communicate how they're feeling pain. I thought that was very very important (Team Member 3, Facility C).

Barrett and Keeping (2005) argue that to engage in effective interprofessional collaboration, professionals must be aware of the roles and role boundaries of others. In section 7.3.1, I discussed the fact that boundary blurring between professional groups was not a requirement for the development of interprofessional collaboration, but that a growth in mutual understanding across professional boundaries was. The co-generation of knowledge within the team space was how this growth in understanding was achieved.

At Facility B, at the study's outset most team members, although confident in their own roles, were not well informed about the roles of others:

> *I didn't realise that the nursing staff monitored pain as much as they do, which they do* (Team Member 5, Facility B).

The externalisation step involved articulation of tacit knowledge within team meetings, in other words what people did within the facility, how they did it, and how they co-ordinated with others to do it. This led to learning about the perspectives of others.

> *So we all kind of got everyone's view on it, which you wouldn't think of it all before you see* (Team member 4, Facility B).

The learning gained at Facility B on roles was double loop in nature. It allowed team members to go beyond simply addressing a task by changing the system and allowed them to also engage in actions to change their attitudes and behaviour towards other professionals:

> *I didn't know that the care assistants were filling out forms. So that was good to know. So that means I can communicate better with the care assistants… Sometimes it was hard to know whether, you know, whether you were giving someone information, whether it was a bit over their head and if they fully took it on board… I would talk to them a bit more about the details of the patients more now compared to beforehand* (Team Member 5, Facility B).

A greater understanding of the perspectives of other professionals also allowed us to gain collaborative advantage by achieving goals impossible to achieve without a collaborative approach. In the development of a pain assessment tool at Facility B, for example, we went through several action research cycles of constructing, planning action, taking action and evaluating action. Each team member outlined what was 'essential', 'important' and 'desirable' in pain assessment tools for their own professional requirements and in doing so articulated their roles and role boundaries. As a result, even though we originally intended to choose and use an existing assessment

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tool, we discovered that no existing tool met the requirements of all professional groups and eventually, we created a tool which met the expectations of all professions. Gaining this insight and the creation of a tool suitable for all partners could not have occurred without the involvement of all the professional groups.

A greater understanding of the roles of others has been commonly reported as an outcome of interprofessional collaboration (Makowsky et al. 2009) as well as an antecedent to collaboration (Oandasan et al. 2006). During this study, its growth was part of the team development process at Facility B. An understanding of other professionals roles grew as the team at Facility B developed and matured. It was associated with the growth of team psychological safety:

> *I think there was a lot of respect and I think that by the end of it there was probably more respect because we understood our roles better within the group. So for that reason I think there was more respect* (Team Member 4, Facility B).

A sense of team psychological safety allowed team members to feel secure enough within meetings to externalise their tacit knowledge which allowed other team members to engage in learning by constructing their own meaning from it. This led to a greater understanding of each other's roles. The greater understanding fed into the development of team psychological safety, as evidenced by the comment above, with the growth of one positively impacting on the growth of the other. This facilitated the evolution of the multiprofessional team at Facility B into an interprofessional team.

In contrast, at Facility C, there was limited team psychological safety and limited learning about roles, either one's own or others. Confidence in one's role has been shown to be important in interprofessional collaboration as healthcare providers who possess this confidence embrace more easily the flexibility required to work across professional boundaries (Molyneaux 2001, Barrett and Keeping 2005). Yet, discussions during team meetings revealed some confusion about roles and role boundaries at Facility C which were never fully resolved. For example, each of the nurses in discussions on the GP out-of-hours service had different expectations of what was expected of her and what was expected of the GPs highlighting confusion on role boundaries. Discussions opened up explorations of roles, and team members were forced to re-assess their own role boundaries. However, this process was never followed through to achieve change and some confusion on the roles of others was still present by the end of the study, highlighting low levels of double loop learning (Argyris and Schön

1974). Only two team members reported that their experience on the team had improved their knowledge of the roles of others on the team.

Learning in teams does not necessarily happen spontaneously but must be facilitated by creating an atmosphere where learning is supported (Barr et al. 2005). Since team psychological safety was low at Facility C until late in the team development process, externalising knowledge to share it across professional boundaries was also low.

7.3.3.3 THE COMBINATION PROCESS IN THE CO-GENERATION OF KNOWLEDGE

Combination occurs when explicit knowledge from within or outside an organisation is "combined, edited, or processed to form more complex and systematic explicit knowledge" (Nonaka and Toyama 2003 p.5). This new knowledge is disseminated throughout the organisation.

In study 1, the importance of paying attention to care provider preferences for human, easily accessible information sources was brought to light. Accordingly, my role on the team was to bring research information from outside the organisation into the team space. In doing so, I undertook the information gatekeeping role of boundary spanner. This shows how the concept of boundary spanning discussed in chapter 2 can be utilised to enrich organisation knowledge creation theory.

Other team members also undertook similar boundary spanning activities. In the development of the hip replacement booklet at Facility B and the pain information booklets at Facility C, for example, physiotherapists on both teams accessed research information and books to provide descriptions of appropriate exercises for the booklets. Additionally, there were instances where we required feedback from those outside the team. Team members engaged in boundary spanning across the team boundary by actively seeking out individuals and seeking their input. At Facility C this was particularly important as we did not have associated care providers on the team. It must be acknowledged that we were not always effective in this endeavour. We found it difficult, for example, to gain GP feedback on the new policy documentation for the GP out-of-hours service as only a limited number of GPs visited the facility and these visits were focused on care issues with individual patients rather than facility-wide policy. This made it difficult for staff to feel comfortable engaging them in in-depth discussions on the policy documentation.

Explicit knowledge in the form of research information, as well as the externalised tacit knowledge of team members from the different professional groups externalised during discussions, was co-constructed into new knowledge, exemplifying combination as outlined by Nonaka and Toyama (2003). This knowledge could be made explicit by codifying it, as in the case of a hip replacement information booklet and pain assessment tool at Facility B, and new policy documentation and a pain information booklet at Facility C. These codified forms of explicit knowledge can be viewed as boundary objects. A boundary object is an artefact which can be used to cross boundaries (Heldal 2010). Carlile (2002) defines a number of standards for effective boundary objects. First, an effective boundary object "establishes a shared syntax or language for individuals to represent their knowledge" (Carlile 2002 p.451). The boundary objects produced by the teams were produced together and accordingly, represented explicit and tacit knowledge from each profession evaluated by all professional groups within the team. They were modified several times to ensure that the language was understandable across those professions. The booklets and policy documents represented the co-generated, shared knowledge of team members and the pain assessment tool went a step further. Rather than simply representing shared knowledge, it also it served as an object which allowed for ongoing, dynamic co-generation of knowledge as care providers used it to share pain assessments and comments about residents' pain across professional boundaries.

Secondly, an effective boundary object "provides a concrete means for individuals to specify and learn about their differences and dependencies across a given boundary" (Carlile 2002 p.452). Information about professional roles and responsibilities was included in policy documentation and information booklets, creating the potential across the facilities for all professionals to gain insight into the roles of others. Additionally, in producing these boundary objects, we externalised tacit knowledge within the team space and as a result, team members progressively learned more about roles of other professionals. This learning gained in early cycles of action research allowed us to take advantage of the expertise of team members in subsequent cycles. For example due to earlier discussions, we were aware of where to seek relevant knowledge when designing the information booklet about recovery from hip replacement surgery at Facility B. This is an example of what Nijstad (2009 p.55) describes as a transactive memory system where "team members may not have certain knowledge or skills but they do know which other members have it".

Thirdly, an effective boundary object "facilitates a process where individuals can jointly transform their knowledge" (Carlile 2002 p.452). In combining tacit knowledge and explicit research knowledge, team members became aware of the need for routine pain assessment to overcome some of the barriers to managing pain effectively in residential care (Ersek and Pronovost 2004, McDonald 2009). The creation of the policy documents and information booklets also resulted in learning for all team members as individual pieces of knowledge, both tacit and explicit, were combined into a cohesive whole from which they could learn. Team Member 9 at Facility B summed up the development of a booklet as: *teamwork to achieve a goal* and the end product was comprised of a harmonious combination of different professional voices.

The production of the boundary objects described above resulted in team learning becoming embedded in organisational practices, but this was not the only knowledge created within the team space to achieve this. Team members at Facility B were also involved in setting up a family support group and a pain training session, neither of which resulted in documenting the explicit knowledge created by the team. This new co-constructed knowledge was instead made explicit outside the team space through boundary spanning activities of team members across the team boundaries. These activities included task co-ordination (Marrone 2010), where team members spoke with family members and the MD in order to set up the family support group, and information gatekeeping (Miles 1980) where team members passed the knowledge co-generated within the team to the MD. This indicates that the combination step of knowledge creation may result in the production of boundary objects, but does not have to.

7.3.3.4 THE INTERNALISATION PROCESS IN THE CO-GENERATION OF KNOWLEDGE

Teams can have an impact on organisations (Coghlan and Rashford 2010). The spiral of four processes of knowledge co-generation culminates in tacit knowledge created within the team space being converted to explicit knowledge that can be utilised by many. The internalisation step is when this occurs and is the process where explicit knowledge becomes tacit knowledge through the actions of using it in practice.

Team members recognised the value of knowledge combination and in interviews after the action research cycles had ended, they highlighted efforts on their part to continue to collaborate in providing care:

The other big thing which we are working on this year, we only had the meeting yesterday and again it's another subcommittee, is the one thing we realized from doing this that we had a pain assessment tool, but it was for cognitively intact, but [the physiotherapists] weren't even aware that we had that. Do you remember, that came up in an early meeting? And we would have falls risk, and again the physios didn't even know we had these, and they were repeating their falls risk and things like that. So we felt between us, we were all working our own areas but there was no interlink. So what we are looking at this year is creating a resident file so it's a multiprofessional integrated file (Team Member 4, Facility B).

The comment highlights the double-loop learning (Argyris and Schön 1974) at a facility level through team activities.

Similarly, to take the pain assessment tool within Facility B as an example, the adoption of the tool meant that all staff and associated care providers had access to the results of pain assessments from all professional groups to inform and potentially improve their decision-making:

I think our pain management is great now that's what I think. Because we have the normal tool now and the cognitively impaired tool and there's nothing we can't deal with. I think really, kind of, going back to the practice that they were doing a few months before, that communication has improved, that everyone thinks that. I think the pain management is good. The healthcare assistants usually report now if they find any changes. Because we record their pain they will automatically report, I find (Team Member 3, Facility B).

There might be nothing obvious on a day to day basis, but from this month's to next month's review there could be a huge change [in pain levels], whereas on a day to day basis it could be mixed, you mightn't notice it. But like if you were scoring low this month and next month you were gone up a couple of points, there's obviously something there within the month because not everything is just that obvious sometimes. So in that respect it has been helpful (Team Member 4, Facility B).

Previously, pain assessment results were almost never shared between professional groups but this changed on introduction of the tool:

All people working are now equally responsible for assessing pain and reporting it (Team Member 3).

This represented both single-loop and double-loop learning (Argyris and Schön 1974) as not only did care providers develop a strategy to address a problem, but the issue was discussed and reflected on through several iterations of action research cycles. During

the cycles, all staff had an input into the evaluation of a number of pain assessment tools in their particular context and discussed the value of sharing a tool between professional groups. This resulted in a change in attitudes and behaviours as evidenced by the comment above.

Pre-intervention interviews with residents had revealed the enormous amount of trust placed in care providers by residents:

> ***So you would always tell somebody if you are in pain?*** **(Interviewer)**
> *Oh dear God, there's no need telling them, they'd know it* (Resident 2, Facility B).

By the end of the action research cycles, the increased discussion about the assessment tool as well as its introduction into routine practice meant that care providers appeared better able to live up to these expectations.

Other double-loop learning also occurred. There was knowledge externalised and combined within the team space through discussion and reflection which was not used to address team goals. Some of this knowledge was transferred from the team to the organisation by team members and internalised across the organisation. Difficulties with the use of profession-specific language in the facility, for example, were identified during team meetings and addressed:

> *[The physiotherapists] obviously have their own terms, it was hard for us to understand a lot of their notes. So they have gone through that with us as well and are more conscious of their notes now as well so we both have benefited from it and ultimately the residents will benefit from it* (Team Member 4).

Team members at Facility B also reported that as a result of the study, communication between associated care providers and staff changed in other ways also. The CCM was referred to as the: *central point of all communication here* (Team Member 9). Before the study communication between associated care providers and staff about residents went through the CCM or in her absence the MD or head nurse. As a result of externalisation of knowledge within the team, there was a growing awareness of each other's roles. Accordingly, communication underwent changes and no longer occurred exclusively through the CCM as highlighted by the physiotherapist in a comment on communication with care assistants and nurses at the facility:

> *What they do now is communicate more, say in regard to the ability of somebody to walk or mobilise, what the level of mobility was. They might say oh, Joe blogs*

he was very good now the last few days or he hasn't been walking at all the last week.

Colón-Emeric et al. (2006) report that this type of opening up in communication at residential care facilities for older people results in better care for residents as it affords the opportunity for the introduction of more perspectives on resident issues and accordingly more creativity in decision-making. It offers an example of double-loop learning (Argyris and Schön 1974) as a result of knowledge creation within the team, as rather than simply creating a strategy to address an issue, providers changed their attitudes and their behaviour towards others.

At Facility C, internalisation within the facility of the new knowledge created within the team was limited. Although we tried to implement system changes at Facility C, by attempting to initiate regular medication reviews and develop a communication protocol and policy for the GP out-of-hours service, we were not successful in either endeavour. Even within team meetings, despite externalisation of tacit knowledge by some professional groups, by the end of the study there was still some confusion within the team about both protocols. Furthermore, internalisation had not occurred within the facility as team members reported that staff at the facility were still unaware of the existence of the new policies. The action research cycles contributed to team learning in a small way as individuals noted that the initiative made them aware that they were not well informed on policy at the facility and highlighted to them that this gap needed to be addressed. However, this learning only represented single-loop learning (Argyris and Schön 1974) as team members had merely identified a gap and designed solutions to address the issues but had not undergone any changes in attitude or behaviour.

7.3.3.5 QUANTIFYING CHANGES IN KNOWLEDGE AND ATTITUDES

Setting clear goals and direction empowers a team and has been strongly linked to team effectiveness (Hackman 1990, West et al. 1998, Bierly et al. 2009). Yet in an environment of shared decision-making it can be difficult to achieve this. My action research approach influenced as it was by the work of the pragmatists, Peirce in particular, emphasised participation. Making changes in pain management practices was the initial focus of the action side of my action research approach and this guided how I designed my data gathering activities. However, due to my focus on participation and as a result, on sharing power and sharing decisions, team goals shifted and broadened to take account of team member's interests:

The goals were evolving as we went along. Because the goals started as trying to optimise the pain management and it ended not quite being about that but it had evolved into something else. Which I don't think is a bad thing so and the goals were very clearly defined at the start but then the more we discussed it, the more it became something else (Team Member 9, Facility B)

As highlighted in the above comment, there was a shift away from team goals which were simply related to physical pain. This shift was exciting in that it demonstrated growing interprofessional teamworking skills within the team. Team members took advantage of the multiprofessional nature of the team to identify and address issues that required the input of several professions. Nonetheless, the shift was also challenging because even though the pre-intervention and post-intervention questionnaires were designed to measure changes in knowledge and attitudes on pain, this was not a primary focus of either team. Consequently, it became difficult to quantify changes precipitated by the teams within the facilities. This was highlighted when the results of pre and post-intervention questionnaires were compared.

The questionnaires, adapted from Ferrell and McCaffery (2000), gauged knowledge and attitudes about pain. The questionnaire is provided in Appendix E. It was given to all staff and associated care providers at the facilities before and after the pain management intervention. At Facility B, the response rate was 43% ($n = 22$) for pre-intervention questionnaires and 41% ($n = 21$) for post-intervention questionnaires. The mean percentage score on the questionnaire before the intervention was 75.2% (SD = 11.0), while the mean score after the intervention was 76.7% (SD = 10.1). A t-test showed no significant difference in the mean scores ($p>0.05$). At Facility C, the response rate for pre-intervention questionnaires was 60% ($n = 15$) and the mean score was 71.7% (SD = 13.9) while the response rate for post-intervention questionnaires was low at 22%, ($n = 5$) and the mean score was 70.8% (SD = 5.5). A t-test indicated no improvement in knowledge about pain facility-wide ($p>0.05$).

7.3.3.6 DID KNOWLEDGE CO-GENERATION CREATE COLLABORATIVE ADVANTAGE?

Huxham (2003) notes that one of the reasons individuals engage in collaboration is to gain collaborative advantage. To gain this advantage, "something has to be achieved that could not have been attained by the [participants] acting alone" (Huxham 2003 p.403). The knowledge co-generation process within the teams at both facilities highlighted the potential power of interprofessional teamwork. Rather than knowledge simply being shared, it was transformed into something from which all team members

could learn. Nonetheless, even with the creation of such knowledge within the team at Facility C through a process of externalisation and creation, the team were generally unsuccessful at disseminating it across the organisation to promote organisational change. Bar a few individuals on the team internalised this new knowledge, it cannot be said that we gained collaborative advantage since the emphasis in Huxham's (2003) definition is on achievement rather than simply on creation.

In contrast, at Facility B we co-generated new knowledge which resulted in changes within the organisation, gaining collaborative advantage and highlighting the benefits of interprofessional collaboration. The new knowledge, consisting as it did of a co-generated combination of tacit knowing from each professional group, as well as explicit information from research databases and books provided by each group, could not have been created by an individual or one professional group alone. The successful dissemination of co-generated knowledge across the organisation, in some cases using boundary objects, ensured that it became embedded in organisation-wide practices.

7.4 SUMMARY

Gaventa (2006 p.26) defines participation as "not only the right to participate effectively in a given space but the right to define and shape that space". If a multiprofessional team passes through stages of development to become an interprofessional team, there is an opportunity to do this. The central argument of this thesis as outlined in my initial theoretical framework, is that one cannot simply put an number of professionals together and consider it an interprofessional team. Instead, a group needs to go through a process of development and transformation and if it this process is successful, a number of interprofessional team characteristics emerge.

In this chapter I outlined the stages of team development at Facilities B and C. I discussed team development utilising Tuckman's (1965) model in recognition that this model can only be used to look at team development in a generic sense. I went on to discuss the development of characteristics important in interprofessional team development such as understanding the roles of other team members, sharing decision-making and mutual trust. Based on the results of the study, I categorised the characteristics thematically into team psychological safety, shared power and co-generation of knowledge. I argued for the importance of team psychological safety as a

catalyst in the development of shared power and co-generation of knowledge and outlined the interrelated nature of the development of all three.

Comparing interprofessional team development at both facilities in this chapter revealed a very different picture at each. At Facility B, the team members stated that by the end of the study, the team had become an interprofessional team. Team members shared power, shared decision-making, shared knowledge, co-generated new knowledge, learned about each other's roles, had confidence in their own role, dealt with conflict, communicated effectively and developed team psychological safety within the team. Additionally, they developed shared goals and achieved most of them. At Facility C, we only achieved interprofessional teamwork to a limited extent and our success in achieving our goals was limited. There was some growth in team psychological safety, some empowerment, some small knowledge gained about the roles of others, evidence of shared decision-making and a sharing of professional knowledge. However, team members were still mostly uncertain of each other's roles by the end of the study, still experiencing uncertainty about their own role boundaries and power-sharing was limited.

In the following chapter, I discuss the forces at work on the teams which impacted on their success or failure.

CHAPTER 8 - FORCES THAT IMPACTED ON THE DEVELOPMENT OF THE MULTIPROFESSIONAL TEAMS INTO INTERPROFESSIONAL ONES

8.1 INTRODUCTION TO THE CHAPTER

In facilities B and C there were forces influencing the effectiveness of each team in achieving its goals as well as promoting or restraining the development of interprofessional teamwork. I have already discussed some of these forces as they impacted on specific elements of team development, such as the impact of changing team membership on the development of team psychological safety and the influence of professional status on initial levels of team psychological safety. In this chapter I discuss other forces that impacted on the team development process.

There is an interdependency between individuals, teams, interdepartmental groups, an organisation and the external environment (Coghlan and Rashford 2006). Rather than examining team processes alone, it is important to examine teams within their social-cultural context as elements at an organisational level, such as established patterns of interaction, and environmental level, such as government policy, can impact on team processes (Zucker 1987, Tajfel 1982b, Perlow et al. 2004). Yet, contextual elements are often ignored in studies on healthcare teams (Lemieux-Charles et al. 2006).

In this chapter I first examine forces internal to the team, by exploring the activities of boundary spanners and the impact of team leadership. I continue with a discussion of the forces external to the teams, including the behaviour of managers, organisational culture and market and institutional forces.

8.2 THE INFLUENCE OF BOUNDARY SPANNERS ON THE DEVELOPMENT PROCESS

Boundary spanning is a means by which group practices can be shaped by the organisational environment and conversely, organisational practices can be shaped by group interactions. In the context of this study, boundary spanners between the multiprofessional team and the other care providers at each facility played a vital role in the transmission of new group knowledge into the organisation. They undertook boundary spanning activities outlined as by Marrone (2010) including representing the

team within the facility, transferring knowledge from the team space to the facility and co-ordinating team tasks.

At the outset of the study, with the help of the MDs, I identified a key individual within each facility to partner with me as an internal change agent. In Facility B, this was the CCM and in Facility C it was the health and safety officer. Initially their role was to act as a representative of the organisation in discussions with me and as a representative of the pain management initiative in discussions with other staff at the facility. They also championed the initiative. Champions are regarded as important components in change management efforts (Greenhalgh et al. 2004). As proved true at Facility A, setting up the initiative without them would have been impossible.

When the team meetings began, the role of the internal change agents expanded from representation to include task co-ordination as outlined by the health and safety officer at Facility C:

> ***And what do you think your role was in the pain management project?***
> *Maybe the communication between the members of the team and to do the paperwork. And maybe, well obviously, a failed person (laughs) to get things implemented. Maybe the contacts for the physicians along with the nurses as well and to contact the senior management in the nursing home.*

At both facilities the internal change agents acted as primary boundary spanners and co-ordinated tasks in the periods between team meetings. They followed up with team-members to see if assigned tasks had been carried out and to co-ordinate the work between various individuals.

They also engaged in information gatekeeping activities. As information gatekeepers they brought information into the team space, such as policy documentation and HIQA standards. They could identify themselves as both members of management and members of our multiprofessional team, which is a common feature of boundary spanners (Friedman and Podolny 1992). As representatives of the team, they spoke to staff and management about team activities. They also introduced the boundary objects produced during the co-ordination process of knowledge creation described in section 7.3.3.3. to managers and to staff at the facilities. As representatives of management they provided management perspectives at meetings. It has been commonly reported that this dual role can cause stress because of the difficulties of satisfying both groups (Friedman and Podolny 1992). This phenomenon was not reported by either individual.

The health and safety officer at Facility C left the facility halfway through the action research cycles. I was unable to find anyone to take over all her boundary spanning activities lending credence to Levina and Vaast's (2005) suggestion that boundary spanners must have the ability and inclination to span boundaries. One of the nurses took responsibility for organising the meetings at the facility and organising task management between meetings. Unlike the health and safety officer, she did not undertake the representation activities by distributing information about the initiative across the facility. Nor were these boundary spanning activities undertaken by any other team member with the result that other staff were unaware of team activities:

> *I do not discuss with the others, the details of what is going on in here. And if [name of other nurse] asked what happened, I'd say, just read it in there. I have no real time to, I wanted to but (pause)*

> **So what we talk about stops here apart from the tasks that you are doing, but communication isn't going further?**

> *I'll be honest with you yes. All that is in my mind is what I have to catch up with on the floor. What I didn't do and what I need to do…… the others don't know what we are doing, they don't even know you. So one or two attending and the others not, it's tough for those who are attending to tell them about it. Time is a problem you know* (Team Member 9).

The health and safety officer in a post intervention interview stated that if other team members had also undertaken boundary spanning activities we may have had more success. Nevertheless, she acknowledged the difficulty in attempting to co-ordinate with management in improving care when there is no reciprocal interest:

> *[The other team members] never chased up, they never asked [CCM Y] about the forms or they never really asked her about the medical review or anything like that. Maybe they felt as well, that she wasn't interested in it because she never attended the meetings you see.*

We co-generated knowledge within the team, but efforts to transfer this knowledge to the rest of the organisation were minimal. When I explored this issue with team members they emphasised repeatedly that they did not have time to engage in boundary spanning activities. They offered alternative suggestions which revolved around eliminating the need for boundary spanning activities on their part, suggesting that they found themselves unwilling or unable to take on this role:

__Is there any solution to that, the time and communication issue?__
Maybe arrange, to communicate the ideas, try to pass all the ideas to the staff so they could get an idea. Maybe a general meeting (Team Member 11, Facility C).

Efficient boundary spanning proved significant in allowing the teams to achieve team goals. At Facility B, knowledge from the group was successfully channelled to the staff and management at the facility and as a result, changes in systems and interpersonal interactions occurred outside the group. At Facility C this only occurred to a limited extent. This points to a need within teams aiming for interprofessional collaboration for effective boundary spanners, able and willing to take on the role.

8.3 THE IMPACT OF TEAM LEADERSHIP ON THE DEVELOPMENT OF INTERPROFESSIONAL COLLABORATION

I have argued that the development of team psychological safety was essential to the development of interprofessional collaboration but I did not come across the construct of team psychological safety until after the cycles of action research were complete. Despite being unaware of the existence of the construct in the literature, I was striving to achieve it in all team meetings. This was because my action research approach was influenced by the works of the pragmatists Peirce and Dewey and the action researchers Reason, Bradbury, Fals Borda, Park, Greenwood and Levin who strongly advocate for the importance of the participative and co-operative element of action research. A feature of this participation and co-operation is the creation of "spaces for collective reflection" (Greenwood and Levin 2007 p.73). In striving to create this type of space, I was essentially aiming for team psychological safety within team meetings. This was important because how a team is led can impact on trust within teams and team psychological safety (Nembhard and Edmondson 2006, Schaubroeck et al. 2011). Team leadership is of particular importance in teams made up of diverse professionals. Uncertainty and heterogeneity can lead to higher innovation but can also have a higher risk of failing to achieve tasks. The leader's skills in dealing with this can influence a team's effectiveness (Hackman 1990).

Despite an abundance of theories of what constitutes trust, evidence on how to develop it within teams is inconclusive (McKnight et al. 1998, Huxham and Vangen 2000). There are a number of suggestions in the literature. Gardner (2005), for example, suggests that in multiprofessional healthcare teams, opportunities to communicate as

well as opportunities to provide expertise are essential in developing trust while Jones (2007) argues that developing mutual respect is a key step. Like the development of trust, there are no definitive rules on developing a psychologically safe inclusive team environment, but team leaders have an important role to play (Wong, 2010). It has been demonstrated that in teams where team leaders are accessible and encourage the input of all team members, team psychological safety is higher (Nembhard and Edmondson 2006, Faraj and Yan 2009). The attitude of team leaders to mistakes is also influential. Leaders who lead by example by acknowledging their own mistakes, and who ensure that well-intentioned mistakes are not punished, facilitate the development of team psychological safety (Edmondson 2003, Nembhard and Edmondson 2006, Edmondson and Nembhard 2009). Team leaders can also take an active role in establishing an atmosphere of team psychological safety by downplaying power differences and making a persuasive enough case for change that individuals are willing to take the risk to speak up (Edmondson et al. 2001, Edmondson 2003). Emphasising mutual respect, using positive language, developing an understanding of each other roles, recognising and celebrating progress, encouraging active listening and providing constructive feedback to team members have also been highlighted as important in the creation of a safe space (West et al. 2006, Koch and Kralik 2006, Faraj and Yan 2009, Bunderson and Bourngarden 2010).

During team meetings, I modelled respect, positive and constructive feedback, active listening and positive language. Additionally, I requested input from all team members during discussions and decision-making. Consequently, by endeavouring to create a space where team members could engage in collective reflection, I was facilitating the creation of team psychological safety. Nevertheless, a similar approach in Facilities B and C produced very different results. Team psychological safety became a feature of team meetings early in cycles of action research at Facility B but late at Facility C. Team members from every profession at Facility B felt that their team had become an interprofessional team by the end of the study while team members at Facility C did not. Although previous research has shown that different disciplines can rate team effectiveness differently (Lemieux-Charles and McGuire 2006) this was not a characteristic of this study. Facility B team members felt that they had, for the most part, achieved the goals they set themselves while in team members in Facility C felt that they had not. This gives credence to the assertion that no one approach fits all

(West 1996) and highlights the driving and restraining forces at work in team development at the facilities, as highlighted by a team member at Facility C (emphasis mine):

> *I think it worked as good as it could **in the circumstances*** (Team Member 12, Facility C).

Collaboration in health and social care often fails because of forces from the wider organisational context (Dickinson and Glasby 2010). At Facility C in particular we felt the impact of external forces. These are described in the following sections.

8.4 THE INFLUENCE OF THE BEHAVIOUR OF MANAGERS

Management support is very important and without it team building is difficult (West 1996, Ovretveit et al. 2002, Lemieux-Charles and McGuire 2006). Management support differed across the facilities in the study. In chapter 6, I identified the importance of this support in the creation of the multiprofessional teams. In this section, I discuss the impact of management support on the teams' ability to achieve their goals and work collaboratively together.

The management structures at both facilities were constructed as illustrated in Figure 15. At Facility B the CCM was on the change management team and at Facility C the CCM was invited to become a team member but did not attend any meetings.
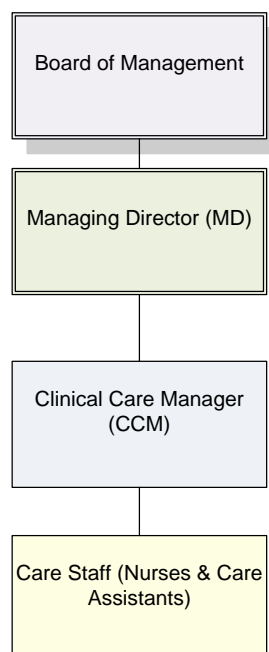
FIGURE 15: MANAGEMENT STRUCTURE

Two factors fundamentally impacted on the ability of the teams to engage in both teamwork and taskwork activities. These were the behaviour of the managers towards the team and the power distribution between the team and management. The teams did not interact directly with the board of management so I begin by discussing interactions with the CCM and MD at Facility C and the MD at Facility B.

As outlined in chapter 3, power distributions can be examined using the power cube developed by Gaventa and colleagues (Veneklasen and Miller 2002, Gaventa 2003, 2006, 2011). Power is envisioned on three dimensions, namely spaces, levels and forms. To discuss the *spaces* dimension first; within this dimension, decisions are viewed as occurring in social spaces which exist on a continuum from open, which are inclusive spaces, to closed, which are exclusive. These spaces have boundaries, often shaped by the power relationships within and around them as these power relationships define who the spaces contain and what those within them can do (Gaventa 2011). The multiprofessional team meetings created a space within which decisions could be made. I created this space in consultation with managers at each facility. Staff and associated care providers were invited to engage in the space. Accordingly it was created according to Gaventa's (2006) definition an invited space. This is a space where those with power invite others to make consultative decisions.

Decisions in the team space were made with the goal of effecting change, and to effect change, a team must have the power to take actions on decisions. Gaventa (2011) notes that for this to occur there must be support from outside the space. At Facility B the MD was generally supportive of team decisions. At Facility C as the study progressed, it became increasingly difficult to garner management support due to changes in the individuals in the roles of CCM and MD. When I approached the facility initially, CCM X was the CCM. By the time the action research cycles began CCM Y was in place and in the final month of action research cycles, she was replaced by CCM Z. Although not outwardly hostile to the study, CCM Y did show much interest in it. CCM Z was hostile and dismissive in discussions about the project. From the team's perspective she appeared to be actively unsupportive and refused to implement the medication review guideline we had developed, choosing instead to develop one of her own. The reaction of CCM Z is common in situations where managers see change initiatives as a challenge to their authority (Cummings and Worley 2001). In addition to turnover in the CCM position, the MD was replaced by a second MD in the middle of the action research

cycles. She was viewed by the staff as less approachable. They reported that she informed staff that any concerns they had should be relayed to her by the CCM.

In post-intervention evaluation at Facility C, most team members offered a lack of commitment on the part of management as one of the main reasons for the team's lack of success in achieving goals:

> *I think that if it was another time and there another person in charge, or if [CCM Y] had got more involved, I think it would have worked to be quite honest. I think we needed that commitment from the higher management level, the commitment that wasn't there from the start from her point of view. Because she never attended any of the meetings and she never really asked about what was going on and she never really replied to any of the e-mails or anything and as far as I know she didn't really get involved in the training aspect of it either. She was always: I'll talk to you about it again or something like that. So I think that was the main failure, was that there was no commitment there from management level on [CCM Y]'s side* (Team Member 3, Facility C).

Power created in one space can be exercised in another space (Gaventa 2003) and Coghlan and Rashford (2006) note that the presence of key individuals on a team can empower the team. As highlighted by the comment above, by refusing to engage in activities within the team space at Facility C, the CCMs did not allow their power to be utilised by the team. In contrast, the presence of the CCM at Facility B on the team endowed the team with power to act.

The increasing lack of support from managers at Facility C was occurring concurrently with changes in the types of spaces utilised for decision-making within the facility at large. When I had conversations with staff in the pre-step, they reported that they were often invited into decision-making spaces to make consultative decisions with management. We know that spaces can open and close (Gaventa 2011) and as the changes in managers occurred, staff reported that managers were making more and more decisions without staff input. The spaces for decision-making were closing:

Spaces
Closing

> *When CCM X was here, it was more of a group decision. Everyone was, all members of staff, the carers or nurses were asked about how they felt* (Team Member 3, Facility C, commenting on CCM X).

> *She said she wanted it done her way. We couldn't do anything about it so that was it* (Team Member 3, Facility C, commenting on CCM Y).

> *She does not give me the freedom to be a decision maker. She is always beside me to tell me, to dictate to me* (Team Member 9, Facility C, commenting on CCM Z).

In contrast, it emerged from talking with staff at Facility B, that consultation with them by management on decisions was common, as highlighted by a comment by a team member:

> *Whatever I say [name of MD] would always listen…..not everything will be accepted by her but that's understandable because she is the boss* (Team Member 11, Facility B).

Many of the spaces for decision-making on day-to-day care were invited spaces where management invited staff to make decisions with them, rather than closed spaces from which managers made decisions and expected staff to implement them.

Levels in the power cube are the different layers within which power can be seen (Gaventa 2006). The levels of interest in the context of this study were the team level and the organisational level. It has been argued that attempts at change should occur at more than one level (Gaventa and Mayo 2009, Icaza et al. 2009). Hence, Gaventa (2011) argues, alliances must be built across the levels to ensure that change is relevant at all levels. This can be done through boundary spanning. Individuals are more likely to engage in boundary spanning activity across levels in organisations with supportive and consultative management styles and less likely in organisations with authoritarian managers (Ernst and Chrobot-Mason 2011). This appeared true at Facility B and C.

At Facility B, the CCM was on the team. By spanning the boundary between management and the team, she ensured that the team had the power to act on decisions. Ratification by the MD was sometimes required but if requested, was given without delay. At Facility C the team did not have the autonomy or power to make and follow through on decisions. We had to engage in boundary spanning activities to address this lack of power. These boundary spanning activities involved representing the team, gaining support and obtaining feedback. We were generally unsuccessful in these endeavours. When CCM Y was in place, for example, the team worked to bring a number of initiatives to near completion. She did not invest us with the power to take action on those decisions without her ratification, and progress on these initiatives generally stalled when her input was required:

> *She was not behind the project. When things would go as far as her they would kind of go no further* (Team Member 11, Facility C).

Boundary spanning to achieve support for team activities from CCM Z was also unsuccessful as highlighted by an extract from my field notes:

> *I spoke to [CCM Z] a few times about the study and let her know what we've done that needs to be signed off on and she was completely dismissive and negative. She seemed very defensive. [Team Member 9] and [Team Member 11] spoke to her too and got the same reaction* (Field notes, May 2010).

Paradoxically, in teams operating with authoritarian management, effective boundary spanning is essential since engagement with management in order to gain approval for team decisions is required. This is particularly important in multiprofessional teams which can have difficulty realising their potential without strong management support (Webber 2002). Within the team space at Facility C most team members engaged in decision-making, but the lack of support from the CCMs at Facility C made it very difficult to ensure that the knowledge created within the team space was put into use within the facility.

Visible, invisible and hidden are *Types* of power in the power cube. Visible forms of power are exercised where all can see, such as decision-making on resident care that took place openly at each facility. Hidden forms of power are exercised by those with more power to exclude others from decision-making by, for example, closing the spaces for participation, as occurred at Facility C. In hidden power individuals are either unaware of their powerlessness or can express unhappiness with the status quo (Hofstede 1997). The latter was true at Facility C where team members at the meetings reported their own unhappiness at the way the CCMs were exercising their power:

> *I'll be honest with you, I'm not happy with it. Because previously I could work alone, I could decide, now [my decision making] is kind of suppressed and I'm not happy with it* (Team Member 9, Facility C, commenting on CCM Z).

Additionally, several staff members left the facility and the two that I knew informed me it was because of the management style of the new managers.

Due to the lack of management support at Facility C for the study, team members began to express doubts that managers were open to their efforts and that the teams could operate as envisioned and could reach their goals. They expressed frustration that their work was not being acknowledged or supported by management:

It was frustrating in a way because we put so much effort and everything into it and just, not ignored, but just no acknowledgement of it (Team Member 3, Facility C).

Enthusiasm waned among many team members, including myself, as recorded in a field notes entry:

It's frustrating to now have to deal with a new care manager, although maybe that will be a good thing since [CCM Y] never got on board and anything that got as far as her just stalled there. The attitude of staff towards the project is great really but I've gotten tired of the uphill battle there and I'm glad it's nearly over. We spoke about the lack of management support at the meeting and everyone else was also tired of it and questioned the point of undertaking the project when we've failed at everything we've tried to achieve because of a lack of management support. The team expressed a hope we'll have better luck with the new care manager and the stalled initiatives will get off the ground. One team members pointed out that the booklets do not need management input so we should get on better with those (Field notes May 7th 2010).

The frustration palpable in the quote above demonstrates that the lack of management support had a negative impact on team development. Success in team endeavours leads to more positive interpersonal relations (Streufert and Streufert 1969) while teams who experience failure early tended to enter into a negative spiral of lack of achievement (Hackman 1990, Ericksen and Dyer 2002). Learned helplessness, where successive failures result in individuals believing that they are not capable of succeeding, can be a reason for the negative spiral (Reisel and Kopelman 1995). At Facility C we experienced regular setbacks in our attempts to introduce change and for my own part, I began to believe that we could not succeed. In contrast, at Facility B the team could depend on management support. Organisational change was easier to achieve as the CCM and MD advocated for the changes at the facility.

There is minimal research evidence on the type of organisational management conducive to the development of interprofessional collaboration (San Martin Rodriguez et al. 2005). There is some evidence to suggest that interprofessional collaboration is easier with organisational support (Bleakley et al. 2006, Oandasan et al. 2006) and that interprofessional collaboration is stifled in organisational environments which are dominated by inflexible bureaucracy (Howe 2006). At Facilities B and C management support, or lack thereof, impacted on both the teamwork and taskwork activity tracks during team development. The most obvious impact was on the teams' ability to address their tasks. This was highlighted by the fact that in Facility C, the initiative that required

the least boundary spanning with management, which was the development of booklets on pain and pain management, was the only initiative that was in any way successful. All others required feedback from management and stalled as a result. This finding adds to the limited literature the effect of management behaviour on interprofessional collaboration and suggests that management support is vital.

The link between management support and interprofessional teamwork is less obvious than the link between management support and taskwork. Nonetheless, it has been shown that attitudes of individual team members can impact on the development of interprofessional teamwork (Molyneaux 2001, Hall 2005). The extract from my field notes below highlights how a lack of management support negatively impacted on individual attitude towards interprofessional collaboration:

> *During the last meeting we spoke about where things would go from here. [Team Member 9] pointed out that at the same time as we had been trying to improve interprofessional working, relationships between the different professional groups was just getting worse in the facility. People were feeling overworked and stressed and relationships between the nurses and care assistants were suffering. She said that once I left, that things would go back to 'normal' and that no-one would try to do anything as a group. Instead the care manager would tell them what to do and they would do it. Other team members agreed* (Field notes, June 15th 2010).

The observation of Team Member 9 casts doubt on the value of developing interprofessional collaboration when it is unlikely to be sustainable and highlights the struggle in trying to impose change from the bottom-up with minimal management support.

The behaviour of the board of directors in each facility also impacted on the development of interprofessional collaboration. Constant reorganisation is disruptive for staff. It has been found to result in lower standards of care (Adams and Bond 2003) and to inhibit interprofessional collaboration (Clark et al. 2002, Kvarnström 2008). Pettigrew (2000) argues for the importance of zones of stability in the facilitation of successful change efforts. This may take the form of stable leadership with a coherent message supporting change, or stability in management personnel throughout change initiatives. Zones of stability were generally absent at Facility C, due to the termination by the board of the contracts of several managers. Team members suggested that the frequent turnover in management at Facility C was why the CCMs were less interested

in achieving organisational change at the facility, as their focus was on acclimatisation rather than improvement:

> *I think because every time they start to do something and next thing we learn oh there's another matron coming in. So it's tough* (Team Member 11).
> *So when some person comes he or she will learn everything and then he will move and somebody else will come* (Team Member 12).
> *It's all plan, plan, but there's never really implementation* (Team Member 11).
> *Because of lack of understanding* (Team Member 12).
> *Like this is my fourth year now* (Team Member 11).
> **And how many mangers have you had?**
> *Four. One, two, three, four, five. Its five now. She is the fifth person and this is my fourth year here* (Team Member 11).

In Facility B, although there was some staff turnover, the team could depend on a relatively stable environment as there were no changes in management during the course of the study nor had there been in the previous six years.

8.5 THE DUAL IMPACT OF MARKET FORCES AND INSTITUTIONAL FORCES ON THE TEAMS

Facilities B and C were both subject to institutional forces such as professional norms and government regulatory mechanisms (Bruton 2010) which dictated that in areas such as work practices and professional roles, the facilities resembled each other. During the course of the study, one institutional force emerged as particularly influential. This was the establishment of new standards for residential care by HIQA (2009), the regulatory agency given responsibility for enforcement.

Although many proponents of current institutional theory suggest that institutional forces create homogeneity within sectors (Battilana et al. 2009), it has been proposed that how individual organisations respond to institutional forces can in fact, result in very different organisational practices (Hofman 2001, Delmas and Toeffel 2008). There was a noticeable difference in attitudes towards the introduction of HIQA standards at Facility B as compared with Facility C, resulting in very different responses. At Facility B, the MD had taken account of the introduction of the standards and was proactive in ensuring that care at the facility was at a standard to meet them. Among staff, although there was recognition that introducing changes would take time and effort, the HIQA standards were generally regarded as positive for the residents and therefore something that should be adopted.

> *It will work well. It will be more forms initially but it will be much simpler and much more fluid* (Team Member 4, Facility B).

This positive attitude was summed up by the MD:

> *I'd no fear of HIQA, absolutely none and I think they're fantastic in the way that now we have a regulation body that will look at the person. The care delivery. The person themselves, the family. You know that's key.*

Staff within the facility did not consider the introduction of HIQA standards as having an impact on the study.

> ***Do you think it was good or bad having the pain project co-inciding with HIQA ?***
> *Do you know I never even thought of it that way….It didn't come into it, you know, I didn't think of it that way* (Team Member 4, Facility B).

The attitude at Facility C was different. Team members reported that management regarded the implementation of standards at the facility as a major undertaking. The response to their introduction was reactive, with management struggling to implement changes within the necessary timeframe. The changes required to adapt to HIQA standards meant that our attempts at change were not supported at management level as managers were focused on prioritising HIQA mandated changes:

> *Fire training [is planned] because HIQA said it, … so they are prioritising everything that HIQA wants slowly and little by little* (Team Member 9, Facility C).

As discussed in the previous section, lack of management support impacted on both teamwork and taskwork activities in the team development process. Ironically, because of the prioritisation process, if the HIQA standards had emphasised pain management to a greater extent, they would probably have acted as a driving rather than restraining force in interprofessional team development.

Alexander and D'Aunno (2003) argue that institutional forces are not the only external forces impacting on behaviour within organisations. Market forces must also be taken into account. Facilities B and C were both private facilities, and as such were susceptible to market forces including the downturn in the Irish economy that coincided with the study[6]. Organisational responses to these particular market forces impacted on the study.

At Facility B, market forces did not have an obvious impact on the study. Resident numbers were relatively stable throughout the course of the study with vacancies filled quickly. The CCM at the facility reported no negative effects of the downturn in the economy on the facility and staff expressed optimism about the future. The situation at Facility C was different. Staff outlined difficulties with a changing external environment. They discussed financial difficulties due to the effects of the economic downturn, while increasing competition in the area was leading to lower resident numbers:

> *We need more residents.*
> **How many residents are there now?**
> *Only 30 and there's 48 beds…We didn't used to have much competition but in this area now, so many nursing homes have come* (Team Member 11)

Organisations competing poorly must respond by initiating changes in how they operate in order to improve their competitiveness (D'Aunno et al. 2000). Organisational characteristics such as characteristics of managers and optimism of staff about adaptations have been shown to influence these responses (Bansal and Roth 2000, Tan and Tiong 2004, Darnall and Edwards 2006). Team members at Facility C were unaware of any active attempts by facility management to deal with external forces. For example, they stated that a marketing campaign was required in order to attempt to increase resident numbers but no such campaign was underway. They frequently expressed a lack of optimism about the future.

As Perlow et al. (2004) highlight, forces at external, organisational and team level can influence other levels. The market forces that impacted negatively on resident numbers triggered changes in work practices at the facility which in turn created practical difficulties for the team. A reduction in numbers of residents meant that there were less staff on every shift which in turn meant that it was difficult to get staff to attend team meetings. Moreover, it became impossible for a nurse and care assistant to attend the same meetings. As highlighted earlier, a constantly changing team membership made the development of team psychological safety difficult, which slowed the evolution of the multiprofessional team into an interprofessional one.

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[6] Economic growth in the Irish economy slowed in late 2007 and by 2008 the country was experiencing a recession which was still in progress when the study ended (Economic and Social Research Institute, 2010)

Team members noted that the focus of the board of management at Facility C was on profit margins:

> *At the end of the day it's all money. It's a business, yeah. At the end of the day that is all they are thinking* (Team member 4, Facility C).

It was difficult to persuade the CCMs of the value of the study which was focused on improving care for residents and development of interprofessional relationships but could not demonstrate any immediate and tangible financial benefits.

8.6 IMPACT OF ORGANISATIONAL CULTURE ON TEAM DEVELOPMENT

Although the impact of organisational culture on team effectiveness or interprofessional collaboration has not been extensively studied (San Martin Rodriguez 2005, Lemieux-Charles and McGuire 2006), several researchers have suggested that culture can have an effect (Ovretveit et al. 2002). At first glance Facility B and Facility C appeared to have similar cultures because they were similar at the level of espoused values and relatively similar at the level of artefacts as defined by Schein (1999). Artefacts are the "visible organisational structures and processes" (Schein 1999 p.16) and both facilities had relatively similar management structures, residents were housed in a similar manner, and both seemed to have similar work practices. Espoused values are the values stated in company documentation and policies and at both facilities, the emphasis was on patient-centred care which is defined by HIQA as care where staff are required to "encourage individuality and self-sufficiency, and promote the resident as an equal partner in his/her own care" (HIQA 2007 p32). Once I started working with staff in both facilities, it became clear that despite similarities at a superficial level, the cultures were actually quite different at the level of shared tacit assumptions.

Shared tacit assumptions are the taken-for-granted values, beliefs and assumptions that develop within organisations (Schein 1999). At Facility B patient-centred care was evident in the attitudes and behaviours of staff and residents. Resident involvement in care decisions was promoted and residents who were capable of looking after themselves were encouraged to do so:

> *We always encourage independence. If they can do things they will be the key person and we'll just help them, supervise things. But it depends on their condition* (Care Assistant, Facility B).

Their independence was also encouraged in other ways. They were encouraged to have visitors at any time and to engage in the numerous activities organised at the facility such as art classes, excursions and gardening.

At Facility C, patient-centred care was one of the espoused values and consequently, residents were encouraged to partner with care providers in their care. Nevertheless, as CCMs were replaced, each subsequent CCM was less involved with the residents. In the case of CCM Z, for example, she took two months to introduce herself to the residents. Similarly, the new MD had minimal contact with residents, unlike her predecessor who was involved in daily life at the facility. This suggests that later managers were less interested in espousing a person-centred culture, as they were not engaging with residents to request feedback on care provision. Additionally activities within the facility to encourage independence and improve quality of life were minimal with most residents spending their day in their rooms or in the sitting room watching television.

Previous research has shown that a person-centred culture is one amenable to collaboration (McMurray 2006) and organisational change (Kitson et al. 2002). Certainly we found at Facility B, that the only justification we needed to gain management support was that our efforts would improve care, as highlighted by a nurse at the facility:

> *If it is for the benefit of the residents then there won't be barriers [to making changes] because [name of MD] will normally encourage us to come up with ideas. So I don't think there are barriers.*

The possibility of improving care was not enough to garner management support from new management at Facility C. We found ourselves trying to gain this support by highlighting indirect benefits instead, such as the marketing potential of having the facility involved in the study, but were not successful.

Schein (1999 p.19) notes that organisational culture matters "because cultural elements determine…modes of operating". At Facility B, there was a sense of "dynamic imbalance" (Ghoshal and Bartlett 2000 p.218) analogous to Handy's (1985) 'climate of experiment' and Nonaka et al.'s (2000) 'creative chaos', within the facility and this type of culture is one which is conducive to change (Weick and Sutcliffe 2001, Hamer and Collinson 2003). This culture was manifested in practices within the organisation being constantly questioned and individuals given to power to make changes within an atmosphere of psychological safety.

We always try to make changes to improve the environment and improve the place here. That's why maybe we are one of the best nursing homes in Ireland. Because we don't stop in one place we try to move forward all the time. (Team Member 11, Facility B)

Consequently, the staff at Facility B were familiar with change and with being involved in decisions about change:

The ethos here is, everything really is sub committees and we trial it with staff, residents and relatives before anything is approved…and it's always worked for us and it's what we're used to doing so we wouldn't change that (Team Member 4, Facility B)

A similar climate was not present at Facility C. Changes were not common as highlighted by a comment by a team member:

Are things changing?
Based on HIQA there are some changes but that's all. That's all, otherwise everything is much the same (Team Member 11, Facility C).
Has it always been like this?
They have only started now. They have more training now only because of HIQA (Team Member 11, Facility C).

The findings of this support the assertion that changes are easier to make in organisations with a questioning culture as staff and management at Facility B were comfortable with the notion of change. It can also be postulated that the openness to improving care at Facility B made the development of interprofessional collaboration possible. The organisational culture meant that team members could be confident that they would not be censured for attempting to work in a new way. Within the culture at Facility C however, team members could not have this confidence. This resulted in their querying the point of developing interprofessional collaboration as outlined in section 7.4.3.

8.7 SUMMARY

Study results as outlined in chapter 7, which mostly focused on internal team processes, provided insights into the development of interprofessional collaboration. The development was promoted or hindered by various forces, some of which were internal to the team and some of which were a factor of the environment. These forces were explored in this chapter. Management support, or a lack thereof, proved particularly influential in hindering interprofessional team development at Facility C and advancing

it at Facility B. Other forces were market forces, institutional forces and the impact of team leadership.

The next chapter is my concluding chapter and in it I provide a model to conceptualise the various discussions in this chapter and the previous one.

CHAPTER 9: THE JOURNEY ENDS - DISCUSSION AND CONCLUSION

9.1 INTRODUCTION TO THE CHAPTER

In chapter 1, I outline how this thesis describes my research journey. In this, the concluding chapter, I draw together the different aspects of my explorations. The journey began with a pre-step study on research use in nursing practice which opened my eyes to the difficulties that exist in making practice changes in healthcare (chapter 3). I devised an action research approach based around developing interprofessional collaboration as a means of addressing some of these difficulties (chapter 5). To do this I drew on the literature on interprofessional collaboration (chapter 4) and organisational change (chapter 2). I approached three facilities in order to set up multiprofessional teams but was only successful at two facilities (chapter 6). At those facilities the teams undertook cycles of action research and learned, with varying degrees of success, to work collaboratively to address their team goals (chapter 7 and 8). In this chapter, I provide conclusions, as well as implications for practice, policy and future research.

Influenced by the thinking of the pragmatic philosophers, Peirce in particular, who believe that meaning must be determined through practice and that the human world is one to be explored in the belief that human behaviour can change for the better, I set out to examine the processes involved in developing interprofessional teams to improve practice in residential care. I demonstrated that through a process of knowledge co-generation and power-sharing in an atmosphere of team psychological safety, an interprofessional team could bring about facility-wide improvements to address issues jointly identified by team members. Our success in achieving our goals was linked by team members to our new, collaborative way of working. Accordingly, the initiative lived up to the promise of collaborative advantage, in other words the achievements which can be gained through collaboration which are impossible when working alone (Huxham, 2003). This occurred at only one out of three facilities which highlights the difficulties in attempting collaboration, as efforts are buffeted by negative forces from outside and inside teams (San Martin Rodriguez et al. 2005). Rather than leading to collaborative advantage, our attempts at two facilities resulted in collaborative inertia which is when collaboration fails to live up to its promise and achievements are negligible or too slow to develop (Huxham, 2003).

Focusing on the process of interprofessional team development in this study provided a rich picture of its complexity and highlighted reasons for ceding to collaborative inertia or achieving a collaborative advantage. In this chapter I discuss this complexity and provide a model for conceptualizing the process within its context, where interprofessional team development is comprised of the interdependent development of team psychological safety, knowledge co-generation and power-sharing, propelled and inhibited by numerous forces. I also argue for the appropriateness of the action research approach I took and how this approach facilitated knowledge co-generation, both for me personally, as well as within the team. Before exploring these areas, I begin with a discussion on how, informed by the results of this study, I have conceptualised interprofessional collaboration.

9.2 WHAT IS INTERPROFESSIONAL COLLABORATION?

I describe, in chapter 4, how my exploration of the literature revealed a lack of conceptual clarity around the term interprofessional collaboration. This lack of clarity creates difficulties in effectively establishing the outcomes of interprofessional collaboration (Zwarenstein et al 2009). It is critical, therefore, that writers in the field outline what they mean when using the term. This does not imply that consensus is necessary; however, clarity is essential.

From my own perspective, I question the use of the term 'interprofessional collaboration' to describe any situation where different professionals interact. My approach to the operationalization of interprofessional collaboration is based on a view of collaboration as existing on a spectrum described by Himmelman (1996, 2001, 2002). He distinguishes it from networking, co-ordination and co-operation by an emphasis on greater interdependency and synergy within a team. This interdependency is represented by knowledge sharing, resource sharing and power-sharing. Taking account of this spectrum and my examination of the teams in the study, I propose that interprofessional collaboration can be defined as an interdependent, synergistic relationship involving mutual negotiation of goals, joint decision-making, and creation of knowledge by combining tacit and explicit knowledge of a number of professional groups. These processes occur in a psychologically safe team environment.

Many researchers at best, sidestep the issue of interprofessional team development and at worst, appear to assume that interprofessional teams are born like the Greek goddess

Athena, who emerged from the head of Zeus fully formed and ready for battle. In contrast, one of the central tenets of this thesis is that one cannot simply put a group of professionals together and term them an interprofessional team. Consequently, the idea that an interprofessional team is something that must develop is central to my conceptualisation of interprofessional collaboration. As McCallin (2006 p.9) notes: "teams cannot, and do not, function effectively simply because a group of people is labelled as a team" and Poulton and West (1999) point out that it is even less likely in healthcare because of institutionalised differences between professional groups. It was suggested over a decade ago that the importance of process should be acknowledged by those studying interprofessional teams (Barr 1997, Poulton and West 1999), yet in the intervening years there has been little exploration of the process of developing and sustaining interprofessional collaboration (Zwarenstein et al. 2009, King et al. 2010). My study aimed to address this gap and in chapter 4, I presented a theoretical framework constructed around the notion that a multiprofessional team can become an interprofessional one. I utilised this framework in designing my research approach and analysing the resultant data.

I must stress, that in examining the emergence of the characteristics of interprofessional teams in this study, it became clear that there was no tipping point at which a team of different professionals suddenly became an interprofessional team. Multiprofessional teams and interprofessional teams cannot be viewed as completely distinct entities. They should be regarded as existing on a continuum. As team members learn to collaborate during the process of team development, the team moves from the multiprofessional end of the continuum to the interprofessional end. One team in the study moved only part of the way along this continuum while on the other team, team members stated that their team had become an interprofessional team by the end of the study.

Lemieux-Charles and McGuire (2006) suggest that to effectively study teams and the context in which they are operating, researchers must be involved and immersed in the setting. The action research approach that I took in this study facilitated this immersion, and enabled me to examine the development of characteristics of interprofessional team development from the perspective of a team member. This allowed me to unpack assumptions and definitions of the phenomenon. In chapter 7, I describe a complex, contextualised process of interprofessional team development where team psychological

safety served as a catalyst in 'kick-starting' the processes of knowledge co-generation and power-sharing and where positive feedback between team psychological safety, power-sharing and knowledge co-generation led to the interdependent growth of each. In the following sections, I discuss this process further, culminating in the potential implications for practice and policy.

9.3 THE DEVELOPMENT OF COLLABORATION: THE INTERDEPENDENT PROCESSES OF KNOWLEDGE CO-GENERATION AND CHANGING POWER RELATIONS CATALYSED BY TEAM PSYCHOLOGICAL SAFETY

Trust, rather than team psychological safety, is a concept often drawn upon in the interprofessional collaboration literature. In fact, there is general consensus across the teamwork, interprofessional and action research literature, that trust is an important element within teams. In a review of models of interprofessional collaboration, D'Amour et al. (2005) highlight a central position for trust in three out of seven models reviewed. Yet, trust is usually studied as part of the interpersonal relationship between dyads of individuals within teams. I suggest that this focus is misplaced, since trust in teams is also a complex sociological phenomenon, socially constructed by team members over time (Zucker 1987, O'Hara 2004, Costa and Anderson 2011). Trust in interprofessional teams should not be regarded as simply a factor of the relationship between one individual and another, but as a shared notion which involves more than individual psychology.

My view of trust as a sociological phenomenon presupposes the notion of a team space in a figurative sense. In other words, the space created through the complex sociological interactions of team members which is interwoven within the team space defined in a literal sense by their physical presence. Scott and Hofmeyer (2007) argue that different configurations of physical and social spaces can facilitate or inhibit interprofessional teamwork. I contend, based on the results of the study, that configurations that facilitate interprofessional teamwork are trust-based, but that the trust in question is a sociological phenomenon rather than simply rooted in individual relationships. The construct, team psychological safety, introduced by Edmondson (1999) embodies this notion. It is a construct that has trust at its core but signifies more than trust to include the notion of a safe team space within which team members feel comfortable engaging in discussion and decision-making. Significant emphasis is placed on the ability to

speak up and be oneself and the notion that individuals will not suffer negative consequences even if they are reporting negative outcomes (Edmondson 1999, 2002, Edmondson et al. 2001, Nembhard and Edmonsdon 2006, Edmondson and Nembhard 2009).

Research on team psychological safety has mainly been concerned with quantitatively determining cause and effect relationships, but some researchers have alluded to the possibility of a role for team psychological safety in the development of interprofessional collaboration. Mu and Gynawali (2000) suggest that it can be important in developing the knowledge constructed through the integration of diverse perspective and views of team members. It has also been suggested that it allows those from different organisational cultures, aims and working practices to find a way to work together successfully (Nembhard and Edmondson 2006, Bstieler and Hemmert 2010). My thesis gives substance to these assertions. My focus on the process of planned change though collaboration creates a link between different research traditions by highlighting the catalytic role for team psychological safety in interprofessional collaboration. It also adds to the limited literature on the process of developing interprofessional collaboration and the process of developing team psychological safety. The research revealed a complex picture of the interdependent growth of team psychological safety, power-sharing and knowledge co-generation during the process of developing into an interprofessional team from a multiprofessional one. This is illustrated by the model in Figure 16. The grey arrow represents the team development process that occurs as members of a multiprofessional team learn to work together collaboratively to address goals and consequently, develop into an interprofessional team. Team psychological safety, power-sharing and knowledge co-generation are represented by the blue, green and yellow strands of development within the model. Bleakely et al. (2006), in a longitudinal study on collaboration in teams suggests that the development of a team climate conducive to interprofessional team development is a separate, precursory step to the team development process. My thesis challenges this notion. Although a certain amount of team psychological safety has to exist within a team to catalyse power-sharing and knowledge co-generation (represented in the model by the earlier emergence of the blue strand denoting team psychological safety), it is also something that grows as they too grow, with each one feeding into the growth of the others. The growth is represented in the model by the thickening of the strands as

the team development process progresses. The interconnectedness and interdependency of the three strands of development is represented by the intertwining of the strands.
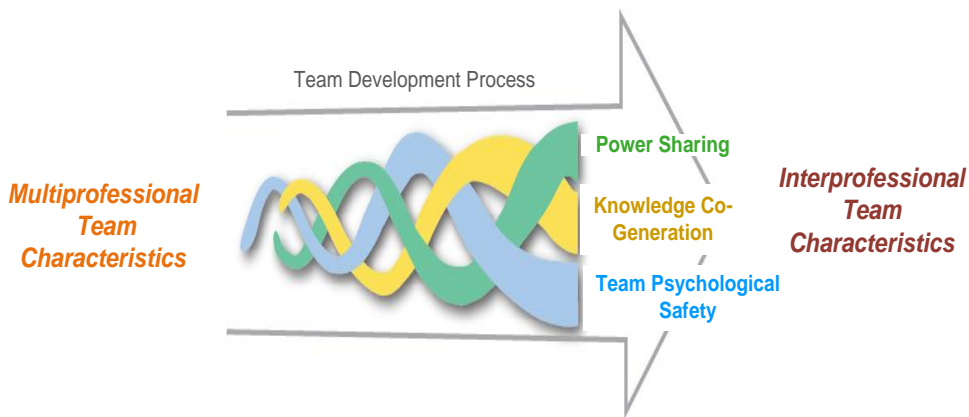
FIGURE 16: A MODEL OF INTERPROFESSIONAL TEAM DEVELOPMENT

It has been demonstrated previously that open communication and learning is facilitated by a climate of team psychological safety (Edmondson 1999, Bstieler and Hemmert 2010). The model I present embodies not only that notion but also the idea that the reverse is also true. In other words, increased knowledge co-generation allows the growth of team psychological safety. This claim is based on the results of the study which show that a sense of team psychological safety promotes the engagement of team members in knowledge co-generation through a process, outlined by Nonaka et al. (2000) of socialisation, externalisation, combination and internalisation. This type of team atmosphere fosters their capacity to externalise their tacit knowledge in discussions and reflection, and to jointly discuss and make decisions. The resultant new knowledge facilitates learning as it gives team members more insight into the roles of others and allows them to examine and question attitudes towards other professionals in light of this knowledge. New attitudes towards other professionals positively influence a growth in respect and trust across professional boundaries within the team, which in turn enhances team psychological safety. This leads to other positive feedback loops as team members become even more secure in opening up and engaging in discussions, leading to even more understanding of each other's roles, and so on.

Study results demonstrate the enhancement of the power-sharing capacity of team members through a similar positive feedback loop. Power-sharing can be demonstrated by an increase in shared decision-making and shared leadership within teams. Eyben et al. (2006) note that there is no consensus on the optimal spaces to drive such redistributions in power. Nonetheless, it became clear in cycles of action research that a safe team space due to an environment of team psychological safety provides a place for power shifts to occur. Additionally, my study results demonstrated in practice the suggestion by Huxham and Beech (2008) that more power-sharing is likely to lead to greater levels of trust in collaborative efforts. As team psychological safety manifests itself, team members from all professional backgrounds become more comfortable engaging in discussions and group reflection. This in turn leads to more shared decision-making and can also lead to shared leadership. Power-sharing is also facilitated by the development of a transactive memory system during knowledge co-generation. A transactive memory system is a greater understanding of the knowledge and skills of other team members (Nijstad 2009). Because of its development, team members become more cognisant of who can take responsibility for team tasks as they have a better understanding of who possesses the requisite knowledge and skills. Shared decision-making and shared leadership, in turn, mean more open discussions, which facilitate ever increasing knowledge about the roles of others and greater sense of safety within the team space, demonstrating the interconnectedness of the three strands in the model.

My findings support the work of others who suggest that for team members to work together collaboratively, they must do more than just communicate. They must engage in deep discussion with the potential to change attitudes and behaviour (Gardner 2005, McCallin 2006). Essentially team members can begin to operate in a new, collaborative way within a team space characterised by mutual trust, respect and safety. Learning to operate in this new way involves working towards a common goal while developing knowledge about the roles of others and sharing more decisions within the team space. In other words, team members learn to work as an interprofessional team. This new type of working allows them to benefit from collaborative advantage (Huxham, 2003) and achieve goals that could not have been achieved by a uniprofessional group due to the contributions made by each profession. Additionally it allows those invested with less power traditionally to influence change efforts at an organisational level.

In chapter 2 I highlighted debates on approaches to change and in chapter 5 I outlined various strategies for empowerment such as education and mobilization. The results of the study suggest that an approach focusing on participation appears to be an appropriate one for a study with the development of interprofessional collaboration as an aim. This is because this development involves altering power relations between professional groups which can be facilitated by participation (Reason and Riley 2008). Nonetheless, the process is made difficult by restraining forces. Identification with one's professional group, power disparities within the team and poor team leadership are restraining forces on interprofessional collaboration that have been extensively documented in the literature (Ovretveit 1997a, San Martin Rodriguez et al. 2005, Cooper 2009). The results of this study suggest that a major reason for the importance of these forces is that they impact on the development of team psychological safety.

Geva et al. (2000) describe different types of interprofessional teams within different settings and suggest that there is no universal model for interprofessional practice. Huxham and Hibbert (2008) note, however, that even though collaborative efforts occur within a wide range of context and between a wide variety of individuals, there are commonalities across this broad spectrum. Similarly, I contend, that even though interprofessional teams may have different compositions, aims and contexts, they all have to go through a development process and this forms the basis for the model presented in Figure 16. Nevertheless, the very exercise of representing the complexity of real life in a model necessitates a simplification of elements. In chapter 7, for example, I described the impact of changing team membership on team psychological safety but I have not represented the possible fluctuations in team psychological safety that could occur as a result of changes in the membership of the core group of a team. Neither have I represented the natural fluctuations in the levels of power-sharing, team psychological safety and knowledge-cogeneration that can occur during team development. Essentially, the model represents a simplified depiction of the complex process of the successful development of interprofessional collaboration and I suggest that it can provide an exploratory mechanism for further work.

In the following section I discuss the importance of boundary spanning activities during the process of team development outlined in Figure 16. If team development activities can be visualised in terms of intertwined interdependent strands which move a team from interacting as a multiprofessional team to interacting as an interprofessional one,

effective boundary spanning activities are the means by which team members interact across boundaries with each other and with those outside the team to support this forward momentum. In the discussion, I highlight the importance of considering boundaries other than professional ones.

9.4 BEYOND PROFESSIONAL BOUNDARIES

The tendency of individuals to align themselves with ingroups can be viewed as the basic principle underlying group interactions. Individuals place importance on developing positive relationships within ingroups and distinguishing their ingroups from outgroups (Hogg and Abrams 1998, Brewer 2001). To study the interactions between groups, it can be useful for researchers to focus on the boundaries between them. Furthermore, if practitioners explore boundaries through intergroup discussion, this can assist them in negotiating the boundaries appropriately. A review of the literature on interprofessional teams reveals an overwhelming focus on boundaries between professional groups. Other boundaries between groups have by and large been unrecognised as salient to the development of interprofessional collaboration. Yet outside the interprofessional field, such as within the management and organisational literature, boundary spanning across team boundaries as well as across group boundaries within teams has been identified a means of actively negotiating relationships, which in turn enhances team effectiveness (Williams 2002, Choi 2002, Levina and Vaast 2005, Marrone 2010). The results of this study demonstrate that focusing solely on professional boundaries when developing and studying interprofessional collaboration is constraining. Practitioners and researchers must take account of the range of complex boundary spanning activities that occur during teamwork and taskwork both within the team and between the team and its environment. Managing boundaries is facilitated by communication and reflection within the team space which allows team members to identify boundary issues. Boundary spanning in the form of information transfer, representation and co-ordination (Marrone 2010) can then occur to address the issues.

Interprofessional collaboration is not simply about relationships within teams. It is also about achieving goals (Juliá and Thompson 1994). The team boundary is particularly important to consider if team goals involve making organisation-wide changes, especially if these changes are evidence-based. This is because a focus on introducing

evidence-based changes in practice necessitates the assessment of research evidence through exercising clinical judgement to evaluate the feasibility of its application in practice (DiCenso et al. 1998, French 1999, Rycroft-Malone et al. 2004). My thesis demonstrates that this process entails a co-generation of knowledge from the tacit knowledge of practitioners, which already exists within the team space, combined with explicit knowledge from literature searches which must cross the team boundary into the team space. Thus, evidence-based changes cannot be achieved without efficient boundary spanning across team boundaries.

Boundary spanning activities also allow team members to draw on the expertise of professional groups not represented within the teams, adding extra perspectives to the knowledge created during the combination process (Nonaka et al. 2000) of knowledge co-generation. This suggests that if these activities are carried out successfully, the need to have a representative from every care profession on the team could be eliminated. This contention was not explored in depth in this study and it merits more attention. It would be useful to understand what constitutes effective boundary spanning across team boundaries with unrepresented professional groups, to allow teams to draw on their tacit and explicit knowledge in an efficient way.

The team boundary is also important during dissemination of co-generated knowledge at an organisational level. For knowledge created within the team to be useful and lead to change within an organisation, it must travel from the team space into the organisation, across this boundary. The results of the study highlighted that boundary objects (Carlile 2002), such as information booklets, assessment tools and policy documents, are a useful, but not necessary, means of achieving this.

Merely transferring co-generated knowledge across the team boundary into the organisation is not enough to ensure that it will lead to change. Other boundary spanning activities are also necessary. Representation activities involve negotiating for support, advocating for team decisions outside the team space and requesting feedback from others while co-ordination activities involve interacting across boundaries to achieve goals (Marrone 2010). Both of these types of boundary spanning activities are essential in ensuring that team decisions are implemented in an organisation.

Boundaries within teams must also be spanned effectively. Individuals identify to different extents in different situations with the social groups within which they

categorise themselves. Thus, although a nurse in a multiprofessional team may identify herself strongly with her professional identity in discussions of issues that cross professional boundaries, she may, in another discussion identify herself more strongly with another social group. The study highlighted three such group identification tendencies, namely categorisation by professional group, categorisation by organisational affiliation and categorisation as a care provider versus care receiver. Conceivably, there could be any number of group identities manifested within teams. These categorisations result in ingroup and outgroup boundaries which can be disruptive to team psychological safety, and accordingly to the ability of team members to engage in open discussion within the team space. Team psychological safety is also the key in allowing team members to negotiate these boundaries appropriately. Study results demonstrated that a psychologically safe team environment supports boundary spanning between subgroups within teams, leading to the growth of collaborative interaction between these groups. This in turn creates the possibility of stronger identification on the part of team members with the team rather than with groups within the team.

Although I argue for a widening of the current focus on professional boundaries in the interprofessional collaboration literature, this is not to say that professional boundaries are not important. An interprofessional team is appropriate only when there is a task which requires collaboration. This situation arises when the issues or tasks sit in the areas where the competencies of two or more professions meet, referred to as grey zones by San Martin Rodriguez et al. (2005). Other issues may benefit from a uniprofessional or co-ordinated rather than collaborative approach. A focus on grey zones in interprofessional collaboration necessitates taking the boundaries between professional groups in a team into account. This is particularly important because within the healthcare arena, professional boundaries are often vigorously defended causing tensions and conflicts (Dawson 2007, Kvarnström 2008). There is a debate in the literature on how these boundaries should be managed. Although there is common acceptance that that there must be an emphasis on acknowledging and understanding role boundaries, some researchers suggest that boundary blurring is necessary in interprofessional teamwork (Hammick et al. 2009a). Others have found that boundary blurring is threatening to professionals and negatively impacts on efforts at interprofessional collaboration (Howarth 2006). The results of this study indicate that developing a greater understanding of the professional roles, knowledge base, and

culture of other professions is essential in the development of interprofessional teamwork, but that using this understanding to blur the boundaries between professional groups is not. Since team members can learn to collaborate without losing sight of their own professional identity and autonomy, this also implies that professional autonomy and collaborative teamwork are compatible. This is despite the apparent paradox highlighted by some researchers (Adams 2011, Rose 2011) in reconciling increasing autonomy in practice on one hand and the interdependency implied in interprofessional collaboration on the other.

9.5 A CONSIDERATION OF CONTEXT

The characteristics of team leaders, the presence of champions for change, stable team membership and an atmosphere of team psychological safety all emerged in this study as team characteristics important in the development of a successful interprofessional team. But healthcare teams do not exist within a vacuum; they operate within the context of a complex environment. Within a pragmatic view of the world, context must be taken account of in any study of individual and team behaviour. Yet context is frequently overlooked in research on interprofessional collaboration (San Martin Rodriguez 2005, Xyrichis and Lowton 2008). The results of the study provide some insight into the impact of contextual elements on interprofessional collaboration. The context within which a team operates is highly influential in allowing the creation of conditions conducive to collaboration and facilitating goal achievement. Thus, contextual elements influence both interprofessional teamwork and taskwork. Organisational forces identified in this study as impacting on interprofessional collaboration are the behaviour of managers and organisational culture.

It is not enough to simply consider the organisational context of a multiprofessional or interprofessional team. The results of this study suggest that institutional forces must also be taken into account and a number of such forces were highlighted as impacting on interprofessional team development including statutory regulation and professional norms. These findings echo others in the literature (San Martin Rodriguez 2005, Oandasan et al 2006).

Market forces were also examined in this thesis. There are studies within the healthcare sector on market forces. The changing structure of the world healthcare market has been researched extensively (Wholey and Burns 2003, Ngo et al. 2008). Additionally it has

been suggested that changing market forces drive the agenda for interprofessional collaboration, as new models of healthcare delivery should be based on integrated care (Hammick et al 2009a). Nevertheless, there is a gap in the literature on how market forces can impact on interprofessional teams. The results of the study indicate that organisational responses to market forces can impact on the development of interprofessional collaboration, albeit indirectly. Negative market conditions can result in lower staff numbers and a prioritising of issues other than improving practice. This in turn can make the logistical elements of organising team meetings and achieving team goals more difficult. This is an area that merits further research.

Contextual elements also influence the potential for attempting change through interprofessional collaboration, highlighting the importance of focusing on a pre-step to cycles of action research as envisaged in Coghlan and Brannick's (2010) conceptualisation of action research. I found that the ease with which a multiprofessional project team with a change agenda can be set up, is dependent not only on the characteristics of the individuals involved but also the environment in which they operate. Thus the forces that determine 'how things are done' shape the appetite of individuals for attempting change. The results of the study demonstrate that institutional forces such as professional norms, government constraints on staffing budgets and national standards of care, organisational forces such as physical layout of the environment, organisational culture and logistics of care, and market forces such as increased competition in a region, can all be influential.

The model presented in Figure 16 is extended in Figure 17 to account for the forces at work, both on successfully establishing a multiprofessional team and on the development of that multiprofessional team into an interprofessional team successful in achieving its goals. As in Figure 16, the team development process is represented by the grey arrow containing three intertwined strands of development of team psychological safety, knowledge co-generation and power sharing which grow as the team develops from a multiprofessional team into an interprofessional one. Added to the model is the notion that setting up a multiprofessional team to begin with, represented by the team formation arrow, is impacted by driving and restraining forces which are also illustrated in Figure 17. Once a multiprofessional team is set up, the development of interprofessional team characteristics such as shared power, an understanding of the roles of others, an environment of team psychological safety and collaborative,

interdependent interaction between team members is likewise impacted by driving and restraining forces, represented by the green and orange arrows propelling and inhibiting the team development process.
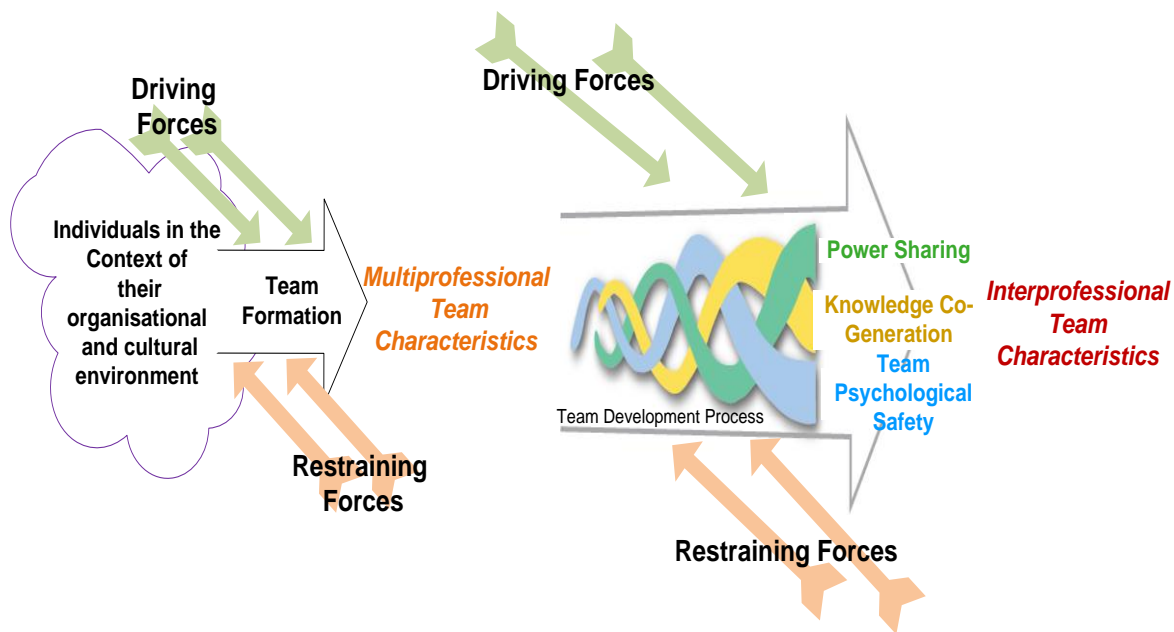
FIGURE 17: A MODEL FOR CONCEPTUALISING INTERPROFESSIONAL TEAM DEVELOPMENT WITHIN ITS CONTEXT

Those attempting to undertake collaborative attempts at change should be cognisant of the forces at work that restrain or drive interprofessional teamwork and taskwork activities. The forces are not illustrated individually in Figure 17 but are grouped into arrows representing forces either driving or restraining interprofessional team development. Forces are represented this way rather than individually as different sized arrows because individual forces can be strong or weak in different situations depending on the temporal and environmental context. For example, a force particularly influential in driving team formation, such as a change agent's ability to establish a compelling case for change, can be less influential once the team has been formed. Similarly, a force influential in restraining the development of interprofessional collaboration, such as social identification with a professional group, can be less influential in team formation. Forces can also be stronger or weaker depending on environmental context. For example, market forces impact on private residential care facilities more than public ones, as demand for services is relatively stable for public facilities but can fluctuate for private facilities. Accordingly, those attempting change through interprofessional

collaboration must deliberately reflect on the various forces influencing their attempts and endeavour to ensure that their approach is, and remains, contextually sensitive and appropriate.

Interprofessional collaboration often represents a cultural change in attitudes and behaviours of practitioners. Culture change is difficult and the research and practice worlds are replete with examples of failed attempts (Schein 2004). This study indicates that developing some degree of interprofessional teamwork is possible even when the team fails to achieve its practical goals. Changes in attitudes of team members can occur, and individuals on a team can benefit on a personal level from their involvement even if change at organisational level is not achieved. Thus, those attempting change through interprofessional collaboration must reflect as a group on what constitutes success or failure in their particular context and reflect on the following questions: Is achieving a change in attitudes a goal with which they can be satisfied or is success in taskwork essential? If goals are not achieved, is there a benefit to learning on a personal level or will they suffer negative consequences due to the failure of their attempts? Alternatively, can they be satisfied with single-loop learning (Argyris and Schön 1974) where a task is successfully accomplished, but no change in attitudes or assumptions underpinning the issue occurs?

From the perspective of a practitioner, reflecting on these questions, and endeavouring to ensure that an approach is contextually appropriate, may mean accepting that some efforts are most likely doomed to failure because of the strength of restraining forces at that particular time, in that particular context. The importance of management support in achieving organisational change through interprofessional collaboration has previously been highlighted (Lax and Galvin 2002, Bleakely et al 2006). The results of my research add to this literature by suggesting that management support is essential. An interprofessional team must have the power and autonomy to make decisions and follow through on them. In conditions of low support at upper and middle management level, teams are not given this autonomy, making interprofessional collaboration an inappropriate approach to the introduction of change.

Similarly, situations of high staff turnover may not be conducive to attempts at organisational change though interprofessional collaboration. Pettigrew (2000) argues for the importance of zones of stability in change efforts, represented by continuity in management or coherent leadership. The research presented in this thesis gives

substance to these assertions and suggests that changes in management personnel can impact on attempts at change through collaboration. The concept of zones of stability resulting from stable membership and coherent leadership can also be applied at team level. It has been highlighted that changing team membership can cause erosion of trust between team members (Beech and Huxham 2003). The results of my study indicate that a lowering of team psychological safety also result, leading to difficulties developing interprofessional collaboration. Practitioners attempting to develop an interprofessional team in situations where the staff complement changes continuously or situations where team members are not geographically co-located must strive to develop a core team membership, as a core can provide the continuity to enable the growth of team psychological safety. If establishing a core group is not possible, then interprofessional collaboration should not be attempted.

Interprofessional collaboration requires, in most cases, a new way of working together interdependently. Certain organisational cultures are more open to change than others (Schein 1999, Nonaka et al. 2000). Study results suggest that practitioners in organisational cultures where forums for decision-making are generally open or invited spaces (Gaventa 2006) can find transition to a new collaborative way of working easier. Practitioners in cultures where decision-making takes place in closed spaces may find it difficult to open up these spaces, since it is those with power that dictate the nature of the space. Team members may, as a result, find it difficult to see how collaborative efforts in such a culture can bear fruit.

Practitioners and action researchers may have different perspectives on the potential benefits of attempting collaboration. From the perspective of an action researcher, even if actions are unsuccessful, the researcher and participants can engage in learning and this learning can be disseminated to others. This means that, barring negative consequences to participants, failure in action does not mean failure in research. As Reason (2004 p.4) notes:

> "*the establishment of democratic dialogue may well be a far more important and compelling purpose in an action research initiative than the addressing of immediate practical problems*".

The results of the study present a number of implications for practitioners attempting interprofessional collaboration. The first is that the importance of team psychological safety should be acknowledged. Team leaders are particularly important in establishing this type of team climate. The participatory aspects and emancipatory potential of action research facilitated the development of team psychological safety within this study. Team leaders can borrow from these tenets, from study results, and from the literature on team psychological safety (Edmondson et al. 2001, 2002, 2003, Nembhard and Edmondson 2006, Wong et al. 2010) by:

- Emphasising the importance of a core group of attendees

- Encouraging input from all team members

- Emphasising mutual respect

- Downplaying power differences and encouraging empowerment of team members with less power

- Making a persuasive case for change

- Ensuring that there is no punishment of well-intentioned mistakes

- Encouraging discussions around professional roles

There is a debate in the literature as to which activity track should be emphasised first in team development (Mathieu and Rapp 2009). Study results indicate that a concurrent focus on teamwork and taskwork facilitates the development of team psychological safety. Discussions relating to tangible, mutually agreed goals opened up discussions on professional boundaries, power disparities and practical issues that had real meaning for team members. This means that an approach to developing interprofessional collaboration should encourage the development of teamwork skills while addressing team tasks. Reflection on the part of the team leader as well as group reflection within a psychologically safe environment can aid in maintaining this dual focus.

There are also implications for healthcare managers in study findings, since management support emerged as highly influential in the development of interprofessional collaboration. Managers encouraging interprofessional team development should be actively supportive of teams and should be prepared to invest

teams with some degree of autonomy to address their goals. Thus, encouraging interprofessional collaboration can only be done with true commitment on the part of managers since it means that they must be personally prepared to engage in power-sharing.

Managers committing to interprofessional collaboration within their organisation should also do what they can in logistical terms to facilitate the attendance of a core membership at team meetings, since the development of team psychological safety can be negatively impacted by changing team membership. Managers in residential care facilities for older people should acknowledge that developing team psychological safety within teams at their facilities can be even more difficult due to the lack of geographical co-location of team members. They should do all they can to facilitate the attendance of associated care providers at meetings. Membership of interprofessional teams may entail a commitment on the part of team members beyond their defined responsibilities and this should be recognised by managers who can incentivise and facilitate staff to attend. Systems and processes of care that encourage rather than discourage collaboration should be developed. This may mean recognising that team meetings represent a reduction in the time that staff can spend on their other duties.

The importance of team psychological safety should also be recognised by those responsible for undergraduate education and continuing professional development, whether in the HSE, educational institutes or private bodies. The focus in the interprofessional education field at present is on the identification of individual competencies for interprofessional collaboration (Oandasan et al. 2006). This focus should be expanded to take account of the sociological aspects of interprofessional collaboration. Emphasising team psychological safety and the social aspects of knowledge co-generation can be a means of achieving this.

Interprofessional collaboration across the healthcare field often represents a new way of working and this can be legitimised by policy makers. Long-term planning in healthcare should incorporate an active encouragement of interprofessional solutions where care issues transcend professional boundaries. Currently, many policy frameworks are developed on a professional basis, but to encourage interprofessional practice, policy makers must collaborate across professional boundaries themselves. There are templates in existence for this type of collaboration from which they can learn. For example, the HIQA standards for residential care were developed in consultation with representatives

from various professional groups. Policy makers should work to ensure that policy on changing practice through interprofessional collaboration is not too prescriptive since there is no one best model of change and practitioners should have the autonomy to adapt policy recommendations to their particular context.

The language utilised to describe interprofessional collaboration is important. Resistance to interprofessional collaboration is often due to a fear of loss of power or autonomy, while the results of this study demonstrate that this does not have to occur. Policy makers and managers should therefore highlight the fact that professional autonomy and interprofessional collaboration can be compatible. Additionally, the language of interprofessional collaboration should emphasise the notion that power potentially rests within all, and the empowerment of individuals can be mutually beneficial to all.

9.7 THE USE OF ACTION RESEARCH IN THE STUDY

In my pragmatic view of the world my focus was on striving for ways to explore the world and make best use of the variations that exist within it. Action research allowed me to pursue this aim. The approach had a number of benefits: It allowed practical solutions to practical problems; it allowed practitioners to be involved in the research and to engage in learning from questioning their own attitude and behaviours; it allowed me to focus on the process of developing an interprofessional team which highlighted the importance of team psychological safety, boundary spanning and the context within which a team operates; and it allowed me to become immersed in the research process and engage in personal learning. Nonetheless, this immersion came with its problems. In this section I first address the benefits and follow with a discussion of the difficulties, with reference to my own learning.

9.7.1 THE BENEFITS OF THE APPROACH

The findings of study 1 in the pre-step highlighted that practitioners often engaged in routine practices without questioning them with the result that practice was often not evidence-based. The choice of action research approach was influenced by these findings because it privileges many ways of knowing and integrates "everyday experience and academic knowledge" (Reason and McArdle 2008 p.3) by creating a space for collective reflection. My research highlights that the approach does in fact allow practitioners to question routine practices in light of the evidence base as well as

facilitating team members to combine tacit and research knowledge into new co-generated knowledge. This knowledge can be utilised by team members to improve their own practice and in designing and implementing facility-wide changes in practice.

The terms 'research participants' or 'co-collaborators', favoured by action researchers over the term 'research subjects' highlights the fact that action researchers are focused on eliminating the traditional rift between those being studied and those doing the studying (Reason and McArdle 2008). As participants are involved in the research, action research has the power to provide practical solutions to practical issues (Greenwood and Levin, 2007).

It has been highlighted that interprofessionalism does not always live up to its potential and can sometimes be less than the sum of its parts (Ni Mhaolrúnaigh 2002a). Indeed research has shown, that contrary to popular beliefs, multiple heads are not always better than one at problem solving. Combined team effort, at least in laboratory situations, can often be less than cumulative individual efforts (Nijstad 2009). The importance of a common purpose in team effectiveness has been previously highlighted (Gray 2008a), but my research highlights the importance of participation in achieving this common purpose.

When I first approached the study participants my motivation was to precipitate improvements in the management of physical pain. My focus was on a medical model of care which emphasises physical disease[7]. Yet it has been suggested that collaboration is restrained by the dominance of this model and that a social model of care which has a more holistic, patient centred focus, aids collaboration (McMurray 2006). This is in fact the model of healthcare that has been advocated in recent health policy documents (for example, DoH&C 2006). Due to the participatory nature of action research and the resulting engagement of all team members in defining goals they were able to shift the study focus towards a more appropriate social model of care. This opened my eyes to the possibilities of improving care through this model and highlighting the power of action research to address the real needs of participants.

As well as facilitating the development of a common purpose, a participative approach can allow the identification of appropriate team objectives. Some residential care issues are more appropriate to a uniprofessional or multiprofessional approach while others

[7] My background in science and the fact that I taught biological sciences to nursing students while undertaking this research provides an explanation for my partiality to the medical model of care

benefit from the collaboration inherent in interprofessional teamwork. Discussion and reflection within team meetings allowed us to identify the appropriate issues to address.

Additionally, active participation led to task-related learning and role-related learning within the team for team members. Kelly (1955) contends that we all look at the world in a different way within our own personal construction system, and Eyben et al. (2006) argue that imposing one's own view of the world on others is a form of disempowerment. Thus, involving participants in making decisions about what to change rather than deciding for them set the scene for the power-sharing to come as interprofessional collaboration developed.

Even in the context of participation power disparities between researcher and participants can still be an issue (Riley et al. 2003). Reason (2004) argues that there is a tension that must be acknowledged between an outside researcher and participants. Researchers may overstep the bounds in an attempt to be helpful and as a result may disempower participants. It is possible that I was guilty of this in my role as provider of research evidence, since by providing them with reviews of the literature rather than facilitating other team members to do it, I did not allow them to develop their research skills.

Outsider action researchers may be regarded as having expert power which may create a dilemma when trying to develop truly participative interaction (Coghlan and Brannick 2010). Indeed, the very act of intervening in an organisation is an exercise of power (Grieves 2010) and it has been acknowledged that there will never be true equity as power will never be equally shared, even in collaborative efforts (Huxham and Beech 2008, Gaventa 2011). Ribbens (1989) argues that researchers, rather than denying that they have power, should acknowledge that it exists, take responsibility for their actions and work to ensure that the voices of all participates are heard and valued. Stewart and Rigg (2011) offer a number of areas to reflect on to help achieve this aim: awareness of one's own potential power, both as an individual and as a perceived expert; reflection on appropriate use of this power; awareness of the power of others; and awareness of the potential to disempower others. My aim of developing interprofessional collaboration meant that I was very much focused from the outset on my own power within the team. Because of my role in providing research evidence, team members had a tendency to treat me as an expert but through reflection during and after meetings, I

strove to remain actively aware of this. Within team meetings I focused on the importance of co-generating knowledge from all sources, in other words, the knowledge gained through practice as well as research knowledge. Lewin (1948) and Greenwood and Levin (2007) accept that a researcher may have control at the outset of the process, but that as the research progresses, they should be gradually transferring the control to participants. This I attempted to do while creating a climate within the team of mutual trust and safety. As a result, as meetings progressed, team members at both facilities took more control in decision-making. Thus, team psychological safety, as well as allowing the development of interprofessional teamwork, facilitated the participative aspects of action research. This dependence was not one-sided, as the emphasis on participation and the critical reflection inherent in the action research cycles was important in the development of team psychological safety and in team learning. It also allowed an examination of taken-for-granted assumptions, a process necessary in finding a new way to work together.

Reflection was a key element of action research that facilitated interprofessional team development. Group reflection occurred in team meetings as part of the evaluation step in action research cycles and individual team members also engaged in individual reflection. Discussion and reflection can be a means of developing an understanding and appreciation of the skills and abilities of team members and the similarities and differences between professions. Group reflection can also facilitate identification of power disparities which can be a step to empowerment (Hur 2006). Finally group discussion and reflection can provide a means of recognising issues related to social identification and negotiating boundaries. These results echo the findings of other studies (Cook et al. 2001, Millward and Jeffries 2001, San Martin Rodriguez et al. 2005, Miller et al. 2008) and add substance to the argument that teams that engage in reflection are generally more successful in terms of outcomes (Borrill et al. 2001).

9.7.2 MY DIFFICULTIES WITH IMMERSION (AND SOME SOLUTIONS)

Although all research can be defined as political, action research is particularly so as it is rooted in change processes. Accordingly it can be threatening, particularly in organisation with hierarchical control structures like the healthcare organisations in the study (Coghlan and Shani 2005). An action researcher must be politically astute, identifying power relationships and negotiating both the public arena of the organisation, as well as the behind-the-scenes activities involved in developing and

building initiatives (Buchanan and Boddy 1992, Coghlan and Shani 2005). Although I had facilitated collaborative and co-operative efforts previously and had negotiated similar sorts of situations as a consultant, this study was my first attempt at action research and I found negotiations difficult to manage at the outset. As I became more familiar with the facilities and more comfortable with the notion of action research, it became easier.

Action researchers can be outsiders or insiders (Coghlan and Brannick 2010). Outsiders are described as either testing out theory in practice or an expert entering a situation to facilitate change. Insiders are described as those researchers who are themselves practitioners. My role in this inquiry was that of an outsider, working collaboratively with practitioners to facilitate changes in practice. Additionally, not only was I an outsider in terms of the organisation, I was an neophyte in terms of the institutional forces acting on the participants since, as a science graduate I had never worked as a healthcare practitioner. Unlike insiders, outsiders do not already have an understanding of the culture, formal and informal systems existing within an organisation (Coghlan and Brannick 2010) and I found this a disadvantage when attempting to set up teams. My lack of familiarity with power relationships, culture and people impacted negatively on my ability to identify the appropriate individuals to approach. This in turn had a detrimental effect on my ability to span the organisational boundary effectively and gain support for the study. Insiders are already familiar with the common language within the organisation including the "jargon" and "window dressing" (Coghlan and Brannick 2010 p.115), which may confound outsiders and I found this was true in my case. A review of my field notes reveals a sense of confusion due to my inability as an outsider to figure out what was taking place behind this window dressing and frustration at my inability to negotiate the language and politics at the facilities. Identifying individuals within the facilities, willing to work with me to provide practical aid and advice, as well as championing the initiative, provided a solution to this issue.

Once teams were established, at early meetings, I felt a boundary between staff on one side and outsiders, including me, on the other highlighting the contention of Coghlan and Brannick (2010) that outsiders are less able to participate inconspicuously in organisational life. This manifested itself in my sense of only scratching the surface and not being privy to deeper issues. As we developed team psychological safety within the teams however, team members began to speak more openly about issues and the

staff/outsider boundary dissipated, suggesting that the development of team psychological safety can be advantageous to action researchers. Additionally, Greenwood and Levin (2007) suggest that being set aside from a group can be a benefit and I found that it did in fact bring some advantages as I was positioned outside the traditional hierarchies within the facility as well as being able to bring a fresh perspective on care procedures.

Somekh (2006 p.27) describes the approach an action researcher must take as a "dual approach*"* which involves embracing both action and research and find a balance between them. I found it difficult at times take this dual approach and to reconcile being "driven by two masters, serving both" as McKay and Marshall (2007 p.131) describe it. The processes of creating change and knowledge generation sometimes act as opposing forces, as the research process emphasizes the production of research data of a high standard whereas the problem-solving process dictates that action researchers become change agents in a specific organisational context (Meyer and Batehup 1997). I broached the topic of tape-recording team meetings in an attempt to ensure the quality of my data, but team members were uncomfortable with the idea, so I had to depend on written notes. But balancing the role of change agent with researcher was logistically difficult within meetings as I was attempting to facilitate discussions and reflection while concurrently taking notes. Within the cycles of action research, I focused almost exclusively on the team aims in my reviews of the literature rather than on my research aims, and this bias was also obvious in the writing I produced at the time which focused on pain management and other elements of the actions we were undertaking. It was only in the later stages of the study, after the cycles of action were complete, that I transferred my attention to the research rather than the action aspects of the study, which I now feel could have been a less effective way of approaching the study than a dual focus on both simultaneously.

I engaged in a pre-step of data collection at the three facilities based on an aim of changing pain assessment and management. With this aim came the assumption that the study would bring changes in knowledge and attitudes about pain. As a result, data collection centred around assessing the knowledge of practitioners and attitudes of residents on physical pain. Yet, an action researcher, by collaborating with others, may end up with objectives and goals far removed from their original ones (Kidd and Kral 2005, Nosek 2007). Once the action research cycles were underway, most of our team

goals were unrelated to the management of physical pain. This highlighted the duality in action research, since the flexibility and participative nature of the approach meant that we could in fact address issues of pressing concern to all and strengthen the action component, but the shift in aims meant that the research component was weakened since I could no longer compare pre-intervention and post-intervention data on staff knowledge about pain in the hope of seeing major differences.

9.8 RIGOUR IN THE STUDY

Action research has come under criticism from those working in more traditional forms of research who have argued that it does not address knowledge generation in a rigorous way (Greenwood and Levin 2007). Action research represents a paradigm shift away from those traditional forms of research. This shift arose out of a demand for a new paradigm combining research with practice and one which embraces a participatory worldview (Holter and Schwartz-Barcott 1993, Reason and Bradbury 2006). As Kuhn (1970) describes paradigms, the premises of one will not be accepted by the advocates of another as they subscribe to different standards and principles, look at the world in a different way and use a different language to describe it. From this perspective, action research should be judged on its own terms and not by the standards of the positivist paradigm such as requirements for generalisability or objectivity. Action researchers can argue that the most credible knowledge is that which has been generated and tested in practice (Greenwood and Levin 2007).

An action research project because of its foundation in participation and action, can proceed in any number of directions, and is constructed dynamically by choosing between options. Chapters 6 and 7 provide thick descriptions of the roles, situations, steps we took as a team, decisions we made, and the changes that occurred. I took this approach because Reason (2006) emphasises the need to be aware of and transparent about those choices in order to enhance quality. This also allows judgement by others about the transferability of knowledge generated, in other words the degree to which the knowledge can be applied to their own situation. Similarly, thick description enhances rigour by placing the burden of the decision about transferability on the shoulders of others (Lincoln and Guba 1985). Therefore, researchers must adequately describe the participants, their roles, the context and the changes that took place for both the researcher and participants during the study (Smith 1997).

It has been argued that the reflection required in action research cycles can also add to validity (Waterman 1998, Somekh 2006). The role and responsibilities of the researcher are complex and dynamic, changing as the study progresses. As highlighted by Coghlan and Shani (2005) the more complex the organisational context, the more complex the role dynamics for the researcher, which can negatively impact on role clarity. The danger with managing complex and multiple roles is that it can lead to a loss of perspective (Seymour and Davies 2002). Accordingly, critical reflection on the part of a researcher is essential (Coghlan and Brannick 2010). An action researcher must provide a reflective account of decisions in order to let the reader decide how much influence the researcher has over the course of a study and the appropriateness this influence (Waterman 1998). Researchers are encouraged to reflect on their own role and on the emergent knowledge (Smith 1997). Reflection can also be important in situations where power relations are shifting, such as in interprofessional team development. Gaventa (2011) advocates for continuous reflection on the shifting power relations in order to dynamically adjust strategies to address the misalignment.

Reflection was an inherent part of the research process. Throughout the action cycles, I kept field notes describing my interactions with participants and my thoughts and feelings on those interactions. I also tracked my own decision-making processes and those of the team within my field notes. Reflection can lead to theory development. One of the components of 'good' action research is the development of theory or actionable knowledge through reflection on action (Bradbury Huang 2010, Coghlan and Brannick 2010). I have tried to meet this standard through development of theory on interprofessional team development as proposed in this chapter.

9.9 LIMITATIONS OF THE STUDY AND FURTHER RESEARCH

The study participants were limited to a small self-selected sample of healthcare providers at two facilities. There are many different types of teams in healthcare and many contextual elements at play. Consequently, it can be difficult to transfer findings across different settings. Nevertheless, institutional forces ensure that different healthcare organisations share many of the same characteristics and I believe that the model I have presented for conceptualising interprofessional collaboration within its context makes a contribution to theory. More research is needed to examine the applicability of the model to healthcare settings other than residential care.

Although action research provided me with a means of examining the process of interprofessional team development, my role as an outsider action researcher meant that I was not deeply involved in team activities outside meetings. Accordingly, my examination of the process of team development was limited to the team space and for a number of activities outside the team space, I was dependent on reports from other team members. Group reflection within the team space helped add a socially constructed dimension to the analysis, but essentially my research provides my individual construction of a complex situation, where in some cases I was not a witness to the events described.

I included both public and private facilities in the study but succeeded in setting up multiprofessional teams only at the private facilities. As a result, although the readiness for attempting change through interprofessional collaboration was examined at a public facility, an examination of the process of interprofessional team development was not possible. This area merits further research, since even though institutional forces are similar, public and private residential care facilities operate under different market conditions.

The model I have presented is based around the notion of team psychological safety, power-sharing and knowledge co-generation feeding into each other with a growth in one facilitating growth in the others. I previously acknowledged that this is a simplified depiction of the process since fluctuations in levels are not illustrated. But even in this simplified model, it is clear that these positive feedback loops cannot continue indefinitely, implying that plateaus might be reached or reductions might occur. The teams set up for this study were temporary teams, and by the time they were disbanded, team psychological safety, power-sharing and knowledge co-generation were still in the growth stage. An examination over a longer period could illuminate what occurs when growth slows or stops and why.

Alternatively, different types of approaches to an examination of interprofessional team development, armed with the model as a template, could clarify and deepen understanding on particular aspects of the process. The question of how participants become more aware of their powerlessness and how they change it, for example, merits further attention. Similarly, the processes involved in the development of trust and team psychological safety have received little attention in the research literature (Zhang and Huxham 2009). My model provides a framework for further examination of these

processes. Additionally, my use of the concept of team psychological safety represents a departure from its utilisation in current literature where it is examined quantitatively at fixed moments in time. In this thesis, I have cast some light on how it develops but further work is needed to examine the applicability of my findings to other settings and to different types of teams.

Hogg (2006) suggests that more work is needed on examining whether and how individuals identify simultaneously with a superordinate group and the subgroups within it. I described how team members achieved this through boundary spanning activities. An in-depth exploration with members of interprofessional teams on social identity could examine the various nuances of these processes.

This thesis addresses a number of gaps that have been highlighted in the literature on the process of interprofessional team development (Zwarenstein et al. 2009), the development and nature of trust within collaborative ventures (Hibbert et al., 2008) and the impact of organisational characteristics on interprofessional collaboration (San Martin Rodriguez 2005). Nevertheless, each of these areas merits further attention.

There is also limited research on teams with inclusion of individuals traditionally regarded as non-professionals such as clients and care assistants. The inclusion of non-professionals on the teams in the study reflected recognition of their potential to provide expertise gained from experience. This inclusion enriched study results as it provided an opportunity to gain insight into power relationships within teams. Additionally, their inclusion added different perspectives to co-generated knowledge. Further work is needed to examine the contribution of non-professionals to interprofessional teams.

9.10 CONCLUSION

I say at the beginning of this chapter that this is a chapter about my journey ending, but in reality my research journey has led to such an alteration in the way I look at the world, that this journey will never truly end. When I started this research study, I came with a worldview influenced by educational background in the sciences. My view of research was constructed within the positivist paradigm. My experiences in undertaking this study have allowed me to explore a different aspect of research and embrace a different way of thinking about the world. That is not to say that I have left my roots as a scientist completely behind. My choice of theories in this thesis hints at that. Peirce's

(1955) pragmatism which views man as a scientist, creating theories to find his way in the world, echoed by Kelly's (1955) personal construct theory founded on a similar notion and the steps in Nonaka's (1994) knowledge creation theory and Tuckman's (1965) team development model all appeal to the scientist in me. However, rather than utilising these theories as I once might have, as a means of objectively studying the behaviour of others, I have learned to reflexively examine my own place within the research process. Accordingly I have learned to articulate and accept the contention that no research can be truly objective since all researchers, even those working within the positivist tradition make choices about how and on what they will conduct research. Reflecting on these issues has allowed me to transcend my old views of the world and my views of my place as a researcher in it.

Argyris in conversation with Fulmer and Keys (1998) emphasised the importance of academics producing actionable knowledge for practitioners, rather than producing knowledge for other academics. Equally he argues that practitioners have to take accountability and use knowledge reflexively and reflectively. Similarly Reason and Bradbury (2006 pxxi) note that "ivory tower scholarship" is becoming less acceptable. Action research allowed me to produce actionable knowledge on interprofessional teamwork. Nevertheless, pragmatism highlights the nature of self-correction and mutability of knowledge and truth in research (Dewey 1938) and although I provide suggestions of the implications of my research on policy and practice, I do so in acknowledgement of this.

REFERENCES

Adams A. and Bond S. (2003) Staffing in acute hospital wards: Part 2. Relationships between grade mix, staff stability and features of ward organizational environment. *Journal of Nursing Management* 11, 293–298.

Adams J.S. (1976) The Structure and Dynamics of Behaviour in Organizational Boundary Roles, In Dunnette M.D. (editor), *Handbook of Industrial and Organizational Psychology*. Rand McNally, Chicago, 1175-1199.

Adams S.L. and Anantatmula V. (2010) Social and Behavioural Influences on Team Process. *Project Management Journal* 41(4), 89-98.

Adams A. (2011) Theorising Inter-professionalism, In Coyler H., Helme M. and Jones I. (editors) *The Theory Practice Relationship in Interprofessional Education.* Higher Education Academy Health Sciences and Practice, London, 31-37.

Aita M., Richer M-C. and Heon M. (2007) Illuminating the process of knowledge transfer in nursing. *Worldviews on Evidence-Based Nursing* 4(3), 146-155.

Alas R. and Vadi M. (2006) The impact of organisational culture on organisational learning and attitudes concerning change from an institutional perspective. *International Journal of Strategic Change Management* 1(1-2), 155-170.

Alberta Association of Registered Nurses (1997) *Nursing Research Dissemination and Utilisation: A Background Paper.* Alberta Association of Registered Nurses, Alberta.

Alexander J.A. and D'Aunno T.A. (2003) Alternative Perspectives on Institutional and Market Relationships in the U.S. Health Care Sector, In Mick S.S. and Wyttenbach M.E.(editors) *Advances in Health Care Organization Theory*. Jossey-Bass, San Francisco, 45-78.

Allan H., Bryan K., Clawson L. and Smith P. (2005) Developing an interprofessional learning culture in primary care. *Journal of Interprofessional Care* 19(5), 452-464.

Ancona D.G. and Caldwell D. (1990) Beyond boundary spanning: Managing external dependence in product development teams. *Journal of High Technology Management Research* 1, 119-135.

Ancona D.G. and Caldwell D.F. (1992) Bridging the boundary: External activity and performance in organizational teams. *Administrative Science Quarterly* 37, 634-665.

Ancona D.G. and Caldwell D. (2007) Improving the performance of new product teams. *Research Technology Management* 33(2), 25-29.

Argyris, C. (1994) *On Organizational Learning.* Blackwell, Oxford.

Argyris C. and Schön D. (1974) *Theories in Practice: Increasing Professional Effectiveness.* Bassey, San Francisco.

Ashurst A. (2006) Rehabilitation for older people: The multidisciplinary team. *Nursing and Residential Care* 8(10) 456-458.

Atwal A. and Caldwell K. (2002) Do multidisciplinary integrated care pathways improve interprofessional collaboration? *Scandinavian Journal of Caring Sciences* 16, 360-367.

Badger T.G. (2000) Action Research, change and methodological rigour. *Journal of Nursing Management* 8, 201-207.

Baer M. and Frese M. (2003) Innovation is not enough: Climates for initiative and psychological safety, process innovations, and firm performance. *Journal of Organizational Behavior* 24, 45-68.

Baggs J.G. and Schmitt M.H. (1997) Nurses' and resident physicians' perceptions of the process of collaboration in an MICU. *Research in Nursing and Health* 20, 71–80.

Bansal P. and Roth K. (2000) Why companies go green: A model of ecological responsiveness. *Academy of Management Journal* 43(4), 717-730.

Barczak G., Lassk F. and Mulki J. (2010) Antecedents of team creativity: An examination of team emotional intelligence, team trust and collaborative culture. *Creativity and Innovation Management* 19(4), 332-345.

Baron R.S. and Kerr N.L. (2003) *Group Process, Group Decision, Group Action*, 2nd edn. Open University Press, Berkshire.

Barr H., Koppel I., Reeves S., Hammick M. and Freeth D. (2005) *Effective Interprofessional Education: Argument, Assumption and Evidence*. Blackwell Publishing, Oxford.

Barr O. (1997) Interdisciplinary teamwork: consideration of the challenges. *British Journal of Nursing* 6(17), 1005-1010.

Barrett G. and Keeping C. (2005) The Process Required for Effective Interprofessional Working, In Barrett G., Sellman D. and Thomas J. (editors), *Interprofessional Working in Health and Social Care.* Palgrave Macmillan, Hampshire, 18-32.

Barrett G., Sellman D. and Thomas J. (2005) *Interprofessional Working in Health and Social Care.* Palgrave Macmillan, Hampshire.

Bassey M. (2003) Case Study Research, In Swann J. and Pratt J. (editors) *Educational Research in Practice*. Cromwell Press, Wiltshire, 111 – 124.

Battliana J., Leca B. and Boxenbaum E. (2009) How actors change institutions: Towards a theory of institutional entrepreneurship. *The Academy of Management Annals* 3(1), 65-107.

Baxter S.K. and Brumfitt S.M. (2008) Professional differences in interprofessional working. *Journal of Interprofessional Care* 22(3), 239-251.

Beech P. and Huxham C. (2003) Cycles of identity formation in collaboration. *International Studies of Management and Organization* 33(3), 28-52.

Begley C.M. (2001) Student midwives' views of student/staff relationships in the first three months of clinical practice: 'They all have their moments'. *All Ireland Journal of Nursing and Midwifery* 1(4), 128-134.

Begun J.W., Zimmerman B. and Dooley K.J. (2003) Healthcare Organizations as Complex Adaptive Systems, In Mick S.S. and Wyttenbach M.E. (editors), *Advances in Healthcare Organization Theory*. Jossey-Bass, San Francisco, 253-288.

Bennis W. (2000) Leadership for Change, In Beer M. and Nohria N. (editors) *Breaking the Code of Change*. Harvard Business School Press, Boston, 113-122.

Berger P.L. and Luckmann T. (1980) *The Social Construction of Reality: A Treatise in the Sociology of Knowledge.* Irvington Publishers, New York.

Bero L.A., Grilli R., Grimshaw J.M., Harvey E., Oxman A.D. and Thomson M.A. (1998) Closing the gap between research and practice: an overview of systematic reviews of interventions to promote the implementation of research findings. *British Medical Journal* 317(7156), 465-468.

Bettencourt L.M., Cintrón-Arias A., Kaiser D.I., and Castillo-Chavéz C. (2006) The power of a good idea: quantitative modelling of the spread of ideas from epidemiological models. *Physica* 364, 513-536.

Bierly P.E., Stark E.M. and Kessler E.H. (2009) The moderating effects of virtuality on the antecedents and outcome of NPD team trust. *Journal of Product Innovation Management* 26, 551-565.

Bishop V. and Freshwater D. (2003). Capacity-building and careers in nursing research: Rationale and context. *Nursing Times Research* 8(6), 398-406.

Bleakley A., Boyden J., Hobbs A., Walsh L. and Allard J. (2006) Improving teamwork climate in operating theatres: The shift from multiprofessionalism to interprofessionalism. *Journal of Interprofessional Care* 20(5), 461-470.

Blue I. and Fitzgerald M. (2002) Interprofessional relations: case studies of working relationships between registered nurses and general practitioners in rural Australia. *Journal of Clinical Nursing* 11, 314-321.

Bondmass M. (2010) Conceptual models of evidence-based practice: part II of a four-part series on evidence-based practice. *Nevada Registered Nurse Information* 19(4), 6-22.

Bonebright D.A. (2010) 40 years of storming: a historical review of Tuckman's model of small group development. *Human Resource Development International* 13(1), 111-120.

Boonstra J.J. (2004) *Dynamics of Organizational Change and Learning.* Wiley and Sons, West Essex.

Borrill C.S., Carletta J., Carter A.J., Dawson J.F., Garrod S., Rees A., Richards A., Shapiro D. and West M.A. (2001). *The effectiveness of health care teams in the National Health Service*. Aston Centre for Health Service Organisational Research, University of Aston, Human Communications Research Centre, Universities of Glasgow and Edinburgh, Psychological Therapies Research Centre, University of Leeds, UK.

Borrill C.S., West M.A., Shapiro D. and Reeves A. (2000) Team working and effectiveness in health care. *British Journal of Health Care* 6(8), 364-371.

Bounds G., York L., Adams M. and Ranney G. (1996) *Beyond Total Quality Management: Toward the Emerging Paradigm.* McGraw Hill, New York.

Bowling A. (2002) *Research Methods in Health; Investigating Health and Health Services*. Open University Press, Maidenhead.

Bradbury Huang H. (2010) What is good action research? Why the resurgent interest? *Academy of Management ODC Newsletter,* Organization Development and Change Division, Bounder,1-13.

Brewer M.B. (1986) The Role of Ethnocentrism in Intergroup Conflict, In Worchel S. and Austin W.G (editors), *Psychology of Intergroup Relations,* 2nd edn. Nelson-Hall, Chicago, 88-102.

Brewerton P. and Millward L. (2001) *Organizational Research Methods*. Sage, London.

Brown D. and McCormack B. (2005) Developing postoperative pain management: utilising the promoting action on research implementation in health services (PARIHS) framework. *Worldviews on Evidence Based Nursing* 2(3), 131-141.

Brown J., Lewis L., Ellis K., Stewart M., Freeman T.R. and Kasperski M.J. (2011) Conflict on interprofessional primary health care teams – can it be resolved? *Journal of Interprofessional Care* 25(1), 4-10.

Bruton G.D., Ahlstrom D. and Han-Lin L. (2010). Institutional theory and entrepreneurship: where are we now and where do we need to move in the future? *Entrepreneurship: Theory & Practice* 34(3), 421-440.

Bryar R.M., Closs S.J., Baum G., Cooke J., Griffiths J., Hostick T., Kelly S., Knight S., Marshall K. and Thompson D.R. (2003) The Yorkshire Barriers project: diagnostic analysis of barriers to research utilisation. *International Journal of Nursing Studies* 40(1), 73-84.

Bryman A. (1992) *Charisma and Leadership in Organizations*. London, Sage.

Bryman A. (2004) *Social Research Methods,* 2nd edn. Oxford University Press, Oxford.

Bstieler L. and Hemmert M. (2010) Increasing learning and time efficiency in interorganizational new product development teams. *Journal of Product Innovation Management* 27(4), 485-499.

Buchan H. (2004) Gaps between best evidence and practice: causes for concern. *The Medical Journal of Australia* 180 (6 Suppl), S48-S49.

Buchanan D. and Boddy D. (1992) *The Expertise of the Change Agent.* Prentice Hall, New York.

Buffum M.D., Hutt E., Chang V.T., Craine M.H. and Snow L. (2007) Cognitive impairment and pain management: Review of issues and challenges. *Journal of Rehabilitation Research and Development* 44(2), 315-330.

Bunderson J.S. and Bourngarden P. (2010) Structure and learning in self-managed teams: Why "bureaucratic" teams can be better learners. *Organization Science* 21(3), 609-624.

Burke W.W. (2010) The New Agenda for Organizational Development, In Coghlan D. and Shani A.B. (editors), *Fundamentals of Organization Development*, Vol I. Sage, London, 101-120.

Burnes B. (2004a) *Managing Change* 4th edn. Pearson Education Limited, Harlow.

Burnes B. (2004b) Kurt Lewin and the planned approach to change: A re-appraisal. *Journal of Management Studies* 41(6), 977-1002.

Bushe G.R. and Marshak R.J.(2009) Revisioning organisation development: Diagnostic and dialogic premises and patterns of practice. *The Journal of Applied Behavioural Science* 45(3), 348-368.

Butler R.J. (2009a) Coming to Terms with Personal Construct Theory, In Butler R.J. (editor), *Reflections in Personal Construct Theory*. Wiley-Blackwell, Chichester, 3-20.

Butler R.J. (2009b) The Organisational Corollary in Relation to Self-Construing, In Butler R.J. (editor), *Reflections in Personal Construct Theory*. Wiley-Blackwell, Chichester, 111-130.

Cadogan M.P., Schnelle J.F., Al-Sammarrai N.R., Yamamoto-Mitani N., Cabrera G., Osterweil D. and Simmons S.F. (2005) A standardized quality assessment system to evaluate pain detection and management in the nursing home. *Journal of the American Medical Directors Association* 6(1), 1-9.

Cairns E. (1982) Intergroup Conflict in Northern Ireland, In Tajfel H. (editor), *Social Identity and Intergroup Relations*. Cambridge University Press, Cambridge.

Callan V.J., Gallois C., Mayhew M.G., Grice T.A., Tluchowski M. and Boyce R. (2007) Restructuring the multi-professional organization: Professional identity and adjustment to change in a public hospital. *Journal of Health and Human Services Administration* 27(4) 448-477.

Camacho L.M. and Paulus P.B. (1995) The role of social anxiousness in group brainstorming. *Journal of Personality and Social Psychology* 68, 1071-1080.

Cameron A. (2011) Impermeable boundaries? Developments in professional and inter-professional practice. *Journal of Interprofessional Care* 25, 53-58.

Campbell A. (1998) *Altruism and Aggression*. The British Psychological Society, Leicester.

Canadian Interprofessional Health Collaborative (CIHC) (2010) *A National Interprofessional Competency Framework*. CIHC, Vancouver.

Carlile P. (2002) A pragmatic view of knowledge and boundaries: Boundary objects in new product development. *Organization Science* 13(4), 442-455.

Cartwright D. (1951) Foreword to the 1951 Edition of Field Theory in Social Science in Lewin K. (author), *Social Conflicts and Field Theory in Social Science.* American Psychological Association, Washington DC, 159-165.

Central Statistics Office (2007) *Ageing in Ireland.* The Stationery Office, Dublin.

Chang A., Bordia P. and Duck. J. (2003). Punctuated equilibrium and linear progression: Toward a new understanding of group development. *Academy of Management Journal* 46(1) 106-117.

Chang K.S. (2011) Membership stability and performance: a study of baseball clubs and laboratory groups. *International Journal of Human Resource Management* 22(2), 457-480.

Chelluri L. (2006) Process Change in Health Care Institutions: Top-Down or Bottom-up, In DeVita M.A., Hillman K. and Bellomo R. (editors*) Medical Emergency Teams, Implementation and Outcome Measurements.* Springer, New York, 24-31.

Chilvers R., Harrison G., Sipos A. and Barley M. (2002) Evidence into practice. Application of psychological models of change in evidence-based implementation. *British Journal of Psychiatry* 181, 99-101.

Choi J.M. (2002) External activities and team effectiveness: Review and theoretical development. *Small Group Research* 33,181–208.

Ciliska D. (2006) Evidence based nursing: how far have we come? What's next? *Evidence Based Nursing* 9(2), 38-40.

Clark P.G. (2011) Examining the interface between interprofessional practice and education: Lessons learned from Norway for promoting teamwork. *Journal of Interprofessional Care* 25(1), 26-32.

Clark P.G., Leinhaas M.M. and Filinson R. (2002) Developing and evaluating an interdisciplinary clinical team training program: Lessons taught and lessons learned. *Educational Gerontology* 28, 491-510.

Clarke C.L. and Wilson V. (2008) Learning – The Heart of Practice Development, In Manley K. McCormack B. and Wilson V. (editors), *International Practice Development in Nursing and Healthcare.* Wiley-Blackwell, Hoboken NJ.

Coe R. and Gould D. (2008) Disagreement and aggression in the operating theatre. *Journal of Advanced Nursing* 61(6), 609-618.

Coghlan D. (2011) Organization Development and Action Research: Then and Now, In Boje D., Burnes B. and Hassard J. (editors), *The Routledge Companion to Change*. Routeledge, Abingdon.

Coghlan D. and Brannick T. (2010) *Doing Action Research in your Own Organisation*, 3rd edn. Sage Publications, London.

Coghlan D. and Rashford N.S. (2006) *Organizational Change and Strategy, an Interlevel Dynamics Approach.* Routledge, London.

Coghlan D. and Shani A.B. (2005) Roles, politics and ethics in action research design. *Systemic Practice and Action Research* 18(6), 533-546.

Coghlan D. and Shani A.B. (2010) *Fundamentals of Organization Development*, Vol 1. Sage, London.

Cohen A.R. (2000) Initiating Change, The Anatomy of Structure as a Starting Point: A Commentary on Galbraith and Hirschhorn, In Beer M. and Nohria N. (editors), *Breaking the Code of Change.* Harvard Business School Press, Boston, 177-194.

Cohen S.G., Ledford G.E. and Spreitzer G.M. (1996) A predictive model of self-managing work team effectiveness. *Human Relations* 49(5), 643-676.

Cohen S.G. and Bailey D.E. (1997) What makes teams work: Group effectiveness research from the shop floor to the executive suite. *Journal of Management* 23(3), 239-290.

Colón-Emeric C.S., Ammarell N., Bailey D., Lekan-Rutledge D., Anderson R.A. and Piven M.L. (2006) Patterns of medical and nursing staff communication in nursing homes: implications and insights from complexity science. *Qualitative Health Research* 16(2), 173-188.

Commission of the European Communities (1994) *European Social Policy: Options for the Union. Green Paper.* Office for Official Publications of the European Communities, Luxembourg.

Commission on Nursing (1998) *A Report of the Commission on Nursing: A Blueprint for the Future.* Government of Ireland, Dublin.

Conner D. R. (1998) *Leading at the edge of chaos: How to create the nimble organization.* JohnWiley & Sons, New York.

Convery J. (2001) Ireland, In Blackman T., Broadhurst S. and Convery J. (editors), *Social Care and Social Exclusion: A Comparative Study of Older People's Care in Europe*. Palgrave, London, 83-95.

Conway E. and Monks K. (2010) Change from below: the role of middle managers in mediating paradoxical change. *Human Resource Management Journal* 21(2), 190-203.

Cook A.J., Niven C.A. and Downs M.G. (1999) Assessing the pain of people with cognitive impairment. *International Journal of Geriatric Psychiatry* 14(6), 421-425.

Cook G., Gerrish K. and Clarke C. (2001) Decision-making in teams: issues arising from two UK evaluations. *Journal of Interprofessional Care* 15(2), 141-151.

Cooper A. (2009) Interprofessional working: choice or destiny? *Clinical Child Psychology and Psychiatry* 14(4), 531-536.

Costa A.C., Roe R.A. and Taillieu T. (2001) Trust within teams: The relation with performance effectiveness. *European Journal of Work and Organizational Psychology* 10(3), 225-244.

Costa A. and Anderson N. (2011) Measuring trust in teams: Development and validation of a multifaceted measure of formation. *European Journal of Work and Organisational Psychology* 20(1), 119-154.

Cowley S., Bliss J., Mathew A. and McVey C. (2002) Effective Interagency and interprofessional working: Facilitators and barriers. *International Journal of Palliative Nursing* 8, 30-39.

Cronbach L. (1975) Beyond the two disciplines of scientific psychology. *American Psychologist* 30, 116-127.

Crotty M. (2003) *The Foundations of Social Research: Meaning and Perspective in the Research Process*. Sage, London.

Culp K., Ramey S. and Karlman S. (2008) Iowa certified nursing assistants study: Self-reported rating of the nursing home work environment. *Research in Gerontological Nursing* 1(2), 87- 96.

Cummings T. (2004) Organisational development and change, foundations and applications, In Boonstra J. (editor), *Dynamics of Organisational Change and Learning*. John Wiley and Sons, Chichester. 26-42.

Cummings T.G. and Worley C.G. (2001) *Organisational Development and Change*, 7th edn. South-Western College Publishing, Mason, OH.

Curseu P.L. and Schruijer S.G. (2010) Does conflict shatter trust or does trust obliterate conflict? Revisiting the relationships between team diversity, conflict and trust. *Group Dynamics: Theory, Research and Practice* 14(1), 66-79.

Dáil Eireann. (2007) Volume 644 – 19 December. *Written Answers – Health Services*. Available at http://historical-debates.oireachtas.ie/D/0644/D.0644.200712190129.html (Accessed 2/4/2010)

Dale A.E. (2005) Evidence based practice: compatibility with nursing. *Nursing Standard* 19(40), 48-53.

D'Amour D. and Oandasan I. (2005) Interprofessionality as the field of interprofessional practice and interprofessional education: An emerging concept. *Journal of Interprofessional Care* Supplement 1, 8-20.

D'Amour D., Ferrada-Fidela M., San Martin Rodriguez L. and Beaulieu M.D. (2005) The conceptual basis for interprofessional collaboration: Core concepts and theoretical frameworks. *Journal of Interprofessional Care* Supplement 1, 116-131.

Darnall N. and Edwards D. (2006) Predicting the cost of environmental management system adoption: the role of capabilities, resources and ownership structure. *Strategic Management Journal* 27(4), 301-320.

D'Aunno T., Succi M. and Alexander J.A. (2000) The role of institutional and market forces in divergent organizational change. *Administrative Science Quarterly* 45, 679-703.

Dawson S. (1996) *Analysing Organisations,* 3rd edn. Palgrave, Hampshire.

Dawson S. (2007) Interprofessional working: communication, collaboration…perspiration! *International Journal of Palliative Nursing* 13(10) 502-505.

De Jong B.A. and Elfring T. (2010) How does trust affect the performance of ongoing teams? The mediating role of reflexivity, monitoring and effort. *Academy of Management Journal* 53(3), 535-549.

Delmas M.A. and Toffel M.W. (2008) Organizational responses to environmental demands: Opening the black box. *Strategic Management Journal* 29(10), 1027-1055.

Delva D., Jamieson M. and Lemieux M. (2008). Team effectiveness in academic primary health care teams. *Journal of Interprofessional Care* 22(6), 598-611.

Dennis A., Garfield M. and Reinicke B. (2008) Towards an integrative model of group development. *Sprouts: Working Papers on Information Systems*. Sprouts, Amsterdam.

Department of Health and Children (2001) *Primary Care, a New Direction: Quality and Fairness, A Health System for you.* Stationery Office, Dublin.

Department of Health and Children (2006) *A Vision for Change: Report of the Expert Group on Mental Health Policy*. Stationery Office, Dublin.

Department of Health and Children (2008) *Building a Culture of Patient Safety*. Stationery Office, Dublin.

Deppoliti D. (2008) Exploring how new registered nurses construct professional identity in hospital settings. *The Journal of Continuing Education in Nursing* 39 (6), 255-262.

Deschamps J-C. (1982) Social Identity and Relations of Power Between Groups, In Tajfel H. (editor), *Social Identity and Intergroup Relations*. Cambridge University Press, Cambridge, 85-97.

Detert J.R., Schroeder R.G. and Mauriel J.J. (2000) A framework for linking culture and improvement initiatives in organisations. *Academy of Management Review* 25(4), 850-863.

Dewey J. (1938) *Logic: The Theory of Inquiry*. Holt, New York.

Dewey J. (1991) *The Public and its Problems.* Ohio University Press, Athens.

Dewey J. (1997a) From the Need for a Recovery of Philosophy, In Menand L. (editor), *Pragmatism: A Reader.* Vintage Books, New York, 219-232.

Dewey J. (1997b) The Ethics of Democracy, In Menand L. (editor), *Pragmatism: A Reader*. Vintage Books, New York, 82-204.

DiBella A.J. (1996) Culture and planned change in an international organization: a multi-level predicament. *The International Journal of Organizational Analysis* 4(4), 352-372.

DiCenso A., Cullum N. and Ciliska D. (1998) Implementing evidence based nursing: some misconceptions. *Evidence Based Nursing* 1, 38-39.

Dickinson H. and Glasby, J. (2010). 'Why Partnership Working Doesn't Work'. *Public Management Review* 12(6), 811-828.

Diehl M. and Stroebe W. (1987) Productivity loss in brainstorming groups: Towards the solution of a riddle. *Journal of Personality and Social Psychology* 53(3), 497-509.

Dopson S. and Fitzgerald L. (2006). The role of the middle manager in the implementation of evidence based health care. *Journal of Nursing Management* 14, 43-51.

Dopson S., Fitzgerald L. and Ferlie E. (2008) Understanding change and innovation in healthcare settings: Reconceptualising the active role of context. *Journal of Change Management* 8(3-4), 213-231.

Drucker P.F. (2000) *Management Challenges for the 21st Century*. Butterworth-Heinemann, Oxford.

Drury J. and Reicher S. (2005) Explaining enduring empowerment: a comparative study of collective action and psychological outcomes. *European Journal of Social Psychology* 35, 35-58.

Dunn R.G. (1998) *Identity Crises: A Social Critique of Postmodernity*. University of Minnesota Press, Minneapolis.

Dunphy D. (2000) Embracing paradox: top-down versus participative management of organizational change, a commentary on Conger and Bennis, In Beer M. and Nohria N. (editors), *Breaking the Code of Change*. Harvard Business School Press, Boston, 123-136.

Easton K.L. (1999) *Gerontological Rehabilitation Nursing*. Saunders, Philadelphia.

Eden C. and Huxham C. (1996) Action Research for the Study of Organizations, In Clegg S., Hardy C. and Nord W. (editors), *The Handbook of Organizational Studies*. Sage Publications, Beverly Hills, 526-542.

Edmondson A.C. (1999) Psychological safety and learning behaviour in work teams. *Administrative Science Quarterly* 44, 350-383.

Edmondson A.C., Bohmer R.M and Pisano G. (2001) Disrupted routines: Team learning and new technology implementation in hospitals. *Administrative Science Quarterly* 46, 685-716.

Edmondson A.C. (2002) Managing the risk of learning: Psychological safety in work teams. In West M. (editor), *International Handbook of Organizational Teamwork*. Blackwell, London.

Edmondson A.C. (2003) Speaking up in the operating team: How team leaders promote learning promote learning in interdisciplinary action teams. *Journal of Management Studies* 40(6), 1419-1452.

Edmondson A.C. and McLain Smith D. (2006) Too hot to handle? How to manage relationship conflict. *Canadian Management Review* 49(1), 6-31.

Edmondson A.C. and Nembhard I.M. (2009) Product development and learning in project teams: The challenges are the benefits. *Journal of Product Innovation Management* 26, 123-138.

Elsmore P.J. (1999) *The Management of Organisational Change: An Investigation into the Realities of Organisational Cultures*. Unpublished PhD Thesis, Anglia Polytechnic University, Cambridge.

Engel C. (1994) A Functional Anatomy of Teamwork, In Leathard A. (editor), *Going Interprofessional: Working Together for Health and Welfare*. Routledge, Florence KY, 64-73.

Ennis K. and Harrington D. (1999) Quality management in Irish health care. *International Journal of Health Care Quality Assurance Incorporating Leadership in Health Services* 12(6-7), 232-243.

Ephross P.H. (2005) *Group That Work: Structure and Process*. Columbia University Press, New York.

Ersek M. (1999) Enhancing effective pain management by addressing patient barriers to analgesic use. *Journal of Hospice and Palliative Nursing* 1(3), 87-96.

Ersek M.A. and Pronovost P.J. (2004) Evidence-based complementary medicine for palliative cancer care: does it make sense? *Palliative Medicine* 17, 7004-7007.

Ericksen J. and Dyer L. (2002) Right from the start: The effects of early events on subsequent project team development and performance. *CAHRS Working Paper Series, Paper 61.* Center for Advanced Human Resource Studies, Cornell University.

Ernst C. and Chrobot-Mason D. (2011) *Boundary Spanning Leadership: Six Practices for Solving Problems, Driving Innovation and Transforming Organizations*. McGraw-Hill, New York.

ESRI (2010) *Economy Current Trends*. Available at http://www.esri.ie/irish_economy/ (Accessed 14/6/11)

Eyben R., Harris C. and Pettit J. (2006) Exploring Power for Change. *Institute for Development Studies Bulletin* 37, 1-10.

Fahey T. (1998) Population Ageing, the Elderly and Health Care, In Leahy A.L. and Wiley M.M. (editors), *The Irish Health System in the 21st Century*. Oak Tree Press, Dublin, 183-198.

Fals Borda O. (2006) Participatory (Action) Research in Social Theory: Origins and Challenges, In Reason P. and Bradbury H. (editors), *Handbook of Action Research*, 2nd edn. Sage Publications, London, 27-37.

Faraj S. and Yan A. (2009) Boundary work in knowledge teams. *Journal of Applied Psychology* 94(3), 604-617.

Farrell M.P., Schmitt M.H. and Heinemann G.D. (2001) Informal roles and the stages of interdisciplinary team development. *Journal of Interprofessional Care* 15(3), 281-295.

Feder G., Eccles M., Grol R., Griffiths C. and Grimshaw J. (1999) Clinical guidelines: using clinical guidelines. *British Medical Journal* 318, 728-730.

Fenton K.A., Johnson A.M., McManus S. and Erens B. (2001) Measuring sexual behaviour: methodological challenges in survey research. *Sexually Transmitted Infections* 77, 84-92.

Ferrence R. (2001) Diffusion theory and drug use. *Addiction* 96(1), 165-173.

Ferrell B. and McCaffery M. (2000) *Knowledge and Attitudes Survey Regarding Pain.* Available from http://www.prc.coh.org (Accessed 6/9/07)

Firth-Cozens J. (2001) Cultures for improving patient safety through learning: the role of teamwork. *Quality in Health Care* 10(2), 26-31.

Folstein M.F., Folstein S.E. and McHugh P.R. (1975) "Mini-mental state". A practical method for grading the cognitive state of patients for the clinician". *Journal of Psychiatric Research* 12 (3), 189-198.

Fontaine A., Vinceneux P., Traversat A.F. and Catala C. (1997) Toward quality improvement in a French hospital: structure and culture. *International Journal of Quality Health Care*, 9(3), 177-181.

Forbes-Thompson S., Leiker T. and Bleich M.R. (2007) High-performing and low-performing nursing homes: A view from complexity science. *Health Care Management Review* 32(4), 341-351.

Ford J.D., Ford L.W. and D'Amelio A. (2008) Resistance to change: the rest of the story. *Academy of Management Review* 33(2), 362-377.

Forsyth D.R. (1990) *Group Dynamics*, 2nd edn. Brooks/Cole Publishing, Pacific Grove CA.

Fougner M. and Horntvedt T. (2011) Students' reflections on shadowing interprofessional teamwork: a Norwegian case study. *Journal of Interprofessional Care* 25(1), 33-38.

Fournier V. (2000) Boundary work and the (un)making of the professions, In Malin N.(editor), *Professions, Boundaries and the Workplace*. Routledge, London, 67-87.

Fox P.L., Raina P. and Jadad A.R. (1999) Prevalence and treatment of pain in older adults in nursing homes and other long-term care institutions: a systematic review. *Canadian Medical Association Journal* 160(3), 329-333.

Francis H.M. (2000) *A Processual Analysis of Organisational Change and the Role of Human Resource Management*. Unpublished PhD Thesis. DeMonfort University, Leicester.

Frankel T. (2009) Trust and the Internet, In Silkenat J.R., Aresty J.M. and Klosek J. (editors) *The ABA Guide to International Business Negotiations: A Comparison of Cross-Cultural Issues and Successful Approaches*, 3rd edn. American Bar Association Publishing, Chicago.

Freeth D. (2001) Sustaining interprofessional collaboration. *Journal of Interprofessional Care* 15(1), 37-46.

Freeth D., Hammick M., Koppel I., Reeves S. and Barr H. (2002) *A Critical Review of Evaluations of Interprofessional Education: Occasional Paper No 2*. The Higher Education Academy, UK.

Freeth D. Reeves S., Koppel I., Hammick M. and Barr (2005) *Evaluating Interprofessional Education: A Self-help Guide. Occasional Paper No. 5*. The Higher Education Academy, UK.

French P. (1999) The development of evidence based nursing. *Journal of Advanced Nursing* 29(1), 72-78.

French W.L. and Bell C.H. (1984) *Organization Development*, 3rd edn. Prentice-Hall International, New Jersey.

Friedman V.J. (2006) Action Science: Creating Communities of Inquiry in Communities of Practice, In Reason P. and Bradbury H. (editors), *Handbook of Action Research*, 2nd edn. Sage Publications, London, 131-143.

Friedman R.A. and Podolny J. (1992) Differentiation of boundary spanning roles: Labor negotiations and implications for role conflict. *Administrative Science Quarterly* 37(1), 28-47.

Fulmer R.D. and Bernard Keys J. (1998) A conversation with Chris Argyris: the father of organizational learning. *Organizational Dynamics* Autumn, 21-32.

Galbraith J.R. (2000) The Role of Formal Structures and Processes, In Beer M. and Nohria N. (editors), *Breaking the Code of Change*. Harvard Business School Press, Boston, p139-159.

Gardner D.B. (2005) Ten lessons in collaboration. *Online Journal of Issues in Nursing* 10(1), manuscript 1. Available from: http://www.nursingplanet.com/Nursing_Research/free_articles5.htm (Accessed 6/10/2007)

Gardner D. (2009) Health care reform: through the lens of change. *Nursing Economics* 27(6), 419-421.

Gaventa J. (2003) *Power after Luke's: An overview of theories of power since Lukes and their application to development.* Available from http://www.powercube.net/wp-content/uploads/2009/11/power_after_lukes.pdf (Accessed 4/8/10)

Gaventa J. (2004) Towards Participatory Governance: Assessing the Transformative Possibilities, In Hickey S. and Mohan G. (editors), *Participation: From Tyranny to Transformation? Exploring New Approaches to Participation in Development*. Zed Books, London, 25-41.

Gaventa J. (2005) *Reflections of the Uses of the 'Power Cube' Approach for Analyzing the Spaces, Places and Dynamics of Civil Society Participation and Engagement*. CFP (Co-Financing Programme) Evaluation Series 4. The Hague, Netherlands: MBN Secretariat.

Gaventa J. (2006) Finding the spaces for change: a power analysis. *Institute of Development Studies Bulletin* 37(6), 23-33.

Gaventa J. and Cornwall A. (2006) Power and Knowledge, In Reason P. and Bradbury H. (editors) *Handbook of Action Research*, 2nd edn. Sage Publications, London, 71-82.

Gaventa J and Mayo M. (2009) Spanning citizenship spaces through transnational coalitions: The case of the global campaign for education. *Institute of Development Studies Working Paper Volume 2009, Number 327*. Institute of Development Studies, Brighton.

Gaventa J. (2011) Understanding the Power Cube and Related Concepts, In Gaventa J., Pettit J., Cornish L., Hamilton K. and Napier-Moore R. (editors), *Power Pack: Understanding Power for Social Change*. Institute of Development Studies, University of Sussex, Brighton, 6-31.

Gersick C.J. (1988) Time and transition in work teams: Toward a new model of group development. *Academy of Management Journal* 31, 9-41.

Geva E., Barsky A. and Westernoff F. (2000) Developing a Framework for Interprofessional and Diversity Informed Practice, In Geva E., Barsky A. and Westernoff F. (editors), *Interprofessional Practice with Diverse Populations: Cases in Point.* Auburn House, Westport CT, 1-28.

Ghoshal S. and Bartlett C.A. (2000) Rebuilding Behavioural Context, In Beer M. and Nohria N. (editors) *Breaking the Code of Change.* Harvard Business School Press, Boston 195-222.

Gibb C.E., Morrow M., Clarke C.L., Cook G., Gertig

 P. and Ramprogus V. (2002) Transdisciplinary working: Evaluating the development of health and social care provision in mental health. *Journal of Mental Health* 11(3), 339-350.

Gibbon B. (1998) An investigation of interprofessional collaboration in stroke rehabilitation team conferences. *Journal of Clinical Nursing* 8, 246-252.

Gibbs G. (1988) *Learning by Doing: A Guide to Teaching and Learning Methods.* Further Educational Unit, Oxford.

Gil F., Alcover C.M. and Peiro J.M. (2005) Work team effectiveness in organizational contexts: Recent research and applications in Spain and Portugal. *The Journal of Managerial Psychology* 20(3/4) 193-218.

Gilley A., Godek M. and Gilley J.W. (2009) Change, resistance and the organisational immune system. *Society for Advancement of Management Advanced Management Journal* 74(4), 4-10.

Giuse N.B., Koonce T.Y., Jerome R.N., Cahall M., Sathe N.A. and Williams A. (2005) Evolution of a mature clinical informationist model. *Journal of the American Medical Informatics Association* 12(3), 249-255.

Glacken M. (2002) Research and development in a Northern Ireland Trust. *Nursing Standard* 16(32), 33-37.

Glacken M. and Chaney D. (2004) Perceived barriers and facilitators to implementing research findings in the Irish practice setting. *Journal of Clinical Nursing* 13(6), 731-740.

Gladwell M. (2001) *The Tipping Point: How Little Things Can Make a Big Difference.* Abacus, London.

Glendinning, C. (2010) Continuous and Long-term Care: European Perspectives, in Dannefer D. and Phillipson C. (editors), *The SAGE Handbook of Social Gerontology.* Sage Publications, London, 551-562.

Glendinning C., Arksey H. and Tjadens F. (2009) *Care Provision within Families and its Socio-economic Impact on Care Providers: Policy Briefing.* University of York Social Policy Research Unit, York.

Goldman J., Zwarenstein M., Bhattacharyya O. and Reeves S. (2009) Improving the clarity of the interprofessional field: Implications for research and continuing interprofessional education. *Journal of Continuing Education in the Health Professions* 29(3), 151-156.

Goucke R., Scherer S., Katz B., Gibson S., Farrell M. and Bradbeer M. (2005) *Pain in Residential Aged Care Facilities: Management Strategies*. The Australian Pain Society, Sydney.

Grant A.M. (2010) It takes time: a stages of change perspective on the adoption of workplace coaching skills. *Journal of Change Management* 10(1), 61-77.

Gray B. (2008a) Enhancing trandisciplinary research through collaborative leadership. American *Journal of Preventive Medicine* 35(2S), S124-S132.

Gray B. (2008b) Intervening to Improve Inter-Organizational Partnerships, In Cropper S., Ebers M., Huxham C. and Ring P.S. (editors), *Inter-Organizational Relations*. Oxford University Press, Oxford, 664-690.

Gray D.E. (2009) *Doing Research in the Real World*, 2nd ed. Sage, London.

Greatrex B. (2001) Infection surveillance scheme: Collaborative working practices. *British Journal of Nursing* 10(5) 307-311.

Greenfield D., Nugus P., Travaglia J. and Braithwaite J. (2010) Auditing an organization's interprofessional learning and interprofessional practice: The interprofessional praxis audit framework (IPAF). *Journal of Interprofessional Care* 24(4), 436-449.

Greenhalgh T., Robert G., Bate P., Kyriakidou O., Macfarlane F. and Peacock R. (2004) *How to Spread Good Ideas, A Systematic Review of the Literature on Diffusion, Dissemination and Sustainability of Innovations in Health Service Delivery and Organisation.* National Co-ordinating Centre for NHS Service Delivery and Organisation Research and Development, London.

Greenwood D.J. and Levin M. (2007) *Introduction to Action Research: Social Research for Social Change,* 2nd edn. Sage Publications, Thousand Oaks.

Greenwood J. (1984) Nursing research: a position paper. *Journal of Advanced Nursing* 9, 77-82.

Grieves J. (2010) *Organizational Change, Themes and Issue*. Oxford University Press, Oxford.

Grol R. (2001) Successes and failures in the implementation of evidence based guidelines for clinical practice. *Medical Care* 39(8, suppl 2), II46 – II54.

Guba E.G and Lincoln Y.S. (1998) Competing paradigms in qualitative research, In Denzin N.K. and Lincoln Y.S. (editors) *The Landscape of Qualitative Research, Theories and Issues*. Sage Publications, Thousand Oaks, 195-220.

Gulliver P., Peck E. and Towell D. (2002) Balancing professional and team boundaries in mental health services: Pursuing the holy grail in Somerset. *Journal of Interprofessional Care* 16(4), 359-370.

Gustavsen B. (2006) Theory and Practice: the Mediating Discourse, In Reason P. and Bradbury H. (editors) *Handbook of Action Research*, 2nd edn. Sage Publications, London, 17-26.

Hackman J.R. (1990) *Groups that Work (and Those that Don't): Creating Conditions for Effective Teamwork.* Jossey-Bass, San Francisco.

Haines A. and Jones R. (1994) Implementing findings of research. *British Medical Journal* 308, 1488-1492.

Halcomb E.J. and Andrew S. (2005) Triangulation as a method for contemporary nursing research. *Nurse Researcher* 13(2), 71-82.

Hall P. (2005) Interprofessional teamwork: Professional cultures as barriers. *Journal of Interprofessional Care* Supplement 1, 188-196.

Hamer S. and Collinson G. (2003) *Achieving Evidence Based Practice*. Bailliere Tindall and Royal College of Nursing, Edinburgh.

Hammick M., Freeth D., Koppel I.. Reeves S. and Barr H. (2007) A best evidence systematic review of interprofessional education: BEME Guide no. 9. *Medical Teacher* 29(8) 735-751.

Hammick M., Freeth D., Copperman J. and Goodsman D. (2009a) *Being Interprofessional.* Polity Press, Cambridge.

Hammick M., Olckers L. and Campion-Smith C. (2009b) Learning in interprofessional teams: AMEE Guide no 38. *Medical Teacher* 31, 1-12.

Handy C.B. (1985) *Understanding Organizations,* 3rd edn. Penguin Group, London.

Hansen G.S. and Helgesen M.K. (2011) Multi-level governance in Norway: Universalism in elderly and mental health care services. *International Journal of Sociology and Social Policy* 31(3/4), 160-172.

Hanson W.E., Creswell J.W., Plano-Clarke V.L., Peska K.S. and Creswell J.D. (2005) Mixed methods research designs in counselling psychology. *Journal of Counselling Psychology* 52(2), 224-235.

Harris T., Cook D., Wicks P. and Cappuccio F. (2000) Impact of the new American Diabetes Association and World Health Organisation diagnostic criteria for diabetes on subjects from three ethnic groups living in the UK. *Nutrition, Metabolism, And Cardiovascular Diseases: NMCD* 10(6), 305-309.

Hart E. and Bond M. (1995) *Action Research for Health and Social Care: A Guide to Practice.* Open University, Milton Keynes.

Hatch M.J. (1997) *Organization Theory: Modern, Symbolic and Postmodern Perspectives*. Oxford University Press, Oxford.

Hatch M. and Schultz M. (1997) Relations between organizational culture, identity and image. *European Journal of Marketing* 31, 356 – 365.

Hatch M.J., Schultz M. and Majken Olins W. (2008) *Taking Brand Initiative: How Companies can Align Strategy, Culture, and Identity Through Corporate Branding.* John Wiley and Sons, San Francisco.

Haynes B. and Haines A. (1998) Getting research findings into practice: Barriers and bridges to evidence based clinical practice. *British Medical Journal* 317, 273-276.

Health Information and Quality Authority (2009) *National Quality Standards for Long-stay care Settings for Older People in Ireland*. HIQA, Mahon, Cork.

Health Service Executive (2008) *Your Health your Future. Your Guide to Services for Older People in Ireland.* Sunday Independent Publications, Dublin.

Health Service Executive (2009) *HSE Legal Activity Project: Enhancing Organisational Learning in response to the Mental Health Acts 2001-2009.* Health Service Executive, Dublin.

Health Service Executive (2010a) *Annual Report and Financial Statements 2010.* Health Service Executive, Dublin.

Health Service Executive (2010b) *Enhancing Care for Older People Report*. HSE, Tullamore.

Hean S. and Dickinson C. (2005) The contact hypothesis: an exploration of its further potential in interprofessional education. *Journal of Interprofessional Care* 19(5), 480-491.

Heater B.S., Becker A.M. and Olsen R.K. (1988) Nursing Interventions and patient outcomes: a meta-analysis of studies. *Nursing Research* 37(5), 303-307.

Heldal F. (2010) Multidisciplinary collaboration as a loosely coupled system: Integrating and blocking professional boundaries with objects. *Journal of Interprofessional Care* 24(1), 19-30.

Heron J. and Reason P. (2006) The practice of Co-operative Inquiry: Research 'with' rather than 'on' People, In Reason P. and Bradbury H. (editors), *Handbook of Action Research*, 2nd edn. Sage Publications, London, 144-154.

Hewstone M. and Jaspers J.M. (1982) Intergroup relations and attribution processes, In Tajfel H. (editor), *Social Identity and Intergroup Relations*. Cambridge University Press, Cambridge, 99-127.

Hewstone M. and Brown R.J. (1986) Contact is not Enough: An Intergroup Perspective on the Contact Hypothesis, In Hewstone M. and Brown R.J. (editors)*, Contact and Conflict in Intergroup Encounters.* Blackwell, Oxford, 1-44.

Hibbert P., Huxham C. and Smith Ring P. (2008) Managing Collaborative Inter-organizational Relations, In Cropper S., Ebers M., Huxham C. and Ring P.S. (editors), *Inter-Organizational Relations*. Oxford University Press, Oxford, 390-416.

Hibbert P. and Huxham C. (2010) The past in play: Tradition in the structures of collaboration. *Organization Studies* 31(5), 525-554.

Hibbert P. and Huxham C. (2011) The carriage of tradition: Knowledge and its past in network contexts. *Management Learning* 42(1), 7-24.

Higgs M. and Rowland D. (2005) All changes great and small: exploring approaches to change and its leadership. *Journal of Change Management* 5(2), 121-151.

Himmelman, A. (1994) Communities working collaboratively for a change, In Herrman, P. (editor), *Resolving Conflict: Strategies for Local Government*. International City/County Management Association, Washington DC, 27–47.

Himmelman A.T. (1996) On the Theory and Practice of Transformational Collaboration: Collaboration as a Bridge from Social Service to Social Justice. In Huxham C. (editor), *Creating Collaborative Advantage*. Sage Publications, London, 19-43.

Himmelman, A. (2001) On Coalitions and the Transformation of Power Relations: Collaborative Betterment and Collaborative Empowerment. *American Journal of Community Psychology* 29(2), 277-285.

Himmelman A.T. (2002) *Collaboration for a Change: Definitions, Decision-Making Models, Roles and Collaborative Process Guide*. Himmelman Consulting, Minneapolis.

Hinde R.A. and Groebel J. *Cooperation and Prosocial Behavior.* Cambridge University Press, Cambridge.

Hirschorn L. (2000) Changing Structure is not Enough: The Moral Meaning of Organizational Design, In Beer M. and Nohria N. (editors) *Breaking the Code of Change.* Harvard Business School Press, Boston, 161-176.

Hoe S.L. (2006) The boundary spanner's role in organizational learning: unleashing untapped potential. *Development and Learning in Organizations* 20(5), 9-11.

Hofstede G. (1997) *Cultures and Organisations: Software of the Mind*. McGraw-Hill, New York.

Hogg M.A. (2006) Social Identity Theory, In Burke P.J. (editor), *Contemporary Social Psychological Theories*. Stanford Social Sciences, Stanford.

Holbeche L. (2006) *Understanding Change: Theory, Implementation and Success*. Elsevier Science, Oxford.

Holmes J.G., Ellard J.H. and Lamm H. (1986) Boundary roles and intergroup conflict, In Worchel S. and Austing W.G. (editors), *Psychology of Intergroup Relations.* Nelson-Hall, Chicago, 343-364.

Holter I.M. and Schwartz-Barcott D. (1993) Action research: what is it? How has it been used and how can it be used in nursing? *Journal of Advanced Nursing* 18, 298-304.

Hosking D.M. (1999) Social construction as a process: some new possibilities for research and development. *Concepts and Transformation* 4(2), 117-132.

Hosking D.M. (2006) Not leaders, not followers: a post-modern discourse of leadership processes, In Shamir B., Pillai R. Blight M. and Uhl-Bien M. (editors), n *Follower-Centered Perspectives on Leadership: A Tribute to the Memory of James R Meindl*. Information Age Publishing, Greenwich.

Howarth M., Holland K. and Grant M.J. (2006) Education needs for integrated care: a literature review. *Journal of Advanced Nursing* 56(2), 144-156.

Howe A. (2006) Can the patient be on our team? An operational approach to patient involvement in interprofessional approaches to safe care. *Journal of Interprofessional Care* 20(5), 527-534.

Hughes (2007) *Creating an Interprofessional Workforce: An education and training framework for health in England.* Centre for the Advancement of Interprofessional Education. CAIPE and Department of Health, UK.

Hur M.H. (2006) Empowerment in terms of theoretical perspectives: exploring a typology of the process and components across disciplines. *Journal of Community Psychology* 34(5), 523-540.

Hutchinson A.M. and Johnston L. (2004) Bridging the divide: a survey of nurses' opinions regarding barriers to and facilitators of, research utilization in the practice setting. *Journal of Clinical Nursing* 13, 304-315.

Huxham C. (2003) Theorizing collaboration practice. *Public Management Review* 5(3), 401-423.

Huxham C. and Beech N. (2008) Inter-Organizational Power, In Cropper S., Ebers M., Huxham C. and Ring P.S. (editors) *Inter-Organizational Relations*. Oxford University Press, Oxford.

Huxham C. and Hibbert P. (2008) Manifested attitudes: intricacies of inter-partner learning in collaboration. *Journal of Management Studies* 45(3), 502-529.

Huxham C. and Vangen S. (2000) What Makes Partnerships Work? In S. Osborne (editor) *Public-Private Partnerships: Theory and Practice in International Perspective*. Routledge, London, 293–310.

Huxham C. and Vangen S. (2001) What Makes Practitioners Tick? Understanding Collaboration Practice and Practicing Collaboration Understanding, In Genefke J. and McDonald F. (editors) *Effective Collaboration: Managing the Obstacles to Success*. Palgrave, Hampshire, 1-16.

Icaza R., Newell P. and Saguier M. (2009) Democratising trade politics in the Americas: Insights from the women's environmental and labour movements. *Institute of Development Studies Working Paper Volume 2009, Number 328.* Institute of Development Studies, Brighton.

Iles P. and Auluck R. (2004) Team Building, Inter-Agency Team Development and Social Work Practice, In Mabey C. and Mayon-White B. (editors) *Managing Change*. Chapman Publishing Ltd, London, 173-180.

Inter-Departmental Committee on the Care of the Aged (1968) *The Care of the Aged.* Stationery Office, Dublin.

Jacobsen F., Fink A.M., Marcussen V., Larsen K. and Hansen T.B. (2009) Interprofessional undergraduate clinical learning: Results from a three year project in a Danish interprofessional training unit. *Journal of Interprofessional Care* 23(1), 30-40.

Interprofessional Network of British Columbia and University of British Columbia College of Health Disciplines (2008) *The British Columbia Competency Framework for Interprofessional Collaboration*. UBC College of Health Disciplines, British Columbia.

Jacobs G. (2010) Conflicting demands and the power of defensive routines in participatory action research. *Action Research* 8(4), 367-386.

Jacobsen F, Fink A.M., Marcussen V., Larsen K. and Hansen T.B. (2009) Interprofessional undergraduate clinical learning: Results from a three year project in a Danish interprofessional training unit. *Journal of Interprofessional Care* 23(1), 30-40.

James W. (2000) *Pragmatism and Other Writings*. Penguin books, New York.

Janis I. (1972) *Victims of Groupthink*. Houghton Mifflin, Boston, 8-9.

Jarvenpaa S.L. and Leidner D.E. (1999).Communication and trust in global virtual teams. *Organization Science* 10, 791–815.

Jelphs K. and Dickinson H. (2008) *Working in Teams.* The Policy Press, Bristol.

Jenkins R. (2008) *Social Identity* 3rd edn. Routledge, Oxford.

Jervis L.J. (2002) Working in and around the chain of command: power relations among nursing staff in an urban nursing home. *Nursing Inquiry* 9(1), 12-23.

Johanson L.S. (2008) Interprofessional collaboration: nurses on the team. *Medical and Surgical Nursing* 17(2), 129-130.

Jones G.R. and George J.M. (1998) The experience and evolution of trust: Implications for co-operation and teamwork. *Academy of Management Review* 23, 531–546.

Jones K.R., Fink R.M., Clark L., Hutt E., Vojir C.P., and Mellis B.K. (2005) Nursing home resident barriers to effective pain management: why nursing home residents may not seek pain medication. *Journal of the American Medical Directors Association* 6(1), 10-17.

Jones R.A., Jimmieson N.L. and Griffiths A. (2005) The impact of organizational culture and reshaping capacity on change implementation success: the mediating role of readiness for change. *Journal of Management Studies* 42(2), 361-386.

Jones I.F. (2007) The theory of boundaries: Impact of interprofessional working. *Journal of Interprofessional Care* 21(3) , 355-357.

Juliá M.C. and Thompson A. (1994) Essential Elements of Interprofessional Teamwork: Task and Maintenance Functions, In Castro R.M, Juilá M.C., Platt L.J., Harbaugh G.L., Waugaman W.R., Thompson A, Jost T.S., Bope E.T., Williams T and Lee D.B. (editors), *Interprofessional Care and Collaborative Practice, Commission on Interprofessional Education and Practice.* Brooks/Cole Publishing Company, Pacific Grove CA.

Kanter R.M., Stein B.A. and Jick T.D. (1992) *The Challenge of Organizational Change*. Free Press, New York.

Katz D. and Kahn R.L. (1966) *The Social Psychology of Organizations*. John Wiley and Sons, Chichester.

Kellett, S. (1993) Effective teams at work. *Management Development Review* 6(1), 7-11.

Kelly G.A. (1955) *The Psychology of Personal Constructs, Vol 1*. Norton, New York.

Kelly G.A. (2003) A Brief Introduction to Personal Construct Theory in Fransella F. (editor), *International Handbook of Personal Construct Psychology*. John Wiley and Sons, Chichester, UK, 4- 20.

Kenny G. (2002) The importance of nursing values in interprofessional collaboration. *British Journal of Nursing* 11(1), 65-68.

Kidd S.A. and Kral M.J. (2005) Practicing participatory action research. *Journal of Counselling Psychology* 52(2), 187-195.

Kilman R.H. (1982) Getting control of the corporate culture. *Managing* 3, 11-17.

King G., Shaw L., Orchard C.A. and Miller S. (2010) The interprofessional socialization and valuing scale: A tool for evaluating the shift toward collaborative care approaches in health care settings. *Work* 35, 77-85.

Kim H.S. and Sjostrom B. (2005) Pragmatism, Nursing, and Nursing Knowledge Development, In Kim H.S.(editor), *Nursing Theories, Conceptual and Philosophical Foundations*, 2nd edn. Springer, New York, 184-201.

Kimberly J.R. and Minvielle E. (2003) Quality as an organizational problem, In Mick S.S. and Wyttenbach M.E.(editors), *Advances in Healthcare Organization Theory*. Jossey-Bass, San Francisco, 205-232.

Kitson A. (2002) Recognising relationships: reflections on evidence based practice. *Nursing Inquiry* 9, 179-186.

Kitzinger J. (2005) Focus Group Research: Using Group Dynamics to Explore Perceptions, Experiences and Understandings, In Holloway I. (editor), *Qualitative Research in Health Care.* Open University Press, Berkshire.

Knight D. (1989) *The Age of Science. The Scientific World-View in the Nineteenth Century*. Basil Blackwell, Oxford.

Koch T. and Kralik D. (2006) *Participatory Action Research in Health Care*. Blackwell Publishing, Oxford.

Korte R.F. (2006) A review of social identity theory with implications for training and development. *Journal of European Industrial Training* 31(3), 166-180.

Kozlowski S.W. and Ilgen D.R. (2006) Enhancing the effectiveness of work groups and teams. *Association for Psychological Science* 7(3), 77-124.

Kroger T. (2001) *Comparative Research on Social Care: The State of the Art*. European Commission, Brussels.

Krueger R.A and Casey M.A. (2000) *Focus Groups: A Practical Guide for Applied Research.* Sage Publications, Thousand Oaks

Krumbholz M. and Maiden N. (2001) The implementation of enterprise resources planning packages in different organizational and national cultures. *Information Systems* 26(3), 185-204.

Kuhn T.S. (1970) *The Structure of Scientific Revolutions*, 2nd edn, enlarged. The University of Chicago Press, Chicago.

Kvarnström S. and Cedersund E. (2006) Discursive patterns in multiprofessional healthcare teams. *Journal of Advanced Nursing* 53(2), 244–252.

Kvarnström S. (2008) Difficulties in collaboration: A critical incident study of interprofessional healthcare teamwork. *Journal of Interprofessional Care* 22(2), 191-203.

Lam A. (2000) Tacit knowledge, organisational learning and societal institutions: an integrated framework. *Organization Studies* 21(3), 487-513.

Lamothe L. and Dufour Y. (2007) Systems of interdependency and core orchestrating themes at health care unit level. *Public Management Review* 9(1), 67-85.

Landrum B.J. (1998) Marketing innovations to nurses, part 1: how people adopt innovations. *Journal of Wound, Ostomy and Continence Nursing* 25, 194-199.

Langfred C.W. (2004) Too much of a good thing? Negative effects of high trust and individual autonomy in self-managing teams. *Academy of Management Journal* 47 (3), 385-399.

Larkin C. and Callaghan P. (2005) Professionals' perceptions of interprofessional working in community mental health teams. *Journal of Interprofessional Care* 19(4), 338-346.

Lax W. and Galvin K. (2002) Reflections on a community action research project: Interprofessional issues and methodological problems. *Journal of Clinical Nursing* 11, 376-386.

Leathard A. (1994) *Going Inter-Professional: Working Together for Health and Welfare*. Routledge, London.

Leeman J., Baernholdt M. and Sandelowski M. (2007) Developing a theory-based taxonomy of methods for implementing change in practice. *Journal of Advanced Nursing* 59(4), 439-440.

Legare F., Stacey D., Pouliot S, Gauvin F.-P., Desroches S., Kryworuchko J., Dunn S., Elywyn G., Forsch D., Gagnong M.-P., Harrison M.B., Pluye P. and Graham I.D. (2011) Interprofessionalism and shared decision-making in primary care: a stepwise approach towards a new model. *Journal of Interprofessional Care* 25(1), 18-25.

Lemieux-Charles L and McGuire W. (2006) What do we know about health care team effectiveness? A review of the literature. *Medical Care Research and Review* 63(3), 263-300.

Levina N. and Vaast E. (2005) The emergence of boundary spanning competence in practice: Implications for implementation and use of information systems. *MIS Quarterly* 29(2), 335-363.

Lewin K. (1948) Resolving Social Conflicts: Selected Papers on Group Dynamics*, In Resolving Social Conflicts and Field Theory in Social Science*. American Psychological Association, Washington DC, 1-154.

Lewin K. Field Theory in Social Science: Selected Theoretical Papers, In *Resolving Social Conflicts and Field Theory in Social Science.* American Psychological Association, Washington DC, 159-165.

Lewis J.D. and Weigert A.S. (1985) Trust as a social reality. *Social Forces* 63(4), 967-985.

Lichtenstein R., Alexander J.A., McCarthy J.F. and Wells R. (2004) Status differences in cross-functional teams: effects on individual member participation, job satisfaction and intent to quit. *Journal of Health and Social Behaviour* 45(3), 322-335.

Lincoln Y.S. and Guba E.G. (1985) *Naturalistic Inquiry.* Sage Publications, Beverly Hills CA.

Longest B.B. (1998) Organizational Change and Innovation, In Duncan W.J. Swayne LE. Ginter P.M. (editors), *Handbook of Health Care Management.* Blackwell, Malden MA, 369-398.

Lotia N. and Hardy C. (2008) Critical Perspectives on Collaboration, In Cropper S., Ebers M., Huxham C. and Ring P.S. (editors), *Inter-Organizational Relations.* Oxford University Press, Oxford, 366-389.

Loxley A. (1997) *Collaboration in Health and Welfare: Working with Difference.* Jessica Kingsley Publishers, London.

Luhmann N. (2000) Familiarity, Confidence, Trust: Problems and Alternatives, In Gambetta D. (editor), *Trust: Making and Breaking Cooperative Relations.* Blackwell, Oxford, 94-107.

Lukes, S. (1974) *Power: A Radical View.* Macmillan, London,

Luttrell C., Quiroz S., Scrotton C. and Bird K. (2009) *Understanding and Operationalising Empowerment.* Overseas Development Institute, London.

Luo J.S. (2006) Technology Adoption: Managing Change *Primary Psychiatry* 13(8), 20-23.

Mabey C. and Mayon-White B. (2004) *Managing Change*, 2nd edn. Chapman Publishing Ltd, London.

MacDonald M.B., Bally J.B., Ferguson L.M., Murray B.L. and Fowler-Kerry S.E. (2009) Knowledge of the professional role of others: A key interprofessional competency. *Nurse Education in Practice* 10, 238-242.

Mach M., Dolan S. and Tzafrir S. (2010) The differential effect of team members' trust on team performance: The mediation role of team cohesion. *Journal of Occupational and Organizational Psychology* 83, 771-794.

Machiavelli N. (1970) *The Discourses.* Penguin Books, London.

McDonald D.D. and Fedo J. (2009) Older adults' pain communication: the effect of interruption. *Pain Management in Nursing* 10(3),149-153.

Madnani J. (2009) Unmasking the Gods: Clarifying Social Construction Theses in Mathematics Education. *3rd International Conference to Review Research on Science, Technology and Mathematics Education*. Mumbai, India.

Maher C.G., Sherrington C., Elkins M., Herbert R.D. and Moseley A.M. (2004) Challenges for evidence-based physical therapy: Accessing and interpreting high-quality evidence on therapy. *Physical Therapy* 84(7), 644-654.

Makowsky M.J., Schindel T.J., Rosenthal M., Campbell K, Tsuyuki R.T. and Masill H.M (2009) Collaboration between pharmacists, physicians and nurse practitioners: a qualitative investigation of working relationships in the inpatient medical setting. *Journal of Interprofessional Care* 23(2), 156-168.

Marks M.A., Mathieu J.E. and Zaccaro S.J. (2001) A temporally based framework and taxonomy of team processes. *Academy of Management Review* 26, 356–376.

Marrone J.A. (2010) Team boundary spanning: A multilevel review of past research and proposals for the future. *Journal of Management* 36(4), 911-940.

Marshall P., Kelder J. and Perry A. (2005) Social constructionism with a twist of pragmatism: a suitable cocktail for information systems research. *Proceedings of the 16th Australasian Conference on information systems*. 29 Nov- 2 Dec 2005, Sydney. Available from: http://www.utas.edu.au/infosys/publications/research/phil_research/Social_Construction ism_and_Pragmatism.pdf (Accessed 5/6/09)

Martin G. (1999) Exploring the Links between Strategic Change and Organizational Outcomes. Unpublished PhD Thesis. University of Aberay, Dundee.

Mason R.B. (2006) Coping with complexity and turbulence – An entrepreneurial solution. *Journal of Enterprising Culture* 14(4), 241-266.

Masterson A. (2002) Cross-boundary working: a macro-political analysis of the impact on professional roles. *Journal of Clinical Nursing* 11, 331–339.

Mathias P., Prime R. and Thompson T. (1997) Preparation for interprofessional work: trends in education, training and the structure of qualifications in the United Kingdom, In Ovretveit J., Mathias P. and Thompson T. (editors) *Interprofessional Working For Health And Social Care.* Palgrave McMillan, Hampshire. 116-130.

Mathieu J.E. and Rapp T.L. (2009) Laying the foundation for successful team performance trajectories: The role of team charters and performance strategies. *Journal of Applied* Psychology 94(1), 90-103.

May T. and Powell J. (2008) *Situating social theory.* Open University Press, Berkshire.

Mayon-White B. (2004) Problem Solving in Small Groups: Team Members as Agents of Change, In Mabey C. and Mayon-White B (editors), *Managing Change*, 2nd edn. Chapman Publishing Ltd, London, 132-142.

McCallin A. (2006) Interdisciplinary teamwork: Labelling is not enough. *Journal of the Australian Nurses Rehabilitation Association* 9(2), 6-10.

McClery L. and Brown T. (2003) Barriers to paediatric nurses' research utilization. *Journal of Advanced Nursing* 42(4), 364-372.

McColl E., Jacoby A., Thomas L., Soutter J., Bamford C., Steen N., Thomas R., Harvey E., Garratt A. and Bond J. (2001) Design and use of questionnaires: a review of best practice applicable to surveys of health service staff and patients. *Health Technology Assessment* 5(31), 1-256.

McConnell C.R. (2002) Making Change Work for You-or at least not against you, *The Health Care Manager* 4, 66-77.

McCray J. (2003) Leading interprofessional practice: a conceptual framework to support practitioners in the field of learning disability. *Journal of Nursing Management* 11, 387-395.

McDaid D., Wiley M., Maresso A. and Mossialos E. (2009) Ireland: Health System Review. *European Observatory on Health Systems and Policies: Health Systems in Transition Series*, *11(4).* World Health Organisation, Copenhagen.

McDonagh J. and Coghlan D. (2006) The Art of Clinical Inquiry in Information. In Reason P. and Bradbury H. (editors), *Handbook of Action Research*, 2nd edn. Sage Publications, London, 27-37.

McDonald D.D. (2009) Older adults' pain descriptions. *Pain Management in Nursing* 10(3), 142-148.

McKay, J. and Marshall P. (2007) Driven by Two Masters, Serving Both: The Interplay of Problem Solving and Research in Information Systems Action Research Projects. In Kock N. (editor), *Information Systems Action Research. An Applied View of Emerging Concepts and Methods.* Springer, New York, 131-160.

McKnight D.H., Cummings L.L. and Chervany N.L. (1998) Initial trust formation in new organizational relationships. *Academy of Management Review* 23, 473–490.

McMurray R. (2006) From partition to partnership: Managing collaboration within a curative framework for NHS care. *International Journal of Public Sector Management* 19(3), 238-249.

McNiff J. and Whitehead A.J. (2009) *Doing and Writing Action Research.* Sage, London.

Mead G.H. (1934) *Mind, Self and Society*. University of Chicago Press, Chicago.

Meads G. and Ashcroft J. (2005). *The Case for Interprofessional Collaboration in Health and Social Care.* Wiley-Blackwell, Oxford.

Melnyk B. and Fineout-Overholt E. (2011) *Evidence-Based Practice in Nursing and Healthcare: A Guide to Best Practice*, 2nd edn. Lippincott Williams & Wilkins, Philadelphia.

Meyer J. and Batehup L. (1997) Action research in health care practice: Nature, present concerns and future possibilities. *Nursing Times Research* 2(3), 175-184.

Miers M. and Pollard K. (2009) The role of nurses in interprofessional health and social care teams. *Nursing Management* 15 (9) 30-35.

Miles M.B. and Huberman A.M. (1994) *Qualitative Data Analysis.* Thousand Oaks: Sage Publications.

Miles R. H. (1980). Organization boundary-roles, In Cooper C. L. and Payne R. (editors), *Current Concerns in Occupational Stress*. Wiley, New York, 61-96.

Miller D.L. (2003) The stages of group development: A retrospective study of dynamic team processes. *Canadian Journal of Administrative Sciences* 20(2), 121-134.

Miller K-L., Reeves S., Zwarenstein M., Beales J.D., Kenaszchuck C. and Gotlib Conn L. (2008) Nursing emotion work and interprofessional collaboration in general internal medicine wards: a qualitative study. *Journal of Advanced Nursing* 64(4), 332–343.

Miller W.L. and Cohen-Katz J. (2010) Creating collaborative learning environments for transforming primary care practices now. *Families, Systems and Health*, 28(4), 334-347.

Millward L.J. and Jeffries N. (2001) The team survey: A tool for health care development. *Journal of Advanced Nursing* 35(2), 276-287.

Mohide E.A. and King B. (2003) Building a foundation for evidence-based practice: Experiences in a tertiary hospital. *Evidence Based Nursing* 6, 100-103.

Molyneaux J. (2001) Interprofessional teamworking: what makes a team work well? *Journal of Interprofessional Care* 15(1), 29-35.

Morgan B.B., Salas E. and Glickman A.S. (1993) An analysis of team evolution and maturation. *The Journal of General Psychology* 120(3), 277-291.

Morrow G., Malin N. and Jennings T. (2005) Interprofessional teamworking for child and family referral in a Sure Start local programme. *Journal of Interprofessional Care* 19(2), 93-101.

Morse J.M. and Field P.A. (2002) *Nursing Research, the Application of Qualitative Approaches*. Nelson Thornes, Cheltenham.

Morton A. (1999) *Ethics in Action Research. Systematic Practice and Action Research* 12(2), 219-222.

Mounce H.O. (1997) *The Two Pragmatisms. From Peirce to Rorty*. Routledge, London.

Moynihan R. (2004) *Using Health Research in Policy and Practice: Case Studies from Nine Countries*. Milbank Memorial Fund Reports. Available from: http://www.milbank.org/reports/reportstest.html (Accessed13/6/2006)

Mu S. and Gnyawali D.R. (2003) Developing synergistic knowledge in student groups. *Journal of Higher Education* 74(6), 689-711.

Murphy K. (2006) Study Findings on Quality of Life for Older People in Long-Stay Care Settings in Ireland in *Improving Quality of Life for Older People in Long-Stay Care Settings in Ireland: Conference Proceedings*. National Council on Ageing and Older People, Dublin, 13-19.

Mullins L.J. (2007) *Management and Organisational Behaviour*, 8th edn. Prentice Hall, Harlow.

Murphy K., O'Shea E., Cooney A., Sheil A. and Hodgins M. (2006) *Improving Quality of Life of Older People in Long-Stay Care Settings in Ireland*. National Council on Ageing and Older People, Dublin.

Nancarrow C. and Brace I. (2000) *Saying the Right Thing: Coping with Social Desirability Bias in Marketing Research*. Bristol Business School Teaching and Research Review, 3. Available from: http://www.uwe.ac.uk/bbs/trr/Issue3/Is3-2_2.htm (Accessed 20/11/06)

Nancarrow S. (2004) Dynamic role boundaries in intermediate care services. *Journal of Interprofessional Care* 18(2), 141-151.

National Council for the Development of Nursing and Midwifery (2001) *Framework for the Establishment of Advanced Nurse Practitioner and Advanced Midwife Practitioner Roles*. National Council for the Professional Development of Nursing and Midwifery, Dublin.

National Council for the Professional Development of Nursing and Midwifery (2007) *Clinical Nurse Specialist and Advanced Nurse Practitioner Roles in Older Person Nursing*. National Council for the Professional Development of Nursing and Midwifery, Dublin.

National Council on Ageing and Older People (2005a) *An Age-friendly Society: A Position Statement*. National Council on Ageing and Older People, Dublin.

National Council on Ageing and Older People (2005b) Perceptions of Ageism in Health and Social Services in Ireland. National Council on Ageing and Older People, Dublin.

National Economic and Social Forum (2005) *Care for Older People, NESF Report No. 32*. NESF, Dublin.

Nembhard I.M. and Edmondson A.C. (2006) Making it safe: The effects of leader inclusiveness and professional status on psychological safety and improvement efforts in health care teams. *Journal of Organizational Behaviour* 27, 941-966.

Ngo D., Den Breejen E., Putters K. and Bal R. (2008) *Supervising the Quality of Care in Changing Healthcare Systems: An International Comparison*. Institute of Health Policy and Management, Rotterdam.

Ni Mhaolrúnaigh S. (2001) *An evaluation of interprofessional education for health and social care professionals: The teachers views*. Unpublished PhD thesis. University of Warwick, Warwick.

Ni Mhaolrúnaigh S. (2002a) Interdisciplinary teamwork: tribalism or one tribe? *Irish Practice Nurse* 4 (9), 35-36.

Ni Mhaolrúnaigh S. (2002b) Interdisciplinary teamwork: what does it mean? *Irish Practice Nurse* 4 (7), 21-24.

Nijstad B.A., Strobe W and Lodewijkx H.F. (2003) Production blocking and idea generation: Does blocking interfere with cognitive processes? *Journal of Experimental Social Psychology* 39, 531-548.

Nijstad B.A. (2009) *Group Performance*. Psychology Press, East Sussex.

Nonaka I. (1994) A dynamic theory of organizational knowledge creation. *Organizational Science* 5(1), 14-37.

Nonaka I. and Takeuchi H. (1996) A theory of organizational knowledge creation. *International Journal Technology Management* 11(7/8) 833-846.

Nonaka I., Toyama R. and Konno N. (2000) SECI, ba and leadership: a unified model of dynamic knowledge creation. *Long Range Planning* 33, 5-34.

Nonaka I. and Toyama R. (2003) The knowledge-creating theory revisited: knowledge creation as a synthesizing process. *Knowledge Management Research and Practice* 1, 2-10.

Nonaka I. and Von Krogh G. (2009) Tacit knowledge and knowledge conversion: controversy and advancement in organizational knowledge creation theory. *Organization Science* 20(3), 635-652.

Northcraft G.B., Polzer J.T., Neale M.A. and Kramer R.M. (1995) Diversity, Social Identity and Performance: Emergent Social Dynamics in Cross-Functional Teams, In Jackson S. and Ruderman (editors), *Diversity in Work Teams*. American Psychological Society, Washington DC, 69-96.

Nosek J.T. (2007) Insider as Action Researcher, In Kock N.(editor), *Information Systems Action Research, an Applied View of Emerging Concepts and Methods*. Springer, New York, 405-420.

Nygaard H.A. and Jarland M. (2005) Are nursing home patients with dementia diagnosis at increased risk for inadequate pain treatment? *International Journal Geriatric Psychiatry* 20, 730-737.

Oaker G. and Brown R. (1986) Intergroup relations in a hospital setting. *Human Relations* 39, 767-778.

Oandasan I., Baker G.R., Barker K., Bosco C., D'Amour D., Jones L., Kimpton S., Lemieux-Charles L., Nasmith L., San Martin Rodriguez L., Tepper J. and Way D. (2006) *Teamwork in Healthcare: Promoting Effective Teamwork in Healthcare in Canada, Policy Synthesis and Recommendations.* Canadian Health Services Research Foundation, Ontario.

Oandasan I.F., Gotlib Conn L., Lingard L., Karim A., Jakubovicz D., Whitehead C., Miller K.L., Kennie N. and Reeves S. (2009) The impact of space and time on interprofessional teamwork in Canadian primary health care settings: implications for health care reform. *Primary Health Care Research and Development* 10, 151- 162.

Office of the Ombudsman (2010) *Who Cares? An Investigation into the Right to Nursing Home Care in Ireland.* Office of the Ombudsman, Dublin.

O'Hara K. (2004) *Trust: From Socrates to Spin*. Icon Books, Cambridge.

Oliver S. (1999) Users of health services: following their agenda, In Hood S., Mayall B. and Oliver S. (editors) *Critical Issues in Social Research. Power and Prejudice.* Open University Press, Buckingham, 139-153.

O'Neill D. (2006) *Leas Cross Review*. Health Service Executive, Dublin.

O'Neill D. and O'Keeffe S. (2003) Health care for older people in Ireland. *Journal of the American Geriatrics Society* 51(9), 1280-1286.

Organisation for Econoomic Co-operation and Development (2005) *Long-term Care Policies for Older People*. OECD, Paris.

Ovretveit J. (1997a) How Patient Power and Client Participation Affects Relations between Professions, In Ovretveit J., Mathias P. and Thompson T. (editors), *Interprofessional Working for Health and Social Care*. Palgrave McMillan, Hampshire, 79-102.

Ovretveit J. (1997b) Evaluating Interprofessional Working- A Case Example of a Community Mental Health Team, In Ovretveit J., Mathias P. and Thompson T. (Editors) *Interprofessional Working for Health and Social Care*. Palgrave McMillan, Hampshire, 53-78.

Ovretveit J., Bate P., Cleary P., Cretin S., Gustafson D., McInnes K. and McLeod H. (2002) Quality collaboratives: lessons from research (organisational matters). *Quality and Safety in Health care*, 11(4), 345-351.

Page N. and Czuba C.E. (1999) Empowerment: What is it? *Journal of Extension* 37(5). Available from: http://www.joe.org/joe/1999october/comm1.php (Accessed 1/12/10)

Palmer A., Burns S. and Bulman C. (1994) *Reflective Practice in Nursing: The Growth of the Professional Practitioner*. Blackwell Scientific Publications, Oxford.

Parahoo K. (1997) *Nursing Research, Principles, Process and Issues*. Palgrave Macmillan, Hampshire.

Parahoo K. (2000) Barriers to, and facilitators of, research utilization among nurses in Northern Ireland. *Journal of Advanced Nursing* 31(1), 89-98.

Park P. (2006) Knowledge and Participatory Research, In Reason P. and Bradbury H. (editors) *Handbook of Action Research*, 2nd edn. Sage Publications, London, 83-93.

Parker J.M. (2002) Evidence based nursing: A defence. *Nursing Inquiry* 9(3), 139-140.

Parkin P. (2009) *Managing Change in Healthcare: Using Action Research*. Sage publications, London.

Paton R.A. and McCalman J. (2006) *Change Management, a Guide to Effective Implementation*, 2nd edn. Sage Publications, London.

Paul D.L. and McDaniel R.R. (2004) A field study of the effect of interpersonal trust on virtual collaborative relationship performance. *MIS Quarterly* 28(2), 183-227.

Paul S. and Peterson C.Q. (2001) Interprofessional collaboration: issues for practice and research. *Occupational Therapy in Health Care* 15 (3/4), 1-12.

Pearce C.L. and Conger J.A. (2003) *Shared leadership: Reframing the Hows and Whys of leadership*. Sage, Thousand Oaks CA.

Peirce C.S. (1955) *Philosophical Writings of Peirce*. Dover Publications, New York.

Peirce C.S. (1997a) The Fixation of Belief. In Menand L. (editor), *Pragmatism: A Reader*. Vintage Books, New York, 7-25.

Peirce C.S. (1997b) How to Make Our Ideas Clear, In Menand L. (editor), *Pragmatism: A Reader*. Vintage Books, New York, 26-48.

Peirce C.S. (1997c) From a Guess at the Riddle, In Menand L. (editor), *Pragmatism: A Reader*. Vintage Books, New York, 49-51.

Peirce C.S. (1997d) A Definition of Pragmatism, In Menand L. (editor), *Pragmatism: A Reader*. Vintage Books, New York, 56-58.

Perlow L.A., Hoffer Gittell J. and Katz N. (2004) Contextualizing patterns of work group interaction: Toward a nested theory of structuration. *Organization Science* 15(5), 520-536.

Pettigrew A.M. (2000) Linking Change Processes to Outcomes: A Commentary on Ghoshal, Bartlett, and Weick, In Beer M. and Nohria N. (editors) *Breaking the Code of Change*. Harvard Business School Press, Boston, 243-265.

Pfeffer J. (2004) Understanding Power in Organisations, In Mabey C. and Mayon-White B. (editors) *Managing Change*, 2nd edn. Chapman Publishing Ltd, London, 201-206.

Philibert I. (2008) *Involving Residents In Quality Improvement: Contrasting Top-Down and Bottom-Up Approaches*. Accreditation Council for Graduate Medical Education, Chicago.

Polanyi M. (1966) *The Tacit Dimension*. Doubleday, New York.

Pollard K.C. (2008) Non-formal learning and interprofessional collaboration in health and social care: the influence of the quality of staff interaction on student learning about collaborative behaviour in practice placements. *Learning in Health and Social Care* 7(1), 12-26.

Pollard K., Sellman D. and Senior B. (2005) The Need for Interprofessional Working, In Barrett G., Sellman D and Thomas J. (editors) *Interprofessional Working in Health and Social Care: Professional Perspectives*. Palgrave Macmillan, Basingstoke.

Popkin R.H. and Stroll A. (2003) *Philosophy*, 3rd edn. Elsevier Science Ltd, Oxford.

Post J.E. and Mahon J.F. (1980) Articulated turbulence: the effect of regulatory agencies on corporate responses to social change. *Academy of Management Review* 5(3), 399-407.

Poulton B.C. (1999) User involvement in identifying health needs and shaping and evaluating services: is it being realised? *Journal of Advanced Nursing* 30(6), 1289-1296.

Poulton B.C. and West M.A. (1999) The determinants of effectiveness in primary health care teams. *Journal of Interprofessional Care* 13(1), 7-18.

Prabha C., Connaway L.S., Olszewski L. and Jenkins L.R. (2007) What is enough? Satisficing information needs. *Journal of Documentation* 63(1), 74-89.

Pratt M.G., Rockman K.W. and Kaufman J.B. (2006) Constructing professional identity: the role of work and identity learning cycles in the customization of identity among medical residents. *Academy of Management Journal* 49(2), 235-262.

Pravikoff D.S., Tanner A.B. and Pierce S.T. (2005) Readiness of U.S. nurses for evidence based practice: many don't understand or value research and have little or no training to help them find evidence on which to base their practice. *American Journal of Nursing* 105(9), 40-52.

Prkachin K.M., Solomon P.E. and Ross J. (2007) Underestimation of pain by health-care providers: towards a model of the process of inferring pain in others. *Canadian Journal of Nursing Research* 39(2),88-106.

Prospectus Strategy Consultants (2010) *High-Level Review of the HIQA Inspection Process for Long-Stay Care Settings for Older People.* Nursing Homes Ireland, Dublin.

Pullon S. (2008) Competence, respect and trust: Key features of successful interprofessional nurse-doctor relationships. *Journal of Interprofessional Care* 22(2), 133-147.

Pullon S., McKinlay E. and Dew K. (2009) Primary health care in New Zealand: the impact of organisational factors on teamwork. *British Journal of General Practice* 59(560), 191-197.

Quin S., Kennedy P., O'Donnell and Kiely G. (1999) *Contemporary Irish Social Policy.* University College Dublin Press, Dublin.

Raskin J.D. (2002). Constructivism in psychology: Personal construct psychology, radical constructivism, and social constructionism. In J. D. Raskin & S. K. Bridges (editors). *Studies in Meaning: Exploring Constructivist Psychology.* Pace University Press, New York, 1-25.

Rawson D. (1994) Models of interprofessional work. Likely theories and possibilities. In Leathard A (editor), *Going Interprofessional: Working Together for Health and Welfar*e. Routledge, Florence KY, 38-63.

Reason P. (1998) Political, epistemological, ecological and spiritual dimensions of participation. *Studies in Cultures, Organizations and Societies* 4, 147-167.

Reason P. and Riley S. (2008) Cooperative Inquiry, In Smith J.A. (editor), Qualitative Psychology: A Practical Guide to Research Methods. Sage Publications, London.

Reason P. (2004) Action Research: Forming communicative space for many ways of knowing. Response to Anisur Rahman. *International Workshop on Participatory Action Research.* Available from Http://people.bath.ac.uk/mnspwr/Papers/DhaksFormingCommunicativeSpace.htm (accessed 10/6/09).

Reason P. (2006) Choice and Quality in Action Research Practice. *Journal of Management Inquiry* 15 (2), 187-203.

Reason P. and Bradbury H. (2006) *Handbook of Action Research.* Sage Publications, London.

Reason P. and McArdle K.L. (2008) Action Research and Organization Development, In Cummings T.G. (editor), *Handbook of Organization Development*. Sage Publications, Thousand Oaks.

Reeves S., Sutter E., Goldman J., Martiianakis T., Chatalalsingh C. and Dematteo D. (2007) *A Scoping Review to Identify Organizational and Education Theories Relevant for Interprofessional Practice and Education*. Canadian Interprofessional Health Collaborative, Calgary.

Reeves S., Goldman J. and Zwarenstein M. (2009a) An emerging framework for understanding the nature of interprofessional interventions. *Journal of Interprofessional Care* 23(5), 539-542.

Reeves S., Rice K., Gotlib Conn L., Miller K.-L., Kenaszchuk C. and Zwarenstein M. (2009b) Interprofessional interaction, negotiation and non-negotiation on general internal medicine wards. *Journal of Interprofessional Care* 23(6), 633-645.

Reicher S. (1982) The Determination of Collective Behaviour, In Tajfel H. (editor), *Social Identity and Intergroup Relations*. Cambridge University Press, Cambridge, 41-84.

Reid L. (2005) Diminishing returns? Risk and the duty to care in the SARS epidemic. *Bioethics* 19(4), 348-358.

Reisel W.D. and Kopelman R.E. (1995) The effects of failure on subsequent group performance in a professional sports setting. *The Journal of Psychology* 129(1), 103-113.

Ribbens J. (1989) Interviewing women, an unnatural situation. *Women's Studies International Forum* 112, 579-592.

Richardson J., and Montemuro M. (1997) Educating students for interprofessional teamwork in the clinical placement setting. *Educational Gerontology* 23(7), 669- 693.

Richter A.W., West M.A., Van Dick R. and Dawson J.F. (2006) Boundary spanners' identification, intergroup contact, and effective intergroup relations. *Academy of Management Journal* 49, 1252-1269.

Riley J., Harding G., Meads G., Underwood M. and Carter Y. (2003) An evaluation of personal medical services: the times they are a changin'. *Journal of Interprofessional Care* 17 (2), 127–139.

Ring N., Coull A., Howie C., Murphy-Black T. and Watterson A. (2006) Analysis of the impact of a national initiative to promote evidence based nursing practice. *International Journal of Nursing Practice* 12, 232-240.

Roberts J. (2006) Limits to communities of practice. *Journal of Management Studies* (43) 3, 623-639.

Roberts S.J., Demarco R. and Griffin M. (2009) The effect of oppressed group behaviours on the culture of the nursing workplace: a review of the evidence and interventions for change. *Journal of Nursing Management* 17, 288-293.

Rogers S.E. (2000) The extent of nursing research utilization in general medical and surgical wards. *Journal of Advanced Nursing* 32(1), 182-193.

Rolfe G. (1996) Going to extremes: action research, grounded practice and the theory-practice gap in nursing. *Journal of Advanced Nursing* 24, 1315-1320.

Rorty R. (1999) *Philosophy and Social Hope.* Penguin Books, London.

Rose L. (2011) Interprofessional collaboration in the ICU: how to define?. *Nursing in Critical Care,* 16: 5–10.

Rousseau D.M., Sitkin S.B., Burt R.S. and Camerer C. (1998) Not so different after all: a cross discipline view of trust. *Academy of Management Review* 23(3), 393-404.

Royal College of Anaesthetists and The Pain Society (2003) *Pain Management Services: Good Practice.* Royal College of Anaesthetists and Pain Society, London.

Rushmer R., Kelly D., Lough M., Wilkinson J.E. and Davies H.T. (2004) Introducing the learning practice – I. the characteristics of learning organisations in primary care. *Journal of Evaluation in Clinical Practice* 10(3), 375-386.

Rushmer R. (2005) Blurred boundaries damage interprofessional working. *Nurse Researcher* 12(3), 74-85.

Russell B. (1984) *A History of Western Philosophy*, 3rd edn. Unwin Hyman Limited, London.

Rycroft-Malone J. (2006) The politics of the evidence based practice movements, legacies and current challenges. *Journal of Research in Nursing* 11(2), 95-108.

Rycroft-Malone J., Kitson A., Harvey G., McCormack B., Seers K., Titchen A. and Estabrooks C. (2002). Ingredients for change: revisiting a conceptual framework. *Quality and Safety in Health Care* 11, 174-180.

Rycroft-Malone J., Seers K., Titchen A., Harvey G., Kitson A., & McCormack B. (2004) What counts as evidence in evidence based practice? *Journal of Advanced Nursing* 47(1), 81-90.

Rycroft-Malone J. (2008) Leadership and the use of evidence in practice. *Worldviews on Evidence-Based Nursing* 5, 1-2.

Saebo J. and Titlestad O. (2004) Evaluation of a bottom-up action research approach in a centralised setting: HISP in Cuba. *Proceedings of the 37th Hawaii International Conference on Systems Sciences.* Big Island, Hawaii, *iii-iii.*

Salas E. (1997) How can you turn a team of experts into an expert team? In Zsambok C.E. and Klein G. (editors), *Naturalistic Decision-making.* Lawrence Erlbaum Associate, Mahwah.

Salisbury D.F. (1996) *Five Technologies for Educational Change: Systems Thinking, Systems Design, Quality Science, Change Management, Instructional Technology*. Educational Technology Publications, Englewood Cliffs NJ.

Sandfort J. and Milward H.B. (2008) Collaborative Service Provision in the Public Sector, In Cropper S., Ebers M., Huxham C. and Ring P.S. (editors) *Inter-Organizational Relations*. Oxford University Press, Oxford, 147-174.

San Martin-Rodriguez L., Beaulieu M.-D., D'Amour D. and Ferra-Videla M. (2005) The determinants of successful collaboration: a review of theoretical and empirical studies. *Journal of Interprofessional Care*. Supplement 1, 132-147.

San Martin Rodriguez L., D'Amour D. and Leduc N. (2008) Influence of the level of interprofessional collaboration regarding pain management of oncology-hematology patients. *Metas de Enfermeria* 11(2), 27-32.

Sands R.G. (1994) A comparison of interprofessional and team-parent talk of an interdisciplinary team. *Social Work in Education* 16(4), 207-220.

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.

Schaubroeck J., Lam S.S. and Peng A.C. (2011) Cognition-based and affect-based trust as mediators of leader behavior influences on team performance. *Journal of Applied Psychology* Advance online publication, 1-9.

Schein E.H. (1987) *Process Consultation, Volume II: Lessons for Managers and Consultants*. Addison-Wesley, Berkshire.

Schein E.H. (1999) *The Corporate Culture Survival Guide: Sense and Nonsense about Culture Change.* Jossey-Bass, San Francisco.

Schein E.H.(2004) *Organizational Culture and Leadership*, 3rd edition. Jossey-Bass, San Francisco.

Schein E.H. (2006) Clinical Inquiry/Research, In Reason P. and Bradbury H. (Editors) *Handbook of Action Research*, 2nd edn. Sage Publications, London, 185-194.

Schein E.H. and Bennis W. (1965) *Personal and Organizational Change through Group Methods*. Wiley, New York.

Scherder E. and Van Manen F. (2005) Pain in Alzheimer's disease: nursing assistants' and patients evaluations. *Journal of Advanced Nursing* 52(2), 151-158.

Scott W.R (2003) Themes, Discovery and Rediscovery, In Mick S.S. and Wyttenbach M.E.(editors) *Advances in Health Care Organization Theory*. Jossey-Bass, San Francisco, 23-44.

Scott P.A., Valimaki M., Leino-Kilpi H., Dassen T., Gasull M., Lemonidou C. and Arndt M. (2003) Autonomy, privacy and informed consent 3: Elderly care perspective. *British Journal of Nursing* 12(3), 158-168.

Scott C.M. and Hofmeyer A.T. (2007) Acknowledging complexity: Critically analyzing context to understand interdisciplinary research. *Journal of Interprofessional* Care 21(5), 491-501.

Scott-Cawiezell J., Vogelsmeier A., McKenney C., Rantz M., Hicks L. and Zellmer D. (2006) Moving from a culture of blame to a culture of safety in the nursing home setting. *Nursing Forum* 41(3), 133-140.

Senge P.M. (1990) *The Fifth Discipline: The Art and Practice of the Learning Organisation. Currency.* Doubleday, New York

Seymour F.W. and Davies E. (2002) Using action research to facilitate change in child protection services. *Journal of Community Psychology* 30(5), 585-590.

Shaw S.N. (2008) More than one dollop of cortex: Patients' experiences of interprofessional care at an urban family health centre. *Journal of Interprofessional Care* 22(3), 229-237.

Sheehan D., Robertson L. and Ormond T. (2007) Comparison of language used and patterns of communication in interprofessional and multidisciplinary teams. *Journal of Interprofessional Care* 21(1), 17-30.

Sheilds P.M. (1999) *The community of inquiry: Insights for Public Administration from Jane Addams, John Dewey and Charles S. Peirce*. Presented at the Public Administration Theory Network, Portland Oregon, March 23-25. Available from: http://ecommons.txstate.edu/cgi/viewcontent.cgi?article=1007andcontext=polsfacp (Accessed 6/8/10).

Shojania K.G. and Grimshaw J.M. (2005) Evidence based quality improvement: the state of the science. *Health Affairs* 24(1), 138-150.

Silverman D. (2010) *Doing Qualitative Research*, 3rd edn. Sage Publications, London.

Sirota T. (2007) Nurse/physician relationships: Improving or not? *Nursing* 37(1), 52-55.

Sitzia J. (2001) Barriers to research utilization: the clinical setting and nurses themselves. *European Journal of Oncology Nursing* 5(3), 154-164.

Sminia H. and Van Nisterooij A. (2006) Strategic management and organization development: planned change in a public sector organisation. *Journal of Change Management* 6(1), 99-113.

Smith G.P. (1996) *Legal and Healthcare Ethics for the Elderly*. Taylor and Francis, Washington D.C.

Smith S.E. (1997) Deepening participatory action research, In Smith S.E., Williams D.G. and Johnson N.A. (editors), *Nurtured by Knowledge: Learning To Do Participatory Action Research*. Apex Press, New York, 173-264.

Somekh B. (2006) Action *Research: A Methodology for Change and Development*. McGraw-Hill, New York.

Standing Medical Advisory Committee (2001) *Evidence into Practice: Standing Medical Advisory Committee Advice*. Department of Health Publications, London.

Stanford N. (2010) *Organisation Culture, Getting it Right*. Profile Books, London.

Stapleton S. R. (1998) Team-building: making collaborative practice work. *Journal of Nursing and Midwifery* 43, 12-18.

Steinfeld B.I, Coffman S.J. and Keyes J.A. (2009) Implementation of an evidence-based practice in a clinical setting: what happens when you get there? *Professional Psychology Research and Practice* 40(4), 410-416.

Stenhouse L. (1981) What counts as research? *British Journal of Educational Studies* 29(2), 103-114.

Stetler C. B. (2001) Updating the Stetler model of research utilization to facilitate evidence-based practice. *Nursing Outlook* 49(6), 272-279.

Stewart J. and Rigg C. (2011) *Learning and Talent Development.* Chartered Institute of Personnel and Development, London.

Streed C.P. and Stoecker J.L. (1991) Stereotyping between physical therapy students and occupational therapy students. *Physical Therapy* 71, 16–20.

Street A. and Blackford J. (2001) Communication issues for interdisciplinary community palliative care. *Journal of Clinical Nursing* 10, 643-650.

Streufert S. and Streufert S.C. (1986) The Development of Internation Conflict, In Worchel S and Austin W.G (editors), *Psychology of Intergroup Relations*, 2nd edn. Nelson-Hall, Chicago, 134-152.

Stringer E.T. (2007) *Action Research*, 3rd edn. Sage Publications, Thousand Oaks.

Sumner W.G. (1906) *Folkways*. Ginn, New York.

Sun W. (2009) *A Dual Constitutive Communication-Based Model for Managerial Practice Diffusion.* Unpublished PhD Thesis. University of Hull, Hull.

Suter E. and Deutschlander S. (2010) *Can Interprofessional Collaboration Provide Health Human Resources Solutions? A Knowledge Synthesis*. Western Canadian Interprofessional Health Collaborative. Available from http://www.hrhresourcecenter.org/node/3052 (Accessed 1/10/10)

Tajfel H. (1974). Social identity and intergroup behaviour. *Social Science Information* 13, 65-93.

Tajfel (1978) Intergroup Behaviour II Group Perspectives in Tajfel H. and Fraser C. (editors), *Introducing Social Psychology*. Penguin Books, Harmondsworth, Middlesex.

Tajfel H. (1981) Human Groups and Social Categories. Cambridge University Press, Cambridge.

Tajfel H. (1982a) *Social Identity and Intergroup Relations*. Cambridge University Press, Cambridge.

Tajfel H. (1982b) Instrumentality, Identity and Social Comparisons, In Tajfel H. (editor), *Social Identity and Intergroup Relations*. Cambridge University Press, Cambridge.

Tajfel H. and Turner J.C. (1986) The Social Identity Theory of Inter-group Behaviour, In Worchel S. and Austin W.G (editors) *Psychology of Intergroup Relations*, 2nd edn. Nelson-Hall, Chicago, 7-24.

Tan V. and Tiong T.N. (2004) Change management in times of economic uncertainty. *Singapore Management Review* 27(1), 49-69.

Tannen D. and Wallat C. (1986) Medical professionals and parents: a linguistic analysis of communication across contexts. *Language in Society* 15(3), 295-311.

Tarricone R. and Tsouros A.D. (2008) *The Solid Facts: Home Care in Europe*. World Health Organisation, Copenhagen.

Tashakkori A. and Teddlie C. (2003) *Handbook of Mixed Methods in Social And Behavioural Research*. Sage Publications, Thousand Oaks.

Taylor P. and Boser S. (2006) Power and transformation in higher education institutions: Challenges for change. *Institute for Development Studies Bulletin* 37(6), 111-121.

Thannhauser J., Russell-Mayhew S. and Scott C. (2010) Measures of interprofessional education and collaboration. *Journal of Interprofessional Care* 24(4), 336-349.

Thompson C., Kinmonth A.L., Stevens L., Peveler R.C., Stevens A., Ostler K.J., Pickering R.M., Baker N.G., Henson A., Preece J., Cooper D. and Campbell M.J. (2000) Effects of a clinical-practice guideline and practice-based education on detection and outcome of depression in primary care: Hampshire Depression Project randomised controlled trial. *The Lancet*, 355(9199),185-91.

Thylefors I., Persson O. and Hellström D. (2005) Team types, perceived efficiency and team climate in Swedish cross-professional teamwork. *Journal of Interprofessional Care* 19(2), 102-114.

Tiemeyer S. (2008) *Health Care Occupations: Road to Success or Path to Dead End?* Unpublished MA Thesis. Wichita State University, Wichita.

Titler M.G. and Matthews G. (1999) Development and validation of an instrument to measure the barriers to research utilization. *Association Health Services Research Meeting, Conference Abstracts* 16, 79-80.

Tjosvold D., Yu Z.-Y. and Hui C. (2004) Team learning from mistakes: The contribution of cooperative goals and problem-solving. *Journal of Management Studies* 41(7), 1223- 1245.

Tracey C. (2006) The glass ceiling in Irish healthcare: a nursing perspective. *Journal of Health Organisation Management* 20(6), 502-511.

Triantafillou J. (2004) Integrated teams, In Nies H. and Berman P.C. (editors), *Integrating Services for Older People: A resource Book for Managers.* European Health Management Association, Dublin, 113-128.

Tucker A.L. and Edmondson A.C. (2003) Why hospitals don't learn from failures: Organization and psychological dynamics that inhibit system change. *California Management Review* 45(2), 55-72.

Tuckman, B.W. (1965) Developmental Sequence in Small Groups. *Psychological Bulletin* 63, 384-399.

Tuckman B.W. and Jensen M.A. (1977) Stages of Small Group Development Revisited. *Group and Organizational Studies* 2, 419-427.

Turner A., Stavri Z., Revere D. and Altamore R. (2008) From the ground up: Information needs of nurses in a rural public health department in Oregon. *Journal of the Medical Library Association* 96(4), 335-342.

Turner C.F., Lessler J.T. and Gfroerer J.D. (1992) *Survey Measurement of Drug Use; Methodological Issues*, DHHS Pub no 92-1929. Government Printing Office, Washington D.C.

Turner J.C. (1982) Towards a Cognitive Redefinition of the Social Group, In Tajfel H. (editor) *Social Identity and Intergroup Relations*. Cambridge University Press, Cambridge.

Tussing A.D. and Wren M-A.(2006) *How Ireland Cares, the Case for Health Care Reform*. New Island, Dublin.

Van Dijk R. and Van Dick R.(2009) Navigating organizational change: Change leaders, employee resistance and work-based identities. *Journal of Change Management* 9(2), 143-163.

Veeramah V. (2004) Utilization of research findings by graduate nurses and midwives. *Journal of Advanced Nursing* 47(2), 183-191.

VeneKlasen L. and Miller V. (2002) *A New Weave of Power, People and Politics: The Action Guide for Advocacy and Citizen Participation*. Practical Action Publishing, Sterling VA.

Vince R and Broussine M. (1996) Paradox, defence and attachment: Accessing and working with emotions and relations underlying organizational change. *Organization Studies* 17(1), 1-21.

Virpi T. and Doyle M. (2007). From the workhouse to the home: evolution of care policy for older people in Ireland. *International Journal of Sociology and Social Policy* 28 (3/4), 76-89.

Waldman J.D., Smith H.L. and Hood J.N. (2005) Corporate culture: the missing piece of the healthcare puzzle. *Hospital Topics, Research and Perspectives on Healthcare* 81(1), 5-14.

Walker A. and Warren L. (1996) *Changing Services for Older People*. Open University Press, Buckingham.

Waller S. (2010) *Contact is not Enough: The Impact of a Directed Interprofessional Clinical Education Placement Compared to a Standard Clinical Education Placement on Therapy Students' Understanding of Professional Roles, Teamwork, and Interprofessional Practice*. Unpublished PhD Thesis, The University of Queensland.

Walker J. and Mathers N. (2004) Working together: a qualitative study of effective group formation amongst GPs during a cost-driven prescribing initiative. Family Practice 21(5), 552-558.

Waterman H. (1998) Embracing ambiguities and valuing ourselves: issues of validity in action research. *Journal of Advanced Nursing* 28(1), 101-105.

Waterman H., Tillen D., Dickson R. and De Konig K. (2001) Action research: a systematic review and guidance for assessment. *Health Technology Assessment* 5(23), 1-166.

Waters K.R. and Luker K.A. (1996) Staff perspectives on the role of the nurse in rehabilitation wards for elderly people. *Journal of Clinical Nursing* 5, 105-114.

Watts B. and Jones S. (2000) Inter-professional practice and action research: commonalties
and parallels. *Educational Action Research*, 8(2) 377-382.

Webber S.S. (2002) Leadership and trust facilitating cross-functional team success. *The Journal of Management Development 21* (3/4), 201-214.

Weick K.E. (2000) Emergent Change as a Universal in Organizations, In Beer M. and Nohria N. (editors) *Breaking the Code of Change*. Harvard Business School Press, Boston, 223-241.

Weick K.E. and Sutcliffe K.M. (2001) *Managing the Unexpected: Assuring High Performance in an Age of Complexity*. Jossey-Bass, San Francisco.

Weiner D.K. and Rudy T.E. (2002) Attitudinal barriers to effective treatment of persistent pain in nursing home residents. *Journal of the American Geriatrics Society* 50, 2035-2040.

Weinreich D.M. (2004) Interdisciplinary teams, mentorship and intergenerational service-learning. *Educational Gerontology* 30, 143-157.

West M. (2001) The Human Team: Basic Motivations and Innovations, In Anderson N., Ones D. S., Sinangil H. K. and Viswesvaran C. (editors), *Handbook of Industrial, Work & Organizational Psychology - Volume 2*. Sage Publications, London, 270-288.

West M.A. (2004) *Effective Teamwork: Practical Lessons from Organizational Research*, 2nd edn. The British Psychological Society, Leicester and Blackwell Publishing, Oxford.

West M.A. and Poulton B.C. (1997) A failure of function: Teamwork in primary health care. *Journal of Interprofessional Care* 11(2), 205-216.

West M.A., Borrill C.S. and Unsworth K. (1998) Team Effectiveness in Organisations, In Cooper C.L. and Robertson I.T. (editors) *International Review of Industrial Organisational Psychology, Vol 13*. Wiley and Sons: Chichester.

West, M.A., Markiewicz, L. and Dawson, J.F. (2006) Aston team performance inventory: Management Set. ASE, London.

Willumsen E. (2008) Interprofessional collaboration – a matter of differentiation and integration? Theoretical reflections based in the context of Norwegian childcare. *Journal of Interprofessional Care* 22(4), 352-363.

Wholey D.R. and Burns L.R. (2003) Understanding Health Care Markets; Actors, Products, and Relations, In Mick S.S. and Wyttenbach M.E.(editors) *Advances in Health Care Organization Theory*. Jossey-Bass, San Francisco, 99-140.

Whyte W. (1991) *Participatory Action Research*. Sage Publications, Newbury Park CA.

Willemyns M., Gallois C. and Callan V.J. (2003) Trust me, I'm your boss: trust and power in supervisor-supervisee communication. *International Journal of Human Resource Management* 14(1), 117-127.

Williams K.Y. and O'Reilly C.A. (1998). Demography and diversity in organizations: A review of 40 years of research. *Research in Organizational Behaviour* 20, 77-140.

Williams M. (2001) In whom we trust: Group membership as an affective context for trust development. *Academy of Management Review* 26(3), 377-396.

Williams P. (2002) The competent boundary spanner. *Public Administration* 80(1), 103-124.

Williams, R. (1993) *Implications for School Systems of The Research on Change*. National Staff Development Council, Oxford OH.

Williamson G.R. (2005) Illustrating triangulation in mixed-methods nursing research. *Nurse Researcher* 12(4), 7-18.

Williamson G.R. and Prosser S.(2002) Action research: politics, ethics and participation. *Journal of Advanced Nursing* 40(5), 587-93.

Willumsen E. (2008) Interprofessional collaboration – a matter of differentiation and integration? Theoretical reflections based in the context of Norwegian childcare. *Journal of Interprofessional Care* 22 (4), 352-363.

Wilson T.D. (1999) Exploring models of information behaviour: the `uncertainty' project. *Information Processing and Management* 35(6), 839-849.

Won A., Lapane K., Vallow S., Schein J., Morris J. and Lipsitz L. (2004) Persistent nonmalignant pain and analgesic prescribing patterns in elderly nursing home residents. *Journal of the American Geriatric Society* 52, 867-874.

Wong A., Tjosvold D. and Lu J. (2010) Leadership values and learning in China: The mediating roles of psychological safety. *Asia Pacific Journal of Human Resources* 48(1), 86-107.

Working Party on Services for the Elderly (1988) *The Years Ahead: A policy for the Elderly.* Stationery Office, Dublin.

World Health Organisation (2002) *Active Ageing: A Policy Framework.* WHO, Geneva.

World Health Organisation (2010) *Framework for Action on Interprofessional Education and Collaborative Practice.* WHO: Geneva

Wunderlich G.S. and Kohler P.O. (2001) *Improving the Quality of Long-stay Care*. National Academy Press, Washington.

Wye L. and McClenahan J. (2000) *Getting Better with Evidence: Experiences of Putting Evidence into Practice.* Kings Fund Publishing, London

Wyman O. (1998) *Strategic Organization Design: An Integrated Approach.* Delta Organization and Leadership, New York.

Xyrichis A. and Lowton K. (2008) What fosters or prevents interprofessional teamworking in primary and community care? A literature review. *International Journal of Nursing* Studies 45, 140-153.

Yang C.-H. and Yu Y.-C. (2006) Exploring inter-professional collaboration within action research group in health care sectors. *Asian Journal of Health and Information Sciences* 1(2), 152-162.

Zazzali J.L. (2003) Trust, an Implicit Force in Health Care Organization Theory, In Mick S.S. and Wyttenbach M.E. (editors) *Advances in Health Care Organization Theory*. Jossey-Bass, San Francisco, 233-254.

Zeira Y. and Avedisian J. (1989) Organizational planned change: assessing the chances for success. *Organizational Dynamics* 17(4), 31-45.

Zeithaml V.A., Varadarajan P.R. and Zeithaml C.P. (1988) The contingency approach: Its foundations and relevance to theory building and research in marketing. *European Journal of Marketing* 22 (7), 37-64.

Zeitz K., Kitson A., Gibb H., Bagley E., Chester M., Davy C., Frankham J., Guthrie S., Roney F. and Shanks A. (2010) Working together to improve the care of older people: a new framework for collaboration. *Journal of Advanced Nursing* 67(1), 43–55.

Zhang Y. and Huxham C. (2009) Identity construction and trust building in developing international collaboration. *The Journal of Applied Behavioural Science* 45(2), 186-211.

Zucker L.G. (1986) Production of Trust: Institutional sources of economic structure. *Research in Organisational Behaviour* 8, 53-111.

Zucker L.G. (1987) Institutional theories of organization. *Annual Review of Sociology* 13, 443-464.

Zwarenstein M., Reeves S. and Perrier L. (2005). Effectiveness of pre-licensure interprofessional education and post-licensure collaborative interventions. *Journal of Interprofessional Care,* Supplement 1, 148-165.

Zwarenstein M. and Reeves S. (2006) Knowledge translation and interprofessional collaboration: where the rubber of evidence-based care hits the road of teamwork. *Journal of Continuing Education in the Health Professions* 26(1), 46-54.

Zwarenstein M., Goldman J. and Reeves S. (2009) Interprofessional collaboration: effects of practice-based interventions on professional practice and health care outcomes. *Cochrane Database of Systematic Reviews 2009, Issue 3*. Available from: http://www2.cochrane.org/reviews/en/ab000072.html (Accessed 9/9/2010)

1. Information-seeking behaviour of participants

- Participants information-seeking behaviour differed based on the amount of uncertainty inherent in the decision i.e. whether they considered a decision routine or non-routine.
  - For routine decisions, participants relied on their own experience and that of colleagues. Accordingly it often did not occur to participants undertaking routine nursing care that changes in practice could be necessary and should be investigated.
  - Additionally, participants often assumed that current practice was research-based and did not question it: *You presume an awful lot of what you are doing is evidence-based* (interview 12)
  - Nurses were more likely to access sources that provided information on how things were currently done rather than how things could be done better: *If there is something that we maybe aren't doing very much in our unit or we're wondering are we still doing it the right way, the way everybody else is, so we sometimes contact other units and see how they do things.*
    (Interview 1)

- For non-routine decisions, participants sought out information from a wider range of sources: *Oh you might get in something in rare, that you wouldn't normally get. And you would look that up you know* (interview 11). Participants were therefore more likely to look up research information on non-routine decisions.

- Changes in practice resulted from some research information searches.
  - When questionnaire respondents were asked about the outcome of their last time looking up research information, 42% (n = 152) reported that they changed their practice, 18% (n = 64) noted that the information reinforced current practice and 18% (n = 56) reported that they did not change practice either because they could not locate or interpret sufficient relevant information or because a change in practice was not possible. (The remaining respondents either had not ever looked up research information (6%, n = 20) or looked it up for educational reasons only (17%, n = 61))

- Despite mostly having a positive attitude towards research, participants did not often use sources that provided them with primary research.
  - Of the research evidence that they used in practice, only 31% (n = 116) of questionnaire respondents looked up the majority of it personally. Internet databases and nursing journals were ranked tenth and thirteenth most often accessed out of thirteen source of information.
- Nurses relied heavily on nursing colleagues to provide them with information
  - Nursing colleagues were ranked as the most often accessed information source by questionnaire respondents
- Other people were also important
  - In terms of information sources accessed most often, nursing managers were ranked second, other professionals third and clinical nurse specialists fifth.
- Practice guidelines defined as *written policies and protocols that give directions for clinical practice*, were the most frequently accessed non-human source of information and were ranked fourth most accessed. Nurses however, often had no input into guideline development: *As in ward policies, no, we do not usually get involved, we just follow them.* (Interview 5)
  - Less than half (43%) of questionnaires respondents agreed or strongly agreed that clinical nurses were involved in updating guidelines.

2. Barriers to making evidence-based changes in practice

To make evidence-based changes in practice, practitioners firstly have to access evidence-based information and secondly have to implement that evidence in practice.

- Access to evidence was influenced by the features of the source. The likeliness of a source of information being utilised was dictated by its accessibility, whether particular skills were needed to access it, how highly it was valued, and whether there was support for using it.

- Study participants favoured easily accessible, locally available sources of information. Sources that provided direct access to research information were often more time consuming to use or were simply not made available by employers.
  - Time was ranked the greatest barrier by questionnaire respondents to looking up research and making necessary changes in practice
  - A minority of questionnaire respondents (38%, n= 142) had access to a computer at work and only 27% (n = 102) actually used it.

- Sources that provided evidence-based information often required a more advanced skill set to use than was required when seeking information from other people. Nevertheless a majority of questionnaire respondents were confident in their skills to access and interpret research information.
  - Fifty five percent (N= ?) expressed confidence in their research interpretation skills and (55%, N = ?) were confident in their ability to source research information online

- Although research evidence was held in high regard, participants often looked on information from human sources more positively due to a high value placed on clinical experience, but research evidence was also held in high regard.
  - *I would be slow to pick up a book and say that I must go and read up all about that. Where I would find it a lot more beneficial to go to a course and get other people's opinions, and I think you will learn a lot more cause you will learn from other people as well.*(Interview 6)

- If there was a culture of support for research use at the participants' place of work, evidenced for example by the regular production and updating of clinical guidelines, it made it easier for participants to access evidence-based information.

- The perceived feasibility of employing information from a particular source in practice was influenced by whether changes in practice were required and whether they had the desire, support and power to make changes.

  - Support from management was paramount in creating an environment where change was possible. An organisational ethos of *Why fix what's not broken (interview 1)* stifled attempts at change. Similarly, excessive bureaucracy suppressed change, especially bottom-up change.
    - Respondents who considered their work environment to be supportive of research use, reported looking up more research information ($r = .226$, n = 363, $p<0.05$) and basing more of their practice on research information ($r = .433$, n = 362, $p<0.05$). Lack of time and lack of organisational support were ranked the top two barriers to using research evidence in practice.

  - Support from nursing colleagues and other professionals was also important as nurses generally worked in teams. The attitude of others impacted upon participants desire to attempt change. Some people acted as facilitators of change, for example nurses involved in further education.

  - The power of individual participants to attempt change was influenced by their position in a nursing hierarchy, whether they worked in the acute or community sector, their relationship with other healthcare professionals and the type of team they worked on.
    - Questionnaire participants ranked a lack of power to change practice as the third greatest barrier to their use of research.

Month	Facility A	Facility B	Facility C
May 2008	Pre-Intervention data collection – questionnaires to staff and outside professionals. Poor response rate. Interviews with residents.		
June 2008	Pre-Intervention data collection – interviews with residents		
September 2008	Second batch of questionnaires distributed to staff and outside professionals.	Pre-Intervention Data Collection – Group discussion with staff and outside professionals	
December 2008			
Jan 2009	After conversation with clinical development co-ordinator and the matron, a decision was made to terminate project.		Pre-Intervention data collection – questionnaires sent to staff and health and allied health professionals
August 2009		Discussions with Nursing manager to organise post-intervention data collection in facility. Postponement of data collection.	
September 2009		Post-intervention data collection – interviews with committee (outside professionals)	
October 2009		Discussions with director of care regarding post-intervention data collection. Request for pain management training for staff.	
April 2010		Pain training held. Post-intervention data collection. Group discussion. Interviews with committee members	
May 2010		Post-intervention data collection. Questionnaires for staff & outside professionals, interviews with committee members	
June 2010			Post-intervention data collection – group discussion
July 2010			Post-intervention data collection – interviews with committee members. Questionnaires distributed.

Interviews with residents

1. What is your level of pain right now (on coloured analogue scale)?
2. Are you on pain medication?
   a. Type of medication?
   b. Taking it how long?
   c. For what type of pain?
3. Do you suffer from chronic pain? Explain what you mean by chronic pain.
4. Do you always tell staff if you are in pain?
   a. If no, why not?
5. Which of the health professionals do you tell if you are in pain?
6. Can you tell me what happened the last time you told [the health professionals mentioned] you were in pain?
7. Who is responsible for managing your pain – one person, several people working individually or several people working as a team?
   a. Do you think the health professionals here work effectively as a team when managing your pain? How?
   b. Do you think they communicate well with each other regarding your pain management?
   c. Do you think there should be anybody else involved in managing your pain?
8. How is your pain managed?
9. How would you like your pain to be managed? (would you be happier with one type of pain management over another)
10. Do you do anything yourself to try to ease pain?
11. Are you given a choice on what you are given for pain relief?
12. Are you given a choice on how you are given pain relief?
13. Are you given a choice on when you are given pain relief?
14. If you tell someone you are in pain, how long do you generally wait for pain relief?
15. Are you happy with the way your pain is managed? (On a scale of one to ten)
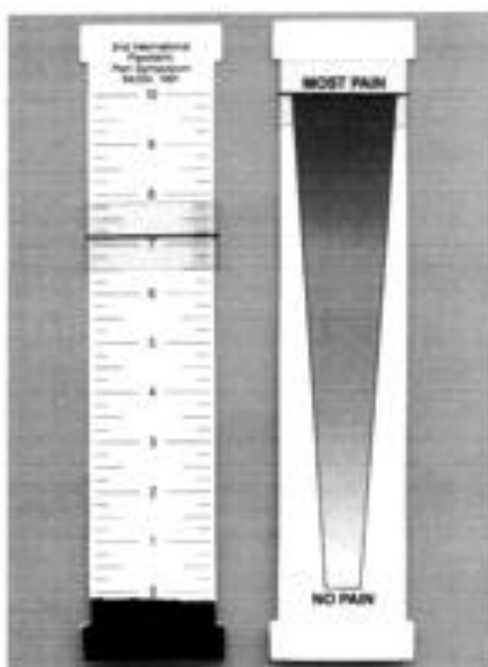
Coloured Analogue Scale

Pre-Intervention Group discussion with Care Providers

Pain management:

1. Are you happy with how pain is assessed and managed?
2. How is it pain assessed? (is there documentation? Cognitive impairment?)
3. How is pain managed? (list the type of activities for pain management, Is there documentation?)
4. How is the implementation of your pain management evaluated ? (individual, groups, is it documented?)

EBP

5. Do you think you are using best evidence in your pain assessment and management? (Where did it come from?)
6. Do you think that any changes need to be made in pain management?
7. What sort of changes do you think need to be made?
8. Who should be involved in making changes on pain assessment and management?
9. Where would you like to see efforts being focused?
10. Do you anticipate any barriers to making changes?

Interprofessional Collaboration

11. How do you collaborate with other professionals on pain assessment and management? (Do you work as a team? how does the process work with an individual patient?)
12. Do you think you understand your own and other peoples roles with regard to pain assessment and management?
13. Are there other professionals who should be involved in pain management who are currently not?

The Study

14. What sort of feedback would you like from the project?
15. What sort of information would you like to receive on pain management?
16. Anyone interested in being part of the team, sign the sheet.

Post Intervention Interviews with Team Members

Roles

1. Can you explain your role in the facility? (overall role – not just this project)
2. And what do you think your role was in the pain management project?
3. Did you learn about the roles of other people involved in the project. If you did, what did you learn?
4. Do you think that in relation to this project that peoples roles were clearly enough defined?

The facility

5. Do you think this was a good time to undertake this project i.e. co-inciding with HIQUA? (what do you think about the changes mandated by HIQUA? If time)
6. How would you describe the organisational culture at the facility?
7. Do you think it is easy to make changes in the facility – can staff make changes themselves or did everything have to go through the director of care?
8. If you tried to make changes in the past, were there barriers in place?
9. How autonomous are residents? I.e. how much control do they have over their own lives in a residential care facility?

10. How do you see the power structures – yourself, director of care, nurses, carers, GPs, Physiotherapist?

The pain management project

11. In terms of the leadership of the team, what style of leadership do you think was used? Autocratic, democratic or delagative?
12. Did this style of leadership work or is there a better way of doing it?
13. Do you think the whole team was involved in decision-making?
14. Were there different points of view mentioned and mutual respect?
15. Do you think all team members were committed to the process?
16. Was a team a good way to try to initiate change or would it have worked just as well or better if I had just gone to the director of care and initiated management-mandated change by for example developing care guidelines?
17. Do you think the project helped in improving communication between you and other team members?
18. Who do you think is responsible for the management of pain in residents? Did this change at all over the course of the project?

Interprofessional teamwork

19. Did you see any 'turf issues' or issues with role boundaries when dealing with other professionals at the facility?
20. Do you think the team created for the project was an effective team?
21. Do you think it was advantageous to have a number of staff and outside professionals involved in the team (Facility B) / Why do you think none of the GPs got involved with the project (Facility C)
22. Do you think there were any disadvantages to the groupings we had? Should anyone else have been included?
23. What were the disadvantages to trying to make changes as a multiprofessional team?
24. What were the advantages?
25. Did we develop into an IP team? (give characteristics)

Evidence-based practice

26. Did you learn anything about the pain from the exercise?
27. Do you feel that we used the evidence base effectively when making changes?
28. Do you think that it was a good idea that I was the one responsible for looking up and bringing the evidence to the team or would it have been better if team members looked it up themselves

Success or failure?

29. What do you think could have been done better – what would you do differently?
30. What would you do the same?
31. How successful do you think the whole exercise was? Was it worth doing?

Questions on Evaluation Document for Staff

1. Please describe your interpretation of the changes that were agreed upon in the team meeting and why it was decided that these particular changes had to be made.
2. What was your role? (in planning, implementing and/or evaluating the changes)
3. What actions did you take? (in planning, implementing and/or evaluating the changes)
4. Would you do anything differently next time if you were to plan and implement similar changes?
5. What was good and bad about this experience? (Feel free to comment on the team function, team meeting, implementation of changes etc.)
6. Who else was involved and what were their roles? (in planning, implementing and/or evaluating the changes)
7. Did you fully understand everyone else's role?
8. Do you think that there are any improvements that can be made on how the interprofessional team worked together on this task? If so, what?
9. Do you feel you have the knowledge and skills to work effectively as part of the team? If not, what skills would you like to develop?
10. Do you think this intervention is a success so far? Why or why not?
11. Do you think the team used the best available evidence when deciding to implement this change? Where did the information come from?
12. Any other comments?

Knowledge and Attitude Regarding Pain Questionnaire for Nurses, GPs and Physiotherapists

Knowledge and Attitudes Regarding Pain

Position (Please tick):
__ **Nurse**
__ **Care Assistant**
__ **GP**
__ **Physiotherapist/ physiotherapy assistant**
__ **Other** _____

True/False – Circle the correct answer.

1. T F Vital signs are always reliable indicators of the intensity of a patient's pain
2. T F Patients who can be distracted from pain usually do not have severe pain.
3. T F Patients may sleep in spite of severe pain.
4. T F Combining pain medications that work by different mechanisms (e.g., combining an opioid eg morphine or codeine with an NSAID eg aspirin or ibuprofen/brufen) may result in better pain control with fewer side effects than using a single pain medication.
5. T F Codeine has a dose ceiling (i.e., a dose above which no greater pain relief can be obtained).
6. T F NSAIDS have no dose ceiling
7. T F If the effect of a weak opioid such as codeine is inadequate, a different weak opioid should be tried before moving to a stronger opioid
8. T F Elderly patients cannot tolerate opioids eg morphine or codeine, for pain relief.
9. T F Patients should be encouraged to endure as much pain as possible before using an opioid eg morphine or codeine
10. T F Patients' spiritual beliefs may lead them to think pain and suffering are necessary.
11. T F After an initial dose of opioid analgesic is given, subsequent doses should be adjusted in accordance with the individual patient's response.
10. T F If the source of the patient's pain is unknown, opioids should not be used during the pain evaluation period, as this could mask the ability to correctly diagnose the cause of pain.
11. T F Reporting and documenting a residents pain is part of my job duties
12. T F Residents talk to me on a regular basis about their pain
13. T F Levels of pain should be rated by a health care professional, not the resident.
14. T F Pain is a natural part of the aging process
15. T F People who take opioids generally become addicted.
16. T F Effective pain control improves the ability to fight disease
17. T F If a physical exam on a patient is normal, then they are not in pain
18. T F Cognitive impairment changes the ability to localize acute pain
19. T F Older people have a higher tolerance for pain
20. T F Antidepressants are effective for pain relief
21. T F Constipation is a common side effect of opiod medication
22. T F Opiods can cause respiratory depression
23. T F NSAIDs can decrease blood pressure in people with hypertension
24. T F People who take NSAIDs generally become addicted.
25. T F Nociceptive pain is pain that arises from tissue damage
26. T F Inadequately controlled acute pain can lead to chronic pain syndromes
27. T F You can get the same results with less side effects with high doses of weaker opioids than lower doses of stronger opioids

28. Which of the following could indicate that a cognitively impaired resident is in pain:

T	F	Floppy body
T	F	Stiff tense body
T	F	Eyes closed tight
T	F	Eyes open wide
T	F	Shivering
T	F	Sweating
T	F	Breath holding
T	F	Gasping
T	F	Disruptive behaviour
T	F	Less interaction
T	F	Resisting care
T	F	Seeking physical closeness
T	F	Fidgety, agitated
T	F	Less active
T	F	Teeth grinding
T	F	Tongue thrust out

Multiple choice – Place a check by the correct answer

29. The most accurate judge of the intensity of the patient's pain is
__ a. the treating physician
__ b. the patient's primary nurse
__ c. the patient
__ d. the pharmacist
__ e. the patient's spouse or family

30. The most likely reason a patient with pain would request increased doses of pain medication is:
__ a. The patient is experiencing increased pain.
__ b. The patient is experiencing increased anxiety or depression.
__ c. The patient is requesting more staff attention.
__ d. The patient's requests are related to addiction.

31. The recommended route of administration of opioid analgesics for residents with persistent cancer-related pain is
__ a. intravenous
__ b. intramuscular
__ c. subcutaneous
__ d. oral
__ e. rectal

32. The recommended route administration of opioid analgesics for residents with brief, severe pain of sudden onset such as trauma or postoperative pain is
__ a. intravenous
__ b. intramuscular
__ c. subcutaneous
__ d. oral
__ e. rectal

33. Analgesics for patients with brief, severe pain of sudden onset such as trauma or postoperative pain should initially be given
__ a. around the clock on a fixed schedule
__ b. only when the patient asks for the medication
__ c. only when the nurse determines that the patient has moderate or greater discomfort

34. The time to peak effect for morphine given IV is

__ a. 15 min.
__ b. 45 min.
__ c. 1 hour
__ d. 2 hours

35. The time to peak effect for morphine given orally is

__ a. 5 min.
__ b. 30 min.
__ c. 1 – 2 hours
__ d. 3 hours

36. Following abrupt discontinuation of an opioid, physical dependence is manifested by the following:

__ a. sweating, yawning, diarrhoea and agitation in patients when the opioid is abruptly discontinued
__ b. Impaired control over drug use, compulsive use, and craving
__ c. The need for higher doses to achieve the same effect.
__ d. a and b

37. What percentage of patients with Rheumatoid Arthritis will not find NSAIDS beneficial for pain relief?

__ a. 1%
__ b. 10%
__ c. 25%
__ d. 80%

Knowledge and Attitudes Regarding Pain Questionnaire for Care Assistants

**Knowledge and Attitudes Regarding Pain – Care Assistant
Questionnaire**

Position (Please tick):
__ Care Assistant
__ Other _____

True/False – Circle the correct answer.

				For office use only
1.	T	F	Patients who can be distracted from pain usually do not have severe pain.	2.
2.	T	F	Patients may sleep in spite of severe pain.	3.
3.	T	F	Patients' spiritual beliefs may lead them to think pain and suffering are necessary.	10.
4.	T	F	Reporting and documenting a residents pain is part of my job duties	11.
5.	T	F	Residents talk to me on a regular basis about their pain	12.
6.	T	F	Levels of pain should be rated by a health care professional, not the resident.	13.
7.	T	F	Pain is a natural part of the aging process	14.
8.	T	F	Effective pain control improves the ability to fight disease	16.
9.	T	F	If a physical exam on a patient is normal, then they are not in pain	17.
10.	T	F	Cognitive impairment changes the ability to localize acute pain	18.
11.	T	F	Older people have a higher tolerance for pain	19.
12.	T	F	Antidepressants are effective for pain relief	20.

13. Which of the following could indicate that a cognitively impaired resident is in pain:

T	F	Floppy body
T	F	Stiff tense body
T	F	Eyes closed tight
T	F	Eyes open wide
T	F	Shivering
T	F	Sweating
T	F	Breath holding
T	F	Gasping
T	F	Disruptive behaviour
T	F	Less interaction
T	F	Resisting care
T	F	Seeking physical closeness
T	F	Fidgety, agitated
T	F	Less active
T	F	Teeth grinding
T	F	Tongue thrust out

Multiple choice – Place a check by the correct answer

14. The most accurate judge of the intensity of the patient's pain is
__ a. the treating physician
__ b. the patient's primary nurse
__ c. the patient
__ d. the pharmacist
__ e. the patient's spouse or family

15. The most likely reason a patient with pain would request increased doses of pain medication is:
__ a. The patient is experiencing increased pain.
__ b. The patient is experiencing increased anxiety or depression.
__ c. The patient is requesting more staff attention.
__ d. The patient's requests are related to addiction.

Open Ended Questions Added to Knowledge and Attitudes Questionnaires for Post Intervention Data Collection

1. Did you attend any pain management committee meetings?

__ a. Don't know
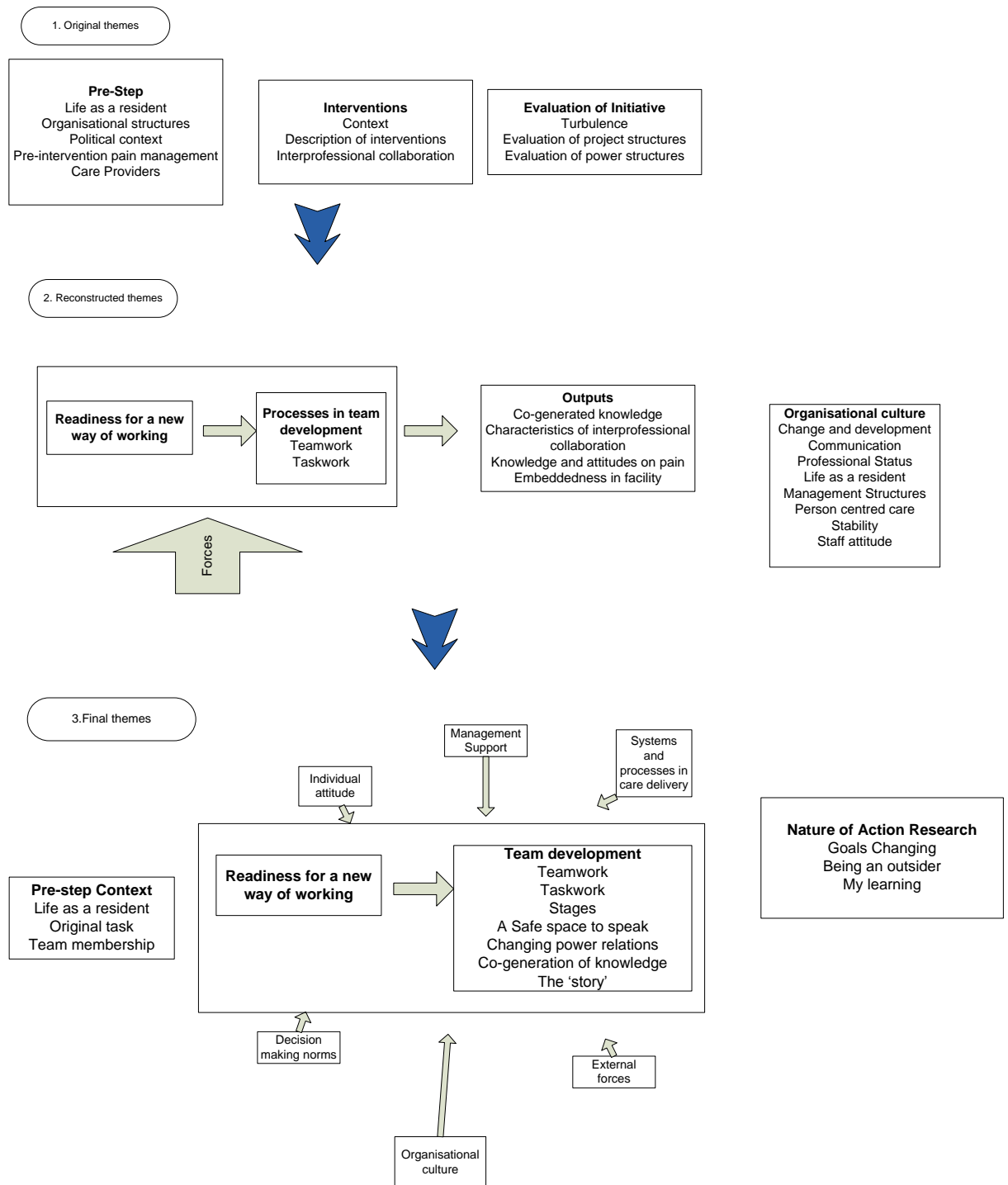
__ b. Yes.

__ c. No........................If not, why not?

2. If you attended any meetings what was good and bad about them?

3. What (if anything) did the pain management project change about what you know about pain?

4. What (if anything) did the pain management project change about how you talk to and interact with other staff such as nurses, GPs and the physiotherapist?

1. Original themes

Pre-Step
Life as a resident
Organisational structures
Political context
Pre-intervention pain management
Care Providers

Interventions
Context
Description of interventions
Interprofessional collaboration

Evaluation of Initiative
Turbulence
Evaluation of project structures
Evaluation of power structures

2. Reconstructed themes

Readiness for a new way of working

Processes in team development
Teamwork
Taskwork

Outputs
Co-generated knowledge
Characteristics of interprofessional collaboration
Knowledge and attitudes on pain
Embeddedness in facility

Forces

Organisational culture
Change and development
Communication
Professional Status
Life as a resident
Management Structures
Person centred care
Stability
Staff attitude

3. Final themes

Individual attitude

Management Support

Systems and processes in care delivery

Pre-step Context
Life as a resident
Original task
Team membership

Readiness for a new way of working

Team development
Teamwork
Taskwork
Stages
A Safe space to speak
Changing power relations
Co-generation of knowledge
The 'story'

Nature of Action Research
Goals Changing
Being an outsider
My learning

Decision making norms

Organisational culture

External forces

Final list of thematically categorised nodes from NVivo

inks Code Tools Window Help

Look for: _____ ▾   Search In _____ ▾   Tree Nodes   Find Now

Tree Nodes

Name		Sources		
⊟ Forces	0			
⊟ Decision making norms	0		0	
attitudes towards other professionals		23		51
Management behaviour		8		19
management structures		6		11
⊟ External forces	0		0	
Economic climate _Staffing embargo		5		9
HIQA		9		21
Other committments		2		3
turbulence		9		18
⊟ Individual attitude	3		4	
Altruism		5		6
Logistics	16		30	
Management support & sponsorship of pro	15		30	
⊟ Organisational culture	7		13	
attitude towards change & development		10		28
person centered		8		15
staff development		9		14
⊟ Systems and processes in current care del	0		0	
communication		12		23
logistics of care		6		16
⊞ Pre-Intervention pain management		0		0

Name	Sources	References
Nature of action research	10	
being an outsider	7	7
goals changing	4	7
my learning	6	13
Pre-step - context and purpose	0	
Life as a resident	0	0
dillema person centred care in residential care e	0	0
Sense of loss associated with getting old	0	0
staff attitude	6	8
original task	1	1
People involved in care	8	17
People on team	15	46
Team Development	0	
A safe place to speak	11	31
Change in norms re power to make decisio	13	30
Co-generation of knowledge	11	48
Boundary spanning	7	13
changes in role understanding or roles	6	9
knowledge and attitude on pain	11	19
stages	13	17
Sustainability	2	5
taskwork	0	0
Choosing goals_tasks	11	20
evidence based practice	7	11
how structural change occured	9	17
relevance of task	7	9
teamwork	0	0
buy in from team members	13	32
communication	8	16
interprofessional development	11	28
Role on team	8	25
The Story_ Facility C	11	15
The story_facility B	11	13