Innovative Practice in the Process of Patient Management
in Palliative Care

A thesis presented to the University of Western Sydney
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Doctor of Philosophy
by
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DEDICATION

This thesis is dedicated to Doris Davison, my mother, and Jenny Crooks, her mother; the two people who raised me and gave me my values.

This thesis is also dedicated to the members of the palliative care teams who cared so generously for Doris at the end of her life:

Laurie
Donna
Margaret
Glen
Pam
Kate
Jo
Jan Marie
Pam
Jane
Mary
Jodie
Basim
Helen
Jane
Rhonda
Julie
Lee
Narelle

My final dedication is to my daughters, Kate and Jane, who I love dearly and who helped to keep me focused during this process.
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Calvary Hospital Kogarah
Sacred Heart Palliative Care Service
Braeside Hospital Palliative Care Unit
STATEMENT OF AUTHENTICATION

The work presented here is, to the best of my knowledge and belief, original except as acknowledged in the text. I hereby declare that I have not submitted this material, either in full or in part, for a degree at this or any other institution.

Graydon Davison
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ABSTRACT

This thesis examines the management of multidisciplinary teams in a highly innovative environment through a study of multidisciplinary patient care teams in palliative care. It investigates management that enables spontaneous innovation where necessary, yet maintains discipline and compliance with legislation, regulation and policy. To assist the explanation a model of palliative care multidisciplinary team management and operation is developed, building on work described in the continuous innovation and organisational configuration literatures. This thesis describes innovative practices as focusing on changing the organisation’s social potential, when necessary, in order to match changes in an individual patient’s situation. A definition of innovation suitable to this environment is developed here, adapted from the innovation literature. A definition of social potential suitable to this environment is also developed, based primarily in the literature of the socialisation of organisations.

In palliative care organisations, care is delivered to the patient and any group of people supporting the patient during the end of life process. Care provided to these supporters, referred to in this thesis as patient-based carers, can extend beyond the death of the patient. Palliative care is more than symptom management during the dying process and can involve an interaction lasting weeks or months between the organisation and patients and patient-based carers. A patient’s situation is described at many levels and involves a number of aspects of the patient’s condition and life; for example medical, social, psychosocial, spiritual and physical. In palliative care, patients and patient-based carers are the major sources of information about their situation and changes to it. This makes them active participants in the care team, although some patients and patient-based carers choose not to take this role. Every patient and every group of patient-based carers creates individualised situations when progressing through their end of life processes, requiring individualised care from teams that can change the membership mix to suit the situation. Palliative care professionals can be members of multiple individual patient care teams simultaneously and teams can include heads of discipline (managers). Multidisciplinary palliative care teams can be managed from inside or outside the
team, as the situation requires. Uncertainty pervades this environment and the response is flexibility based in learning and understanding.

From the model developed of the management of innovation in the palliative care environment implications for the management of multidisciplinary teams in a highly innovative environment are drawn.
Chapter 1 Introduction

1.1 Background to the Research

This thesis marks the latest step in a professional interaction with teams that began with the management of locally recruited teams for mineral exploration projects in Papua New Guinea in 1970. Since that beginning I have worked in teams, with teams and managed teams sometimes successfully and sometimes not. My learning about teams for the next 22 years came from some reading but primarily from team membership. I did not start to read about teams purposefully until 1992. Between 1992 and 1995, in a public sector organisation with 1,100 employees, I designed and managed a Total Quality Management program that utilised 40 workplace teams spread across the western half of metropolitan Sydney. During this period I read many books about teams that were written for managers. In book after book, much was written about what teams could or should deliver and how they could or should be managed. I found very little about the practicalities of managing real-world teams. In 1997 I was contracted to construct a discreet event simulation of a hospital emergency ward. During the design and verification phases of this project there was frequent interaction with the teams that worked in this ward. At times there appeared to be little agreement between the disciplines comprising the teams. In response to this I began to read the academic literature on teams, particularly multidisciplinary teams in healthcare. Again, the predominance of writing appeared to be more about what could or should be done than what was actually done, what actually worked and, most importantly, why. In the healthcare literature I found much more written about the clinical aspects of team usage or team-based care delivery than about the practical management of multidisciplinary teams.

In late 1999 I observed the operations of a palliative care organisation. Multidisciplinary patient care teams appeared to mix their membership as the patient’s situation demanded and at times apparently decided ‘on the spot’ to change the care regimen; to change a drug combination or change the location of a bed in the room or change the membership of the team if it was thought that the patient might respond better to a different type of personality. These teams sometimes included senior professionals. I observed situationally based team leadership and the team’s efforts to include the patient in decision making. The team
based operations that I observed seemed to me to be the way that teams were supposed to operate. It occurred to me that I had not seen or experienced teams that operated as these palliative care teams did. I decided to seek an explanation of this operation and my subsequent research (Appendix 1) and this thesis are the results of this process.

The palliative care environment is multidisciplinary, team-based, socially and systemically oriented, with a singular focus; an end of life experience for an individual and the members of any supportive social system that accompanies the individual (McDonald and Krauser, 1996; Meyers, 1997; Barbato, 1999; Witt Sherman, 1999). This socially oriented environment is part of a larger system of healthcare that has a high profile in the consciousness of the general population and in the politics of the day (Cowling et al, 1999; Firth-Cozens, 1999; Newhouse and Mills, 1999; Wright et al, 1999).

Palliative care organisations must, therefore, accommodate and manage issues such as the economics and affordability of the provision of an end of life experience, the management and administration of its services within a larger healthcare infrastructure, and the prioritisation of a range of resources that can not be applied to cure. In their day to day operation palliative care organisations have acquired and implemented many of the attributes of high performing knowledge-based businesses, such as excellence in learning and multi-disciplinary, cross-functional work teams, in ways that would make them the envy of highly profitable businesses. In a unique environment, where objective quantification of measures such as customer satisfaction is often meaningless, palliative care professionals have implemented innovations in processes in a highly effective way. To date, the focus for reporting the changes and innovations in palliative care has been on quality of life and medical issues rather than on resourcing, enabling and managing multidisciplinary teams to deliver what is required.

Understanding the management of multidisciplinary teams to enable innovation in situ when required holds useful lessons for other environments within healthcare, the public sector, non-government organisations and business operations in general.
1.2 The Research Question

How do palliative care organisations, operating in a complex and dynamic environment, manage multidisciplinary patient care teams to deliver innovative responses to changing patient needs?

The research question was addressed by using two extant bodies of work; the CIMA (Continuous Improvement in global product innovation MAnagement) model (Boer et al, 2001; Gieskes, 2001) and Mintzberg’s (1989) typology of organisations, to create a framework for the literature review, which produces a model for the management of multidisciplinary palliative care teams. Data was then collected and analysed, with the analysis produced in Chapter 4 and discussion in Chapter 5.

This thesis examines a number of bodies of research. The examination ranges from palliative care to the exchange of knowledge between project teams in new product development, from mainstream theory of the management of organisational configuration to the use of dialogue as a tool for building trust. The main fields examined in the literature are Palliative Care, Healthcare Management, Innovation, Learning, Organisation, Knowledge Management, Information Management and Qualitative Research.

The need to examine this range of fields was driven by the almost total lack of information in the literature about palliative care organisations and their relationship to innovation through their multidisciplinary teams. This thesis is an attempt to begin to fill that gap.

Is there value in addressing the research question? Palliative care organisations are not commercial organisations, they are not mainstream healthcare organisations and they are not a part of the discourse on healthcare management or innovation management. Palliative care organisations do not have complicated management structures, they do not have large teams of human resources specialists and trainers, they do not have resource surpluses that allow the removal of teams to off-site team building exercises, they do not have Research and Development units. Palliative care organisations do not have many of the organisational artefacts commonly related to innovation in the literature.
Patient care teams in palliative care appear similar to new product development teams seen in commercial organisations. They are comprised of a mix of disciplines and specialties that are drawn from functional groupings in the organisation, they are formed in response to particular requirements and members maintain cognitive and communicative links to their functional areas as sources of information and knowledge. In addition, both types of teams exist as long as the requirement exists, breaking down at the completion of the task or project.

Palliative care organisations have cross-functional, multi-profession, multidisciplinary patient care teams that are capable of providing innovative responses to situations that can change frequently, over which they never have full control and sometimes have no control. These multidisciplinary patient care teams are comprised of individuals that have concerns of autonomy, conditions, organisational barriers, trust and distrust, dissatisfaction and many of the other concerns common to people in many organisations. And yet these appear to be frequently overcome through high frequencies of communication, openness, dialogue and a common purpose. The role performed by palliative care organisations is one of providing comfort and the relief of distress to people who are undertaking, or supporting the undertaking of, an end of life experience. The participating case study organisations view the research as valuable because it describes the management of their teams in the language of management, providing them with a management tool they did not have; the research describes palliative care in other than the language of death and dying, therefore making an understanding of palliative care available to a broad audience to which it would not normally be available. Outside of the case studies, the value of addressing the research question is in the description of a model for the management, resourcing and operation of multidisciplinary teams in complex, dynamic environments that require collaborative decision making in situ, require the team to innovate as necessary to suit the situation while in the situation and occur in environments traditionally characterised by the wastage and disruption caused by paradigmatically-based fragmentation of effort.
1.3 Justification of the Research

This thesis addresses a research question neglected in the literature; that of the management of multidisciplinary palliative care, or healthcare, teams to enable innovation as necessary in the care delivery process. In doing so, the research has produced results that will be useful in palliative care and healthcare organisations and in organisations outside of healthcare. In addition, the research has extended the usefulness and application of the original CIMA model to the healthcare environment. The model has also been extended in this evolution by the addition of a set of structural and functional characteristics that enable the operational components and the management of the teams.

1.4 Methodology

Multiple case studies are used in this thesis, a choice based on the consideration of available methods discussed in Chapter 3. The purpose of the thesis is to explain a phenomenon in situ, where the context of the phenomenon bears directly on the phenomenon. As the research is explanatory rather than confirmatory, qualitative research is used. The research question is not suited to experiment because testing or measuring of the phenomenon is not required; and not suited to survey because the contextual nature of the research is better served by data gathering first-hand in situ. The purpose of the research precludes the use of methods such as ethnography, commonly used to develop cultural explanations and requiring long periods of observation within the context – something the case study organisations would not agree to; or grounded theory, commonly used to generate a conceptual theory.

Of the possible data gathering techniques and sources discussed in Chapter 3 interviews were selected as appropriate to this research. One case study was used as the pilot case and interviews in this case study were structured so that the interview questions could be tested for appropriateness. Interviews conducted in the remaining case studies were semi-structured. Data analysis used an abstraction technique in each case study, progressively abstracting the data and drawing out major themes and deep structure. This was followed by comparative cross-case analysis, seeking to identify patterns replicated across the cases, or identify why patterns were not replicated. This then led in to explanation building.
1.5 Outline of the Thesis

The thesis consists of 5 chapters. Chapter 2 is the literature review. It describes the setting of a framework for the review, the review itself and concludes with a model for palliative care that becomes the basis for the investigative phase of the thesis. Chapter 3 is the methodology and contains descriptions of the alternative and selected research strategies, the involved case study organisations, the gaining of ethics approvals for the research, selected data collection and analysis methods and the development of the research question. Chapter 4 is the analysis. This is the largest chapter in the thesis and describes the data analysis for individual components of the model for palliative care in each case study and the comparative cross-case analysis that enables the following chapter, Chapter 5. Chapter 5 presents the discussion and conclusions.

1.6 Contributions

This thesis sought to explain the management of multidisciplinary patient care teams in palliative care that enable innovative responses to changing patient situations. In building this explanation the thesis brings together bodies of work and literature not previously connected and makes the following primary contributions:

- An explanation of the social potential of a palliative care organisation and the resourcing and management of that potential;
- The development of a verified model of the management of innovative multidisciplinary teams in palliative care;
- An explanation of multidisciplinary teams’ abilities to change an organisation’s social potential and the management of those abilities;
- New work in the palliative care and health care literatures on the management of innovative multidisciplinary teams;
- An explanation of the combination of structural, functional and operational components operating to generate an understanding of an individual palliative care patient’s situation;
• An explanation of the relationships between organisational configuration and the resourcing and operation of innovative multidisciplinary teams in palliative care; and

• A description of the relationships between contingencies and major groupings of activities, the product of which is the flexible application of operational components in multiple contexts.
Chapter 2 Literature Review

2.1 Introduction

The range of literature reviewed for this thesis is extensive because of the lack of information available about the phenomenon in question. As demonstrated by the breadth of the literature reviewed the available body of knowledge did not address how the management of multidisciplinary patient care teams supports innovative practice in the palliative care environment. For the sake of the structure and flow of the thesis the articulation of the literature review and its applications has been split into two sections. The first is related to the following:

- Contemporary general healthcare environment
- Palliative care environment
- Innovation, including the development of a definition specific to the palliative care environment

The second section is related to the development of a model for palliative care:

- Organisational capabilities
- Organisational levers
- Individual behaviours within multidisciplinary teams
- Contingencies
- Organisational configuration and necessary characteristics

The thesis has taken two theoretical frameworks and used them to predict the existence of organisational elements necessary for the successful management of innovation in palliative care. The frameworks are described as necessarily being able to “state the conditions under which a particular phenomenon is likely to be found...as well as the conditions when it is not likely to be found.” (Yin, 1994, p. 46).

The phenomenon in question for the research was the management of multidisciplinary patient care teams in palliative care to produce innovative responses to changing patient needs. A confirmation of the organisational elements suggested by the theoretical frameworks has allowed the explanation of their deployment and use for the successful management of multidisciplinary patient care teams in palliative care to deliver innovative responses to changing patient needs.
The literature review was generally sourced online using the ProQuest and Emerald databases to access and retrieve relevant materials. In the event that these databases could not provide materials the resources of the library of the University of Western Sydney were utilised.

2.1.1 Framing the Literature Review
The literature review was conducted with regard to developing a model of the management of multidisciplinary patient care teams that could be tested in palliative care organisations. The development of this model was based on two sources: the European Union funded CIMA (Continuous Improvement in global product innovation MAnagement) model for assessment of the existence and level of sophistication of innovative practices in manufacturing organisations in contingency driven environments in Europe and Australia, and Henry Mintzberg’s (1989) work on organisational configurations.

2.1.1.1 The CIMA Model
The CIMA model was developed for the assessment of the existence and level of sophistication of innovative practices in manufacturing organisations in contingency driven environments in Europe and Australia. The CIMA model was the result of a research process established by an international consortium of universities; University of Western Sydney; Monash University, Melbourne; Edith Cowen University, Perth; University of Twente, Netherlands; University of Brighton, England; Politecnico Milano, Italy; Trinity College, Dublin; Chalmers University, Sweden. The result of this process was the development of a tool to assist companies in the understanding and management of learning and knowledge transfer in their innovation efforts (Gieskes, 2001). Research for the development of the model took place in Europe and Australia over a period of some three years. In essence, the CIMA model describes the relationships and learning and knowledge transfer within product innovation in terms of five interacting components that behave systemically; Capabilities, Levers, Behaviours, Performances and Contingencies (Gieskes and Langenberg, 2000). The first four define a causally linked sub-system. This interacts with the fifth component, Contingencies, containing variables that are generated within the sub-system and by the sub-system's environment. This interaction is also causal.
Having been researched, designed and then proven using in-depth case studies in industry in Europe and Australia (Gieskes, 2001) the CIMA model was relevant to the investigation of innovative environments and could provide a useful guide to this research. However, as the model was developed and proven in a commercial, primarily manufacturing, environment some of the language used to express the detail of each of the major components and indeed some of the concepts within the detail, was expected to differ from that found in the palliative care environment. This thesis has extended the CIMA model to the palliative care environment.

The CIMA model was used to structure the literature review of organisational elements relevant to the practice and management of innovative practices and as a guide to the existence of and relationships between organisational, management and individual elements of innovative practices within palliative care.

One element of the CIMA model was not addressed by this thesis; Performances. The investigation of Performances in palliative care could not be conducted without interviewing patients and families. The need to conduct these interviews would have negated the granting of ethics approval by the participating case study organisations. These organisations considered that patients at the end of life and already generally in distress, would not benefit from being involved in the research. This opinion was respected.
2.1.1.2 Organisational Configuration

In seeking to describe how palliative care organisations enabled their teams to undertake multidisciplinary work in this uncertain environment the literature review described organisational capabilities, management levers and individual behaviours within multidisciplinary teams. However, a way of understanding what it was that enabled the appropriate alignment of resources and other organisational elements so that organisational capabilities were applied, management levers used and team behaviours applied; all at the right time and place in an uncertain, dynamic and complex workplace, was now sought. Given the holistic and multi-dimensional nature of palliative care, the literature on configuration was considered a useful starting point for gaining this understanding, configuration being an approach described as,
taking an holistic view attempting to synthesize rather than analyse the information gathered about the organisation by Duberly and Burns (1993, p.26).

Miller (1999, p.28, p29) described configurations as “complex systems of interdependency brought about by central orchestrating themes” that “…at their most useful represent common, thematically driven alignments of elements or dimensions”. Gaining an understanding of these elements and alignments could help in understanding palliative care organisations.

Meyer et al (1993, p.1178) noted that,

… configurational enquiry represents a holistic stance, an assertion that the parts of a social entity take their meaning from the whole and cannot be understood in isolation. Rather than trying to explain how order is designed into the parts of an organization, configurational theorists try to explain how order emerges from the interaction of those parts of the whole.

It appeared that an understanding of the configuration of palliative care and the reasons for that configuration could likely lead to an understanding of how the organisational components described in a review of the literature that was framed by the CIMA model might be viewed dynamically.

Mintzberg was chosen as a useful source of information for the thesis for four reasons: 1) Mintzberg is a credible source of theory and cases on the management of organisations; 2) Among Mintzberg’s work on the management of organisations is a small body of work on hospital management (Mintzberg, 1997; Glouberman and Mintzberg, 2001a; Glouberman and Mintzberg, 2001b) and on collaborative approaches (Mintzberg et al, 1996); 3) Among his work on hospital management Mintzberg has transitioned his work on organisational configurations (Mintzberg 1989) to hospitals (Glouberman and Mintzberg, 2001b); and 4) In addition, Mintzberg is among the authors contributing to the theory and application of configuration as a concept for the study of organizations (Mintzberg 1979) and is often cited as such (Miller and Friesen, 1984; Ostroff and Schmitt, 1993; Meyer et al., 1993; Miller, 1999).

While this thesis is concerned with palliative care organisations, Mintzberg’s work on hospital management indicates applicability, at least, to the healthcare
environment. Mintzberg’s (1989) work on organisational configurations was seen as directly applicable to the research, describing a number of configurations and environments that could be expected in palliative care. Mintzberg is an author on management practice and its relationship to the behaviours of organisations who has proven capable of taking the language of a primarily industrial discourse and applying it successfully to the discourse on important aspects of healthcare management. This thesis has taken Mintzberg’s work and extended it to the palliative care environment.
2.2 Healthcare - Complex, Fragmented and Changing

The pressures of increased patient demand and rising costs have been described as changing healthcare. The reality of these pressures is manifested in a number of ways. For example, the influence of these pressures has been changing the role of supervisors and healthcare delivery systems (McConnell 1996). In Australia there was formal acknowledgment of the need for structural change to healthcare systems, introduction of systemic information management techniques and integrated whole of life patient care as a response to increased demand and rising patient costs (New South Wales Health Department, 1999; New South Wales Health Council, 2000). Both agencies noted that these issues were not limited to Australia. Whole of life care for patients meant moving away from the paradigm of episodic intervention and care. Henderson (1995) stated that the changes occurring in healthcare delivery systems included a move from episodic care to population based care, redefining, for example, the hospital's role to one of providing only care that cannot be provided at lesser cost in other places. The shift from episodic to population-based care also meant that healthcare providers must change their organisational capabilities (Heller et al, 2000). In response to the pressures of patient demand and rising costs new concepts for the structure, delivery and management of healthcare were reported in the literature. They were commonly grouped under the headings of clinical governance, evidence-based decision making and vertical integration (Cowling et al, 1999; Firth-Cozens, 1999; Newhouse and Mills, 1999; Wright et al, 1999).

Clinical governance was described as a concept of integration of service provision and management requirements in healthcare providers to improve the quality of services, that required fully integrated patient care systems, as did population based care, and an increased investment in the technology to enable this (Wright et al, 1999). The successful introduction of clinical governance required effective leadership, better communication between healthcare professions, and collaborative, multi-disciplinary, pan-agency approaches that encouraged the breakdown of discipline imposed paradigms of status and operation (Firth-Cozens, 1999; Wright et al, 1999).
Evidence-based healthcare was described as a system that provided relevant information about a range of issues including clinical knowledge, research findings and effective practice to healthcare professionals at the point of decision making (Cowling et al, 1999). The purpose of this is the improvement of the quality of healthcare. The introduction of evidence-based decision making was reported as a requirement of Australia's Department of Health and Aged Care (1999), the agency that governs national healthcare spending.

Vertical integration in healthcare was described as based on the concept of providing care to patients via a system that can arrange all levels of care required (Newhouse and Mills 1999) because the requisite different healthcare providers are co-located (Byrne and Walmus, 1999). Patient care aside, there are also operational and financial incentives for integration such as economies of scale and increased management control over costs.

Changes to privately and publicly funded healthcare systems brought with them major conceptual and operational issues and challenges to the traditional working of these systems. Grantham et al (1997) noted that healthcare managers, clinical and non-clinical, are facing a conceptual challenge in the apparent shift in healthcare theory from technical to human. The structural and strategic changes this implied are mirrored in such industries as financial services, telecommunications and transportation, giving the impression that healthcare is becoming a commodity (Keaney, 1999). According to Grantham et al (1997) the key drivers of change in healthcare are changes in technology, changes in the structures of political governance and the requirement for more integrated healthcare systems. New healthcare agenda would introduce new types of work and new ways of working so that current levels and types of skills and knowledge might become less relevant, as could some of the systems that support inter-professional barriers (Connelly et al, 1999). For example, Hanson (2000) wrote that the introduction of total quality management to healthcare systems changes perceptions of performance and long standing work relationships in public hospitals when the measurement of performance includes the understanding of the system's impact on the patient, in the patient's opinion. This can challenge the established expectation of some professions
to be the arbiters of meaning and challenge the role of clinicians in the hospital hierarchy.

A primary challenge faced in the new healthcare environment will be the requirement for increased multi-disciplinary operations from multiple professional streams such as clinicians, generalists, technicians, technocrats and managers. Currently, each stream often has its own administration, situational autonomies, certainties about status and power, and expectations of particular roles in decision-making processes. As these streams interact on a daily basis there can be a display of hierarchy based on the central role of some professions in the history of the development of healthcare (Newhouse and Mills, 1999). Multiple streams lead to the fragmentation of healthcare systems, reflecting the fragmentation of disciplines and professions populating the systems. This carries its own issues, primarily the dilution of effort and sub-optimal application of resources, particularly intellectual capital (Grantham et al, 1997). The issue of fragmentation is reported to influence many aspects of management in the evolving healthcare systems. However, there are two aspects that were particularly indicated in the literature; 1) the requirements for coordination of services, systemic management of resources and ongoing interaction throughout a patient's life cycle; and 2) the requirement to maintain a useful interface with rapidly developing technologies, particularly concerning the systemic management of information. These two fundamental requirements are not supported in a fragmented environment (Mintzberg, 1997; Connelly et al, 1999; Firth-Cozens, 1999; Newhouse and Mills, 1999; New South Wales Health Council, 2000).

Healthcare has been described as in transition. It is moving from the traditional management of a number of systems with an episodic focus, advocating technical interventions in the course of a disease or illness presenting in the form of a patient, containing rigidly structured paradigms of professional relationships and hierarchies. The new concepts for the structure, delivery and management of healthcare are intended to deliver a coherent system with a population based whole-of-patient-life focus utilising highly integrated care facilities, techniques and technologies to systemically service a population. Requirements of healthcare capabilities will change, as they will for healthcare professionals, regulators and administrators. The expectations of those who use the healthcare system are also changing. New rules
and requirements for decision making have been introduced, embodied in the concepts of clinical governance and evidence-based decision making.

### 2.3 Palliative Care

The contemporary palliative care environment was described by McDonald and Krauser (1996, p.2) as one of,

> active and compassionate care primarily directed toward improving the quality of life for people who are dying, and toward supporting patients and families as they incur multiple losses

This environment is attended by a number of professions including nursing, medicine, pharmacology, physiotherapy, occupational therapy, social work, pastoral care, grief counselling and administration. This is a manifold environment where people were the centre, not diseases, where care resulted from the understanding of the causes of suffering (Barbato, 1999) and where multi-profession teams work collegiately so that the primary issue becomes and remains patient comfort (Meyers, 1997). The quality of life of people at the end of their lives was stated as an issue of relief of distress, whether the cause is physical, emotional or spiritual; known or unknown (McDonald and Krauser, 1996; Higginson, 1999; Witt Sherman, 1999).

The patient is central in the ethics, philosophy and practice of palliative care (McDonald and Krauser, 1996; Meyers, 1997; Rasmusson and Sandman, 1998; Krishnasamy, 1999; Witt Sherman, 1999). The patient's end-of-life state and central role in efforts to manage that state make the patient a participatory member of the palliative care team who maintains a level of autonomy and control in relation to the other team members (McDonald and Krauser, 1996, McGrath, 1998). The arrival of a patient at an end-of-life experience requiring palliative care brings the certainty that life will end, generally within a relatively short period of time. This single fact aside, uncertainty is the basis of the end-of-life experience. The uncertainty is generated from a number of sources.

The uncertainty of the trajectory of the disease that is the end-of-life cause (Henkelman and Dalinis, 1998a; Rose, 1999) was one of these sources. Another source of uncertainty is a caution related to issues regarding the death, in care, of patients at the end of their lives. This is accompanied by issues of the conception of
death, personal dignity and the making of informed decisions on the part of the patient and the carers (Henkelman and Dalinis, 1998a; Pierce, 1999). There is sometimes a likelihood that patients would specify interventions, made on their behalf by the professionals involved, to relieve the suffering of the patient or others, but not necessarily to prolong life. One of the results could be a level of confusion and discomfort for the healthcare professionals involved (McDonald and Krauser, 1996; Henkelman and Dalinis, 1998a). This source of uncertainty introduces the population of the patient's social support system into the palliative equation as both an extension of the field of responsibility for the professionals involved and a component for consideration in the patient's suffering and sense of loss (Rose, 1997b; Lewis et al, 1997). This grouping of supporters can comprise family, friends and acquaintances. Another source of uncertainty, described by Lobchuk and Stymeist (1999), arises from the subjective and contextual nature of symptoms, where the patient's judgement of the characteristics of symptoms is based in a unique perception of the meaning of symptoms and illness. Janssens et al (1999) also referred to this uncertainty, noting that each patient brings individual history, culture and traditions to the end of life experience, as does every individual in the patient's support group. Lobchuk and Stymeist (1999) noted that symptom meanings are formed as shared meanings among patients and their families and that the translation of that formed meaning into something useful to the provision of palliative care is a matter of contextually based negotiation on the part of palliative care professionals. Divergence or conflict in the process of translating the meaning of symptoms could lead to poor symptom management.

Higginson (1999) described a source of uncertainty in the difficulty of assessing outcomes of palliative care using performance indicators such as the quality of care, quality of life, or quality of death and bereavement, in a system that concerns itself with a range of care covering physical, social and spiritual aspects. This is influenced by the fact that each patient represents a unique situation that is continually changing, requiring constant re-assessment (Rose, 1995).

Each of the sources of uncertainty described in the palliative care literature brings its own range of palliation requirements for individual patients. In addition to this each patient experiences the end-of-life on two distinct levels, the conscious and the
unconscious, and the depth of the experience at each level varies from patient to patient (Kearney, 1992). Palliative care is an uncertain, dynamic environment with a certain conclusion. Prior to arriving at that certain conclusion it is the uncertainty that directs all attempts to provide care. For the professions involved, this creates a working environment requiring ongoing work-based learning, governed by an uncertain direction of care that follows a trajectory of need, of which the patient is the major informant (Henkelman and Dalinis, 1998b). This learning is related to the multidisciplinary efforts to preserve or achieve a particular quality of life for the patient's end-of-life experience and includes the patient and informal carers. This is work based cross-functional learning not discipline specific learning. The primary and necessary characteristic of this organic learning, in terms of its need to continue to grow and change to accommodate changing patient experiences, is collaboration. Despite their widespread use and popularity in many types of organisations, collaborative cross-functional teams do not automatically operate or function as well as intended (Jasawalla and Sashittal, 1999). In many cases, this underperformance produces economic, service or political consequences. In palliative care the consequences are reductions in the effectiveness of care, resulting in deterioration in quality of life of the patient and increases in the levels of uncertainty accompanying the patient. This has major implications for the carer team's group efficacy, a group's belief in its ability to perform effectively. According to Gibson (1999), team members in environments with high levels of uncertainty work independently and lower the collectivism of the team. This creates a separation between group efficacy and group effectiveness. On the other hand, when uncertainty is low, team members work interdependently and there is a positive relationship between group efficacy and group effectiveness. It is to the benefit of the palliative team, including the patient, to consciously work to lower the levels of uncertainty.

Collaborative cross-functional teams are often faced with issues surrounding personal interactions and commitment (Mintzberg et al, 1996; Gibson, 1999; Jasawalla and Sashittal, 1999) and as such palliative care teams appear to have similar problems. The relationship between at least two of the professions involved has been described in the healthcare literature as based on conflicting paradigms. Care and cure were described as paradigms basic to nursing and medicine respectively and when they conflicted the result was not helpful to either outcome.
(Oughtibridge, 1998; Krishnasamy, 1999). There was evidence that this conflict could be successfully managed but the cost, at least in general healthcare, appeared to be a sub-optimal background to patient care, innovation and change (Krishnasamy, 1999).

The environment for palliative care is one of manifold uncertainty. In response to this, palliative care organisations were described as structured around their multidisciplinary teams. This structure provides individualised care for patients and their informal support systems, hereafter referred to as patient-based carers. The teams are subject to conflicting professional paradigms. Problems common to these teams in many environments involve the political, management and ethical issues of a changing healthcare system. To some this may appear to be a chaotic environment. However, even in chaotic environments "phenomena on the human scale" (Gleik, 1991, p.7) give rise to chaos and order. This made the palliative care environment understandable and explainable.

2.4 Innovation

The discourse in the literature on innovation was frequently economically based. Writing on the need for a framework for understanding company development Nyström (1979, p.1) noted that “Few areas of economic debate are characterized by as much agreement as the role of innovation for economic development” and defined innovation as “radical, discontinuous change”. Moss Kanter (1984, p.20) reflected the economic imperative of innovation, describing it as, “the process of bringing any new, problem-solving idea into use.”, and noted that

Ideas for reorganizing, cutting costs, putting in new budgeting systems, improving communication, or assembling products in teams are also innovations.

Scherer (1984, p.8) also wrote on this theme, specifically quoting Schumpeter’s (1934) definition of innovation, “the carrying out of new combinations” in the context of technological innovation.

Within this discourse innovation was referred to in a number of different ways. O’Connell (1968, p.161) reported on research into an organisational change effort and described innovation, eventually, as “the birth of change”. Zaltman et al (1973)
discussed earlier references to innovation ranging from the combination of ideas to produce novel results, not previously known to the individual involved, to a description of innovative organisations as being early adopters of ideas new to their environment, exposing themselves to the subsequent risks and costs of early adoption. These authors established a social theme and noted that,

….the distinguishing characteristic of an innovation is that instead of being an external object, it is the perception of a social unit that decides its newness (Zaltman et al, 1973, p.14),

before settling on a definition of innovation, to suit their purposes, as “...any idea, practice, or product that is perceived as new by the potential unit of adoption.” (Zaltman et al, 1973, p.50). Burns and Stalker (1971) described the organisation and management of innovation as the result of a number of social processes within organisations.

Innovation was often referred to as a driver or enabler of the creation of economic value and competitive advantage. The act of innovating was often referred to in terms of new ideas, of commercialising one or more ideas so that they could be exchanged for something of economic or competitive value (Ahmed, 1998). However, some authors acknowledged that innovation could occur with a focus other than economic or industrial. Drucker (1985, p.67) noted that

Innovation is the specific function of entrepreneurship, whether in an existing business, a public service institution, or a new venture started by a lone individual in a family kitchen.

In the same article Drucker described innovation as

"the effort to create purposeful, focused change in an enterprise's economic or social potential." (Drucker, 1985, p.67).

This linking of the economic and social spheres of an organisation’s environment and responsibilities was supported by Mintzberg (1989, p.170) when he wrote that the economic and social consequences of organisational decision making are only separated with great difficulty, that

..the fact is that the two are intertwined; every strategic decision of every large corporation involves both, largely inseparable.

Less frequently, by comparison, authors and researchers had conducted a non-industrial, and sometimes non-economic, discourse on innovation, for example in
healthcare. Within this literature innovation was generally referred to with regard to a small number of broad fields such as healthcare technology (Wyke, 1994; Moskowitz, 1999), clinical practice and nursing practice (Forchuk and Dorsay, 1995; Tolson, 1999) and the management of healthcare bureaucracies and institutions (Fottler, 1996; Glouberman and Mintzberg, 2001a). It was not uncommon in this literature to see healthcare and its outputs referred to in the language and concepts of the industrial discourse, for example as product (Marceau and Basri, 2001), for the purpose of making the healthcare discourse accessible to the more frequent industrial and economic discourse. This thesis has also used the language of the industrial discourse, for the same reason.

The palliative care literature was reviewed for references to innovation, as was the literature on death and dying and the healthcare literature. While the body of literature on innovation is substantial, there appeared to be an almost total lack of writing about innovation or innovative practices within the literature of palliative care or the literature of death and dying. This can be seen in Table 1 below. The literature on healthcare contained substantially more references to innovation than that of palliative care or death and dying. However, even in the healthcare literature, it could not be said that the writing on innovation represented anything more than a small percentage of the whole. In an effort to ensure an appropriate coverage of the literature with regard to innovation and palliative care the search was extended to the literature on interdisciplinary and multidisciplinary teams. Neither of these bodies of literature could, in themselves, be considered large. When searched for references to innovation these bodies of literature provided a sparse response. Comparing the literature on interdisciplinary and multidisciplinary teams to the literature on palliative care and death and dying also resulted in a negligible amount of information. Comparing the interdisciplinary and multidisciplinary teams literature to the healthcare literature resulted, once again, in a limited response. Extending the search further, to the literature on project teams, once again delivered a limited result, as did a combination of this and the literatures on innovation, palliative care, death and dying and healthcare.

Appendix 2 contains a full description of the search for relevant literature in these fields, and the full set of results. Table 1 below displays the results of single
keyword searches on the subjects indicated by the research question. The term “Number of References” at the head of several columns in this table refers to the number of times the keyword search produced a return. The word “Current” referred to responses from the time of enquiry to a point 5 years past. “Backfile” referred to a section of the database containing responses from the 5 year point back to 1985 and the term “Deep Backfile” covered the pre 1985 period.

Table 2, following Table 1, shows the results of then combining the keyword searches.

Searches used the ProQuest database services, an internationally recognised research database, on February 22nd 2002. The purpose of displaying selected results of this search here is to provide an indication of the lack of literature available to the thesis in the areas the thesis might seek to address.
<table>
<thead>
<tr>
<th>Keywords</th>
<th>Number of references “Current”</th>
<th>Number of references “Backfile”</th>
<th>Number of references “Deep Backfile”</th>
<th><strong>Total References</strong></th>
<th>Fields searched</th>
</tr>
</thead>
<tbody>
<tr>
<td>innovation</td>
<td>10,000</td>
<td>10,000</td>
<td>7,385</td>
<td>27,385</td>
<td>“All Basic Search Fields”</td>
</tr>
<tr>
<td>innovate</td>
<td>10,000</td>
<td>10,000</td>
<td>3,441</td>
<td>23,441</td>
<td>“All Basic Search Fields”</td>
</tr>
<tr>
<td>innovative</td>
<td>748</td>
<td>1,221</td>
<td>239</td>
<td>2,208</td>
<td>“All Basic Search Fields”</td>
</tr>
<tr>
<td>palliative care</td>
<td>826</td>
<td>442</td>
<td>0</td>
<td>1,268</td>
<td>“All Basic Search Fields”</td>
</tr>
<tr>
<td>death and dying</td>
<td>3,749</td>
<td>10,000</td>
<td>68</td>
<td>13,817</td>
<td>“All Basic Search Fields”</td>
</tr>
<tr>
<td>healthcare **</td>
<td>20,000</td>
<td>20,000</td>
<td>5,738</td>
<td>45,738</td>
<td>“All Basic Search Fields”</td>
</tr>
<tr>
<td>interdisciplinary teams</td>
<td>122</td>
<td>244</td>
<td>19</td>
<td>385</td>
<td>“All Basic Search Fields”</td>
</tr>
<tr>
<td>multidisciplinary teams</td>
<td>174</td>
<td>334</td>
<td>12</td>
<td>520</td>
<td>“All Basic Search Fields”</td>
</tr>
<tr>
<td>project teams</td>
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<td>1545</td>
<td>317</td>
<td>2587</td>
<td>“All Basic Search Fields”</td>
</tr>
</tbody>
</table>

** Total of references for keywords “healthcare” and “health care”.

Table 1  Results of a Keyword Search on the ProQuest Online Database
<table>
<thead>
<tr>
<th>Keywords</th>
<th>“Current”</th>
<th>“Backfile”</th>
<th>“Deep Backfile”</th>
<th>Total References</th>
<th>Fields searched</th>
</tr>
</thead>
<tbody>
<tr>
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<td>1</td>
<td>6</td>
<td>1</td>
<td>8</td>
<td>“All Basic Search Fields”</td>
</tr>
<tr>
<td>death and dying + innovation, innovate, innovative</td>
<td>13</td>
<td>1</td>
<td>2</td>
<td>16</td>
<td>“All Basic Search Fields”</td>
</tr>
<tr>
<td>healthcare or health care + Innovation, innovate, innovative</td>
<td>2004</td>
<td>66</td>
<td>1676</td>
<td>3746</td>
<td>“All Basic Search Fields”</td>
</tr>
<tr>
<td>interdisciplinary teams + innovation, innovate, innovative</td>
<td>19</td>
<td>1</td>
<td>10</td>
<td>30</td>
<td>“All Basic Search Fields”</td>
</tr>
<tr>
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<td>1</td>
<td>75</td>
<td>79</td>
<td>“All Basic Search Fields”</td>
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<tr>
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<td>4</td>
<td>2</td>
<td>113</td>
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<td>0</td>
<td>58</td>
<td>58</td>
<td>“All Basic Search Fields”</td>
</tr>
</tbody>
</table>

Table 2  Summary of Keyword Search on the Proquest Online Database
While the combination of keywords involving innovation and healthcare produced the largest of the responses in Table 2 a review of these responses indicated that the great majority of them were clinically based and concerned with the development and application of new technologies to be used in the process of curing patients. If nothing else, this search indicated the paucity of information available on the subject of innovation in palliative care and non-clinical innovation in healthcare generally.

Perhaps then, given the lack of references to innovation in the palliative care literature, adaption rather than innovation should have been the focus for this thesis. Adams (1994) noted the difference between adaption and innovation in decision makers. He described adaptors as working within existing definitions and doing things better and more efficiently, while innovators were more likely to reconstruct the context of the problem and the problem itself, in order to arrive at a solution by doing things differently or more effectively. Bobic et al (1999, p.19) placed adaption and innovation on a continuum of decision making styles, noting that,

Adaptors are creative within a narrow range, seeking minor improvements, initiating changes that lie near current organizational practices, and pushing the boundaries incrementally. ... Innovators have a different mindset. They allow creativity freer rein and accept fewer givens. Innovators do things differently rather than necessarily better. They may even reconstruct the paradigmatic frame within which the organization operates.

Adams’ (1994) implication that effectiveness was more important to innovators than efficiency reflected Mintzberg’s (1989, p.218) recognition of inefficiency as characteristic of innovative organisations, where he wrote, in reference to innovative organisations:

...the real root of inefficiency is the high cost of communication. People talk a lot in these organisations; that is how they combine their knowledge to develop new ideas.”.

March (1994) described the mechanics of innovation in organisations and stated that innovative activity decreases unless the pool of innovation opportunity is rich enough to sustain the activity. Given the richness of the patient care environment, within which multidisciplinary patient care teams operated in palliative care, it seemed legitimate to expect to find the innovative behaviours suggested, but not often specifically mentioned, in the literature.
This thesis views innovation as exchanging ideas for the creation of a non-commercial value directly related to the care and wellbeing of people. Innovation as conceptualised in this thesis adapted Drucker’s (1985) definition, mentioned previously, leaving out the reference to economic potential. Though not discounting the ability of innovative practices in palliative care to provide economic benefit to the society served by palliative care organisations, it was not the purpose of this thesis to assess that benefit. The definition of innovation used in this thesis then became,

the effort to create purposeful, focused change in an enterprise's social potential,


Drucker (1985, p.72) wrote, “But when all is said and done, what innovation requires is hard, focused, purposeful work” that required “diligence, persistence, and commitment.” While it may be said that these characteristics are found in a number of workplaces they are the key, almost overpowering, characteristics of multidisciplinary patient care teams and team members in the palliative care environment.

2.4.1 Social Potential

What Drucker did not do was define social potential. Mazzarella (2004, p.358) described social potential as “alternate social lives”. Despite being a term often found in the literature, it was rarely defined and then not well enough for application in this thesis. Therefore, some small space must be devoted to coming to an understanding of the term.

Socialisation; an interaction between people in which sensemaking can occur, information and knowledge can be exchanged and where the subjectivity of individual realities is available as input to the generation of collective realities, is given a prominent role in the literature on Organisation (Weber, 1964; Berger and Luckman, 1967; March, 1989; Weik, 1995; Simon, 1996; Schein, 1997). This role is acknowledged in a number of contexts, ranging from technology innovation, to decision making, to an economic and social theory of organisations. The common theme in these contexts is the enabling and sharing of an awareness of others to
create a common subjectivity, sometimes referred to as a common reality, through an understanding of the individual subjectivities involved in the social interaction. This frequently takes place as a face-to-face interaction. Berger and Luckman (1967) wrote that social interaction consists of sharing the reality of everyday life with others and face to face interactions are the most important social interaction because the subjectivity of all involved is available to all others involved. Burns and Stalker (1971, p.118), while describing the social context of decision making in management systems, wrote,

But in working organizations decisions are made either in the presence of others or with the knowledge that they will have to be implemented, or understood, or approved by others. The set of considerations called into relevance on any decision-making occasion has therefore to be one shared with others or acceptable to them.

Weik (1995, p.40) described sensemaking as,

…never solitary because what a person does internally is contingent on others. Even monologues and one-way communications presume an audience. And the monologue changes as the audience changes.

Further, “socialization is often the setting in which sensemaking is explored” (p.40).

In describing social action Weber (1964, p.88) noted that,

Action is social in so far as, by virtue of the subjective meaning attached to it by the acting individual (or individuals), it takes account of the behaviour of others and is thereby oriented in its course.

This thesis contains many references to ‘the patient’s situation’. A patient’s situation at any point in that patient’s end of life process is a combination of physical, social, psychosocial and spiritual factors. An understanding of a patient’s situation is the result of social interactions that occur between multidisciplinary team members, between teams, within and between disciplines, between team members and patients and patient-based carers. These interactions create and disseminate a shared understanding.

For the purpose of this thesis social potential is described as the availability of relevant alternatives to an individual patient’s situation during the end of life process. The assessment and establishment of alternatives to a given situation is a result of social interactions between multidisciplinary team members and whoever else is required and generally follows the shared creation and dissemination of meaning and
understanding concerning the patient’s situation. An individual patient’s situation may change a number of times during the end of life process. Not every change in situation will require a change in social potential. However, when the available alternatives no longer match the patient’s situation the social potential must change, wherever possible. Sometimes this will be a proactive change and sometimes a reactive change. The determination of the change will be another result of the social interactions between multidisciplinary team members and whoever is necessary.
2.5 Organisational Capabilities

According to Gieskes (2001, p.76), describing the components of the CIMA model, the capabilities are integrated stocks of resources that are accumulated over time through improvement and learning or established through deliberate decisions. These stocks of resources include internalised behaviours, technical skills, organisational routines, and corporate assets (for example, information systems, databases, libraries, tools and handbooks). The level of a company’s improvement and learning capabilities determines the efforts that are needed to stimulate the corresponding behaviours.

The large cross-functional effort required in the delivery of palliative care mandates cross-functional and multidisciplinary capabilities (Meyers, 1997; McDonald and Krauser, 1996). These capabilities manifest themselves in several ways. The first is the management of knowledge. This includes knowledge generation, capture, exploitation and dissemination. Managing and cultivating knowledge was described by Brown and Duguid (1998) as a method of building, changing, displaying and evidencing organisational competence. Knowledge has been described as information that has been contextually processed and enriched via analysis and interpretation and information as data that have been organised and interpreted (Duffy 2000). This view was supported by Davenport et al (1998), who described knowledge as a contextual combination of experience, interpretation and reflection. Brown and Duguid (1998) also described knowledge as a human property and noted the difficulties and errors that could follow an attempt to equate information and knowledge, leading to the assumption that information technology could overcome knowledge deficiencies in organisations. Palliative care is delivered by multidisciplinary teams that include any person relevant and available to the patient's needs (McDonald and Krauser, 1996) including family and friends of the patient (Lewis et al, 1997; Rose, 1997a). The carer network that uses knowledge in this environment is widespread, multi-levelled and large. For example, the term physician can refer to a wide range of medical professionals from family physicians to oncologists, surgeons, pain specialists (McDonald and Krauser, 1996) and pathologists for any patient and the range varies from patient to patient at different times in the end-of-life experience. Each member of each patient's dynamic carer network joins the network with an existing level of knowledge and experience, an ability to learn and communicate and differing requirements for knowledge.
An example of the range was given by Lewis et al (1997), noting that cancer patient's family members caring for patients at home, and patients themselves, sought knowledge for decision making in symptom management, selection and location of treatments, use of chemotherapy, selecting a medical provider and planning for end-of-life. According to Lewis et al (1997) nurses are commonly sought as sources of this knowledge. Higginson (1999) discussed the lack of knowledge within palliative care about the effectiveness of services and treatments, caused by the difficulties of measurement, and made the point that with the increasing inclusion of palliative care into mainstream healthcare this lack of knowledge needs to be addressed as a matter of urgency. Kearney (1992) discussed two levels of end-of-life experience, the surface and the deep, the conscious and the unconscious. This discussion examined the difference between palliative physicians being managers of symptoms and being healers as the knowledge that healing at the deep level can be a natural part of the end-of-life experience. The knowledge that must be managed across and through the carer network is sometimes discipline specific, sometimes patient specific, sometimes network general and each is always available to inform the others. This includes dissemination of knowledge throughout the carer network and the opportunistic capture and exploitation of knowledge from sources other than the carer network.

The exploitation of this knowledge to the benefit of the network is also a capability (Grantham et al, 1997; Henkelman and Dalinis, 1998b; Cowling et al, 1999; Heller, 2000). Dynamic carer networks are rich in terms of the number and type of individuals involved. This richness is evidenced in the diversity of experience, information, intellect, biases, skills and training that are brought to the inter and intra network use and generation of knowledge (Brown and Duguid, 1998). Palliative care networks appear as knowledge based organisations. Duffy (2000) described knowledge as contributing to organisational performance and stimulating and maintaining innovative practices. Pérez-Bustamante (1999), discussed knowledge management in agile innovative organisations, described knowledge as the foundation of intellectual capital, in itself a major consideration in innovative environments, and related the importance of an organisation's internal knowledge capacity as a primary source of innovation. Pitt and Clarke (1999) noted the role of knowledge in innovation, stating that an organisation must purposefully apply its
skills and knowledge to achieve strategic innovation. Johannessen et al (1999) wrote about which management and organising characteristics were best used to manage innovation in the knowledge economy, and noted that some leading edge companies realise the value of the tacit knowledge they already contain for providing solutions.

The second capability is the management of information. Information was viewed as distinctly different to knowledge. Certainly knowledge and information were considered to be linked, with Abell (2000) describing information as a knowledge precursor and foundation. Knowledge can be recorded, archived and distributed and one of the primary formats or vehicles for the transport and distribution of knowledge is information (Berman Brown and Woodland, 1999). However, the outcomes sought from, issues involved in and skills necessary for managing knowledge and managing information were described as different. Information was seen as needing to be appropriately managed so that an organisation could understand progress toward goals, inform the decision making processes and communicate to groups inside and outside of the organisation (Myburgh, 2000). In smaller, singularly focused healthcare organisations the usefulness and importance of information is related to informing the reorganisation of services, policies and structures to better suit patients and to remotely manage patients (Alemi, 2000). The nature of palliative care was seen as such that a singular, coherent focus needs to be generated by a carer team, even when the object of the focus is rarely manifesting symptoms of a singular cause. This drives a need to manage information from disparate sources within and between disciplines and dynamic carer networks and related networks in the broader healthcare community and the general community, so knowledge can be generated and utilised, from situation to situation. According to Brown and Duguid (1991) information exchanged through story telling is used in work situations with complex social networks as a mechanism for groups to apply accumulated learning to changing situations. Within the palliative care literature McDonald and Krauser (1996) noted that effective patient care required, among other things, useful avenues of information exchange between carers about the patient. With regard to decisions in planning a death at home, the patient and the carers require information on what to expect. In discussing the stresses on informal carers of terminally ill patients at home Rose (1997b) noted the role of information in helping to alleviate these stresses and those that accompany the patient, when the
information is readily available from the palliative professionals. The richness of the knowledge available and necessary across and within the dynamic carer networks of palliative care requires a sophisticated, multi-role use and management of information. The role of information in palliative care was seen to be threefold and each role was of equal priority: Information was, according to Austin et al (2000), seen as essential to the effective operation of carers, administrators and decision makers. It is, as already noted by Abell (2000), a foundation of knowledge, and it is also a vehicle for the transport of knowledge (Berman Brown and Woodland, 1999). The need for effectively managing information in relation to innovation was well documented. Tolson (1999) in discussing issues in innovation in healthcare practice described information as having a powerful role in evaluated intervention studies and evaluations.

With regard to complex organisational environments Frambach (1993) stated that, where this is a function of the number of specialists involved and their professionalism, the diversity of backgrounds enlarged the number of information sources available for the discovery of innovations. This is reflective of the rich, dynamic carer networks in palliative care. With reference to the management of innovation by Research and Development researchers in the service sector and particularly healthcare, Gwynne (1998) wrote of the need for applications of sound information technology and management practices at many points in the network. A separate set of reasons for actively managing information was noted by O'Reilly (1983), concerning the politicisation of the use and acquisition of information because of its ability to be traded as a commodity. Power and organisational control systems are two basic drivers of a politicised information environment discussed by O'Reilly (1983). Given the manifold and multidisciplinary environment of palliative care and the paradigm conflicts noted in the healthcare literature, a potential for politicised information and decision making environments could be seen within palliative care.

The manifold nature of palliative care has been described as demanding multidisciplinary operations as a capability (McDonald and Krauser, 1996; Meyers, 1997). This is reflected in general healthcare by Heller et al (2000), who discussed the growing need for multidisciplinary education in healthcare as a result of the
integrative approach being demanded of the new healthcare environment. The usefulness of multidisciplinary operations in palliative care is the opportunity that it provides for teams to mobilise and learn from each other's skills and experiences in patient care in any of the palliative environments, home care, inpatient, outpatient or hospice (Witt Sherman, 1999). With regard to the issue of professionally based paradigm conflicts Krishnasamy (1999) noted that there is a need to foster multidisciplinary discussions between medicine and nursing as a way of maintaining and strengthening communications across the paradigms. McDonald and Krauser (1996) noted the need within effective palliative care to remove traditional territorial thinking and interests and to raise new partnerships in the carer networks. With specific regard to the management of information Oughtibridge (1998), discussing the relationship between members of the nursing and medical professions, noted that multidisciplinary teams could be more effective, particularly in innovation and change if they were more effective in exchanging information within the teams. Billings (2000) described palliative care as a multidisciplinary process and according to Tolson (1999) evidence based practice promoted the role of multidisciplinary teams in the evaluation of innovation. The relationship between multidisciplinary operations and innovation was not well represented in the healthcare or palliative care literatures.

Collaboration across professional groups in healthcare was noted in the literature as something beneficial that could not be directed but could be impeded. It was viewed as capable of increasing levels of satisfaction in carers, required common purpose, was built on trust arising from the honest communication of information, and required the alignment of the values of the collaborators to occur successfully (Liedtka et al, 1998). The operationalisation of multidisciplinary collaboration in healthcare was referred to as dependent on the recognition of alternative perspectives on the part of the collaborators, combined with the use of communication styles that facilitate collaboration (Van Ess Coeling and Cukr, 2000). Witt Sherman (1999) noted that physicians, nurses and members of other disciplines need to work collaboratively to deliver holistic care over time, to assist patients and families to come to terms with the issues of death and dying and to move beyond the management of symptoms. Rose (1997a) described the need for nurses to collaborate with doctors in the sharing of information about patient's responses to
medication. Mintzberg (1997), writing about the organisational fragmentation evident in hospitals, concluded that while hospitals may seem quite complicated this is often a function of a lack of willingness on the part of the professions involved to collaborate. In a discussion of the implementation of vertical integration in healthcare Newhouse and Mills (1999) wrote that healthcare administrators would need to shift, conceptually and operationally, from autonomous to collaborative perceptions of their world. The shift would mean a new vision of the delivery of healthcare services. McDonald and Krauser (1996) discussed a community based program to care for the dying and wrote that this type of program requires the collaboration of everybody involved from the health sciences to the patients and their families. Collaboration is also seen as necessary in the creation of knowledge and the provision of information within contexts such as palliative care, so collaborative operations emerged as a necessary capability. Amidon (1998) described communities of practice and wrote that knowledge is created within these communities where people with different experiences collaborate to share information collectively. As can be seen from the lack of information available in the literature, the relationship between collaborative operations and innovation was not well represented in the healthcare or palliative care literatures.

The fifth capability is accommodating and managing technologies and associated issues. This requirement was acknowledged in the healthcare and palliative care literature. Newhouse and Mills (1999) discussed the use of technology in cost reduction while Friedman et al (2000) cited technology as a major cause of increasing healthcare costs and noted that technology assessment can be a highly politicised process. Alemi (2000) discussed the challenges that accompany the need for management to innovate its practices so that new medical technologies can be optimally exploited. Grantham et al (1997) described technology changes as a major driver of strategic and structural changes in healthcare and warned of the ability of technology diffusion to generate major issues such as increased information flow and increased pace of activity. Given the focus and nature of palliative care and palliative care delivery the following definition of technology was used within this thesis:

Technology can be defined as ‘the tools, equipment or materials; knowledge and skills to use them; and coordinative mechanisms and patterns of activity utilised to accomplish the organisation’s work.’ (Jelinek, et al, 1984, p.171)
This definition was supported by Pérez-Bustamante (1999) who described technology as an intangible cognitive asset consisting of applied knowledge and based firmly in people. Archibugi and Simonetti (1998) also supported this definition when they described technology as both the asset and the knowledge necessary to produce it. Henkelman and Dalinis (1998a) described technology as an enabler of the application of the ethics of care and of optimising the utilisation of comfort measures in the last days of life. Schwarz (1999) provided a description of the concerns of some healthcare professionals about the burdens provided by medical technology with relation to end-of-life patients and issues of over-use of life-sustaining technology as prolonging patient suffering. Keaney (1999) described the role of medical technology in the commodification of healthcare and the threats posed to more traditional views of patient-clinician relationships as a result of this process. Duffy (2000) maintained that without technology the work of maintaining and exploiting a knowledge base of any size, as required within the new integrative healthcare environment, would be almost impossible. With regard to medical innovation and its relationship to technology, Moskowitz (1999) noted that the range of new medical technologies presented administrators with the dilemma of what to pay for now and what to leave until more evidence is available regarding the efficacy of the technology. This is a real issue with regard to being perceived as wasting money on less than useful technology or over spending on inappropriate technology. The balance between over utilisation and under utilisation needs to be appropriately struck. (Moskowitz, 1999).

As already noted a number of important changes were reported as occurring in the general healthcare environment. More specifically, the following changes and effects of change were noted in the palliative care literature. One important change, not yet discussed, that appeared to have a large impact on palliative care providers is the changing status of palliative care within the healthcare environment. Concerns about increasing levels of routinisation and bureaucratisation, viewed as accompanying the hospice movement's return to the mainstream healthcare environment, were expressed by Rasmussen and Sandman (1998). Kearney (1992) and Kelleher (1999) also expressed a concern that as palliative care is returned to the healthcare mainstream the accompanying integration of palliative physicians'
expertise will remove the potential of palliation as a specialty to deliver more than symptom relief. According to McGrath (1998) the inclusion of hospices into mainstream healthcare involves formalisation and dehumanisation of the palliative ethos, the loss of singular focus and disillusionment among staff and volunteers of palliative organisations. Concerns were expressed by Barbato (1999) that the increasing medicalisation of palliative care will reduce the concept of this type of care to one of symptom management at the end of life, counter to the palliative paradigm of holistic care, bringing with it the concept that it can be measured, scrutinised and judged in purely objective terms. This concern was also expressed by Higginson (1999), who discussed the difficulties of measuring the subjectives in palliative care. Bringing palliative care into mainstream healthcare also involved reductions in non-medical staff and some pastoral and social workers, for example, have already lost their jobs in the name of cost efficiencies (Kelleher, 1999).

Changing demographics and increasing diversity of populations have also been described as providing effects that need to be managed. According to Witt Sherman (1999) and Higginson (1999) the aging of the population provides changes to the nature and needs of the dying and there is a worldwide change of causes of death from acute conditions to chronic and progressive illnesses. Heller et al (2000) wrote that an increasingly informed and educated patient population is demanding the consideration of alternative or complimentary therapies. Palliative care, while traditionally linked to cancer, has an application to other types of conditions such as AIDS, end-stage cardiovascular and pulmonary disease and diabetes, diseases that have limited curative treatments. The inference drawn was that the scope of palliative applications is growing as the population ages (McDonald and Krauser 1996). The growing diversity of populations is also an issue of concern as it changes the nature and occurrence of illness and disease and this requires that the populations of the palliative care professions and the populations of the carer networks change to accommodate the diversity in patient populations (Heller et al, 2000).

Apart from having identified externally driven change as an organisational issue to be managed, the literature review also identified that internally driven change was an issue to be managed. This had been noted previously in the description of the palliative care environment and operations. They were; the unique and continually
changing situation of each patient (Rose, 1995), the need for palliative care to operate at the conscious and unconscious levels, and the changing memberships of the multidisciplinary teams, driven by the patient’s situation (McDonald and Krauser, 1996). The requirement of palliative carers to accommodate these changes indicates that the management of change and its effects was a critical capability.

Following this section of the literature review then, the Capabilities described in the literature were placed in the shell of the CIMA model, seen in the Figure below.

![The CIMA Model for Palliative Care – phase 1](image-url)
2.6 Management Levers

The next component of the CIMA model, Management Levers, is discussed in this section of the thesis. Gieskes (2001, pp.75-76) described Levers as “mechanisms that managers can use when managing the product innovation process.” and as having “substantial influence on the attitudes and practices of individuals and groups with regard to improvement and learning.”. Management Levers would also “facilitate characteristic behaviour and activity.” (p.67).

With regard to teams the term multidisciplinary was noted as problematic because of the large number of interpretations placed on it (Whyte and Brooker, 2001). For the purpose of this thesis a multidisciplinary team in the palliative care environment is composed of a number of professions including nursing, medicine, pharmacology, physiotherapy, occupational therapy, social work, pastoral care, grief counselling and administration. At times these teams also included volunteer workers.

For the purposes of this thesis multidisciplinary teams are considered at two levels: 1) management team, 2) patient care team. A management team is a grouping of the heads of discipline for each discipline practicing in each of the palliative care organisations that participated as case studies. These teams sometimes also included other senior members of the disciplines. Typically the disciplines involved included medicine, nursing, social work, spiritual care, physiotherapy, and occupational therapy. Patient care teams are dynamic groupings of disciplines relevant to an individual patient’s situation. The focus of this thesis is the patient care team. However, an understanding of the levers used with regard to the patient care team would not be complete without an understanding of the use of levers at the other level. This is particularly important as some team members hold management responsibilities in each level. For example, a doctor may be a medical director at the management team level, responsible for the management of medical operations across the organisation, and a patient care team member responsible for medical aspects of care but not necessarily team leader.

This situation raised an interesting question of whether Management Levers should be described as levers for the management of innovative practice, available and used
as the situation demands. In other words, should Management Levers be defined in
terms of their usefulness in

managing the product innovation process” and in “influencing attitudes and
practices of individuals and groups with regard to improvement and learning
(Gieskes, 2001, p.75-76)

rather than as tools used exclusively by managers? In palliative care
multidisciplinary teams the patient’s situation was the guide for care. Regardless of
the makeup of any multidisciplinary team, innovative efforts on behalf of patients
still require to be managed. It seemed that in this environment there was benefit in
considering Management Levers as levers available to whomever had the need and
the need was governed by the patient’s situation. Also raised here was the interesting
question of whether levers were used by individuals within multidisciplinary teams,
by the teams operating as a unit or by both.

Investigation of the literature suggested that for the purposes of this thesis
management levers were described as generally belonging to one of three groups: 1)
general management levers used by either management or patient care teams; 2)
management team levers; 3) patient care team levers.

2.6.1 General
Multidisciplinary teams were described in the literature as collaborative by
requirement (Jassawalla and Sashittal, 1999; Coopman, 2001; Reese and Sontag,
2001; Sethi et al, 2001; Whyte and Brooker, 2001). The management of
collaborative efforts in and by these teams involves the management of multiple
factors. Reese and Sontag (2001) suggested a number of these factors. Among their
suggestions were: knowledge held by team members about other members’
disciplines; overlap of the roles of individual members; different values of members;
the different theoretical perspectives of individual members; and workload equity.
Mintzberg et al (1996) noted the importance of understanding how people connected
socially and organisationally in making optimal use of collaborative efforts. With
specific regard to palliative care practice Coopman (2001) described
multidisciplinary healthcare teams as self-managing, needing to share information
among members and giving particular priority to the participation of members.
Reese and Sontag (2001) and Coopman (2001) also appeared to agree on the
necessity to actively manage communication between the disciplines. Coopman (2001) noted two other important factors to be managed. The first was the need to manage the potential for fragmentation between disciplines, reflecting Mintzberg’s (1997) concerns over this matter as it affected the management of healthcare efforts in the United States. The second was the opportunity for struggles over autonomy to occur, raising the connected issues of trust and ambivalence as noted by Lewicki et al (1998), and reflecting Milligan et al’s (1999) note about the historic and ongoing tension between medicine and nursing over power and authority.

Sethi et al (2001), described factors affecting the ability of cross-functional product development teams to innovate as required and noted that one of the keys to the successful operation of these types of teams, at the project level, was balance. According to these authors an appropriate balance must be struck on a number of fronts, all affecting the ability of the team to innovate. Among these were functional diversity, social cohesion and superordinate identity.

Functional diversity was described as referring to “the number of functional areas represented on the team whose members are fully involved in the project.” (Sethi et al, 2001, p.77). An increase in functional diversity creates an increase in views and opinions, although there is a warning about the information overload and failure to resolve differences that could accompany high levels of diversity. However, these authors provided a qualified conclusion that functional diversity did not impact innovativeness. Their qualification was based in an admitted ignorance of where the border between too much and too little diversity might be. Eagleson et al (2000) suggested that, at least in management teams, the level of diversity is a function of the context of the team’s operation and not something that is, or should be, necessarily a managed thing. Other authors regarded functional diversity, when combined with demographic diversity, as requisite for the success of multidisciplinary team operations (Crossan et al, 1993; Coopman, 2001; Reese and Sontag, 2001) and management team operations (Schoenecker et al, 1995; Eisenhardt et al, 1997; Simons et al, 1999).

Social cohesion, “refers to the strength of interpersonal ties among team members.” (Sethi et al, 2001, p.75). These authors considered it necessary for the team to
generate a level of social cohesion to facilitate the basic functioning of the team. While seen as a normal part of the development and operation of cross-functional teams, or multidisciplinary teams, this concept also came with a warning connected to the ability of overly strong social ties to lead to groupthink, obviating the reason for the team. Bernthal and Insko (1993, p.66) described groupthink as, “a concurrence seeking tendency that leads to poor decision making in groups.” and divided cohesion into two forms, task cohesion and social cohesion. According to Bernthal and Insko (1993), task cohesion is based in the value team members place on demonstrating task competence as a member of an effective team while social cohesion is based in the value team members place on social relationships within the team. Whyte and Brooker (2001, p.27) also discriminated between social and task cohesion, and stated that,

Team members may find themselves torn between the collective ideals of the team and their professionally induced values. Conversely, professionals may find that team membership enhances their professional identity by articulating their unique contribution to team objectives. The former scenario is essentially one of conflict, which may lead to increased levels of stress and decreased motivation to collaborate in the work of the team, whereas the latter may motivate healthcare professionals in a more positive manner.

Coopman (2001) made the point that high levels of task cohesion are positively correlated with high team effectiveness. Bernthal and Insko (1993, p.81) wrote, among their conclusions, that

These findings imply that the likelihood of groupthink tendencies was lowest when social-emotional cohesion was low and task-oriented cohesion was high.

It seemed then that balance was an issue in cohesion within multidisciplinary teams. However, it seemed that the balance was perhaps not one between too little and too much social cohesion, as suggested by Sethi et al (2001), but one between task cohesion and social cohesion.

Superordinate identity, according to Sethi et al (2001, p.75),

…the refers to the extent to which members identify with the team (rather than merely with their functional areas) and perceive a stake in the success of the team.

These authors thought it important to strike a balance between a team member’s functional identity and an identity with the cross-functional team. The value of a
cross-functional team, indeed the reason a cross-functional team is assembled, is the access to diverse information, knowledge and opinion located in the functional areas and provided through team members for the innovation process. However, if a cross-functional team member retains a heavily functional identity then integration is difficult to achieve in cross-functional settings because people from different functional areas hold biases and stereotypes toward one another.” (Sethi et al, 2001, p.75).

The corollary to this is when a cross-functional team member develops an identity with the cross-functional team that is so strong it shuts down or severely limits access to the knowledge, information and opinion available from the member’s functional area, once again obviating the reason for the team.

Language was also considered an issue in the management and operation of multidisciplinary teams. Milligan et al (1999, pp.47-48), when writing about communication between diverse healthcare professionals, stated that Clear, mutually understandable communication is necessary for good patient outcomes and to produce valid, useful health related research.

Reese and Sontag (2001) noted the importance, in hospice teams, of the creation of a commonly understood language used to communicate moral and ethical issues and meanings. Language is an issue because each discipline that contributes to a multidisciplinary team has its own language, used to describe the world in terms common and understandable to that discipline. When disciplines collaborate to enable the operation of a multidisciplinary team that must communicate successfully within itself the team needs a language common to team members (Duncker, 2001). Schein (1993) described organisational sub-units as having their own cultures and, therefore, their own languages and concepts of reality and truth, and noted that the key to cooperation and collaboration between these sub-units is the development of a common language between them. Lobchuk and Stymeist (1999) wrote that palliative care patients and patient based carers use shared language to articulate symptoms and distress within the group and to palliative care professionals. Interestingly, this use of shared language was described as contextually based, where the language is modified according to where it is used and who is involved. These authors noted frequent divergences in language used to describe a set of symptoms in a clinical
setting and the same symptoms to a nurse in the patient’s home. The palliative care literature also noted that patients and patient-based carers become members of patient care teams (McDonald and Krauser, 1996, McGrath, 1998) bringing the importance of an ability to generate and use common languages into sharp relief. This was reinforced by the role of language in making meaning of the end of life experience (Lobchuk and Stymeist, 1999). Language was considered a fundamental enabler of communication and, therefore, of knowledge and information generation, transfer and management.

The generation of common languages between disciplines within multidisciplinary teams was viewed in the literature as something that should not be taken for granted. After all, multidisciplinary teams work (Duncker, 2001) even if the reasons are not always totally understood (Jassawalla and Sashittal, 1999). According to a number of authors (Galison, 1997; Albrechtsen and Jacob, 1998; Letiche and van Hattem, 2000; Duncker, 2001) some of the explanation of the success of multidisciplinary teams is found at the boundaries of the involved disciplines. Here objects are created or utilised as translation devices and interlanguages (Duncker, 2001) were said to be used. Duncker (2001) noted that these objects could be symbols, as are many other communication devices, for example computer icons used in a graphic user interface (Albrechtsen and Jakob, 1998). According to Nidumolu et al (2001) both knowledge and socially based meanings could be resident in commonly used symbols within organisations. Beech and McCalman (1997, pp.79-80) described groups using symbols “such as keeping up with changes of language use which are accepted by the group” as measures of membership and non-membership and also described the range of types of symbols put to use,

Symbols are important in forming views, values and understandings because they link thought and action in reinforcing cycles. Symbols can be both substantive and processual. This means that they convey both concrete images (substantive) and ways of using, or acting on, those images (processual). For example, a building can form a substantive symbol which encourages usage by a community, but the way it is used by a sub-group can have an intimidatory impact for other sub-groups (processual) such that whole community use becomes very limited.

Similarly, stories within teams can act as both substantive and processual symbols. They exist, substantively, as messages of a significant event which has taken place, but they go further and, processually, send messages to group members about acceptable future thought and action.
Rose (1997a) writing about patients with advanced cancer, described the use of commonly perceived, though not necessarily correct, symbols by patients and patient based carers, such as an increase in pain interpreted as an indicator of the approach of death. This example highlights one of the dangers of generating symbolic objects at the group or team boundary; the initial lack of commonly understood meanings. Boundary objects were described by Letiche and van Hattem (2000) as used when the boundary between the individual and the organisation is being negotiated. The context for this negotiation is the generation of knowledge useful to the organisation in innovation and creativity, and the objects themselves are the understandings that individuals reached with one another. Albrechtsen and Jacob (1998, p.294) described boundary objects as, “a method for resolving problems of heterogeneity in knowledge production and use”, supporting the generation of a coherent view. Duncker (2001, p.357) described boundary objects as organising “shared but simultaneously distributed cognition among various social worlds”. Describing the boundaries between language groups (disciplines), Galison (1997) used the term ‘trading zones’ and proposed that within trading zones the disciplines establish languages of exchange to suit the local environment. These trading languages were described as capable of growth and maturation, sometimes eventuating in new disciplines where the language is a hybrid of the originals. Duncker (2001) described trading zones as the places where boundary objects are generated, where all participants have access and where interlanguages are generated to accompany the use of boundary objects. Perhaps an obvious example of a boundary object used by a multidisciplinary palliative care team would be a patient’s notes.

Decision making is another issue for multidisciplinary teams, described by Coopman (2001) as an enabler of collaboration when shared by the multidisciplinary healthcare team, and a facilitator of commitment. Faulkner Schofield and Amodeo (1999) noted that decision making falls naturally within the scope of a multidisciplinary healthcare team’s work. Salipante (2002) accorded shared decision making, along with planning and responsibility, a role in realising the potential of the multidisciplinary team and noted that, in the healthcare setting described, patients and patient-based carers are participants. In the palliative care literature Bottorff et al (1998) described the need for balance in the patient’s and patient-based carers’ roles as members of the decision making process and Lewis et al (1997) described
the centrality of patients and patient-based carers as members of the decision making team. Ahmed (1998), writing in the innovation literature, noted that one of the organisational hindrances to innovation is long, slow decision making processes and that flexible decision making at lower levels in the organisation enables innovation.

An interesting characteristic of palliative care multidisciplinary teams is that they operate interdependently with the disciplines that resource them (McDonald and Krauser, 1996; Meyers, 1997). This is an interesting relationship because, at least in terms of learning, it enables the disciplines to supply externally accessed information and knowledge directly into team operations and it enables the team members to supply locally derived information and knowledge through the disciplines to specific external environments. Ancona and Caldwell (1992), describing similar situations, noted that these opportunities are, however, sub-optimised unless the teams have the ability to understand the information processing needs of the work and match it with an appropriate capability. This requirement is part of the team’s need to leverage information and knowledge from other groups, after coming to an understanding of what information and knowledge is required. Tasi (2001) wrote that knowledge transfer within organisations is a socially based function where units are interdependent. In this networked environment the links between organisational units are fundamental to learning by and within the units. Also important to learning, according to Tasi (2001), is a unit’s position within the network and the ability of the unit to absorb the necessary information and knowledge. In palliative care the multidisciplinary patient care team is at the operational centre of the organisation, with links and access to each contributing discipline. This central location is likely to enhance the innovative practices of units because of the access to information and knowledge from contributing units and, at the same time allows contributors early, often immediate, access to new operational knowledge. Tasi, (2001, p.997) noted,

Indeed, innovative ideas are often at the nexus of interunit links. To foster innovation, information and knowledge should be deliberately distributed. A network of interunit links provides channels for distributing information and knowledge in such a way as to stimulate and support innovative activities.

Close links between these units remain important. The channels between a multidisciplinary palliative care team and its related units (disciplines) are short and direct. The multiple roles of heads of discipline as managers and multidisciplinary team members helps to ensure this.
Tasi (2001, p.998) described absorptive capacity as an organisational unit’s ability to “assimilate and replicate new knowledge gained from external sources” and added that the definition also covered the unit’s ability to apply the knowledge opportunistically. Cohen and Levinthal (1990), who wrote specifically on absorptive capacity and its relationship with learning and innovation, noted that access to outside knowledge is critical to the innovation process at any level. Cohen and Levinthal (1990, p.128, p.133) described absorptive capacity as a collection of abilities central to an organisation’s innovative efforts, including

…the ability to evaluate and utilize outside knowledge, the ability to recognize the value of new information, assimilate it, and apply it.
…knowledge of who knows what, who can help with what problem, or who can exploit new information.

Crucial to the application of these abilities is prior knowledge of related fields. Interestingly, these authors included shared language as a basic skill related to prior knowledge and a fundamental requisite of absorptive capacity. Another interesting point made by Cohen and Levinthal (1990) was that prior related knowledge can include knowing how to learn and learning how to learn, so it seemed that the requirements of useful prior knowledge were broader than just technically, industry or organisationally specific knowledge. This is reminiscent of Brown and Duguid’s (1991) communities of practice where members of the communities learn how to learn from the community and its experiences to create knowledge repositories that are useful to the community.

It was suggested in the literature that multidisciplinary palliative care teams contain a functional and demographic diversity that is established by the context. A primary component of these diversities, mentioned by a number of authors (Coopman, 2001; Duncker, 2001; Reese and Sontag, 2001; Whyte and Brooker, 2001), is knowledge. Cohen and Levinthal (1990) noted that the diversity of the knowledge held by individuals within groups, provided communication is sufficient, enables the creation of novel linkages and relationships, which these authors called innovation. Sethi et al (2001) stated that the creation of novel linkages and relationships is a fundamental reason for creating a cross-functional team for the purpose of innovating.
Cohen and Levinthal (1990) and Tasi (2001) made the point that even if an innovative unit’s position within an organisational network is optimised with regard to accessing necessary outside information, a sub-optimised absorptive capacity means that the positioning becomes sub-optimised. Apparently the issue of balance applies also to the relationship between access to outside knowledge and the ability to recognise and utilise it.

These relationships, between management and teams and between teams and disciplines, and then between team members who were members of more than one team simultaneously, also provide the frequent contacts necessary to produce strong ties between teams, as described by Nelson (1989). One of the results of the frequency of contact was that it was useful in overcoming the politicisation of relationships within groups (Nelson, 1989). Another important result of strong ties was that they enhanced the transfer of complex knowledge between groups (Hansen, 1999). Cohen and Levinthal (1990, p.133) wrote that,

an organization’s absorptive capacity is not resident in any single individual but depends on the links across a mosaic of individual capabilities.

2.6.2 Management Team

In the context of this thesis a management team is a grouping of the heads of discipline for each discipline practising in each of the palliative care organisations that participated as case studies. These teams sometimes also included other senior members of the disciplines. Typically the disciplines involved included medicine, nursing, social work, spiritual care, physiotherapy, and occupational therapy. This level of diversity in the management team might be considered to be a barrier to successful operation of the team, considering issues of fragmentation and discipline-based boundaries that were described in the healthcare literature (Mintzberg, 1997; Newhouse and Mills, 1999; Connelly et al, 1999). However, the literature on management teams indicated that there are circumstances and behaviours that can turn diversity into a distinct advantage, particularly in decision making processes (Smith et al, 1994; Eisenhardt et al, 1997; Simons et al, 1999). Coopman (2001) wrote that diversity in palliative care teams made coordination of effort both difficult and essential.
Diversity was described by Simons et al (1999, p.662) as,
the extent to which a top management team is heterogeneous with respect to
members’ demographics and cognitions.

With regard to this definition a palliative care management team could be considered
diverse at least in terms of discipline-based focus, and as well in learning and
education. However, Simons et al (1999, pp.662-663) also described the property of
job relatedness,
…the extent to which a type of diversity captures distinct experiences, skills
or perspectives relevant to cognitive tasks at work.

as a determinant of the ability of different diversities to contribute to creativity in
decision making. It appeared that the balance of diversities typically found in a
palliative care management team had a high level of job relatedness.

According to the palliative care literature, the palliative care environment is one of
dynamic uncertainty and ambiguity. Eisenhardt et al (1997) described this type of
environment as common for top management teams, which respond to the
environment with disagreement, debate and sometimes conflict. The response was
suggested by these authors as a natural one, based on members’ representation of
their own departments and differing abilities and methods for assessing the future.
Eisenhardt et al (1997) described the conflict arising as generally useful but noted
that the literature they had reviewed indicated that management teams work actively
to suppress conflict, resulting in a diminution of potential and the rise of groupthink.
Simons et al (1999) and Smith et al (1994) also described links between the
suggested that the counter to this loss of potential was a greater diversity within the
team. Eagleson et al (2000, p.301) wrote that demographic and functional diversity
in the management team, “enhances the search for information and provides
momentum for change.”. With specific regard to innovation, Schoenecker et al
(1995) hypothesised that functional diversity in the management team leads to
greater openness to innovation. This hypothesis was confirmed empirically with
regard to dynamic environments and not confirmed in stable environments.

Crossan et al (1993) linked diversity in teams to individual and collective learning in
organisations where groups need shared meanings to be generated from joint efforts.
The basis for the generation of learning as described by these authors is the diversity of schemas, belief systems that guide action, available within the team for use in interpreting the environment and integrating individual interpretations. Crossan et al (1993) noted that an individual’s potential for interpretation is founded on the complexity of the concepts and relationships that generate the individual’s schemas. Higher levels of complexity offer higher potential for interpretation. However, the ability of a group or team to integrate these personal interpretations into a productive organisational schema does not come automatically or necessarily naturally. Nevertheless, a high level of integration is necessary.

Simons et al (1999) suggested that a useful tool for the integration of diverse views in management teams is debate. Debate was defined as the advocacy of different approaches by members of the management team, where the advocacy occurs in an open discussion. This involves both challenge and opposition by the team members. Eisenhardt et al (1997, p.43) described debate as “one form of conflict, along with discord, contention and disagreement”, and advocated high levels of conflict as an essential enabler of effectiveness in management teams. A high conflict management team is one that has wide demographic and functional diversity; where the members interact frequently; where members have distinctive roles, often multiple roles and that used “multiple lens heuristics” (Eisenhardt et al, 1997, p.46). Distinctive roles were described as “organized around poles of conflict that are natural within business.” (Eisenhardt et al, 1997, p.52). Examples used included action, conservatism, planning and devil’s advocate. Multiple lens heuristics were described as focusing “on the creation of multiple lenses or perspectives for examining the critical and strategic issues” facing management teams (Eisenhardt et al, 1997, p.46).

Multiple perspectives are also a property of Crossan et al’s (1993) generation of productive organisational schemas. One of the heuristics mentioned by Eisenhardt et al (1997, p.52) was “overlapping subgroups”, where members of the management team are also members of smaller, specifically oriented subgroups. Subgroup membership can overlap, with management team members belonging to more than one subgroup. This is a concept that was also noted by Coopman (2001), reporting the overlap of roles among hospice staff in relation to the blurring of responsibilities.
that could be caused by the diversity among the various disciplines represented by staff. Reese and Sontag (2001) also listed overlap of roles as a factor needing to be managed in multidisciplinary palliative care teams.

2.6.3 Patient Care Teams
In the following section of this thesis, discussing individual behaviours within multidisciplinary palliative care teams, a number of behaviours were identified as necessary for these types of teams. A number of tools were also identified as useful adjuncts to the behaviours. The behaviours were bundled in two groups, the first a patient-based community and the second a professional community. Accordingly, the suggested tools were also bundled, as follows.

In the patient-based community: Trust, used in an attempt to remove socially based uncertainties that could prevent the generation and exchange of knowledge and information and the generation of meaning (Lewicki et al, 1998, Meyerson et al, 1996). Openness, used to provide a discourse related to the situation and the honest communications necessary (Senge, 1990). Within this, dialogue is used to exchange knowledge, information and meaning and to understand the values and attitudes related to those things (Brown and Duguid, 1991; Schein 1993; Rasmussen and Sandman, 1998; Perry, 2000). Double loop learning provides a method by which underlying values and causes can be surfaced and contextualised (Argyris, 1989). The sharing of power (Argyris, 1989) provides a way to maintain the patient's centrality as the reason for being of the organisation and as the source of information about the patient's situation.

In the professional community: Narrative is primarily used between professionals when exchanging knowledge and information about patients, situations and results of care efforts, between teams and individuals while away from formal organisational communication opportunities (Brown and Duguid, 1991, Crossan et al, 1993). Dialogue is primarily used between professionals when exchanging knowledge and information about patients, situations and results of care efforts, between teams and individuals while utilising formal organisational communication opportunities (McGrath, 1998). Trust and distrust are both important in the management of ambivalence (Lewicki et al, 1998).
After reviewing the literature for suggested management levers it became apparent that at least two of the suggested tools from the following section of this thesis might indeed be usefully conceptualised as levers for the management of innovation in that they seemed to qualify as such by Gieskes’ (2001, pp.75-76) description of Management Levers as having, “substantial influence on the attitudes and practices of individuals and groups with regard to improvement and learning.”.

The first of these is trust. As described by a number of authors (Meyerson et al, 1996; Brown and Duguid, 1998; Nonaka and Konno, 1998; Bhatt, 2000), trust appears to be central to relationship building between patients, patient-based carers and professionals, provides the basis for provision of a stable social environment, facilitates the generation and exchange of knowledge, meaning and information and enables learning. Trust and distrust were mentioned specifically by Lewicki et al (1998) as necessarily managed so that ambivalence does not destroy relationships.

The second was power sharing (Argyris, 1989). Sharing power enables the centrality of the patient in the care delivery process and facilitates the inclusion of the patient in the decision-making process. Bortorff et al (1998) wrote that the sharing of power with patients enables choices and some control to be returned to hospice patients. Argyris’ (1989) context for power sharing was specifically double loop learning, where it enables access to relevant competence unencumbered by organisational boundaries.

At the beginning of this section of the thesis a question about the description of Management Levers was posed. It concerned whether or not Management Levers should be defined in terms of the management of innovative practice by all involved or as exclusively available to managers for that purpose. In summary it appears that there are three groups of levers which could be applied to the management of, and generation and implementation of, innovative effort in multidisciplinary patient care teams in palliative care. It appears that one group, General Levers, is common to managers and multidisciplinary teams, during the operation of multidisciplinary teams themselves or during the management of the organisational environment within which the teams operate. This group comprises: 1) Collaboration as a
fundamental enabler; 2) Balance in diversity, cohesion and team/discipline identities; 3) Language as a facilitator and enabler of communication, collaboration and knowledge and information management; 4) Absorptive capacity as a direct enabler of learning and innovation.

Another group, Management Specific, appears to be more useful to the establishment and operation of the management teams that enable the palliative care organisation’s operating environment. This group comprises: 1) Diversity in the job relatedness of the management team; 2) Advocacy to generate debate and organisational schema from individual knowledge and experience.

The third group, Patient Care Specific, seems specific to the patient care teams in their daily operations. This group comprises: 1) Trust for creating and maintaining an environment that promotes and supports the use of openness, dialogue and double loop learning in knowledge and information generation and management; 2) Power sharing to keep the patient central and to enable access to relevant competence as necessary in the care and decision making processes.

The following table summarises the Management Levers, their groupings and the uses to which they appear to be put.
<table>
<thead>
<tr>
<th>Group</th>
<th>Lever</th>
<th>Use</th>
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<tr>
<td>General Levers</td>
<td>Collaboration</td>
<td>Integrating resources.</td>
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<td>Accessing knowledge.</td>
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<td>Accessing information.</td>
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<td>Managing communications.</td>
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<td>Managing fragmentation of effort.</td>
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<td>Locating decision making at the natural level.</td>
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<td></td>
<td>Balance</td>
<td>Managing the ability to innovate.</td>
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<td></td>
<td>Balancing access to knowledge and information with the abilities to utilise them.</td>
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<td>Balancing team and discipline identities.</td>
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<td>Balancing team diversity.</td>
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<td>Balancing team cohesion.</td>
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<td></td>
<td>Language</td>
<td>Knowledge generation and transfer.</td>
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<td></td>
<td></td>
<td>Information generation and transfer.</td>
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<td>Translation between team members.</td>
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<td></td>
<td>Absorptive Capacity</td>
<td>The ability to recognise the value of and utilise knowledge and information available externally to the team.</td>
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<td></td>
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<td>The ability to know where to look for useful external information.</td>
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<td></td>
<td></td>
<td>The ability and knowledge to learn.</td>
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<tr>
<td>Management Specific</td>
<td>Diversity</td>
<td>Maintenance of job relatedness of the management team.</td>
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<td></td>
<td></td>
<td>Maintenance of an enabling environment for innovative practice.</td>
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<td></td>
<td>Conflict</td>
<td>Promotion of debate.</td>
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<td></td>
<td></td>
<td>Creating organisational schema from diverse knowledge and experiential bases.</td>
</tr>
<tr>
<td>Patient Care Specific</td>
<td>Trust</td>
<td>Creating and maintaining an environment that promotes and supports the use of openness, dialogue and double loop learning in knowledge and information generation and management.</td>
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<tr>
<td></td>
<td>Power sharing</td>
<td>Maintaining the centrality of the patient.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Enabling access to relevant competence, knowledge and information.</td>
</tr>
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Table 3 Levers, Groupings and their Apparent Uses
Following this section of the literature review the Management Levers described were placed in the shell of the CIMA model, seen in the Figure below.

Figure 3  CIMA Model for Palliative Care – Phase 2
2.7 Individual Behaviours

The context of the original CIMA model was a description of learning and knowledge transfer within an innovation environment, by way of a number of variables. Of these variables, Capabilities and Management Levers have already been discussed. This section of the thesis will discuss Individual Behaviours. For the purposes of this thesis behaviours were described as related to learning, occurring at the individual level and influenced by both organisational capabilities and levers, as well as being the basis of improvement performance (Gieskes, 2001).

The objective of the application of organisational capabilities to a situation was described as not just the creation of change but the optimisation of organisational effectiveness (Barrie and Pace, 1997). The collaborative nature of multidisciplinary teams is, in the opinion of Garrison (1997), used by team members to confirm or disconfirm the usefulness of the knowledge and understandings generated. Knowledge generated in multidisciplinary care teams is knowledge directly related to the context (Geiselman et al, 2000). Behaviours are the result of participation by all members of the organisation. This is because participation is, in itself, a benefit on many levels, as is the resulting growth of the participants (Barrie and Pace, 1997; Walters, 2000). The motivation to participate and learn was seen as both intrinsic and extrinsic (Garrison, 1997), reflecting the nature of palliative care. An understanding of the learning behaviours used to maintain or change the palliative organisation's orientation with respect to its purpose and to optimise the effectiveness of the application of resources is imperative.

As has been noted above palliative care is a multidisciplinary, collaborative, knowledge based, information dependent, manifold environment delivering care on a number of levels to patients and patients' carers who are the central sources of information about the efficacy of that care. Palliative care has been described in this thesis as dependent upon multidisciplinary teams for its effectiveness and its achievement of goals. These teams were said to contain patients and patient-based carers, necessitating the exchange of knowledge, information and behaviours across boundaries that are familiar, with regard to the community of professional carers, and unfamiliar, at least initially, with regard to patients and patient-based carers.
According to the palliative care literature reported previously in this thesis a primary purpose of these teams is to make informed decisions about the care and quality of life of the patient and the patient-based carers (McDonald and Krauser, 1996; Witt Sherman, 1999). The inclusion of naive members, in the form of patients and patient-based carers, as a focus for these operational teams, is mandated by the palliative ethos, which describes the centrality of the patient in palliative care, and the practicalities of simultaneously providing care to different aspects of the patient's situation.

It appeared from the literature that within the learning environment in palliative care there are two groups of behaviours. These are referred to as communities here because of the inclusive, dynamic and relational nature of this description (St Clair, 1998). The first is a professionally based community, comprised of all of the palliative care professions, administrators and managers. The second is a patient-based community, comprised of patients, patient-based carers and the professional palliative carers working with the patient. The communities are seen as related, similar and existing for the same purposes but different inasmuch as they apparently enact different behaviours at different times. It appeared from the literature that the purpose of both communities is to generate useful, valid information, knowledge and learning that can be transferred across boundaries regardless of boundary type or location. At times these communities appear to overlap.

### 2.7.1 The patient-based community

Palliative care has been described as delivered by multidisciplinary teams that include any person relevant and available to assist in fulfilling the patient's needs (McDonald and Krauser, 1996). This includes family and friends of the patient (Lewis et al, 1997; Rose, 1997b), referred to here as patient-based carers. Patients, patient-based carers and palliative care professionals seek to establish and exchange knowledge and information in an attempt to ensure the creation of understanding that enables the monitoring of change (Kearney, 1992; Lewis et al, 1997; Higginson, 1999). The foundation of this process is to know the patient. Knowing the patient and the patient's carers was described as being core and pivotal to the successful provision of palliative care by Luker et al (2000) and was said to be necessary as early in the palliative process as possible. Individual patients bring individual care
contexts into the palliative network. This means that each patient should be known individually. Within this community relationships based on trust and integrity need to be constructed between the palliative care professionals and the patient and patient-based carers to facilitate the provision of care at all levels (McDonald and Krauser, 1996; Keaney, 1999; Krishnasamy, 1999).

The vulnerability of patients, patient-based carers and professionals was a persistent issue according to a number of authors because of the interdependent nature of relationships within this community (Rose, 1995; Henkelman and Dalinis, 1998a; Rose, 1999; Krishnasamy, 1999). Directly related to vulnerability is trust (Lewicki et al, 1998), which was described by these authors as an essential precursor to the generation and exchange of information and knowledge and to the development of learning by Nonaka and Konno (1998). The importance of the relationship between trust, knowledge, information and effective collaboration was also noted by a number of authors, including Brown and Duguid (1998), Lewicki et al (1998) and Bhatt (2000).

In relation to behaviours in palliative care there are two distinctive characteristics additional to those already described. The first is that all patients and patient-based carers bring at least one culture to the palliative organisation. The second is that the imminent end of life can not be given a specific timeframe for each patient because the timing can not be known. This uncertainty brings a temporal pressure to the behavioural communities, resulting in a population of temporary groups and temporary systems, described in another context by Meyerson et al (1996) and viewed in this thesis as applicable to the palliative care context. This is because they were initially characterised by Meyerson et al (1996, p.167) as containing groups that

...have a finite life span, form around a shared and relatively clear goal or purpose, and their success depends on a tight and coordinated coupling of activity.

where,

...there isn't time to engage in the usual forms of confidence-building activities that contribute to the development and maintenance of trust in more traditional, enduring forms of organisation
This seemed to reflect the temporal pressures noted at various times in the palliative care literature.

Importantly, according to Meyerson et al (1996, p.170), in temporary systems,

Swift judgements about trustworthiness can't be avoided, because they enable people to act quickly in the face of uncertainty.

This was also an issue raised by Schein (1993) with regard to relationship building and trust in cross-cultural environments. According to Schein (1993) the issue of time in relationship building can be, to a large extent, overcome by the ability of professionals to offer a stable social unit based on the use of organisational artefacts. This stable social unit was said to be generally located within an organisational culture of some sort and, therefore, facilitated a newcomer's enculturation. The facilitation is seen as important because it can situate a patient, for example, within a social system (Schein, 1993). Brown et al (1989) saw this facilitation of enculturation as important because it assists with authenticating and giving meaning to the activities, concepts and learning that follow new membership. Palliative care professionals can use artefacts such as the credibility provided by the organisation's reputation, their and the organisation's experience in situations anticipated by the patient and patient-based carers and the close relationships developed in small, tightly focused teams.

Meyerson et al (1996) also referred to the use of organisational artefacts as a replacement for personalised relationship where the traditional credibility or reputation of a role or profession could, in themselves, reduce the uncertainties in a situation and trigger initial trust. When people need to trust and time is not available to build trust in individuals then roles or professions that have a generic credibility can be substituted, offering opportunities to generate experiences that can trigger trust. The value of swift trust was described as its ability to open necessary communications quickly in situations where the available time is short for the task at hand and necessary relationships are uncertain. Trust is important because it reduces feelings of uncertainty and vulnerability (Meyerson et al, 1996; Lewicki et al, 1998). Thus the generation and exchange of knowledge and information between patient, patient-based carers and professional carers can be facilitated and the monitoring and management of change can be enabled by the establishment of trust.
The generation of swift trust (Meyerson et al, 1996) would seem to be a characteristic behaviour of the patient-based community. For the purpose of describing behaviours within this environment Meyerson et al's (1996, pp.191-192) definition of trust related to uncertainty and temporal pressure was used: Swift trust, 

..is the artful making do with a modest set of general cues from which inferences are drawn about how people might care for what we entrust to them. Those inferences are driven by generic features of the setting rather than by personalities or interpersonal relations. In this sense, swift trust is a pragmatic strategy for dealing with the uncertainties generated by a complex system concocted to perform a complex, interdependent task using the specialized skills of relative strangers.

Palliative care patients and patient-based carers pass through significant transitions, perhaps even expressed as crises, in their lives that require increased dependencies on others, adding uncertainty to an already uncertain experience. This produces tensions and challenges requiring responses and, often, growth. According to Walters (2000), at times of life change learning may be used to facilitate growth. Inclusion in the patient-based community offers the patient and patient-based carers a contextually based sense of identity. This enables a sense of protection and comfort and the opportunity to be perceived as useful contributors to the community. Patients' perceptions of their potential and their responsibility for themselves can be enabled, as can learning and expression about self (Jansen and Wildemeersch, 1998; St Clair, 1998). Situating in a cultural context that reflects social cohesiveness is important because the context will influence the learning that takes place within it. The palliative organisation is, therefore, offered the opportunity to shape the necessary learning for the patient, with an emphasis on interdependence, particularly with older patients (Merriam and Mohamad, 2000). The value of the relationship between the situation within a cultural context and learning that is directly related to the context is in the immediate relevance of knowledge generated from participation and collaboration. The knowledge is viewed as owned by the collaborators, as is the act of its creation. These concepts were noted by a number of authors, among them Brown et al (1989), Henning (1998) and Gieselman and Farrugia (2000).

With regard to the important relationship between socially generated knowledge, information and learning, Brown and Duguid (1998) described knowledge as being capable of being individually generated and collectively held. These authors noted
that it is the human behaviour of generating sophisticated social institutions that enables the local generation of knowledge that is held and used organisationally. Nonaka and Konno (1998) also described socially based knowledge generation and noted that it is the participation in a social situation that defines what is knowledge and what is information. Knowledge was described as useful only at a specific time and place if it is to be of value. Knowledge separated from its situation becomes information to be communicated between situations, according to Nonaka and Konno (1998). Garrison (1997) described how individuals involved in social situations can derive meaning and knowledge on both levels and create a balance between self-knowledge and social worth. The creation of social links within a community can provide new ways of thinking and knowing (St Clair, 1998). These ideas were reflected by Brown et al (1989) when they suggested that learning occurs through social interaction and that people will work collaboratively on the social construction of knowledge.

Fundamentally, patient-focused behaviours in the patient-based community enacted by palliative care professionals need to enable, sustain and communicate inclusion across a range of boundaries from organisational to social. This describes a discourse of open awareness (Luker et al, 2000) where patients and their carers, professional and non-professional, work from a shared understanding of the situation at hand and the perceptions of the individuals involved. The opportunity could be taken to assist the patient and patient-based carers to understand and give expression to meaning and values at the end of life, through discourse (McGrath, 1998).

In complex environments a method of achieving a shared understanding was articulated in Senge's (1990) concept of openness. Openness, described as an organisational characteristic where "both the norm of speaking openly and honestly about important issues and the capacity to continually challenge one's own thinking" (Senge, 1990, p.274) was considered a positive contributor to the generation of shared views. While organisational politics provided Senge's (1990) context, his theme is the generation of trust to facilitate the sharing of mental models in order to reach shared understandings based on the need to achieve common interests and to optimally leverage the knowledge and information contained in relationships at the local level.
In the palliative care literature the drivers for the effort to produce an open environment were described as: the reduction of the levels of uncertainty accompanying each patient, the establishment of an optimal decision making process suited to the patient and establishment of a trustworthy communication environment. None of these could be achieved without the generation of shared understandings at the team and individual levels. An important tool for the development and maintenance of openness is dialogue (Senge, 1990).

Beech and McCalman (1997) considered shared understandings as mechanisms that assist the integration of members within teams and the establishment of membership as substantive and sustained. In the patient-based community experience and learning can be directed to an expression of the self on the part of the patient and patient-based carers and learning behaviours can focus on accessing participation so that the self can be realised with others, as described in other contexts by Jansen and Wildemeersch (1998). Neither the patient nor patient based carers need be alone because sharing can be used to subvert isolation.

The need to know the patient quickly, establish social stability, establish trust and do so in a climate that acknowledges the patient's impending death and the perspectives that this brings to the end of life experience requires a mode of learning that can address underlying values-based causes of concern and distress. Such a method was described by Argyris (1989) as double loop learning. Double loop learning encouraged "cooperative, inquiry-oriented, high trust and high risk-taking dynamics" (Argyris, 1989, p.106) in groups. High risk taking referred to the personal social risk that is attached to an individual's willingness to expose underlying values, causes of perceptions and behaviours. According to Argyris (1989) double loop learning occurred in a Model O-II learning system. Typical behaviours encountered in this learning system included

sharing power with anyone who has competence and who is relevant to deciding or implementing the action (Argyris, 1989, p.103).

Here, also, individuals sought "the most competent to make the decision" and built viable decision-making networks in which the major function of the group is to maximise the contributions of each member; when a synthesis is developed, the widest possible exploration of views has occurred (Argyris, 1989, p.103).
The purpose of these behaviours was to produce action that is based on the most complete, valid information possible and to which people can become internally committed (Argyris, 1989, p.103).

This description encompasses Senge's (1990) requirements for openness and the descriptions of the requirements of the palliative environment by a number of authors (McDonald and Krauser, 1996; McGrath, 1998; Krishnasamy, 1999; Luker et al, 2000).

Shared information that is useful and valid in terms of the participants can be generated using dialogue (Senge, 1990; Schein 1993; Brown and Duguid, 1991). Dialogue was also described as a component of psycho-social care supplied by nurses in hospice care (Rassmussan and Sandman, 1998) and as a fundamental device for learning about and knowing patients (Perry, 2000).

Schein (1997, pp.372-373) put forward an idealised learning culture. He described dimensions and characteristics of the culture that were summarised as,

the learning culture must assume that the world can be managed, that it is appropriate for humans to be proactive problem solvers, that reality and truth must be pragmatically discovered, that human nature is basically good and in any case mutable, that both individualism and groupism are appropriate, that both authoritarian and participative systems are appropriate provided they are based on trust, that the best kind of time horizon is somewhere between far and near future, that the best kinds of units of time are medium-length ones, that accurate and relevant information must be capable of flowing freely in a fully connected network, that diverse but connected units are desirable, that both task and relationship orientations are desirable, and that the world is intrinsically a complex field of interconnected forces in which multiple causation and over-determination are more likely than linear or simple causes.

Schein's (1997) description was aligned with important components of Argyris' (1989) Model O-II learning system and double loop learning in that it described an honest attempt to come to grips with and operate successfully within a learning network that existed to facilitate decision making in an environment acknowledged as systemic and complex.

To this point of the literature review the palliative care literature had appeared to describe an environment of care that was dependent on learning for some degree of
its efficacy. Similarly, the literature on organisational capabilities seemed to offer something of the same view, with references to the management of knowledge and information, the management of change and its effects, and collaborative operations. The literature on management levers offered a similar leaning, with references to absorptive capacity, trust and collaboration. Now the literature on individual behaviours in the multidisciplinary teams appeared, again, to be providing a similar view, with a number of references to the creation of an environment conducive to learning, as well as the creation and exchange of knowledge and information. In an effort to test this apparent bias towards learning found in the literature so far Schein’s (1997) description of an idealised learning culture was compared to the literature on individual behaviours in the patient-based community and the palliative care literature. The results are noted in the following paragraph.

The members of the patient-based community need to believe that the world is manageable if the palliative care professionals are to offer credible leadership and the patient is to willingly and quickly join a social group that can provide care at all levels for the end of life (Schein, 1993; Meyerson et al, 1996; Lewicki et al, 1998). All members need to agree on proactive problem solving if the opportunities to provide and receive comfort and care are to be optimised (Luker et al, 2000). Reality and truth should be pragmatically discovered if comfort is to be optimised and meaning and value are to be generated from the end of life experience (Jansen and Wildemeersch, 1998; St Clair, 1998). The consideration of human nature as basically good seems necessary if trust is to be generated to facilitate dialogue, the creation of knowledge and the communication of information and if all members are going to share a number of intense experiences (Meyerson et al, 1996). Individualism and groupism are both necessary at different times and at different levels as the patient's needs changed and discoveries are made about truth, values and reality (Argyris, 1989). Authoritarian and participative systems are necessary at different times and for different reasons if the patient is to be delivered all possible care within a regulated environment (Henkelman and Dalinis, 1998a; Pierce, 1999). A time horizon between far and near future is appropriate as the patient's death is near but the effects of the experience on family and other members of the patient's social environment and, perhaps, on palliative professionals, can be longer term (Lewis et al, 1997; Henkelman & Dalinis, 1998a). The need for the free flow of
accurate and relevant information in a fully connected network has been acknowledged in the literature discussed so far and has obvious benefits in terms of trust and the delivery of appropriate care (Frambach, 1993; McDonald and Krauser, 1996; Rose, 1997b). The desirability of diverse units was acknowledged in the diversity necessary to deliver palliative care and unavoidable in the diversity that patients bring to the palliative system (McDonald and Krauser, 1996; Witt Sherman, 1999). Task and relationship orientations are both necessary at different times of care delivery (McDonald and Krauser, 1996; Higginson, 1999). Palliative care itself appears to be a complex web of interconnected activities. It seems that individual and group behaviours appropriate to a patient-based community in a palliative care environment, and the systems within which they operate, were described in a range of literature.

In summary, the behavioural focus of the patient-based community appears to be enabling the management of knowledge, information and change via a number of behaviours. (1) The use of artefacts such as role credibility of professional carers and organisational reputation and experience to enable rapid creation of trust and enculturation of the patient and patient-based carers appears to facilitate inclusion in, and maintenance of, a socially stable structure and culture. This, in turn, enables (2) the establishment and maintenance of an ability to generate meaning from the palliative experience and to address values-based issues. The inclusive, supportive exchange of knowledge and information across all boundaries enables (3) the monitoring and management of change and the provision of care suited to the patient's situation at any given time.

It also appears that a number of tools common to these behaviours were identified. (1) Trust, used in an attempt to remove socially based uncertainties that could prevent the generation and exchange of knowledge and information and the generation of meaning. (2) Openness, used to provide a discourse related to the situation and the honest communications necessary. Within this, (3) dialogue, was used to exchange knowledge, information and meaning and to understand the values and attitudes related to those things. (4) Double loop learning provided a method by which underlying values and causes could be surfaced and contextualised. (5) The sharing of power provided a way to maintain the patient's centrality as the reason for
being of the organisation and as the source of information about the patient's situation.

2.7.2 The professional community
The palliative care organisation, given its mix of professions and its multidisciplinary, cross-functional operations, can be seen in the context of a cross-cultural organisation, as described by Schein (1993). Palliative care professionals integrate themselves or are integrated into the network, successfully if the organisation is to live up to the palliative ethos and if the professionals are to prove valuable to each other in terms of the information, knowledge and opportunities for learning that they bring (Schein, 1997). For the palliative care professionals palliative care means teamwork (McDonald and Krauser, 1996).

Members of the professional community bring their professionally based learning and experience to that community. Their work is partly within the patient-based community and partly within their own community. Schweikhart and Smith-Daniels (1996) describe the work of caregivers in a healthcare context as being divided into two, sometimes overlapping, groupings; care production and care management. Care production was referred to as the integrative processes of physically providing care, including the interactions of clinical and non-clinical staff, facilities and information. Care management was described as the integrative design of care across boundaries, including the communication of information and knowledge. These care processes were described as combining in an iterative process for the planning and delivery of care. In the palliative context members of the professional community seem to be viewed as involved in care production processes when they work in the patient-based community and care management processes when they work in the professional community.

When the work of members of the professional community involves care production it occurs within the patient-based community and involves dealing with the uncertainties and situational changes that accompany each patient. This provides constantly changing situationally based learning, knowledge generation and information exchange. This type of learning, and the behaviours that accompany it, was described by a number of authors as situated cognition or situated learning.
(Brown et al., 1989; Henning, 1998; Nonaka and Konno, 1998; Gieselman and Farrugia, 2000). Learning behaviours were described here as formally and informally communicative, where new members of teams serve a type of cognitive apprenticeship. Here, also, dialogue and story telling play a crucial role in the communication of learning, knowledge and information as well as in the generation of meaning specific to the context. Story telling, or narrative as it was also called, is a way of describing how work is actually done, as opposed to how it is said to be done (Brown and Duguid, 1991).

When the professional community is involved in care production, narrative appears a useful way of transferring information, knowledge and learning between professionals. Increasing group sophistication can be achieved through story telling, where the description of different and varied experiences within the context of a particular environment or situation can provide access to more of the available knowledge pool (Beech and McCalman, 1997). Story telling is part of a cultural process in teams that provides team members with an opportunity to relate people and events, values and assumptions, experiences and situations and, importantly, groups and memberships (Beech and McCalman, 1997). According to Brown and Duguid (1991, p.45) story telling could be used in unfamiliar situations by team members to "develop a causal map out of their experience" so that a situational diagnosis can occur and to create "repositories of accumulated wisdom" that are used as pools of improvisational information.

With regard to care management, professional palliative care teams are confronted with new requirements with every patient while commonly having to work from the same platform of palliative culture and collective experiences. While, ostensibly, all patients entering the palliative organisation come with the same basic requirements; they are uncertain and they are dying, design of the components of their care is to some extent or another different from patient to patient. Each patient requires a personalised management plan (Billings, 2000). Palliative care teams undertake multiple care projects simultaneously. Each care project is at a different stage and different level at any given time. In addition, each patient and the accompanying patient based carers are accompanied by a range of uncertainties (McDonald and
Krauser, 1996; Lewis et al, 1997; Henkelman & Dalinis, 1998a; Rose, 1999; Pierce, 1999) and require constant reassessment (Rose, 1995).

Professional members of palliative care teams are often members of several teams simultaneously, but not necessarily permanent members of the same teams. This mix of membership offers the opportunity for frequently transferring knowledge, information and technologies across parallel teams. In the new product development literature this was described as inter-project learning by Nabeoka (1995). Teams and team members in the professional community appear to utilise a concurrent transfer strategy (Nabeoka, 1995) where a new care project can transfer knowledge, information and technologies from older projects or from a base of collective experience while other care projects are still in train. This requires continuous interactions and communications between teams and, in return, increases the efficiency of the design of care for patients (Nabeoka, 1995). Team membership is common and teams operate in parallel, with members moving between teams, so the ties between teams are strong. This means that there is at least a two-way interaction that can assimilate non-codified knowledge that is created because the nature of the teams' relationships and interactions invited and enabled testing, mistakes and instruction, particularly with complex knowledge (Hansen, 1999). The generation of shared meaning, particularly in complex issues, can increase the effect of integrative behaviours, validating them as useful social processes that bind group members with common language, assumptions and beliefs (Beech and McCalman, 1997).

Crossan et al (1993) described a model of organisational learning behaviours whereby individuals, having interpreted the environment through their personal belief systems, integrate their understandings to produce an organisational view. This organisational view then guides organisational action. According to Crossan et al (1993) the key to achieving a level of integration that positively influences organisational action is to combine the level of complexity of individual views, the diversity of individual views within a group and the level of shared understanding the group is capable of generating. This can be achieved using the guidance and resources provided by organisational configurations and systems. The complexity of individual views is a function of the number and type of relationships and the number and type of concepts that the individual must necessarily hold within the
environment. The higher the level of complexity the higher the level of sophistication and subtlety the individual brings to the interpretation of the environment (Crossan et al, 1993). Brown and Duguid (1991) described the combination of environmental circumstances and the histories and social circumstances of the individuals involved as the basis for workplace learning within communities of practice. Communities of practice were described as constantly "adapting to changing membership and changing circumstances", as evolving and as "significant sites of innovating" (Brown and Duguid, 1991, p.41). In these communities learners learn to become part of and operate within the communities rather than learning explicit expert knowledge. The tool that Brown and Duguid (1991) proposed as central to the generation of work based knowledge in evolving circumstances is story telling, or narrative. Crossan et al (1993) implied that experience is a valuable factor in the individual's contribution to the group's and organisation's view of the environment. Reflecting this view, Schein (1993) noted the value of experience in reaching shared understanding in groups, reaching decisions based on the understanding and implementing actions as they were meant to be implemented by the group. It was noted by Crossan et al (1993, p.236) that a group's generation of a productive organisational view is the result of the integration of "diverse and complex views into a shared understanding".

Crossan et al (1993) also described the use of organisational artefacts to facilitate the integration of individual views for the purpose of generating an organisational view or views. In this description the artefacts are structural and systemic in nature, for example mission statements and information systems.

The professional community, then, uses story telling, or narrative, to bring experiences to bear when involved in care production processes. The further professionals move from the patient and the closer they get to the formal structure and processes of the organisation, the closer they get to care management processes, the more often dialogue appears to replace narrative as a means of formalising what had been learnt. McGrath (1998) noted the use of dialogue by hospice professionals as a primary method of communication and as a method of retaining the subjectivity of individuals.
The nature of work in the professional community, driven by the integrative requirements of care management and care production in palliative care, seems highly collaborative. This requires that members of the professional community are capable of persistently overcoming the common obstacles to collaboration such as confusion over autonomy and responsibility, territoriality and indecision about trust, as described by Liedtka et al (1998). Others, including Lewicki et al (1998), described trust as a foundation for collaboration, as relationship driven and occurring within a social context and Schweikhart and Smith-Daniels (1996) noted trust as a key issue in organisational views on autonomy and decision making in healthcare delivery.

In the professional community trust is an issue in both care management and care production. This is because of the changes of membership of patient care teams during the life of the team, caused by shifting patient requirements. Meyerson et al's (1996) description of swift trust is applicable at times in the professional community, though limited to new professional entrants to the community. The amount of experience palliative professionals gain in moving, sometimes quickly, from team to team and working constantly in a collaborative environment means that the levels of uncertainty about who or what can be trusted and who or what can not were relatively low compared to the patient-based community.

Lewicki et al (1998) described relationships as existing for more than one purpose, on more than one level and richly complex. This reflected the palliative care environment, particularly the professional community, which must operate within itself and within the patient-based community. Collaborative palliative professionals need to exhibit and utilise a set of behaviours when working in the patient-based community and a set of behaviours when working in the professional community and overlap, but not confuse, the two as necessary. These are multiple relationships for multiple reasons and all team-based. This also provides the type of rich relationship driven environment described by Crossan et al (1993) as requisite, indeed the richer the better, for the generation by teams of a useful organisationally based perspective on the work at hand that can bring appropriate organisational artefacts to bear. In the case of the professional environment these artefacts might be such things as treatment plans, technologies, professionally based skills and practices and team-
based experience. Indeed, it seemed that if, as Crossan et al (1993) suggested, artefacts could be structural and systemic then they could be organisational capabilities as easily as they could be skills and practices. Lewicki et al (1998) suggested that the keys to the collaborative efforts that existed within a rich environment were trust and distrust. Trust, according to Lewicki et al (1998, p.446)

…is the mechanism by which the risks associated with social complexity are transcended - risks that might otherwise stifle initiative.

Lewicki et al (1998) stated that in the common view of the literature distrust was the opposite of trust.

The issue of ambivalence was also important in collaborative environments because it provided an obstacle to collaboration. Ambivalence was described by Lewicki et al (1998, p.448) as occurring in individuals in relationships "when positive and negative attitudes toward a single target coexist.". The continual mixing and changing of team memberships creates inevitable situations where people who have, for some reason or another, negative attitudes toward one another or one to another were repeatedly required to work together. In working together, however, these individuals are positioned so that, in an effort to achieve organisational, professional and ethical goals, positive attitudes have to surface at some level. Efforts to successfully manage ambivalence, to reach a balance between trust and distrust, are seen as important behaviours in the professional community. The balance between trust and distrust can be struck without the effort to manage one detracting from the effort to manage the other because they can occur simultaneously and can be separated. According to Lewicki et al (1998, p.449),

in organizational settings where complexity, uncertainty, and role conflict are commonplace, and where ongoing interpersonal relationships mature over time and are multiplex in nature, the potential for simultaneous trust and distrust to emerge is considerable.

Leweicki et al (1998) also noted that in order to maintain levels of confidence in relationships it is important to acknowledge and maintain a balance between trust and distrust because this acknowledges that relationships occur on many levels. Professional palliative care teams are commonly heterogeneous teams. The strength of these teams is, in part, due to their heterogeneity and the mix of paradigms, skills and experience that this brings to a patient care situation. This dynamic was
acknowledged by Crossan et al (1993) and Schein (1997) as a useful contributor to the establishment and sustainability of relationships and the focus of appropriate organisational effort. The balance of trust and distrust that occurs is a recognition of the variety and rich complexity of relationships, particularly when relationships are created by an organisationally social context, as noted once again by Lewicki et al (1998, p.453):

…the individuals most successful at managing their reputations for effectiveness are distinguished by their efforts to seek negative as well as positive feedback on their performance, suggesting that effective self-regulation is the product of efforts to manage distrust as well as trust relations simultaneously.

This also reflected Hansen's (1999) views on the invitation of testing, mistakes and instruction, in teams working with complex knowledge in new product development.

In summary, the behavioural focus of the professional community appears to be one of acknowledging and accommodating the heterogeneity of professional teams as a basis for learning, sensemaking, information and knowledge exchange and the planning and provision of care, via a number of behaviours: (1) Working in teams provides multidisciplinary input to care. (2) Collaboration in the generation of knowledge and information via inter project and situational learning enables utilisation of contextually sensitive knowledge and information within and between patient care teams. (3) Ambivalence is managed to reduce the obstacles to care that can occur in multidisciplinary, collaborative teams.

It also appears that a number of tools common to these behaviours have been identified: (1) Narrative appears to be primarily used between professionals when exchanging knowledge and information about patients, situations and results of care efforts, between teams and individuals while away from formal organisational communication opportunities. (2) Dialogue appears to be primarily used between professionals when exchanging knowledge and information about patients, situations and results of care efforts, between teams and individuals while utilising formal organisational communication opportunities. (3) Trust and distrust are apparently both used in the management of ambivalence.
At this point a characteristic of the relationship between Organisational Capabilities and Individual Behaviours seemed to be developing. It seemed at this time that without individual behaviours Organisational Capabilities were nothing more than statements of required competence. Individual Behaviours appeared to enable Capabilities to be active, dynamic demonstrations of organisational response to the environment. Combined with Individual Behaviours, Organisational Capabilities became the assessable evidence of an organisation's level of understanding of the requirements of its environment and its effectiveness within the environment. Individual Behaviours also seemed useful for orienting the organisation to its internal and external environments. As well, it seemed that the application of Organisational Capabilities to an environment involved learning, knowledge transfer and the generation of understanding. In the dynamic palliative care organisation, where the source of understanding is the individual patient, Capabilities were appearing now to be utilised, conceptually and operationally, by learners who could take individual responsibility for the generation of meaning.
The developing model for palliative care now appeared as the figure below.

![Figure 4 CIMA Model for Palliative Care – phase 3](image)

Of note were the apparent relationships between the two groups of behaviours. It appears that these two communities are bridged by a single behaviour. Behaviours **B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation, B2: Rapid Inclusion in a Socially Stable Structure and B3: Addressing Values Based Issues** are Patient-Based. Behaviours **B5: Working in Teams, B6: Collaborating Within the Patient Management Process and B7: Managing Ambivalence in the Team** are Professionally Based. Patient Based Behaviours generally seem to occur in front of the patient or patient-based carers and be aimed at establishing and maintaining an environment of trust and inclusion that promotes the honest and open exchange of information, knowledge and learning. Professionally Based Behaviours appear aimed at establishing and maintaining the environment within which the multidisciplinary patient care teams operate and through which the patient and patient-based carers are connected to the organisation.
Between these two communities was Behaviour *B4: Understanding the Patient’s Situation as the Basis for Care*. This Behaviour bridges the two communities. Patient-Based Behaviours appear to provide communications to and from *B4: Understanding the Patient’s Situation as the Basis for Care*, and enable the maintenance of communication content. Professionally Based Behaviours apparently enable the operation of *B4: Understanding the Patient’s Situation as the Basis for Care*, and provide two-way communication channels that can provide inputs utilised by the Patient-Based Behaviours and accept inputs from that group. This is perhaps more clearly displayed in the figure below.

![Figure 5  Bridging the Behaviours](image)

**Figure 5  Bridging the Behaviours**
2.8 Contingencies

Contingencies were described by Gieskes (2001) as variables that influenced the choice of Management Levers to stimulate behaviours and could also affect the relationship between Management Levers, Individual Behaviours, Organisational Capabilities and performances. These variables could be sourced inside or outside the organisation. A number of contingencies were drawn from the literature review.

Earlier in this thesis a description of palliative care was provided. In that description a number of contingencies were highlighted, although they were not specifically referred to in the literature as contingencies. Chief among these is uncertainty. According to Lazarus and Folkman (1984) uncertainty, as it was considered in the social sciences, can be said to fall into two categories, event-based and temporally-based; uncertainty about what will happen and what the results will be and uncertainty about when it will happen and how long it will take. Both types of uncertainty are capable of generating confusion and helplessness, particularly in cases of physical illness and disability. Uncertainty is also capable of immobilising anticipatory coping and, therefore, the necessary decision making for dealing with the uncertainty being faced. At the end of life, changes occur at multiple levels, sometimes in parallel, without obvious causes, without notice and without clear causal linkages between change and the effects of change.

Uncertainty appears to pervade the palliative care environment. This is a cause of stress, particularly to informal (patient-based) carers (Rose, 1999). The trajectory of the disease that brings a patient and patient based carers to palliative care can be, and commonly is, uncertain (Henkelman and Dalinis, 1998a; Rose, 1999). Symptoms, for example pain, are not necessarily linked to obvious causes (Rose, 1995; Lewis et al, 1997). Reactions of patients and patient based carers to the end of life process were also considered uncertain (Henkelman and Dalinis, 1998a; Pierce, 1999). Membership of the group of patient-based carers can change during the end of life process. The reactions of palliative care professionals to the situations they encounter during the end of life process of those in their care can also be uncertain (McDonald and Krauser, 1996; Henkelman and Dalinis, 1998a). The required level of extension of the palliative care service to individuals and groups who accompany
the patient are uncertain (Rose 1997b; Lewis et al, 1997). According to Kearney (1992) the range of palliation requirements occurs, and is driven, at the conscious and unconscious levels and the depth of experience at each level varied from patient to patient.

The persistence of uncertainty was noted in the description of constantly changing patients’ situations, each of which is unique and requires constant re-assessment (Rose, 1995). Locating the majority source of uncertainty with the patient means also that the patient becomes the major informant of situational change (Henkelman and Dalinis, 1998b). This makes the palliative care professionals dependent on each patient’s ability to explain what is changing, when and at what level and requires that the professionals be able to enable and understand that explanation. The use of multidisciplinary teams is a response to the levels of uncertainty noted above and to the range of palliation requirements that could be necessary for any given patient (McDonald and Krauser, 1996; Meyers, 1997). While the use of a multidisciplinary care delivery model is not unusual in healthcare generally and the use of multidisciplinary or multi-functional teams is not unusual outside of healthcare, the dynamics of the palliative care environment create a level of complexity in team operation. These dynamics of uncertainty appear to bear directly on the way in which multidisciplinary patient care teams operate. As noted earlier in this thesis, the usefulness of multidisciplinary operations in palliative care is the opportunity provided for teams to mobilise and learn from each other’s skills and experiences in patient care (Witt Sherman, 1999).

The dynamics of the environment at the level of the patient care team were driven by changes in patient situations. Changes in a patient’s end of life situation could occur as a result of a change in any of the elements of the patient’s life (Henkelman and Dalinis, 1998b). These occur at multiple levels, sometimes in parallel, sometimes without obvious causes, sometimes without notice, sometimes without clear causal linkages between change and effect, sometimes consciously on the part of the patient or patient-based carers and sometimes not. This highlights a contingency in the form of the ability of a patient’s situation to mediate that patient’s care. In the palliative care literature the patient was noted as central in the ethics, philosophy and practice of palliative care by a number of authors (McDonald and Krauser, 1996; Meyers,
1997; Rasmusson and Sandman, 1998; Krishnasamy, 1999; Witt Sherman, 1999). Also in this body of literature, the patient was described as a major informant of the trajectory of need that describes the patient’s situation and therefore the necessary direction of care (Henkelman and Dalinis, 1998b), followed closely at times by patient-based carers. The ability of a patient to mediate care delivery was indicated also in the description of individual behaviours in palliative care teams by the bridging role played by the patient’s situation between behaviours occurring in front of the patient and behaviours occurring away from the patient. These two sets of behaviours, described in this thesis as Patient-Based and Professionally Based, were not only interdependent but both appeared to depend on the patient’s situation for direction and purpose.

Bottorff et al (1998), in describing everyday decision making in palliative care, specifically noted the complexity inherent in the inclusion of the patient in decision making. This was based on the “unfamiliarity, uncertainty, and unpredictability” of patient’s lives when receiving palliative care and the need for patients to achieve a balance between choices made and the consequences of those choices. The opportunity to participate in decision making was described as valued by patients but the unpredictable nature of their illnesses means that participation does not guarantee successful consequences. This increases and complicates the workload of the nurses taking part in Bottorff et al’s (1998) study as both decision making and decision consequences require constant monitoring, particularly with regard to unsuccessful consequences. Rose (1999), writing on the information needs of the informal carers of cancer patients in palliative and terminal care, described the complexity inherent in professional carers attempting to understand these needs as described by patients and informal carers. McGrath (1998) made the point that as hospice services are drawn back into mainstream healthcare services they become increasingly complex due to increases in standardisation and routinisation demanded by healthcare funding bodies as they seek to “legitimise” palliative care as part of the mainstream. The result was perceived and described by the palliative care professionals and volunteers in McGrath’s (1998) case study as a diminution of the personalised person-centred care that traditionally typified palliative care.
According to Henkelman and Dalinis (1998a) complexity in decision making and relationships in palliative care is the result of dealing with death, dying and the medication of dying patients. This view of complexity was based in societal attitudes towards the medicalisation of the dying process and the perception of the potential for a hastened death, leading to fears of prosecution on the part of professionals. In turn, this could lead to professionals feeling that they have abandoned patients to suffering in order to avoid negative perceptions.

The collaborative nature of palliative care was described as fundamental and central by a number of authors in the palliative care literature (McDonald and Krauser, 1996; Meyers, 1997). This appears to be confirmed in the literature on Capabilities (Liedtka et al, 1998; Van Ess Coeling and Cukr, 2000), Management Levers (Coopman, 2001; Reese and Sontag, 2001) and Individual Behaviours (Brown et al, 1989; Gieselman and Farrugia, 2000). It appears also that the fundamental requirement for collaboration is not limited to that between the disciplines involved. The patient's end-of-life state and central role in efforts to manage that state made the patient a participatory member of the palliative care team who maintained a level of autonomy and control in relation to the other team members (McDonald and Krauser, 1996; McGrath, 1998). Van Ess Coeling and Cukr (2000) stated that the need for successful collaboration increased with the complexity of the care delivery environment.

The palliative care literature also raised the issue of specific patient based contingencies such as history, family cultures and language and the expression of symptoms and distress (Lobchuk and Stymeist, 1999). These were described as important contingent factors in the construction of meaning from the end of life experience and in the negotiation of symptoms between palliative care professionals, patients and patient based carers. Similar factors were described by Janssens et al (1999) as contingent in shaping patient identity and the concept of self. It appears that these factors could be influencers at most stages in the palliative care process.

The literature on Individual Behaviours also appears to reveal another contingency; workforce. As well as being capable of dealing with levels of uncertainty and complexity, members of the workforce in palliative care are required to utilise a
number of behaviours; **B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation; B2: Rapid Inclusion in a Socially Stable Structure; B3: Addressing Values Based Issues; B4: Understanding the Patient’s Situation as the Basis for Care; B5: Working in Teams; B6: Collaborating Within the Patient Management Process; and B7: Managing Ambivalence in the Team**, while undertaking their discipline-based tasks in multidisciplinary patient care teams.

According to the literature, successful utilisation of these behaviours involved the application of a number of tools in both groups, Patient Based and Professionally Based: Trust (Meyerson et al, 1996; Lewicki et al, 1998); Openness (Senge, 1990; Luker et al, 2000); Dialogue (McGrath, 1998; Rassmussan and Sandman, 1998); Double Loop Learning (Artyris, 1989); Power Sharing (Argyris, 1989); and Narrative (Brown and Duguid, 1991).

It might be a natural part of the learning and practice of individual disciplines to utilise some of these behaviours and tools, for example social workers addressing values based issues using trust and dialogue. The implication from the literature, however, was that all disciplines involved in palliative care are expected to understand and undertake all of the described behaviours when necessary and be able to utilise any of the described tools as required. This requirement appears at odds with the general healthcare management literature. In that literature authors noted the conflict and fragmentation of effort that was based in inter-professional barriers and the ability of discipline-based paradigms to reduce or nullify workforce flexibility and collaboration (Mintzberg, 1997; Connelly et al, 1999; Firth-Cozens, 1999; Newhouse and Mills, 1999).

The literature on Organisational Capabilities offered insights into what would be required of a palliative care workforce. If a palliative care organisation required at least the Organisational Capabilities suggested by the literature then it required a workforce that could exploit them. This means a workforce that can manage knowledge, manage information, operate a multidisciplinary model, collaborate, manage technology and manage change on a number of different fronts, and know which capability to utilise when. In the management of knowledge the workforce needs to be able to effectively exploit dynamic carer networks and discipline based networks formally and opportunistically. This is required for the creation, exchange
and utilisation of knowledge (Grantham et al, 1997; Cowling et al, 1999; Heller, 2000). In the management of information the workforce must be capable of those things mentioned with regard to managing knowledge. As well, given the essential role of information as a foundation of and vehicle for knowledge (Berman Brown and Woodland, 1999; Abell, 2000), the workforce should be able to exploit the diversity available in the palliative care environment as a rich source of information for innovation (Frambach, 1993).

The literature on Management Levers also appeared to provide suggestions of contingencies linked to the workforce. As with Individual Behaviours and Organisational Capabilities, the need to be able to utilise and exploit the necessary Management Levers would have a role in defining the workforce. For example, the literature on Organisational Capabilities and Individual Behaviours both indicated the pivotal role of collaboration, as did the palliative care literature. The literature on Management Levers also described a pivotal role for collaboration. The palliative care workforce must apparently be able to utilise this concept in four different ways; as an overarching ethos, as a capability available across the organisation, as a behaviour aimed at generating and transferring knowledge and information and as a lever to influence behaviours that are situationally focused.

More specifically with regard to Management Levers, the use of common languages, at the interfaces between disciplines, between teams, between palliative care professionals and patients and patient based carers was noted as important to the generation and transfer of knowledge and information (Duncker, 2001; Reese and Sontag, 2001). The fragmentation and paradigm conflicts noted in the healthcare management literature by authors such as Mintzberg (1997), Oughtibridge (1998) and Newhouse and Mills (1999) seem to obviate both collaboration and the generation and adaptation of common languages. The understanding and use of boundary objects as described by Albrechtsen and Jacob (1998) also seems to be limited in this climate. Yet, if palliative care professionals are not recruited from within the palliative care community they will be recruited from the wider community of healthcare workers. The implication here is that, regardless of where palliative care organisations recruit staff; from within their own small community or
from healthcare generally, the availability of an appropriate workforce was always an issue.

The characteristics of configuration that resulted from the comparison of Mintzberg’s (1989) work to the palliative care and healthcare literature also indicated contingent factors with regard to workforce. Specialists and professionals with high levels of skill and knowledge, who had undertaken long periods of training prior to working in palliative care, would be employed. Professionals would have a requirement to sustain levels of skill and knowledge using ongoing training within disciplines or other specialist or professional groups as well as to transfer knowledge and information between the disciplines, teams and individuals. Decision making autonomy would accompany professionals to the multidisciplinary teams, and authority would often be sourced in professional experience. Each of these could be seen as influencing the availability of appropriate staff, whether appropriateness was judged by the organisation in terms of, for example, levels of skill and experience or whether it was judged by apparently available staff in terms of, for example, job desirability.

Change also appeared an important contingency in palliative care, impacting palliative care on a number of fronts. The first and obvious, already discussed as occurring inside the organisation and a frequent part of palliative care, is the changes in the patient’s situation. In addition though, palliative care was noted in the literature as undergoing a number of changes driven by agencies outside palliative care. Rasmussen and Sandman (1998), Kearney (1992) and Kelleher (1999) noted concerns based in the return of palliative care to the healthcare mainstream, citing the potential for the conversion of palliation to symptom relief, breaking down the palliative care ethos. McGrath (1998) noted that the inclusion of hospices into mainstream healthcare involved formalisation and dehumanisation of the palliative ethos, the loss of singular focus and disillusionment among staff and volunteers of palliative organisations. Barbato (1999) stated that the increasing medicalisation of palliative care will reduce this type of care to one of symptom management at the end of life, countering the palliative paradigm of holistic care, bringing with it the concept that palliative care could be measured, scrutinised and judged in purely objective terms.
Higginson (1999), who also discussed this concern, noted the difficulties of measuring the subjectives in palliative care. Bringing palliative care into mainstream healthcare also involves reductions in non-medical staff and some pastoral and social workers for example have already lost their jobs in the name of cost efficiencies (Kelleher, 1999). Changing demographics and increasing diversity of populations are also providing effects that needed to be managed. According to Witt Sherman (1999) the aging of the population provides changes to the nature and needs of the dying and there is a worldwide change of causes of death from acute conditions to chronic and progressive illnesses. Palliative care, while traditionally linked to cancer, has an application to other types of conditions such as HIV AIDS, end-stage cardiovascular and pulmonary disease and diabetes; diseases that have limited curative treatments. The growing diversity of populations served by palliative care organisations changes the nature and occurrence of illness and disease and requires that the populations of the palliative care professions and of the carer networks change to accommodate the diversity in patient populations (Heller et al, 2000).

It appears then that a number of internal and external contingencies impact multidisciplinary patient care teams in palliative care organisations. Uncertainty seemed to play a large role as an influencer. It was described as the driver of the need for multidisciplinary delivery of palliative care, pre-eminent in the considerations of individuals and teams, requiring dynamic complexity in team structures and in care delivery processes and as fundamental in the end of life process. Uncertainty in palliative care appears dynamic and manifold, varying in the level and intensity of its influence. This lack of uniformity in uncertainty appears to multiply the range of potential responses that multidisciplinary palliative care teams need to be able to offer. McCormick (2002, p.128) described illness as containing uncertainty because it contained situations that included “ambiguous, vague, unpredictable, unfamiliar, inconsistent and unknown factors” and proposed that uncertainty needed to be considered as a neutral concept, not driven by emotion or values-based issues.

McCormick (2002, pp.129-130) then proposed that uncertainty contained three attributes; probability – “... the core underlying the questions a patient may have...”, temporality – “....how much time will be required until the ambiguity,
unpredictability, or vagueness of a situation is clarified..” and perception – “.... people perceive patterns of occurrences that they are not able to link to an existing frame of reference and that are contrary to their expectations”. This indicates that uncertainty could indeed be considered a contingency.

Workforce was also noted as a contingency. Workforce availability is an issue in terms of several factors. Experienced staff are available from a pool that is limited, inexperienced staff are available from a larger pool that is dominated at times by paradigmatic differences creating fragmentation of effort and conflict between disciplines and containing an overarching paradigm and expectation of cure. As well, there is no guarantee that appropriate potential staff would want to work, or continue to work, in palliative care.

External contextual contingencies are provided by the changes reported as occurring in the healthcare environment and by changes in the relationship between palliative care organisations and the healthcare bureaucracies within which they operate. The nature and demographics of the potential patient population are changing as is the range of diseases and conditions that can be offered palliative care. Even the demographics of the pool of potential palliative care workers is noted as undergoing change.

Internal contextual contingencies are provided by patients and patient based carers. These are based in the central role of the patient in palliative care and in the ability of a patient’s situation at any level to mediate the delivery of care. The language that is used by patients and patient based carers to express distress and to describe symptoms was also described as contextual and specifically as contingent. Also providing a context for multidisciplinary palliative care teams are societal attitudes to death and dying and the medicalisation of the end of life experience. Again, these are contingencies related to patients.
Following this section of the literature review the Contingencies were added to the shell of the CIMA model for palliative care, seen in the Figure below.

<table>
<thead>
<tr>
<th>Contingencies</th>
<th>Levers</th>
<th>Capabilities</th>
<th>Behaviours</th>
<th>Performances</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO1 Uncertainty</td>
<td>L1 Collaboration</td>
<td>C1 Managing Knowledge</td>
<td>B1 Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation</td>
<td></td>
</tr>
<tr>
<td>CO2 Workforce</td>
<td>L2 Balance</td>
<td>C2 Managing Information</td>
<td>B2 Rapid Inclusion in a Socially Stable Structure</td>
<td></td>
</tr>
<tr>
<td>CO3 Patients</td>
<td>L3 Language</td>
<td>C3 Multidisciplinary Operations</td>
<td>B3 Addressing Values Based Issues</td>
<td></td>
</tr>
<tr>
<td>CO4 Healthcare environment</td>
<td>L4 Absorptive Capacity</td>
<td>C4 Collaborative Operations</td>
<td>B4 Understanding the Patient’s Situation as the Basis for care</td>
<td></td>
</tr>
<tr>
<td>CO5 Change</td>
<td>L5 Diversity</td>
<td>C5 Managing Technologies</td>
<td>B5 Working in Teams</td>
<td></td>
</tr>
<tr>
<td></td>
<td>L6 Conflict</td>
<td>C6 Managing Change and the Effects of Change</td>
<td>B6 Collaborating Within the Patient Management Process</td>
<td></td>
</tr>
<tr>
<td></td>
<td>L7 Trust</td>
<td></td>
<td>B7 Managing Ambivalence in the Team</td>
<td></td>
</tr>
<tr>
<td></td>
<td>L8 Power sharing</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 6  CIMA Model for Palliative Care – phase 4
2.9 Organisational Configuration

2.9.1 Why Configuration?
In seeking to describe how palliative care organisations enable their teams to undertake multidisciplinary work in an uncertain environment the literature review has described Organisational Capabilities, Management Levers, Individual Behaviours within multidisciplinary teams and the Contingencies that impact and influence palliative care teams. However, a way of understanding what it is that enables the appropriate alignment of resources and other organisational elements so that organisational capabilities are applied, management levers used and behaviours applied in teams; all at the right time and place in an uncertain, dynamic and complex workplace, is now sought. Given the holistic and multi-dimensional nature of palliative care, the literature on configuration was considered a useful starting point for gaining this understanding, configuration being an approach described by Duberly and Burns (1993, p.26) as,

taking an holistic view attempting to synthesize rather than analyse the information gathered about the organisation.

Miller (1999, p.29) described configurations as “complex systems of interdependency brought about by central orchestrating themes” that “…at their most useful represent common, thematically driven alignments of elements or dimensions” (p.28). Gaining an understanding of these elements and alignments could help in understanding palliative care organisations. The palliative care literature indicated a number of central organising themes, primary among these were the centrality of the patient (Rasmusson and Sandman, 1998; Barbato, 1999), uncertainty (Lewis et al., 1997; Pierce, 1999), collaboration in care delivery (Witt Sherman, 1999) multidisciplinary care delivery (McDonald and Krauser, 1996) and the situationally based generation, transfer and management of knowledge and information, leading to learning. These seem to also meet Miller’s (1987, p.686) description of configuration-related imperatives, those things that could,

..drive or organize many elements of a configuration, are the most resistant to change, and probably must change before most meaningful transformations take place.
Meyer et al (1993, p.1178) noted that, … configurational enquiry represents a holistic stance, an assertion that the parts of a social entity take their meaning from the whole and cannot be understood in isolation. Rather than trying to explain how order is designed into the parts of an organization, configurational theorists try to explain how order emerges from the interaction of those parts of the whole.

The fundamental ethos of palliative care, the patient as a whole and as member of a system (McDonald and Krauser, 1996; Higginson, 1999; Witt Sherman, 1999) is clearly reflected here. This ethos demands coherence in approach and high levels of adaptability and innovation in practice. A characteristic of these practices is the hybridisation of patient typologies as members of multiple disciplines work together to form a situationally-based picture of the causes of distress then attempt to provide relief.

2.9.2 Comparing Mintzberg with the Palliative Care Literature

Each of Mintzberg’s (1989) organisational configurations was compared to the palliative care literature. When indicated as appropriate Mintzberg (1989) was also compared to the healthcare management literature.

Mintzberg (1989) described seven basic organisational configurations: Entrepreneurial, Machine, Professional, Diversified, Innovative, Missionary, and Political. A number of these types were considered to have a range of relevance to the thesis. Some may appear at first glance to have little or no relevance although, as Mintzberg (1989, p.115) wrote about the configuration of these various organisational types,

...each configuration is idealized--a simplification, really a caricature of reality. No real organisation is ever exactly like any one of them. But some do come remarkably close, while others seem to reflect combinations of them, sometimes in transition from one to another.

In this section of the thesis Mintzberg’s (1989) organisational configuration typology is compared to the palliative care literature

Nothing approaching Mintzberg’s (1989) Entrepreneurial organisation configuration appeared in the palliative care literature. According to Mintzberg (1989) these organisations commonly exist in dynamic, relatively simple environments, with power centralised in one individual at the top of the organisation. They have few
staff, little formalised activity and make “little use of planning procedures or training routines” (Mintzberg, 1989, p.115). By contrast, palliative care organisations operate in dynamic and uncertain environments (McDonald and Krauser, 1996; Henkelman and Dalinis, 1998a; Pierce, 1999; Rose, 1999). Power is distributed among patient carers (McDonald and Krauser, 1996), formal training is evident (Sherman, 1999) and, given the widespread use of professionals and the nature of palliative care itself, much activity is formalised (Lewis et al, 1997; Rasmussen and Sandman, 1998).

Mintzberg’s (1989) Machine organisation configuration was not reflected in the literature on palliative care. Machine organisations offer little discretion in decision making, where palliative care organisations appear to utilise distributed decision making in multidisciplinary teams (McDonald and Krauser, 1996; Witt Sherman, 1999). Machine organisations exist in a relatively simple and stable environment and palliative care organisations work in and with environments that are dynamic and uncertain (McDonald and Krauser, 1996; Henkelman and Dalinis, 1998a; Pierce, 1999; Rose, 1999). Finally, Mintzberg (1989, p.133) stated that in machine organisations there is a “reliance on the functional basis for grouping tasks”, whereas in patient care teams in palliative care, tasks are multi-functional, grouped with the patient and the patient is the major informant (Henkelman, et al, 1998b). However, Mintzberg’s (1989) Machine configuration appeared to have some relevance to the healthcare management literature and this is addressed in the following section.

According to Mintzberg (1989) the Professional organisation is found in complex, relatively stable environments that require processes that must be learnt over long periods and can produce standard outcomes, although the processes themselves are often too complex to be standardised in their application. The professionals within these organisations derive their authority from their expertise and have discretion available in the application of their skills and knowledge. Coordination of effort can be tight within professional disciplines but is not so good between the disciplines because of innate rivalries between professions. Palliative care organisations operate in dynamic, relatively complex environments. They contain mixtures of clinical and non-clinical professionals, managers and administrators. The focus of palliative care organisations and all members of those organisations is singular (McDonald and Krauser, 1996; Bottorff et al, 1998). Palliative care organisations use
multidisciplinary teams to understand manifold causes of distress (McDonald and Krauser, 1996; Meyers, 1997; Barbato, 1999; Higginson, 1999; Witt Sherman, 1999). The employment of a primarily professional workforce, carrying out complex work that is controlled by the professionals gives the appearance of Minbztberg’s (1989) professional organisation. However, the multidisciplinary nature of the team operations and the good communications and information exchanges between the disciplines suggests only a moderate fit between the suggested type and the palliative care literature.

With regard to Mintzberg’s (1989) Diversified organisation configuration, once again there did not seem to be a parallel in the palliative care literature. Diversified organisations were described as

a set of semi-autonomous units coupled together by a central administrative structure. The units are generally called divisions and the central administration, the headquarters.” (Mintzberg, 1989, p.155).

Divisions in these organisations are self-sustaining entities with their own operational goals. This configuration does not fit with the palliative care literature, which reported holistic organisations (McGrath, 1998), using multidisciplinary teams operating across what were often referred to as discipline-based boundaries (McDonald and Krauser, 1996; Lewis et al, 1997; Rose, 1997b) and where the organisation and each team shared the same operational and organisational goal,

improving the quality of life for people who are dying, and toward supporting patients and families as they incur multiple losses” (McDonald and Krauser, 1996, p.2).

According to Mintzberg (1989, p.199),

Sophisticated innovation requires a very different configuration, one that is able to fuse experts drawn from different disciplines into smoothly functioning ad hoc project teams.

Mintzberg (1989) described innovative organisations as found in complex, relatively dynamic environments where the requirement is for flexibility in structure so that different forms of expertise can be drawn together quickly to address problems and situations directly. These organisations employ people with high levels of knowledge and skill, which become the foundation for the ongoing development of skills and knowledge relevant to the work. The use of multidisciplinary teams in the complex, dynamic environment of palliative care, where it is common to quickly
deploy mixed groups of professionals in response to particular situations, was reminiscent of Mintzberg’s (1989) Innovative organisation. Palliative care organisations work with persistent uncertainty, driven by factors surrounding the central focus of their work, ethics and philosophy, the patient (Kearney, 1992; Rose, 1995; McDonald and Krauser, 1996; Lewis et al, 1997; Rose, 1997b; Henkelman and Dalinis, 1998a; Pierce, 1999; Higginson, 1999; Rose, 1999). In palliative care, decision making is at times decentralised to individual patient care teams and these teams include any person relevant and available to assist in fulfilling the patient's needs (McDonald and Krauser, 1996). This includes family and friends of the patient (Lewis et al, 1997; Rose, 1997b). The need to address the patient’s situation on more than one level, for example clinically, socially and consciously, and to frequently reassess the situation (Rose, 1995) means that patient care team membership must also be reassessed as frequently and changed when necessary. To accommodate this, patient care team members must use Mintzberg’s mutual adjustment coordination technique, or something like it, to engage, disengage and re-engage with teams as time does not permit a fully formalised process for this purpose. The degree of fit suggested here was considered substantial.

The Missionary organisation was described by Mintzberg, (1989, p.221) as having,

..a very special culture—a richly developed and deeply rooted system of values and beliefs that distinguishes a particular organization from all others.

Within these organisations, the identification between organisation and the people who worked there was, according to Mintzberg (1989), so strong that it could be used as a mechanism for coordinating activities, in place of the direct supervision that is found in machine organisations for example. The organisation’s mission is paramount here. Three characteristics of palliative care organisations suggest that the configuration for Mintzberg’s (1989) Missionary organisation is appropriate. 1) The singular focus of palliative care organisations (McDonald and Krauser, 1996); 2) the distinctive nature of palliative care and palliative carers, who involve themselves in an holistic care that attempts to, on as many levels as possible, return control to the patient (McGrath, 1998); and 3) the unique niche that palliative care occupies within healthcare systems (McGrath, 1998; Higginson, 1999). These factors indicate that the degree of fit between the suggested configuration and the palliative care literature was substantial.
In Mintzberg’s (1989) Political organisation configuration, he noted that all organisations contained conflict and therefore politics. This was followed by opinions about the likelihood of the level of politics being quite high in professional and innovative organisations, because of the distribution of power that is based in professional expertise rather than the authority of management. This, accordingly, indicates that this configuration could be considered as likely in palliative care organisations. The idea is supported, at least in terms of a climate that may encourage politicisation, in some parts of the palliative care literature. McGrath (1998) described experiences of conflict between a hospice and its healthcare bureaucracies during hospice establishment, caused by conflicting views of purpose. In describing barriers to competent palliative care in the United States, Henkelman and Dalinis (1998a) noted that a politicised internal environment can be created by external contingencies, for example the medication of terminally ill patients and the perception of a hastened death, and provide ongoing uncertainties for palliative carers. Whether or not this politicised environment would maintain itself without external influences was not indicated in the palliative care literature. The palliative care literature did not report, apart from the examples given here, a politicised environment. These factors lead to the conclusion that the degree of fit between the Political organisational configuration and the palliative care literature is minimal.

The comparison of the palliative care literature and Mintzberg’s (1989) organisational configuration typology produced some degrees of fit between the two. It seems that Mintzberg’s (1989) organisational configurations have some relevance to palliative care organisations. From the comparison conducted it is possible to draw a conclusion that the structure of palliative care organisations is, at this stage, expected to be a hybrid of Mintzberg’s (1989) configurations. This is a possibility that Mintzberg allowed and takes into account the shaping driven by the external environment (Mintzberg, 1989; Burns, 1963) and the work to be carried out by the organisation. This is displayed in the table and the diagram below.
<table>
<thead>
<tr>
<th>Configuration</th>
<th>Fit</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurial</td>
<td>NO</td>
<td>Nil</td>
</tr>
<tr>
<td>Machine</td>
<td>NO</td>
<td>Nil</td>
</tr>
<tr>
<td>Professional</td>
<td>YES</td>
<td>Moderate</td>
</tr>
<tr>
<td>Diversified</td>
<td>NO</td>
<td>Nil</td>
</tr>
<tr>
<td>Innovative</td>
<td>YES</td>
<td>Substantial</td>
</tr>
<tr>
<td>Missionary</td>
<td>YES</td>
<td>Substantial</td>
</tr>
<tr>
<td>Political</td>
<td>YES</td>
<td>Minimal</td>
</tr>
</tbody>
</table>

**Table 4  Suggested Fit**

![Figure 7  Suggested Configuration](image)

### 2.9.3 Impact of the Healthcare Literature on the Suggested Configuration

While it is not the purpose of this thesis to investigate the healthcare management environment there is an interface between this environment and palliative care organisations. This being the case, and bearing in mind the ability of organisations to be shaped by their environments (Mintzberg, 1989; Burns, 1963), it is important to have an understanding of the healthcare environment. Fortunately, this understanding can also be expressed in terms of Mintzberg’s (1989) typology of organisational configurations, specifically machine organisations. There are aspects of the description of Machine organisations that are reflected in the healthcare management literature. Mintzberg (1989) described Machine organisations as structured for control, generally found in simple and relatively stable environments, with large operating units. Mintzberg (1989) offered a number of examples of machine organisations, among them government organisations needing to demonstrate a regulatory framework internally and externally, and the regulators themselves. In Australia both of these examples match the publicly funded healthcare bureaucracies (New South Wales Health Department, 1999; New South
Wales Health Council, 2000). The healthcare literature described an environment that was neither simple nor stable. Indeed, the literature described an environment in change, being driven by increasing patient demands on the quality and availability of healthcare and rising healthcare costs (New South Wales Health Department, 1999; New South Wales Health Council, 2000). Healthcare management roles and delivery systems are changing (McConnell, 1996), requiring changes to healthcare delivery capabilities (Heller et al, 2000) and paradigms (Henderson, 1995). This environment did not at first seem to match Mintzberg’s (1989) requirement for a Machine organisation.

However, Mintzberg, (1989) also noted that machine organisations can be capable of stabilising their environment. Publicly and privately funded healthcare bureaucracies described in the literature seem to be attempting to do exactly this, with three broad strategies commonly grouped under the headings of clinical governance, evidence-based decision making and vertical integration. Clinical governance was described as a concept of integration of service provision and management requirements in healthcare providers to improve the quality of services, that requires fully integrated patient care systems, as does population based care, and an increased investment in the technology to enable this (Wright et al, 1999). The successful introduction of clinical governance requires effective leadership, better communication between healthcare professions, and collaborative, multi-disciplinary, pan-agency approaches that encourage the breakdown of discipline imposed paradigms of status and operation (Firth-Cozens, 1999; Wright et al, 1999). Evidence-based healthcare was described as a system that provides relevant information about a range of issues including clinical knowledge, research findings and effective practice to healthcare professionals at the point of decision making (Cowling et al, 1999). The purpose of this is the improvement of the quality of healthcare. The introduction of evidence-based decision making is a requirement of Australia's Department of Health and Aged Care (1999), the agency that governs national healthcare spending. Vertical integration in healthcare was reported as based on the concept of providing care to patients via a system that could arrange all levels of care required (Newhouse and Mills 1999) because the requisite different healthcare providers were co-located (Byrne and Walmus, 1999). Patient care aside, there are also operational and
financial incentives for integration such as economies of scale and increased management control over costs.

The other interesting parallel between Mintzberg’s (1989) machine organisation configuration and the literature is the concept of machine organisations becoming the instruments of individuals or small groups of external influencers who come to dominate them. In Australia the publicly funded healthcare bureaucracies are instruments of the various Federal and State governments of the day. These bureaucracies are responsible to ministers of the various governments for the application of healthcare policy and the regulation of healthcare delivery (New South Wales Health Department, 1999; New South Wales Health Council, 2000). The minister of government also appoints and removes the senior manager in each healthcare bureaucracy.

2.9.4 Configuration for Palliative Care Organisations

From the comparisons above it seems that the public policy and regulatory environments within which palliative care organisations operate are governed by bureaucracies that are configured and behave, to a large extent, as Mintzberg’s (1989) machine organisations. While this is not a direct concern of this thesis, it provides some understanding of the context for palliative care with regard to the governing healthcare bureaucracies generally. It also indicates that on the palliative care side of the interface with healthcare bureaucracies there may need to be a unit, a section, or an area that operates as something of a machine organisation in order to translate policy, performance measurement targets and results and funding demands or requests between the two. Therefore, it was determined that the picture of a palliative care organisation’s configuration as shown in Figure 7 above could be more like Figure 8 below.
Mintzberg’s (1989) typology of organisational configurations, after comparison with the palliative care and healthcare literatures, suggested a mixed configuration for a palliative care organisation. In Mintzberg’s (1989) terms, a palliative care organisation could be configured as part Innovative, part Political, part Missionary, part Professional and, because it must deal with the healthcare bureaucracies, part Machine. The suggested “fit” between Mintzberg’s (1989) configurations and the palliative care and healthcare literatures is a matter of how Mintzberg’s (1989) structures and management actions are reflected in those literatures. The strongest fit between Mintzberg’s (1989) configurations and the palliative care literature seemed to be the Innovative and Missionary, followed by the Professional and Political, then lastly, via the healthcare literature, by the Machine organisation.

### 2.9.5 Configuration Characteristics for Palliative Care
Mintzberg (1989) also described sets of characteristics to accompany each of his suggested typologies. Combining these with the suggested configuration for palliative care delivers a set of configuration characteristics for palliative care, listed below.
1. Specialists and professionals with high levels of skill and knowledge, who had undertaken long periods of training prior to working in palliative care, would be employed.

2. Work would often be complex.

3. Staff would be grouped functionally for administrative purposes but allocated to multidisciplinary teams, sometimes at short notice, for particular situations or projects.

4. The great majority of work tasks would require collaborative effort.

5. A primary coordinator of collaborative effort would be informal communication between staff members on teams.

6. Professionals would have a requirement to sustain levels of skill and knowledge using ongoing training within disciplines or other specialist or professional groups as well as to transfer knowledge and information between disciplines, teams and individuals.

7. Decision making autonomy would accompany professionals to the multidisciplinary teams and authority would often be sourced in professional experience.

8. Senior managers could be found working in the multidisciplinary patient care teams.

9. There would be a broadly based singular focus on the purpose of the organisation, expressed as the organisation’s mission. The existence of this focus would be used as a tool for indoctrination of new staff and, at times, as a coordinating mechanism for work tasks.

10. The organisation would be politicised and operating in a politicised environment.

11. A section of the organisation would be structured and operate differently because it would be the section that interfaced with the healthcare bureaucracies and regulators.

The description of the characteristics of configuration provides two pictures; structural and functional. The first group’s characteristics can enable a structural response to the identified Contingencies. The second can enable the operational response to the Contingencies. The following Table displays the characteristics in their groups.
<table>
<thead>
<tr>
<th><strong>Structural</strong></th>
<th><strong>Functional</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Employing specialists and professionals, high levels of skill and knowledge, long periods of training prior to working in palliative care</td>
<td>A primary coordinator of collaborative effort would be informal communication between staff members on teams.</td>
</tr>
<tr>
<td>Work would often be complex.</td>
<td>Professionals sustain levels of skill and knowledge using ongoing training within disciplines or other specialist or professional groups and transfer knowledge and information between disciplines, teams and individuals.</td>
</tr>
<tr>
<td>Staff grouped functionally for administrative purposes, allocated to multidisciplinary teams for particular situations or projects.</td>
<td>Senior managers commonly found working in the multidisciplinary patient care teams.</td>
</tr>
<tr>
<td>The great majority of work tasks would require collaborative effort.</td>
<td>Broadly based singular focus on the purpose of the organisation, expressed as the organisation’s mission. Used as a tool for indoctrination of new staff and, at times, as coordinating mechanism for work tasks.</td>
</tr>
<tr>
<td>Decision making autonomy accompanies professionals to multidisciplinary team, authority often sourced in professional experience.</td>
<td>The organisation would be politicised and operating in a politicised environment.</td>
</tr>
<tr>
<td>Separate section of the organisation, structured and operating differently to interface with healthcare bureaucracies and regulators.</td>
<td></td>
</tr>
</tbody>
</table>

**Table 6 Structural and Functional Characteristics of Configuration**
2.10 Conclusion to the Literature Review

The literature has provided a model for palliative care that suggests the operational components that influence and facilitate the management of multidisciplinary patient care teams, the behaviours that the teams employ; therefore the behaviours that are managed, the structural and functional characteristics of configuration and the contingencies influential in palliative care operations.

Palliative care organisations appear as innovative organisations with a very strong sense of mission that employ knowledgeable, skilled professionals who have generally trained for long periods before arriving in palliative care. These professionals are characterised as learners who maintain skill and knowledge levels ongoing while exchanging knowledge and information within the teams in which they work. Within the teams, authority can be sourced in professional experience. The work in palliative care is complex, requires collaboration and informal communications between the professionals in the teams and is singularly focused. These organisations are politicised to some extent in a politicised environment and they operate a separate section to deal with the healthcare bureaucracy, including regulation and accreditation.

Collaboration appears to dominate operational components; Organisational Capabilities, Management Levers and Individual Behaviours in the teams. Collaboration is, apparently, a primary lever used to influence relationships and behaviours, a required organisational capability and a common behaviour within the multidisciplinary teams. The management, generation, exchange and transfer, of knowledge and information appear as primary organisational capabilities. An ability to generate and use common languages across professional boundaries and between professionals and patients and patient based carers and an ability to learn, network and source required information and knowledge both appear as necessary levers. The generation of knowledge, information, trust and collaboration between the organisations and their patients was a focus of the behaviours, enabling understanding. The behaviours also indicate a requirement for the teams to manage themselves and the relationships within them.
The palliative care literature frequently referred to the centrality of the patient, requiring multidisciplinary teams to work collaboratively in dealing with complex, multilevel drivers of medical, physical and psychosocial distress that should be addressed wherever and whenever possible. This literature described an environment rich in skills, experiences, relationships and opportunities for learning. Palliative care was also described in this literature as rich in professional and psychosocial risk, an environment that could be emotionally punishing. Yet this same environment could be a very rewarding place to work in terms of the sense of purpose and focus that it enabled in the carers.

The innovation literature suggested that a social focus was a realistic focus for innovation, that the description of innovation was in the hands and minds of those involved and that innovation could be an attempt that did not necessarily succeed, an effort, as Drucker (1985, p.67) wrote, “to create purposeful, focused change in an enterprise's economic or social potential.”.

The literature review also indicated that this thesis addresses a gap in the body of knowledge on the management of palliative care and death and dying.

### 2.10.1 The Research Question

From the literature it seemed that two propositions could be drawn:

1. Within multidisciplinary patient care teams in palliative care innovative practices existed, sometimes occurring spontaneously without reference to committees, planning groups or research and development teams.

2. Within palliative care, the environment for patient care is highly innovative and was managed as such.
These propositions suggested the research question:
How do palliative care organisations, operating in a complex and dynamic
environment, manage multidisciplinary patient care teams to deliver innovative
responses to changing patient needs?

The research question, which seemed quite large in scope, was broken into three
subordinate questions:
1. How are multidisciplinary patient care teams in palliative care managed?
2. Why are they managed this way?
3. Are they innovative?

2.10.2 A Model for Palliative Care
The literature review began with two frames; the CIMA model and Mintzberg’s
(1989) work on organisational configuration. The language and concepts of the
industrial and manufacturing focus of the original CIMA model was of little use in
the palliative care environment and so the literature suggested new components for
the model’s application in palliative care. This new model, now including the
suggested characteristics of configuration, can be seen overleaf as Figure 9.
### Figure 9  A Model for Palliative Care

<table>
<thead>
<tr>
<th>Levers</th>
<th>Capabilities</th>
<th>Behaviours</th>
<th>Performances</th>
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<tbody>
<tr>
<td>L1 Collaboration</td>
<td></td>
<td>B1 Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation</td>
<td></td>
</tr>
<tr>
<td>L2 Balance</td>
<td></td>
<td>B2 Rapid Inclusion in a Socially Stable Structure</td>
<td></td>
</tr>
<tr>
<td>L3 Language</td>
<td></td>
<td>B3 Addressing Values Based Issues</td>
<td></td>
</tr>
<tr>
<td>L4 Absorptive Capacity</td>
<td></td>
<td>B4 Understanding the Patient’s Situation as the Basis for Care</td>
<td></td>
</tr>
<tr>
<td>L5 Diversity</td>
<td></td>
<td>B5 Working in Teams</td>
<td></td>
</tr>
<tr>
<td>L6 Conflict</td>
<td></td>
<td>B6 Collaborating Within the Patient Management Process</td>
<td></td>
</tr>
<tr>
<td>L7 Trust</td>
<td></td>
<td>B7 Managing Ambivalence in the Team</td>
<td></td>
</tr>
<tr>
<td>L8 Power Sharing</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Configuration Characteristics

**STRUCTURAL**

- **CH1** Specialists and professionals, high levels of skill and knowledge, long periods of training prior to working in palliative care, would be employed.
- **CH2** Work would often be complex.
- **CH3** Staff grouped functionally for administrative purposes, allocated to multidisciplinary teams for particular situations or projects.
- **CH4** The great majority of work tasks would require collaborative effort.
- **CH7** Decision making autonomy accompanies professionals to multidisciplinary team, authority often sourced in professional experience.
- **CH11** Separate section of the organisation, structured and operating differently to interface with healthcare bureaucracies and regulators.

**FUNCTIONAL**

- **CH5** A primary coordinator of collaborative effort would be informal communication between staff members on teams.
- **CH6** Professionals sustain levels of skill and knowledge using ongoing training within disciplines or other specialist or professional groups and transfer knowledge and information between disciplines, teams and individuals.
- **CH8** Senior managers found working in the multidisciplinary patient care teams.
- **CH9** Broadly based singular focus on the purpose of the organisation, expressed as the organisation’s mission. Used as a tool for indoctrination of new staff and, at times, as coordinating mechanism for work tasks.
- **CH10** The organisation would be politicised and operating in a politicised environment.

**Contingencies**

- CO1 Uncertainty
- CO2 Workforce
- CO3 Patients
- CO4 Healthcare Environment
- CO5 Change

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Chapter 3 Methodology

3.1 Introduction

This chapter of the thesis explains the methodology chosen for data collection and analysis and the reasoning behind those choices.

The literature review suggested two propositions that the thesis could address:

3. Within multidisciplinary patient care teams in palliative care innovative practices existed, sometimes occurring spontaneously without reference to committees, planning groups or research and development teams.
4. Within palliative care, the environment for patient care is highly innovative and is managed as such.

These propositions suggested the research question:

How do palliative care organisations, operating in a complex and dynamic environment, manage multidisciplinary patient care teams to deliver innovative responses to changing patient needs?

The research question was broken into three subordinate questions:

4. How are multidisciplinary patient care teams in palliative care managed?
5. Why are they managed this way?
6. Are they innovative?

The methodology considered a broad range of research strategies and suggested that the use of multiple case studies would be appropriate for this thesis. The unit of analysis (Yin, 1994) would be the multidisciplinary patient care team and the analysis would be bounded by the case study organisations. After considering a range of data collection methods the selected method was interview. Interview questions were developed and a protocol for recording and transcribing interviews was also selected.

The methodology also describes the selection of case study organisations, the gaining of ethics approval for the thesis and then the conduct of interviews in each case study.
3.2 Research Strategy

3.2.1 Alternative Research Strategies

Robson (1996, p.40) noted three traditional research strategies,

*Experiment*: measuring the effects of manipulating one variable on another variable.
Typical features: selection of samples of individuals from known populations; allocation of samples to experimental conditions; introduction of planned change on one or more variables; measurement on a small number of variables; control of other variables; usually involves hypothesis testing.

*Survey*: collection of information in standardized forms from groups of people.
Typical features: selection of samples of individuals from known populations; collection of relatively small amounts of data in standardized form from each individual; usually employs questionnaire or structured interview.

*Case study*: development of detailed, intensive knowledge about a single ‘case’ or of a small number of related ‘cases’.
Typical features: selection of a single case (or a small number of related cases) of a situation, individual or group of interest or concern; study of the case in its context; collection of information via a range of data collection techniques including observation, interview and documentary analysis.

and also stated that,

It is important to note that the *three traditional research strategies do not provide a logical partitioning covering all possible forms of enquiry*. They are more of a recognition of the camps into which enquirers or researchers have tended to put themselves, signalling their preferences for certain ways of working. ..... It may well be that some *hybrid strategy* falling somewhere between these ‘ideal types’ is appropriate for the study.. (Robson, 1996, p.41).

Bearing this in mind, the traditional strategies were now compared to the purpose and environment of the research.

3.2.1.1 Experiment

The research was not seeking to manipulate, change or control any variables, or other components, affecting the management of patient care teams within palliative care. This discounted the first of Robson’s (1996) strategies, the experiment.
3.2.1.2 Survey

According to Robson (1996, p.49)

Surveys are well suited to descriptive studies where the interest is, say, in how many people in a given population possess a particular attribute, opinion or whatever.

Yin (1994, p.6), with regard to the survey research strategy, stated that it was

…advantageous when the research goal is to describe the incidence or prevalence of a phenomenon or when it is to be *predictive* about certain outcomes.

The use of survey as a research strategy did not suit the purpose of this thesis.

3.2.1.3 Case Study

This thesis is concerned with the explanation of a phenomenon within an environment repeatedly described in the literature as holistic (McDonald and Krauser, 1996; McGrath, 1998, Witt Sherman, 1999). The phenomenon, the management of multidisciplinary patient care teams in palliative care, with regard to their ability to maintain the focus of their innovative behaviours on the palliative care organisation’s primary goal, was often described as embedded within the context of the organisations within which it occurred (Meyers, 1997; Rasmusson and Sandman, 1998; Krishnasamy, 1999). The explanation of this phenomenon required qualitative research, where

Taking an explicitly contextual perspective recognises the influence that the situation has on behaviour and that behaviour has on situations. In organisational research particularly, considerations of context should be paramount – the field itself is defined by the context of organizational life. (Cassell and Symon, 1995, p.5),

and the contextually based influences suggested by the Model for Palliative Care developed in the literature review could be examined in situ.

With regard to Robson’s (1996) traditional research strategies this suggested case study as a strategy appropriate to this thesis, particularly with its emphasis on study in context. The choice was supported by Yin (1994) and by Hartley (1995). Yin (1994) noted that case study was a viable research strategy when the following matched the research environment:
1. The research questions were explanatory;
2. The focus of the research was on contemporary events; and
3. Behavioural events within the researched environment were occurring within a real world context and were outside of the control of the researcher.

The research for this thesis met these conditions. Yin (1994) and Robson (1996) also noted that case studies were of particular use when the phenomenon of interest was contextually located. Or as Hartley (1995, p.209) wrote,

The phenomenon is not isolated from its context (as in, say, laboratory research) but is of interest precisely because it is in relation to its context.

Within contextually based research, field research, there were a number of other methodologies, chief among them were ethnography and grounded theory.

3.2.1.4 Ethnography

The ethnographic approach was described by Van Maanen (1979, p.539) as,

that of anthropology, and to a more limited extent, sociology, under the stiff but precise tag, participant observation.” and, more broadly, as “the analytic description of a culture.

To provide a procedural description of the ethnographic method Van Maanen (1979, 539-540) cited Conklin’s (1968, p.172) view that the method involved,

a long period of intimate study and residence in a well-defined community employing a wide range of observational techniques including face-to-face contacts with members of local groups, direct participation in some of the group’s activities, and a greater emphasis on intensive work with informants than on the use of documentary or survey data.

Savage (2000, p.1400), writing on the use of ethnography in healthcare, took the view that there was no standard definition of ethnography, that

Ethnography is, confusingly, both a process and a product: the term can apply both to a methodology and to the written account of a particular ethnographic project. It is not, as is often implied, a pseudonym for qualitative research in general or a way of describing studies premised solely on semistructured interviews.

However, Savage (2000) did agree with Van Maanen (1979) that a well defined characteristic of ethnography was participant observation over long periods in the field. Strauss et al (1999, p.80), in a moderated discussion on field research, also regarded ethnography as poorly defined,
.. ethnography is a very vague term. It runs all the way from people who simply do descriptions of what it is they think that they see and hear, sometimes very good ones, very accurate. It runs all the way from just pure description all the way to highly conceptualized interpretations of the data.

The fact that it was not the purpose of this thesis to explain a culture per se, meant that ethnography was not a suitable research strategy for the thesis.

**3.2.1.5 Grounded Theory**

According to Benoliel (1996, pp.407, 408) grounded theory was:

oriented to discovery, meaning the generation of theory.

where,

The areas of interest for investigation are social problems to which people must adapt. The investigators are oriented to discovering the basic social processes that people use to deal with the situations in which they find themselves and that, generally speaking, are not understood by them at the conscious level.

Glaser (1999, p.836) referred to grounded theory as,

..a specific methodology on how to get from systematically collecting data to producing a multivariate conceptual theory. It is a total methodological package. It provides a series of systematic, exact methods that start with collecting data and take the researcher to a theoretical piece that is publishable.

It was not the aim or purpose of this thesis to create a theory of the management of innovative practice in the patient care process in palliative care, although results may modify existing theory. The primary purpose of this thesis was to explain the phenomenon itself. Grounded theory was not the most appropriate research strategy.
3.2.2 Suggested Research Strategy

Case study was suggested as the research strategy best suited to the purpose, location and environment of the research. Within case study as primary research strategy there were a number of options.

Yin (1994) proposed two fundamental case study types; holistic and embedded. Within these a study might be either single-case or multiple-case depending on the requirements. A holistic case study design

..is advantageous when no logical subunits can be identified or when the relevant theory underlying the case study is itself of a holistic nature. (Yin, 1994, p.42).

Robson (1996, p.161) noted that an holistic case study would be used where the research sought, for example, to look at an organisation as a whole, remaining “global rather than seeking to look at and analyze the different functioning of separate sub-units within the institution.”. Yin (1994) offered caution about the use of holistic case studies in that it might lead to the case study being applied at an abstract level that prevented the researcher from properly examining the phenomenon in question. Also, the nature or purpose of the case might shift during the course of the research, without the researcher’s knowledge.

Yin’s (1994) embedded case studies were described as occurring where an organisational study was comprised of understanding the organisation’s sub-units, its embedded units. The advantage of an embedded case study, according to Yin (1994) was that the concentration on sub-units could help to maintain the focus of the study by providing a sensitivity to the type of shift noted above as a problem for holistic case study design. Yin’s (1994) warning about the dangers of embedded case study design related to the tendency on the part of some researchers to focus too intently on one of the organisational sub-units or one sub-unit level and lose sight of the need to locate these within a larger, organisational context. The focus of this thesis could be maintained by the involvement of the heads of disciplines in their roles as managers and their explanations of organisational factors such as capabilities and the contingent nature of the broader operating environment.
Single case studies were appropriate in a number of situations. According to Yin (1994, pp.38-40) there were three rationale for single case studies;

when it represents the *critical case* in testing a well-formulated theory. The theory has specified a clear set of propositions as well as circumstances within which the propositions are believed to be true.

where

the case represents an *extreme or unique case,*” for example in “clinical psychology, in which a specific injury or disorder may be so rare that any single case is worth documenting and analyzing.

and where there was a

revolutionary case. ... when an investigator has an opportunity to observe and analyze a phenomenon previously inaccessible to scientific investigation

Robson (1996) similarly described these three rationale.

Yin (1994) described multiple case studies as useful for the purposes of replicating findings. As well, Yin (1994, p.45) noted that

... the rationale for single case designs usually cannot be satisfied by multiple cases. The unusual or rare case, the critical case, and the revelatory case are all likely to involve only single cases, by definition.

It did not seem, therefore, simply a matter of doing more because more was better. The value of multiple case studies was in their ability to provide either “compelling support” (Yin, 1994, p.46) for the original research propositions, or credible evidence for the revision of the original propositions (Yin, 1994). Hartley (1995) noted that it may be difficult in single case studies to draw out the unique from the common in organisations, whereas multiple case studies, properly designed, could allow this and could strengthen the research in the process. Robson’s (1996) view of multiple cases was similar, and included the caution that the purpose of multiple cases was not statistical generalisation as with multiple surveys but analytic generalisation, where the search was for patterns of data that could be used to confirm or disconfirm the research propositions.
3.2.3 Selected Research Strategy

This thesis sought to test two propositions suggested by the literature review;

1. Within multidisciplinary patient care teams in palliative care innovative practices existed, sometimes occurring spontaneously without reference to committees, planning groups or research and development teams.

2. Within palliative care, the environment for patient care is highly innovative and is managed as such.

by answering the research question:

How do palliative care organisations, operating in a complex and dynamic environment, manage multidisciplinary patient care teams to deliver innovative responses to changing patient needs?

This fairly broad research question was broken into three subordinate questions:

1. How are multidisciplinary patient care teams in palliative care managed?
2. Why are they managed this way?
3. Are they innovative?

These propositions were general to palliative care organisations. The thesis would seek to pose them in more than one location in an effort to provide a credible and verifiable confirmation and to strengthen the research results as far as possible. Review of the literature led to the selection of multiple case studies as the appropriate research strategy. Each case study would be bounded (Miles and Huberman, 1994) by the organisation within which it operated. Yin (1994) proposed a model for a research method using multiple case studies, shown below in Figure 10.
Figure 10 Yin’s (1994, p.49) Model for Multiple Case Study Research

This model, with some minor changes to suit the number of case studies, was adapted for the thesis, as shown in Figure 11 below.

Figure 11 Adaptation of Yin’s Model for Multiple Case Study Research
Three palliative care organisations participated in the research. Multiple case studies allowed replication of responses to the research, or allowed the description of circumstances where responses are not replicated (Yin, 1994). One of the participating organisations acted as a pilot case (Yin, 1994) enabling the refinement of aspects of the research such as interview schedules, interview questions and interview techniques.

3.2.4 The Unit of Analysis
The multidisciplinary patient care team is the unit of analysis (Yin, 1994) for this thesis.

3.3 Selection of Case Study Organisations
Apart from Case Study 1, the case study organisations were selected by recommendation. Case Study 1 was conducted in a palliative care organisation initially approached with the original research idea which, after discussion with and contributions from the management committee, was accepted. This was followed by application for ethics approval for the research, a process described in the following section. Following ethics approval at Case Study 1 this organisation supplied a contact list of five other palliative care organisations that were deemed likely to have an interest in involvement in the research. These potential case studies were approached by mail, using a written explanation of the research project and a covering letter from Case Study 1 supporting the research and encouraging involvement.

Of the five potential organisations for case studies three declined. The remaining two were then approached personally by the researcher meeting with the senior clinician in each. At this meeting the research and its background were explained in more detail and involvement was sought by the researcher. Each of the senior clinicians agreed to have their organisations involved, conditional upon the researcher gaining ethics approval from nominated authorities.

At this stage the research had one palliative care case study organisation at which work had begun and two potential palliative care case studies that had provisionally
agreed to be involved but required ethics approvals before work could begin at them. Following due process of the ethics approvals the research work began first at Case Study 2 and subsequently at Case Study 3.

3.4 Ethics Approvals for the Research

Before the research project could begin and before any potential case study organisation could be approached the research was required to achieve approval from the Human Research Ethics Committee of the University of Western Sydney. This having been achieved the researcher could approach potential case study organisations. Each potential case study required that the research project be considered and approved by a Human Research Ethics Committee (HREC) before involvement was finalised. For all case studies this involved supplying a description of the research project plus answering a questionnaire supplied by the HREC. Each HREC encountered had different information requirements of the researcher for the ethics approval process and different rules for the application process.

3.5 Description of the Case Study Organisations

Case Study 1, at the time of interview, was a stand alone palliative care organisation that contained some sixty staff for inpatients and 35 inpatient beds. Additionally, there were ten dedicated staff for a community care program where patients were cared for at their homes. The organisation’s catchment was a population of some 350,000 and included hospitals, specialists and general practitioners (family doctors). Multidisciplinary staffing consisted of the following disciplines: medicine, nursing, social work, spiritual care, physiotherapy, occupational therapy and grief counselling.

Case Study 2, at the time of interview, was a stand alone palliative care organisation that contained some ninety five staff, including a team of 10 dedicated to the community care program where patients were cared for in their homes, and fifty inpatient beds. The organization’s catchment was a population of some 320,000 and included hospitals, specialists and general practitioners (family doctors). Multidisciplinary staffing consisted of the following disciplines: medicine, nursing,
social work, spiritual care, physiotherapy, occupational therapy and grief counselling.

Case Study 3, at the time of interview, was a small palliative care ward embedded in a small hospital. It contained 20 inpatient beds and and some thirty staff. This case study had no staff dedicated to a community care program but used the community staff of the housing hospital and the Area Health Service for this purpose. The organisation’s catchment was a population of some 400,000 and included hospitals, specialists and general practitioners (family doctors). Multidisciplinary staffing consisted of the following disciplines: medicine, nursing, social work, spiritual care, physiotherapy, occupational therapy, diversional therapy and grief counselling. Some of these disciplines, for example social work and spiritual care, were shared with the housing hospital.

### 3.6 Data Collection

Research data would be collected from multiple sources in each case. This allowed for triangulation of data sources (Yin, 1994; Robson, 1996; Hartley, 1995) to confirm, or disconfirm, answers to the research questions.

#### 3.6.1 Alternative Collection Methods

According to Yin (1994) there were six primary sources of data for case study research:

- Documentation
- Archives
- Interviews
- Direct observation
- Participant observation
- Physical artefacts

Yin (1994, 80) presented the relative strengths and weaknesses of each data source in the table replicated below.
<table>
<thead>
<tr>
<th>Source of Evidence</th>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documentation</td>
<td>• stable–can be reviewed repeatedly</td>
<td>• retrievability–can be low</td>
</tr>
<tr>
<td></td>
<td>• unobtrusive–not created as a result of the case study</td>
<td>• biased selectivity, if collection is incomplete</td>
</tr>
<tr>
<td></td>
<td>• exact-contains exact names, references and details of an event</td>
<td>• reporting bias-reflects (unknown) bias of author</td>
</tr>
<tr>
<td></td>
<td>• broad coverage-long span of time, many events and many settings</td>
<td>• access-may be deliberately blocked</td>
</tr>
<tr>
<td>Archival Records</td>
<td>• [Same as above for documentation]</td>
<td>• [Same as above for documentation]</td>
</tr>
<tr>
<td></td>
<td>• precise and quantitative</td>
<td>• accessibility due to privacy reasons</td>
</tr>
<tr>
<td>Interviews</td>
<td>• targeted-focuses directly on case study topic</td>
<td>• bias due to poorly constructed questions</td>
</tr>
<tr>
<td></td>
<td>• insightful-provides perceived causal inferences</td>
<td>• response bias</td>
</tr>
<tr>
<td>Direct Observation</td>
<td>• reality-covers events in real time</td>
<td>• time consuming</td>
</tr>
<tr>
<td></td>
<td>• contextual-covers context of event</td>
<td>• selectivity-unless broad coverage</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• reflexivity-event may proceed differently because of it being observed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• cost-hours needed by human observers</td>
</tr>
<tr>
<td>Participant</td>
<td>• [Same as above for direct observations]</td>
<td>• [Same as above for direct observations]</td>
</tr>
<tr>
<td>Observation</td>
<td>• insightful into interpersonal behaviour and motives</td>
<td>• bias due to investigator’s manipulation of events</td>
</tr>
<tr>
<td>Physical Artefacts</td>
<td>• insightful into cultural features</td>
<td>• selectivity</td>
</tr>
<tr>
<td></td>
<td>• insightful into technical operations</td>
<td>• availability</td>
</tr>
</tbody>
</table>

Table 7 Yin’s (1994, p.80) 6 Primary Sources of Data in Case Studies

Archival records would not be used in this research, for two reasons. The first was that the research is non-clinical and had no interest in patient records, removing a large part of a palliative organisation’s archival data from the research. The second was that the research was about contemporary events as described by participants in
those events. While this does not totally preclude the use of organisational archives such as past personnel records it must be remembered that,

Most archival records were produced for a specific purpose and a specific audience, and these conditions must be fully appreciated in order to interpret the usefulness of any archival records. (Yin, 1994, p.84).

Archival records were considered unnecessary.

Direct observation was the genesis of the research, with the researcher observing the operations of multidisciplinary inpatient and community care teams in, or connected with, a hospice over a period of some 30 days while the researcher acted as a family carer for a terminal patient. However, direct observation was not necessary as a data collection method and was precluded by the conditions of the ethics approvals granted by each case study organisation.

Participant observation would not be used as the opportunity for observation would only occur during interview and that opportunity would be relatively brief, occurring within a situation constructed for the purposes of the research.

Physical artefacts were precluded as a data collection method as they were uninformative in this study.

3.6.2 Selected Data Collection Methods

Interviews were selected as the appropriate data collection method for this thesis. These would consist of:

1. Interviews with, in each case study, inpatient and outpatient multidisciplinary teams.
2. Interviews with, in each case study, the heads of disciplines, as a management team.
3. Interview with, in each case study, the senior operational manager or the senior clinician, depending on availability.

3.6.2.1 Interviews

The research used focused purposive interviews regarding structural resourcing for the multidisciplinary teams and the operations of the teams. Focused interviews
can be used where we want to investigate a particular situation, phenomenon or event. Individuals are sought who have been involved in that situation. (Robson, 1996, p.241)

While focused, these interviews were semi-structured (Robson, 1996) or open-ended in Yin’s (1994) terms, except Case Study 1 because, while following a formal set of questions derived from the research questions and theoretical framework, the research and the respondents were contextually based. This meant that there was a need to maintain an option for emergent topics and questions (King, 1995) during the progress of the interview. Structured interviews were used in Case Study 1, the pilot case, to test the theoretical framework and the appropriateness of the developed interview questions.

Two types of groups would be interviewed in each case study organisation. Management teams, consisting of the senior member of each discipline represented at the case study organisation would be interviewed about those things suggested from the literature as occurring or supplied at an organisational level to enable and facilitate the application of innovative practices by the multidisciplinary patient care teams. These interviews would utilise the questions listed in the following section regarding organisational capabilities and organisational levers. In addition, it was planned that the senior clinician or senior operational manager of each case study organisation would be interviewed about the characteristics of configuration within which the care delivery model operated. These interviews would also utilise questions listed in the following section.

Multidisciplinary patient care teams would be interviewed about individual behaviours within the teams that were suggested as enabling and supporting innovative practices by the literature. Again the case studies had differences between them. Case studies 1 and 2 provided inpatient and home care teams for their patients. Both types of team were interviewed in these case study organisations. Case Study 3 utilised home care teams provided by local hospitals. Ethics clearance was not obtained from these hospitals so these teams were not interviewed. Only representatives of the inpatient team were interviewed regarding individual behaviours, in this case study.
Prior to each interview I was introduced to the prospective interview group and explained the purpose of the research and the processes of participation and interview. After I had left the group a decision was made by members individually on whether to participate in an interview or not. All participation in interviews was voluntary and each participant was provided with an information sheet stating this and stating that a participant could withdraw at any time and that participation would have neither a positive nor negative impact on a participant’s career. Each participant read and signed a participation approval form. A sample of the participation form and information sheet is available in Appendix 3. As with the ethics approval process, these documents differed slightly from case study to case study to meet the ethical requirements of each case study. Each interview was audio taped and transcribed by the researcher within forty eight hours of the interview. A sample interview transcript from a semi-structured interview is available in Appendix 4.

The method of interview differed between Case Study 1 and the other case studies. In Case Study 1, the structured interviews, more was explained for the interview participants. For example, participants were told the definition of an organisational capability or lever that was used by the researcher and participants were asked specifically whether or not the suggested capabilities existed. In the semi-structured interviews in the balance of the case study organisations interview participants were

<table>
<thead>
<tr>
<th>Case</th>
<th>Management Team</th>
<th>Inpatient Team</th>
<th>Home Care Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>2</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>3</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td></td>
<td>Organisational Capabilities Management Levers</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>Management Levers</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>YES</td>
<td>Individual Behaviours</td>
<td>NO</td>
</tr>
</tbody>
</table>

**Table 8 Interviews Conducted in Each Case Study**

Prior to each interview I was introduced to the prospective interview group and explained the purpose of the research and the processes of participation and interview. After I had left the group a decision was made by members individually on whether to participate in an interview or not. All participation in interviews was voluntary and each participant was provided with an information sheet stating this and stating that a participant could withdraw at any time and that participation would have neither a positive nor negative impact on a participant’s career. Each participant read and signed a participation approval form. A sample of the participation form and information sheet is available in Appendix 3. As with the ethics approval process, these documents differed slightly from case study to case study to meet the ethical requirements of each case study. Each interview was audio taped and transcribed by the researcher within forty eight hours of the interview. A sample interview transcript from a semi-structured interview is available in Appendix 4.

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told the topic of the interview, for example capabilities, and the researcher guided the interview seeking answers to the interview questions without necessarily revealing the questions, while allowing as much latitude in the responses as possible so that opportunities to explore the responses could be taken.

3.6.2.2 Interview Questions
The subordinate questions derived from the research question were then broken into sets of questions for each of the components of the model for palliative care.

Operational components would be tested using the following questions:

1. Are the identified organisational capabilities in evidence? To construct a useful answer to this question a small series of questions was developed to provoke discussion:
   1.1. To deliver palliative care what does the organisation have to be able to do?
   1.2. What changes in this organisation?
      1.2.1. How do you deal with that?
   1.3. How big a role does technology have in this organisation?
      1.3.1. Who uses technology here?
   1.4. Do the disciplines have walls around them, like departments in other types of organisation?
      1.4.1. How do the disciplines interact with the multidisciplinary teams?
   1.5. In this organisation what has to be shared?

2. Are the identified management levers in evidence? Again, to gain answers to this question a small series of questions was developed to provoke discussion:
   2.1. What are the tools, or mechanisms, that the management uses to facilitate the provision of palliative care?
   2.2. How do you get the right mix of disciplines in a multidisciplinary team?
      2.2.1. What do you do if you need a discipline that isn’t available?
   2.3. How do the disciplines communicate with each other?
      2.3.1. What happens when each discipline has its own language?
   2.4. How do people in the disciplines learn?
      2.4.1. What do you have to do to accommodate that learning?
2.5. How do you ensure that multidisciplinary teams deliver what is required of them?

2.6. Managers in this organisation are also members of multidisciplinary patient care teams. Is that a help or a hindrance?

2.7. Do people disagree in this organisation?
   2.7.1. What are the common drivers of disagreement?
   2.7.2. Is it useful to disagree?

2.8. Do patients have a level of power in their relationship with the organisation?

2.9. What relative power does each discipline have in the organisation?

3. Are the identified individual behaviours in evidence? Once more, the requirement for useful answers lead to the development of a small number of questions to provoke discussion:

3.1. When a new patient comes to the team what happens?

3.2. Is it just the patient that you concentrate on?
   3.2.1. How is the patient involved?

3.3. What do you need from the patient?
   3.3.1. What sort of issue do you cover with the patient?
   3.3.2. Do you cover these issues with the family?
   3.3.3. How do you get the patient to give you what you need?

3.4. Do you need to understand anything about the patient?

3.5. Is time an issue?
   3.5.1. On more than one level?

3.6. What do you do with what you’ve learnt from the patient or family?

3.7. Is this group a team?
   3.7.1. What makes you think it's a team?
   3.7.2. Do you think a team is necessary for this type of care?
   3.7.3. How tough is it, or how easy is it, to work in a team like this?

3.8. Do people always work together in this type of care?

3.9. How much time do you spend talking to each other?

3.10. Are there problems when people work together in a team like this?
   3.10.1. How are they addressed?
Contingencies would be drawn unstructured from the interviews regarding operational components.

The characteristics of configuration would be tested with questions suggested by the configuration derived from the literature:
1. How long do people train for, or perhaps serve for somewhere else, before coming to palliative care?
2. What is the primary method of grouping the staff here?
3. How are members of the disciplines allocated to the different patient care teams?
4. What governs the membership of one of those multidisciplinary patient care teams?
5. Who controls a multidisciplinary patient care team?
6. Who has authority in a multidisciplinary patient care team?
7. Does this organisation have a Mission statement?
   7.1. What is the role of the Mission statement?
8. How is the interface with the regulating healthcare bureaucracy managed?
9. What problems occur in multidisciplinary patient care teams?

3.7 Selected Data Analysis Methods

Data analysis took place in two stages, first with analysis of a pilot case and then further within case and across cases (Yin, 1994; Miles and Huberman, 1994) as described in the research model previously. Miles and Huberman (1994), in their discussion of displays for use in exploring and describing data within cases, showed a process very similar to that described by Yin (1994) for the creation of an explanation. This can be seen in Figure 12 below.

The analysis of interview transcripts informs discussion in Chapter 5, Discussion and Conclusions.
This process was adopted for the in-case analysis of data.

The analytic process selected for the cross-cases analysis of data was explanation building (Yin, 1994; Robson, 1996). This iterative process offered the opportunity for the final explanation to differ from initial explanations as the research progressed. Yin (1994, p.111) described the iteration:

- Making an initial theoretical statement or an initial proposition about policy or social behaviour
- Comparing the findings of an initial case against such a statement or proposition
- Revising the statement or proposition
- Comparing other details of the case against the revision
- Again revising the statement or proposition
- Comparing the revision to the facts of a second, third, or more cases
- Repeating this process as many times as is needed

### 3.8 Conclusion to the Methodology

This chapter described the development and selection of a methodology and unit of analysis relevant to the thesis. Various research, data collection and data analysis...
strategies and were discussed. Issues of ethics in the gathering of data and in the involvement of participants from the case studies were described, as was the protocol for data recording and transcription.

The following chapter, Analysis, will demonstrate both the results of the application of the methodology and its application in analysis of the case study data.
Chapter 4 Analysis

4.1 Introduction to the Analysis

The purpose of this chapter is to display the results of the application of the methodology described in the previous chapter and to draw some comments from those results. This chapter contains the results of in-case analysis for each of the three case study organisations, followed by the cross-case analysis. As noted in the methodology, the in-case analysis followed the process displayed in Figure 13 below.

Due to the large amount of data analysed, different parts of the abstraction process are displayed in different Case Studies with the parts not displayed contained in Appendix 4. The Case Study 1 analysis here displays Levels 1b, 2 part 2 (Identifying themes and trends in the data) and 3a as represented in Figure 13 above. The Case Study 2 and Case Study 3 analyses display Levels 2 part 1 (Repackaging and aggregating the data), 2 part 2 (Identifying themes and trends in the data) and 3a as represented in Figure 13 above.
4.2 Case Study 1 Analysis

4.2.1 Introduction

Case Study 1, at the time of interview, was conducted in a stand alone palliative care organisation that contained some sixty staff for inpatients and 35 inpatient beds. Additionally, there were ten dedicated staff for a community care program where patients were cared for at their homes. The organization’s catchment was a population of some 350,000 and included hospitals, specialists and general practitioners (family doctors). Multidisciplinary staffing consisted of the following disciplines: medicine, nursing, social work, spiritual care, physiotherapy, occupational therapy and grief counselling.

Five interviews were carried out at this case study organisation. The operational management team, consisting of the heads of disciplines and the Director of palliative care for the local Area Health Service, was interviewed about Organisational Capabilities and Management Levers. The management team was interviewed as a team on both occasions. Two interviews on Individual Behaviours within multidisciplinary teams were conducted, one with a ward-based team and one with the community care team. These teams were interviewed as teams. The interview regarding the Characteristics of Configuration was conducted with the senior medical specialist.

As already noted, the analysis at Level 2 part 1 (Repackaging and Aggregating the Data) can be found in Appendix 5.
4.2.2 Analysis Level 1b - Summarising and Packaging Data

Level 1a comprised the transcription of interviews and the making of notes regarding interviews, as necessary.

Level 1b follows here:

4.2.2.1 Organisational capabilities

The team interviewed about organisational capabilities was this organisation’s operational management team, consisting of the head of each discipline represented at the organisation. Heads of the following disciplines comprised this team at the time of interview: medicine, nursing, social work, spiritual care (known as pastoral care at this organisation) and occupational therapy. This team also included the coordinator of the community care (sometimes known as home care) team that visits patients who are located at home, as a permanent member. This person had a nursing background. The existence and use of the organisational capabilities suggested by the literature review was confirmed at interview in this case study organisation. No new or different capabilities were suggested.

4.2.2.1.1 C1: Managing Knowledge

This capability was described as existing and in use. Interestingly, interview participants introduced the concept of the formal and informal application of this capability. Examples of formal application of the capability included the weekly multidisciplinary meeting to discuss patients and patient management. Examples of informal application of this capability included “corridor conferences” where any of the participants might opportunistically seek to create or offer knowledge to a given situation. This at times seemed to be a real-time application of the capability.

Knowledge was viewed as something that was created during interactions between palliative care professionals, at any level, and during interactions between professionals and patients and patient-based carers. Knowledge resident with or created by patients and patient-based carers was given a value equal to that resident with or created by palliative care professionals. Knowledge was also viewed as something portable between situations that might be brought to the interaction by professionals, patients or patient-based carers. From this interview it seemed that the common concept of knowledge was of something that was located with people. Whether knowledge was created in situ in a given situation or transported to the
situation as a general body of knowledge located with an individual or transported following a search that included people not necessarily involved in the situation, the common and key component was people.

Interview participants acknowledged and reinforced the fundamental role of knowledge in the provision of palliative care, noted efforts to make all applicable knowledge available to a given situation and agreed that, in terms of knowledge requirements, generation and application, the palliative care environment could be described as “quite rich”. Knowledge was seen as situational. A final note was that this capability was utilised very frequently in the course of patient care.

4.2.2.1.2 C2: Managing Information
This capability was described as existing and in use. Again, interview participants introduced the concept of formal and informal applications of this capability. Examples of formal application of the capability included the weekly multidisciplinary meeting to discuss patients and patient management. Examples of informal application included members of one discipline viewing the notes of other disciplines as the need arose, perhaps this could also be called opportunistic, in an effort to create a whole picture of a patient in a particular situation. This access can occur without recourse to the other discipline or disciplines.

Information was viewed as something that was bundled in discreet groupings, often by discipline. Regardless of the bundling, information was regarded as being the common property of all disciplines. The reason given for this, several times during the interview, was that access to all of the information allowed each discipline to understand how the patient was being viewed by other disciplines and the reasoning behind the view. Interview participants reasoned that this enabled a whole picture, or at least one as complete as possible, of a patient to be applied by any discipline in any given situation. The point was made also that all disciplines did not look at all of the available information all of the time. The use of information was situational. A further point was made about the importance of the confidentiality of the patient and the example given was that if a patient wanted particular information kept from a family then the disciplines would respect that wish.
Interview participants reinforced the value of being able to generate a whole picture of a patient, or of patient-based carers, to the provision of palliative care. A final note was that this capability was utilised very frequently in the course of patient care.

4.2.2.1.3 C3: Multidisciplinary Operations
This capability was described as existing and in use. Once again, interview participants raised the concept of formal and informal application of this capability. Examples of formal application of the capability included the weekly multidisciplinary meeting to discuss patients and patient management. Examples of informal application included a physiotherapist leaving a note for a nurse at shift change indicating that a particular patient’s mobility had improved during the completed shift. Multidisciplinary operations were described as “ongoing daily interaction between the disciplines”. Interview participants agreed that members of individual disciplines recognised that they were working in multidisciplinary teams.

Interview participants introduced the concept of professional respect, by staff for staff, between and within the disciplines. Respect was seen as being an enabler within multidisciplinary operations. A final note was that this capability was utilised very frequently in the course of patient care.

4.2.2.1.4 C4: Collaborative Operations
This capability was described as existing and in use. Interview participants described the application of this capability in terms of joint goal setting and review on a patient by patient basis. This meant that goals were set and reviewed formally at multidisciplinary team meetings. Interview participants acknowledged that joint goal setting and review occurred within a context of individual disciplines being responsible for their own actions. This appeared to introduce the concept of disciplines retaining a level of autonomy within the multidisciplinary team. Put another way, this could mean two levels of responsibility, one at the team level and the other at the discipline level.

Interview participants noted that while goal setting and review were conducted formally, anybody connected to the patient could, at any time, contribute to the body
of knowledge or information that affected goal setting and review. Goals were changed as the patient’s situation changed. Changes in situation drove discussion on goals. Any member of any discipline could initiate this discussion, whether or not that member was working with the patient concerned. In other words, a casual observation could initiate a goal review.

Interview participants also noted that this collaborative effort might not be in evidence at the terminal phase of a patient’s end of life experience as the need for a multidisciplinary approach might then be quite low with, for example, only spiritual care required. This capability was utilised very frequently in the course of patient care.

4.2.1.5 C5: Managing Technologies

This capability was described as existing and in use. One interviewee first made the point that the use of technology in palliative care was generally limited to drug technologies. This was countered by other interview participants who listed a number of commonly used technologies ranging from X-Ray, CT and MRI scanning technologies to lasers for acupuncture and aluminium walking frames. Some of these technologies were noted as not located within the case study organisation, for example X-Ray and scanning technologies. The primary users of technology were said to be doctors and nurses.

Technology was seen as a mechanistic thing, there was not a concept of a human inclusion in the definition of technology. Technology was not applied in an effort to reduce costs. However, the costs of utilising some technologies, primarily X-Ray and scanning technologies, to frequently confirm the inevitable progress of a patient’s end of life process, were an issue. It was noted that patient-based carers sometimes demanded frequent uses of these technologies to confirm perceived changes in the patient, with the aim of keeping themselves as well informed as possible or of providing a definitive answer to the timing of a patient’s impending death. Technology use in these circumstances did nothing for the patient management regime and so the value of its use was seen as questionable. Interview participants noted that their reference to costs was not exclusively a reference to
monetary costs. Costs were also viewed in terms of a patient’s quality of life. Indeed, it was this cost that was referred to as the major cost.

The use of technology was said to increase the stress on staff at times. Two examples of this circumstance were given. The first concerned the application of technologies that extended life when a cessation would have enabled a peaceful death. This was generally done at the insistence of families that were having difficulty with the inevitability of the patient’s end of life process. The second example given was one of using technology, at the patient’s request, to improve the quality of life of the patient, when the application of technology caused the patient distress for the duration of the application. It was repeated that some staff found both of these circumstances stressful.

Interview participants concluded this part of the interview by noting that patient centrality was paramount, that their guide was the needs of the patient. This group was adamant that technology or technology cost must not control the patient care process and that technology must be used for the patient’s benefit.

4.2.1.6 C6: Managing Change and the Effects of Change
This capability was described as existing and in use. Change was spoken about as occurring at the organisational level and at the patient care level. Interview participants made the point that in palliative care organisations the relationship between management and staff was different to many organisations because managers (heads of discipline) worked in the multidisciplinary patient care teams as members of their discipline as well as undertaking management tasks. Team membership gave managers a unique opportunity to coordinate change management and understand its impacts in the workplace.

An example was given of change at the organisational level, where fast adaptation avoided a reduction in the quality of patient care. A new wing had been opened in this case study organisation, offering an increased bed capacity. However, it was discovered that while clinical resources sufficient to deal with the increased capacity could be found in the labour market, non-clinical resources such as spiritual care and physiotherapy were not as readily available. The case study organisation adapted by
reducing the number of the new beds put into use so that quality of patient care was not reduced by over stretching the existing non-clinical resources. This was done in spite of demands to generate income from the new wing by the parent organisation.

In terms of patient care the point was made that change was persistent and required persistent managing. At this level it was said that change was managed formally and informally. Examples of the formal management of change included the organisation’s system of “alerts” for gathering information about changes to patients and practices. These are discussed at the weekly multidisciplinary team meeting with a view to determining if change could be better managed. Examples of the informal management of change included the passing or leaving of notes between disciplines regarding changes to a patient’s situation and the use of “corridor conferences” for the same purpose. Change in patients often happened frequently in small ways.
4.2.2.2 Management Levers

The team interviewed about management levers was this organisation’s operational management team, consisting of the head of each discipline represented at the organisation. Heads of the following disciplines comprised this team at the time of interview: medicine, nursing, social work, spiritual care (known as pastoral care at this organisation), physiotherapy and occupational therapy. This team also included the coordinator of the community care (sometimes known as home care) team that visits patients who are located at home, as a permanent member. This person had a nursing background. The existence and use of the management levers suggested by the literature review was confirmed at interview in this case study organisation. No new or different levers were suggested.

4.2.2.2.1 L1: Collaboration

This lever was described as existing and in use. The application of this lever was described as standard, routine practice in multidisciplinary patient care. Utilisation of the lever was described as occurring formally and informally. Examples of formal application of the lever included the weekly multidisciplinary meeting to discuss patients and patient management. Examples of the informal application of this lever included informal discussions occurring between members of the community care team when they returned from their visits each afternoon and continuous communication, about patients, in the ward, between disciplines, all day, every day. Indeed, when discussing this lever, interview participants made a number of references to the high frequency of informal communications about patients and patient-based carers occurring between members of the disciplines as they worked in the multidisciplinary teams. This level of sharing of information was said to also contribute to learning on the job.

Interview participants offered the view that care was provided by all members of the multidisciplinary team and noted that this created interdependency between members of the team. The view was also put that this influenced decision making and therefore added to the value of input from all members of the team. With regard to the multidisciplinary model of care, it was said that this was not unique to palliative care organisations and was commonly used in healthcare. The majority of interview
participants, who had worked in other types of healthcare organisations before coming to palliative care, then put the view that while the multidisciplinary model might be common in healthcare it did not seem to work as well in other places as it did in palliative care. Several reasons were offered for this: 1) Other healthcare organisations were structured differently to palliative care. 2) In other healthcare organisations team composition was less heterogeneous than palliative care, not including, for example, allied health (e.g. physiotherapy, occupational therapy or social work) as a standard component of team staffing. 3) Palliative care did not face the demands for fast turnaround of patients that other healthcare organisations could and this allowed time for staff to know patients and each other better because they could work together closely for longer periods with each patient. 4) The case study organisation was a relatively small organisation, making the development and maintenance of close working relationships easier.

The second last reasoning (number 3 above) articulated two interesting concepts. The first was that of patient as collaborator, the second was of time as an enabler of care because it enabled collaboration.

4.2.2.2 L2: Balance
This lever was described as existing and in use. However, discussion of this lever was the briefest of that for any lever. There seemed to be a tendency to fall back into the discussion on the previous lever, Collaboration.

The first point made by interview participants about this lever was that the patient and patient-based carers were the drivers of the balance sought for a patient care team. For multidisciplinary patient care teams balance was seen as a mix of skills, qualifications and experience. Getting the balance of a team appropriate to the needs of a patient and patient-based carers was said to sometimes be automatic. The point was made in response to this that an enabling factor was that the organisation employed a heterogeneous workforce, using a common multidisciplinary care model. In addition, it was said that while other healthcare organisations might also employ the multidisciplinary care model they were, perhaps, not as heterogeneous as palliative care organisations, perhaps not employing as many different disciplines.
4.2.2.2.3 L3: Language
This lever was described as existing and in use. The need for common language was familiar to the interview participants. From the responses given at the interview it seemed that the question of specific and common languages occurred on a number of levels. For example, interview participants noted that they all spoke something that they referred to as “the health language”, the language of healthcare generally. In addition, each discipline had a language that was technically or clinically relevant and specific to the discipline. Following these points, there were several examples given of the common practice of modifying or simplifying discipline specific languages to communicate formally and informally across the disciplines.

The view was offered that not just language but concepts and rationale were also sometimes modified and simplified. Doctors, for example, would not give a full technical briefing of a patient’s illness and causes to other disciplines but would speak a language and use concepts that they knew worked with particular disciplines when communicating clinical needs or reasons. A further, perhaps more subtle, point was that discipline specific languages that were converted for cross-discipline communication were not necessarily generalised for all disciplines to use simultaneously but could be translated differently for different disciplines. However, a generalised language could be used if necessary, for example at a weekly multidisciplinary team meeting. Interview participants also pointed out that the translation of language, concepts and rationale from discipline specific to something that would meet the requirements of a given situation seemed “automatic”, describing this lever as “just talking to each other”.

4.2.2.2.4 L4: Absorptive Capacity
This lever was described as existing and in use. This lever was spoken of as one that required ongoing maintenance. There appeared to be three reasons for this: 1) The amount of change inherent in the palliative care environment and in healthcare generally had the ability to close and open opportunities for learning, information sourcing and staffing. 2) Staff turnover, while not high, affected the knowledge base of the organisation. 3) Technical qualifications were required for each of the disciplines and the disciplines often had an expectation that their members would upgrade qualifications over time.
In this interview respondents returned to the concept of formal and informal applications of a lever. Examples of formal applications of the lever included the purposeful recruitment of “learners”. Prospective employees for the disciplines were questioned specifically at interview about the amount and type of self-directed learning they were undertaking. This was an effort to seek out staff who were capable of learning without supervision or without formal instruction. Formal periodic appraisals then monitored the progress of self-directed instruction. Examples of the informal application of this lever included the head of a particular discipline observing a learning need and organising a method of addressing the need as soon as possible.

This lever was viewed as one of the primary methods of ensuring high standards of clinical and ethical practice. Maintenance of this lever was seen as a routine but essential task. The application of this lever was also seen as routine, driven by the access and exchange of information as an everyday part of the multidisciplinary patient care process.

4.2.2.5 L5: Diversity

This lever was described as existing and in use. Discussion of this lever occurred around the issue of being a manager and a multidisciplinary team member simultaneously. This seemed to relate appropriately to the concept of job-relatedness. However, it seemed that this management team had little conscious awareness of the concept of diversity as a useful lever for the organisation. The diversity of the team interviewed was demonstrated initially by the fact that each interviewee was the senior person in her or his discipline in the case study organisation. Given that each discipline had its own requirements for the skill, qualification and experience of its members and that all members of the team had worked in other parts of the healthcare environment another level of diversity could be demonstrated. In terms of demographic diversity, though, this team was predominantly female.

Regardless of the level of conscious awareness of diversity as a lever the interview participants spoke repeatedly during the interview of the value of the lever.
4.2.2.6  L6: Conflict
This lever was described as existing and in use. Although conflict was not discussed in terms of its conscious use as a lever the level of discussion was organisational and conflict was described in terms of healthy discussion as well as in more traditional ways including disagreements. Conflict in the environment was noted as a necessity for learning at work. Interview participants also noted that conflict was a natural part of the change process. Some disciplines specifically viewed conflict as a lever that enabled the honest expression of views.

Conflict was seen as also encouraging those who were slow or perhaps unwilling to participate or collaborate within the patient care teams and in the organisation generally.

4.2.2.7  L7: Trust
This lever was not described specifically in the interview. However, the number of references to the use of collaboration, the mixing of teams on a situational basis and the management of conflict within the teams implied the existence of trust as a lever in use. In addition to this, the issue of trust arose a number of times in the interviews on Behaviours where it was used to drive successful collaboration and generation and transfer of information and knowledge.

4.2.2.8  L8: Power Sharing
This lever was not described as existing and in use. Nor were patients viewed as having a level of power in their relationship with the organisation or with the multidisciplinary patient care team.
4.2.2.3 Individual Behaviours
For the purposes of this thesis behaviours were described as related to learning, occurring at the individual level and influenced by both organisational capabilities and levers, as well as being the basis of improvement performance (Gieskes, 2001). This case study organisation provided care for patients in two groups. The first group contained ward-based inpatients, located physically within the case study organisation. The second group contained patients who had the opportunity to stay in their homes. This required two types of multidisciplinary team, a ward-based team and a community care team. Both types of team were interviewed about individual behaviours.

4.2.2.3.1 Ward-Based Team
Disciplines represented in the interviewed team were medicine, nursing, social work, spiritual care and physiotherapy.

4.2.2.3.1.1 B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation
This behaviour was described as existing and in use. Interview participants spoke freely of the use of artefacts such as professional experience and developed skills to recognise the level of distress in new patients or patient-based carers. Noted also was the opinion that patients and patient-based carers brought their own artefacts with them to the palliative care environment. Examples of these artefacts included the case study organisation’s admissions process for inpatients and the life experience and experience gained from previous interactions with the healthcare system by multidisciplinary team members. Interestingly, it was also noted by interview participants that such artefacts might indeed add to the patient’s or patient-based carers’ levels of distress if based on negative interactions, typically formed by a lack of communication and information sharing on the part of the general healthcare system.

Other artefacts described by interview participants included knowledge that could be applied. Examples of the application of knowledge included explaining the healthcare and palliative systems; understanding the general expectations of most
patients; understanding the general needs of most patients; and various methods of approaching patients and patient-based carers in the formation of a useful relationship that would be a basis of care. As a useful artefact, the reputation of the organisation within the catchment community was not described as a positive. According to the interview participants the organisation was known as a “death house” within its catchment and this was said to have had negative connotations within the community. This artefact, then, became another that must be overcome before some patients or patient-based carers could be helped.

Interview participants stated that trust was an end result, a goal towards which the application of artefacts was aligned. Trust was also spoken of as something that needed to be created quickly, if possible, as it was an enabler of care provision. This was because the delivery of care was dependent upon the exchange of information and knowledge at various levels, formally and informally. This behaviour was described as applied to, or attempted with, most patients. The obvious exclusions were unconscious patients, in which case it was applied to, or attempted with, patient-based carers. However, if patients arrived at this case study organisation unconscious then, generally, they would be very close to the end of their lives and time might not enable the application of this behaviour.

Overall, the behaviour was seen as essential in the organisation’s interactions with patients and patient-based carers, particularly early in the relationship. All disciplines were said to attempt this behaviour. The concept of respect, for the patient and patient-based carers, was also noted as an enabler in the application of this behaviour.

4.2.2.3.1.2 B2: Rapid Inclusion in a Socially Stable Structure
This behaviour was described as existing and in use. This behaviour was described as applied to, or attempted with, all patients except unconscious patients, under the same conditions mentioned above for this circumstance in the previous behaviour. Among the reasons given for the application of this behaviour were: enhancing and broadening the relationship begun with the previous behaviour, in terms of patients and patient-based carers understanding who they were dealing with; and enabling family conferences to address issues, usually deep, values based issues. Another
reason given was to enable the articulation and understanding of the expectations of patients and patient-based carers. The corollary of this was enabling the understanding of the situation on the part of patients and patient-based carers.

Interview participants described this behaviour as necessary for all disciplines and first applied as early in the relationship as possible, indeed the first questionnaire that new admissions completed sought information to begin this behaviour. If the initial application of this behaviour did not generate the required response from patients or patient-based carers the attempt was repeated. The application of this behaviour was described as continuous and as accompanying all activities with the patient and patient-based carers.

4.2.3.1.3 B3: Addressing Values Based Issues
This behaviour was described as existing and in use. Interview participants described this behaviour as commonly in use by all disciplines and as dependent upon respect for the patient and patient-based carers. Respect was seen as necessary because a danger in this behaviour was for the palliative care practitioner to not see the patient’s, or the patient-based carers’, boundaries and values during the application of this behaviour. It was noted that overstepping these boundaries was not helpful and perhaps produced a sub-optimal result. Interview participants spoke of the need to listen to patients and patient-based carers.

Another concept raised in the discussion of this behaviour was the need for honesty. It was noted that patients and patient-based carers sometimes had difficulty making meaning from the end of life process, or from life prior to the end stage, and this difficulty was not helped by multidisciplinary team members not being honest about the situation. At times this might put the team at odds with patient-based carers who did not want the patient to know what was happening, increasing the stress for the team.

This behaviour was also discussed as an enabler of patients and patient-based carers grieving for themselves, something viewed as extremely important in the end of life process. Interview participants described this behaviour as persistent in application, utilised by all disciplines and as directly related to the philosophy of palliative care.
4.2.3.1.4 B4: Understanding the Patient’s Situation as the Basis For Care
This behaviour was described as existing and in use. Interview participants described this behaviour as a fundamental of palliative care, enabled by the previous behaviours. It was noted that the delivery of palliative care as patient centred care could not occur without this behaviour.

The results of this behaviour provided direct inputs to the weekly multidisciplinary meeting to discuss patients and patient management. The behaviour also provided input to informal meetings about patients and formal meetings at shift changes. A visiting doctor participating in the interview noted that while this behaviour might be attempted in many healthcare settings it was done better in palliative care than anywhere else within that doctor’s experience.

According to the interview participants each discipline utilised the behaviour and collaborated in building a whole picture of each patient’s situation and that of the patient-based carers as well. Interview participants described this behaviour as persistent in application, utilised by all disciplines and as directly related to the philosophy of palliative care. This behaviour was also described as occurring between palliative carers and patients and patient-based carers, commonly in the generation and exchange of information and knowledge.

4.2.3.1.5 B5: Working in Teams
This behaviour was described as existing and in use. This behaviour was described by interview participants as dependent upon the needs of patients and patient-based carers. The mixture of disciplines within a multidisciplinary patient care team was decided by the patient’s situation at a given time. Changes in situation, it was said, could drive changes in the team mix.

Interview participants described working in a number of multidisciplinary patient care teams simultaneously and working with changing team memberships. It was noted that this was a driver for the amount and frequency of informal communication
that occurred within and between disciplines about the situations of patients and patient-based carers and the changes in those situations.

4.2.2.3.1.6 B6: Collaborating Within the Patient Management Process
This behaviour was described as existing and in use. Interview participants described this behaviour as in common use in multidisciplinary patient care teams. This behaviour was also described as occurring between palliative carers and patients and patient-based carers, commonly in the generation and exchange of information and knowledge. Also noted by interview participants was that the behaviour was utilised between and within disciplines for very similar reasons.

This behaviour was said to occur frequently in all parts of the patient care process, to occur formally at the weekly multidisciplinary meeting to discuss patients and patient management, and informally as a normal part of patient care.

4.2.2.3.1.7 B7: Managing Ambivalence in the Team
This behaviour was described as existing and in use. Interview participants, while not initially appearing to want to discuss this behaviour, gave the opinion that it was a normal part of working in teams as they did. This behaviour was not described as being in persistent use. However, the behaviour was described as occurring formally at the weekly multidisciplinary meeting to discuss patients and patient management, and informally as a normal part of patient care. The formal occurrence was seen as a normal part of talking through issues with all of the disciplines represented on the ward. It was noted that ambivalence could not be left unaddressed.
4.2.2.3.2 Community Care Team
Disciplines represented in the interviewed team were nursing, physiotherapy, occupational therapy and spiritual care. This team also contained a coordinator of volunteers who attended the interview. The coordinator came from a nursing background.

4.2.2.3.2.1 B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation
This behaviour was described as existing and in use. Interview participants described this behaviour as being in use with each new patient that came to their service. Examples of this behaviour offered by participants included the use of experience and prior knowledge in assessing the needs of patients and patient-based carers at the first visit following referral to the palliative care service. This assessment became the basis for allocation of disciplines to a particular patient’s situation. Another example given was the use of experience and knowledge to assess patient care priorities.

This behaviour was also described as generating the beginnings of trust between the patient and patient-based carers and the palliative care service. In this role the behaviour was seen as very important, as was the ability to create trust. The reputation of the case study organisation within its patient catchment was described as often frightening new patients and patient-based carers and as such this artefact was seen to be more of a hindrance than a help.

Discussion of this behaviour brought to light the concepts of the centrality of the patient and of patient collaboration within the patient care process. The example offered for the central role of the patient was that it was the patient that was generally in primary control of the information and knowledge regarding the patient’s situation, history and priorities and if the patient chose not to communicate these things then they would not be communicated. The result of this situation was generally a sub-optimal assessment that could lead, at the least, to an incorrect allocation of resources. The example offered for patient collaboration was the corollary of the previous example and this was where the application of experience
and prior knowledge could be put to good effect, in establishing the collaboration of the patient and patient-based carers.

4.2.2.3.2.2 B2: Rapid Inclusion in a Socially Stable Structure
This behaviour was described as existing and in use. This behaviour was described as being applied to all patients and patient-based carers. One of the reasons given for the application of this behaviour was to enable the articulation, understanding and alignment of goals and issues between the patient and patient-based carers and the patient care team. This was seen as more easily accomplished if the patient and patient-based carers were in, or could at least perceive, an environment that offered some stability at a time of possible distress and perceived crisis.

Interview participants noted that the provision of some sort of stability, real or perceived, particularly with regard to decision making about issues such as medication schedules and control or the scheduling of visits, offered patients the opportunity to regain control over their lives. It was noted that this was an important aspect of the patient care process as patients and patient-based carers could easily think that, given their experiences prior to being introduced to palliative care, control over their lives had been lost to the healthcare system or to their disease.

This behaviour was also noted as an enabler of trust, whether continuing trust building begun in the previous behaviour or making another attempt. The issue of trust was constant in the discussion of this behaviour.

4.2.2.3.2.3 B3: Addressing Values Based Issues
This behaviour was described as existing and in use. This behaviour was described as a necessary precursor to the establishment of an understanding of the patient’s situation and that of patient-based carers. Interview participants spoke also of the need for trust to precede this behaviour.

This behaviour was also described as requiring time therefore expectations were not high that it could produce outcomes on its first application. It was said that patients were generally initially wary of the palliative care team, often following negative or
uninformative experiences in their treatment regimes prior to reaching an end of life stage. Sometimes, it was said, patients or patient-based carers brought with them a level of resentment, feeling that the general healthcare system had let them down and now the patient was at the end of life. A patient’s feeling of control and self-worth were thus two of the things that this behaviour could be used to search for.

Interview participants noted also that, as well as the outcomes noted above, this behaviour was applied in an effort to assist in the management of physical symptoms. Examples given included the management of pain and mobility. These examples indicated that all disciplines utilised this behaviour. It was noted then that some disciplines engaged this behaviour and found information not relevant to them so communicated this information to relevant disciplines formally and informally.

4.2.2.3.2.4 B4: Understanding the Patient’s Situation as the Basis For Care
This behaviour was described as existing and in use. This behaviour was described as essential, even crucial, to the delivery of palliative care. Potential aspects of a patient’s situation were described as including family dynamics and social situation, emotional, spiritual and physical issues, the existence of children, relationships with doctors and relationship with other disciplines. This broad range, as with the previous behaviour, indicated that all disciplines were collaborating in this behaviour.

The results of this behaviour provided direct inputs to the weekly multidisciplinary meeting to discuss patients and patient management. The behaviour also provided input to informal meetings about patients.

4.2.2.3.2.5 B5: Working in Teams
This behaviour was described as existing and in use. Interview participants described this behaviour as being characterised by the amount of cooperation and communication that occurred between team members and they considered themselves members of a team. Also noted was the concept that patients were not seen as belonging to any particular discipline within this team, but to the team as a whole and then only for the duration of the interaction.
The issue of respect was raised during the discussion of this behaviour with interview participants noting that respect for individuals within and between disciplines was an essential for the optimum operation of the team. Understanding each discipline’s boundaries was also seen as important. While participants described the act of observing across discipline boundaries while visiting a patient so that information could be gathered and exchanged between disciplines, they also described the importance of not crossing discipline boundaries in terms of practices. It was also noted that all members of the team had a common goal; that their patients died with as much dignity as possible.

During discussion of this behaviour participants described the level of communication between and within the disciplines in the team as frequent and persistent. Another characteristic of communication raised by participants was that it was used to try out and exchange ideas about patient care.

4.2.3.2.6 B6: Collaborating Within the Patient Management Process
This behaviour was described as existing and in use. This behaviour was described in terms of creating and maintaining understanding between the disciplines involved in multidisciplinary patient care teams. As with the previous behaviour, this was said to involve frequent and persistent communication coupled with respect and knowledge of the boundaries between the disciplines.

However, differently to the previous behaviour, it was noted that this behaviour also included the concept of cohesion with regard to the efforts of the team. Where discussion of the previous behaviour included the concept of common goals as a rationale for working together discussion of this behaviour included the concept of a cohesive output from the care process.

Interview participants also described the importance of face to face communication when dealing with patients and patient-based carers.
4.2.2.3.2.7 B7: Managing Ambivalence in the Team
This behaviour was described as existing and in use. Interview participants discussed this behaviour in terms of managing the differences between team members that could cause misunderstanding and resentment. The commonly occurring difference mentioned involved opinions about aspects of an individual patient’s care process. With regard to this issue it was said that the best thing was to talk, not necessarily to change the mind of another team member but to at least understand the reasoning behind the disagreement. Failure to have expectations met was noted as a cause of ambivalence.
4.2.2.4 Contingencies

Contingencies were sought unannounced from all interviews, making them, in effect, the result of unstructured elements of the interviews.

4.2.2.4.1 CO1: Uncertainty

This contingency was noted in all interviews conducted in the case study organisation. During the interview of the management team on Capabilities a number of aspects of uncertainty were recorded. Interview participants described the fundamental ability required of the organisation as providing care to patients. This introduced uncertainty. Uncertainty was said to exist among patients and patient based carers when arriving at the case study organisation for a number of reasons; the generally negative reputation or mythology of palliative care organisations within the community; the lack of certainty about the progress of the end of life process; and a lack of certainty about responses to treatment and care were important aspects. According to participants, the uncertainty derived from a community perception of palliative care often required the application of Capabilities C1: Managing Knowledge and C2: Managing Information. Uncertainty related to the progress of the end of life process was linked to the application of Capabilities for multidisciplinary and collaborative operations as well as the management of change. Participants also noted that uncertainty regarding responses to treatment and care was an influencer in the application of Capabilities concerning information and knowledge management, multidisciplinary operations, collaborative operations and the management of change.

In interviews with the management team regarding Management Levers uncertainty was again noted. Components of L4: Absorptive Capacity; learning and access to information relative to context, were described as used in response to changing patient situations, enabling not only the matching of staff skills to situations but access to information from necessary sources and the synthesis of relevant knowledge from that information. Uncertainty was also described by interview participants as a driver for the use of L3: Language; common languages were developed and used in front of and in conjunction with patients and patient-based carers to enable exchanges of information and knowledge. Common languages were
also noted as occurring between the disciplines involved in multidisciplinary patient care teams, also to facilitate the exchange of information and knowledge as well as to develop knowledge in collaboration. Participants also noted that the social and professional aspects of L5: Diversity enabled access to a broad range of potential information, knowledge and responses to the range of uncertainties at large in palliative care.

Interviews with a multidisciplinary ward team and home care team about individual behaviours within the teams also produced references to uncertainty. The community care team participants noted that the uncertainty felt by patients at first meeting defined a need for rapid trust building. This was achieved by members of the team using their experience to recognise the scope of the need in the first place and then by beginning a process of laying the foundation for a relationship that would last for the duration of end of life process. This team also described uncertainty as a driver of collaborative operations. The ward team interview participants noted that uncertainty was common in new patients. This was sometimes driven by these patients being misinformed by other areas of the healthcare community prior to arrival at the case study organisation. At other times this uncertainty was the product of an ignorance of the end of life process or personally-based expectations of the process. Again, this drove a need for the rapid building of trust as well as the rapid generation of a socially stable structure for the patient, according to this team.

Both of these teams also, when addressing questions related to B3: Addressing Values-Based Issues, noted that this behaviour was related to the attempts to address more deep-seated uncertainties within the patient and within patient-based carers. These could often be related to symptoms and symptom management for patients. With regard to symptom management, it was noted by those teams that the level of uncertainty related to the cause of symptoms required a broad range of opinions and different levels. For example, it was stated a number of times that pain did not always have a medical cause and that it could be a manifestation of social or psychosocial issues that related solely to the patient or more broadly to a patient and family.
It appeared that attempts to manage uncertainty directed resource allocation and the use of a collaborative multidisciplinary approach.

4.2.2.4.2 CO2: Workforce
This contingency was noted in all interviews conducted in the case study organisation. However, it was more prominent in the two interviews with the management team in this case study organisation. From these it was apparent that the interview on management levers produced more comments about the workforce as a contingent factor. The first of these was a comment that the organisation’s culture of care being provided by all members of multidisciplinary teams required a workforce that could work collaboratively, learn on the job and provide and work with high levels of informal communications as information and knowledge were created and managed ad hoc. Absorptive capacity was a lever directly related to workforce by interview participants. This occurred as participants discussed the need to recruit “learners”. These were described as recruits who were capable of undertaking not only formal discipline-based ongoing career learning but also capable of learning on their own or during interactions within the multidisciplinary teams and of helping others learn in this environment. It was noted that a specific part of the job interview process was dedicated to the attempt to discover this capacity, regardless of the job being interviewed. Interview participants spoke of monitoring staff for learning difficulties. As part of the construction of a new wing this case study organisation was adding a library and internet access for all staff. Managers were encouraging the use of these resources.

Another aspect of workforce as a contingency related to the Levers interview was the need for a workforce that could act collaboratively consistently and without management intervention. This arose during a discussion on the difference between palliative care workers and those in acute hospitals where, according to some participants, things that would be considered as normal in palliative care required specific management interventions in hospitals. The examples used were information sharing and observation by disciplines across discipline boundaries. It was stated that in acute hospitals, within the experience of the interview participants, a patient that had been given “bad news” would not automatically see a social worker or receive psychosocial counselling until either the nursing unit manager or the
doctor had seen the patient’s chart and directed the application of this resource. In palliative care in the same circumstances, it was claimed, whoever had given the patient the “bad news” would do so in the company of a social worker or would notify the social worker prior to or immediately following the event. Participants also related similar experiences in nursing homes. Two points were made: that contact with necessary resources occurred naturally and often informally as information was passed around the team and that members of the team had to be comfortable in operating in this fashion, which was often outside their experience in other parts of the healthcare environment.

The ability to modify language was another element of the workforce seen as important in palliative care. As the patient was the major informant of the patient’s situation there was a need among team members to adapt the language used in front of the patient to suit the patient’s language skills and patterns. Interview participants noted that multidisciplinary team members used discipline specific language and jargon within their disciplines, modified language between the disciplines and, if necessary, a separate modified language between patients, patient-based carers and the team. If team members were recruited from outside the palliative care community they generally would not have this habit and their integration within the team would take longer. How much longer was not specified.

In the management team interview on Capabilities, mentions of the workforce as a contingent variable were not as specific as in the Levers interview. However, requirements on the workforce were stated and these describe a relationship to workforce as a contingency. A number of references were made to the high frequency of active information and knowledge sharing required within the multidisciplinary teams. Examples given here included team members reading all of a patient’s notes instead of only those belonging to a team member’s discipline, joint goal setting for patients at formal multidisciplinary team meetings and information exchange among team members in monitoring progress to goals. During discussion on the management of technology interview participants stated that patient-based carers sometimes demanded the use of medical technology for purposes that could not save the patient but provided a level of comfort to the patient-based carers. These included repeated demands for scans or blood tests to track the progress of
disease. It was noted that in these circumstances members of the multidisciplinary teams had to balance the use of expensive resources to test, transport and scan patients, for no return to the patient or the team, against the need to care for the patient-based carers. This sometimes led to conflict which had to be negotiated and managed. It was also noted that in these circumstances the cost was more frequently measured in the physical and emotional toll taken on the patient, multidisciplinary team members and patient-based carers, not dollars.

The management of change also raised issues of the workforce as a contingent variable, directly in terms of the availability of particular disciplines, for example pastoral care and physiotherapists. This case study organisation had opened a new wing shortly before the interview on Capabilities and the organisation had found that while it had forty new beds available and the funding to resource them it could only staff thirty two beds because it had been unable to recruit enough pastoral care workers and physiotherapists to work in palliative care.

Interviews with multidisciplinary teams; one ward-based and one community (home) care, also produced references to workforce as a contingent factor in palliative care. Again, though, these were not direct references but descriptions of behaviours and tools used in the teams when caring for patients and patient-based carers. Trust building was a behaviour commonly referred to; occurring initially at the admission or handover of the patient to the palliative care system and then occurring as necessary, driven by the patient’s situation and the end of life process. Multidisciplinary team members used artefacts such as their knowledge of the healthcare system, their experience in palliative care and their information and knowledge sharing behaviours to quickly build trust so that the patient and patient-based carers could be located in a socially stable system within which distress could be more easily managed. Cooperation, collaboration and information and knowledge sharing were described repeatedly as characteristics necessary for working in the multidisciplinary teams. These were noted as particularly relevant as enabling the ongoing assessment of patients’ situations. Interview participants spoke of observing across discipline boundaries on behalf of all disciplines and reporting observations formally and informally. This was said to be accomplished because members of the teams had credibility with each other regardless of discipline. Team members noted
that a major difference between working in a palliative care multidisciplinary team and such a team in other areas of healthcare was the level of respect and credibility between team members. These enabled the management of frictions and conflicts within the team.

4.2.2.4.3 CO3: Patients
This contingency was noted in all interviews conducted in the case study organisation. During the interview with the management team on organisational capabilities, participants mentioned several times that a major driver of high levels of information and knowledge sharing in the teams was the need to understand the trajectory of the disease that brought a patient to palliative care. Information and knowledge sharing and management were also results of the attempt to paint a contemporary picture of the totality of the patient’s situation at any given time. This was a reference to the multiple levels of causes of distress in patients that needed to be addressed during the end of life process. The timing and scale of changes in the patient's situation at any time could not be known. They might at best be estimated. The need to address the patient’s situation was said to drive the use of multidisciplinary teams that behaved collaboratively.

During the interview on management levers with the management team of this case study organisation it was noted that a patient’s situation mediated the mix of the team delivering care. The patient's situation also mediated the priorities and timing of resource allocation. Patients were noted as the major informants of their situation and as such were the major informants for the care delivery process. In terms of the management levers these factors were mentioned with regard to L1: Collaboration, it being thought that the care delivery process went better if patients collaborated with care givers, and L3: Language, where it was noted that multidisciplinary team members modified their language in front of patients to suit the patients’ requirements to be able to describe a situation. Patients were also said to mediate work practices within this management team. The example given was one of senior management team members leaving meetings to attend to patient requirements without notice. It was said that at times this requirement forced the delay or cessation of management meetings.
Two interviews were conducted in this case study organisation on individual behaviours within the multidisciplinary teams; one with a ward-based team and one with the community care team. As might be expected, patients figured heavily in both of these interviews. Patients were noted as sources of uncertainty, as has been said before, requiring the application of particular behaviours. For example, during the patient admission process members of the multidisciplinary team commonly had to apply behaviours **B1: the use of organisational artefacts to generate trust** and **B2: the rapid inclusion of patients in a socially stable environment**, to alleviate levels of distress in patients. Understanding the patient’s situation was said to be the focus of the team because a patient could not be adequately cared for if the totality of that situation was not understood as well as possible. This need for understanding was noted as driving collaboration, team mix and trust within the team and between the team and the patient and patient-based carers.

It was also noted that the need to understand a patient’s situation was connected to the frequency of informal communication and the use of information and knowledge and that this required that the team actively manage relationships within the team. While it was acknowledged that this did not always happen successfully the effort was seen as being of prime importance.

### 4.2.2.4 CO4: Healthcare Environment

This contingency was noted in all interviews conducted in the case study organisation. In the management team’s interview on Capabilities reference was made to the ability of other areas of the healthcare environment to mediate the level of care offered by the multidisciplinary teams. Two examples were given. In the first, during a discussion on managing knowledge and information, it was noted that when patients were being transferred from a hospital to the case study organisation the quality and amount of the information that accompanied could often depend on the quality of personal relationship that existed between the hospital staff and the staff of this case study organisation. In the second example, which arose during a discussion on the management of technology, it was stated as the availability of technologies not present in the case study organisation but at other locations in the healthcare environment. In situations where patients needed access to these technologies they needed to queue along with other types of patients. Combined
with time taken to transport to and from the necessary technologies this meant that patients were away from the case study organisation, sometimes for lengthy periods of time.

During the management team interview on Levers, during discussions on the mix of disciplines in multidisciplinary teams and on managers working in the multidisciplinary teams, other areas of the healthcare environment were used as comparators in describing what was different and sometimes unique about palliative care. Participants noted that the small size of palliative care organisations, including this case study organisation, meant that mixing the disciplines in teams was easier because the relationships between individuals and disciplines were more familiar. A second example was that the strict hierarchy in a surgical ward was quite different to the use of hierarchy in palliative care, even though both were said to use a multidisciplinary model of care delivery. Also noted during this interview was that staff who came to palliative care from other areas of healthcare, particularly acute hospitals, required extra support, training and orientation as they were established in the teams. A period of three to four months was noted in one example of an intake of nurses. Finally from this interview an important example of the healthcare environment as a contingent variable was noted when participants described the patients being transferred from a local acute hospital without patients or patient-based carers being given an explanation for the transfer or being lied to about the reason. This was said to happen sometimes when patients had less than 24 hours to live and were sometimes unconscious on arrival. Extra resourcing, in terms of time taken and the number of people involved, was required as patients, if conscious, and patient-based carers were given an explanation of the reason for transfer.

The interviews on Behaviours; one with a ward-based team and one with a community care team, also produced a reference to patients being transferred without being fully informed, or sometimes misinformed, and the extra stresses that were placed on the multidisciplinary teams as a result. The community (home) care team also noted that late referrals; when a patient is referred to the palliative care service late or very late in the course of a disease, also increase the stresses on the team because of the time then not available for trust building and establishment in a stable social environment. It was also stated that late referrals meant less time available for
the team’s relationship building with the patient’s local doctor. It was a characteristic of community care that the patient’s own doctor remained as the treating doctor until such time as the patient had to be admitted. This team also commented on the lack of information provided to patients while they are engaged with other parts of the healthcare environment, for example oncologists and other specialists as well as local doctors, and how this again increased the stresses on the team and the patient and patient-based carers. On the other hand, this team noted here that patients who had insufficient information provided opportunities to build trust and a relationship by providing the missing information.

4.2.2.4.5 CO5: Change

This contingency was noted in all interviews conducted in the case study organisation. The interview with the management team on Capabilities produced descriptions of change as a contingent variable. In that section of the interview related to the management of change these included the keeping of a system of central alerts to monitor and learn from changes in patients and time set aside in the weekly multidisciplinary team meeting that discussed each patient, to learn from the results of patient changes. This time was said to be used making necessary changes to patient management and care practices if necessary. When discussing the management of knowledge and information participants noted the impact of changes in a patient’s situation on the mix of that patient’s multidisciplinary care team, on what information was necessarily then brought to the team and how the new patient context influenced what knowledge was generated and exchanged within the team and between the team and the patient. This also applied when information supplied by a patient’s family or other patient-based carers indicated that a change had occurred that had not been detected by the multidisciplinary team. In this instance it was said that the source of the notification of change was not important. What was important was to know that the change had occurred so that, if necessary, care could be adapted.

Multidisciplinary teams and operations appeared to be a direct result of the need to manage changes in patients. This was noted in the description of other contingencies and other organisational elements. Multidisciplinary operations were said to be facilitated by keeping a book (described as “informal”) in a central location into
which any team member could make notes regarding the changes observed or reported in patients. Each team member kept an eye on the book. At each shift change the previous shift’s entries in the book were reviewed. This was over and above the formal and informal verbal exchanges that occurred during a shift and at shift changes. These multiple methods of information exchange were also said to promote collaboration as their use promoted the idea that information was not hidden or kept back by disciplines or individuals.

Technologies were managed with a view to managing change, regardless of the issues of their management noted earlier. Technologies were often used to diagnose the results of change and in some cases in an attempt to predict change.

During the management team’s interview on Levers change was again described a number of times as a contingent variable and as a prime reason for the existence of some management practices. Collaboration was said to be a major response to the need to manage change and the results of change. This was evidenced in the high frequencies of information sharing that occurred in informal sessions, sometimes called “corridor conferences” that took place between team members and between discipline members that did not belong to a particular team but were members of the network of cross-discipline observations that produced information to be shared spontaneously. Change was also noted as a driver of the balance of skills and experiences required in the multidisciplinary teams. Because change comprised expectation and events the balance of skills and experience in the pool from which multidisciplinary patient care teams were drawn was necessarily broader than that which might be required for any given patient but must come somewhere near that articulated by the organisation’s history and experience. Interview participants also spoke of the need to actively maintain relationships between team members so that change could be better managed. This was because as change in a patient’s situation drove team composition and balance it also drove tensions and conflict within the team and between the team, the patient and patient-based carers.

Change was also said to affect learning in the teams and disciplines. Examples mentioned in this interview included the sessions in weekly formal multidisciplinary team meetings in which the results of changes in patient’s situations were debriefed.
for lessons, whether the results of the change had been viewed of good or bad. Participants also noted that a multidisciplinary team’s learning ability and its ability to access information and knowledge outside of the organisation through its involved disciplines and other networks was another requirement of the necessity to deal with change.

With regard to diversity, change was stated as a driver of the need for the diversity of disciplines involved in palliative care.

In the interviews on Behaviours in the multidisciplinary teams; one with a ward-based team and one with a community (home) care team, change was a theme that ran through many of the issues discussed. Discussion ranged from changes in a patient’s situation to changes occurring in patient demographics and the different attitudes to death that were being encountered to the changes beginning to occur in the demographics of palliative care workers. With regard to the behaviours themselves, changes in the patient’s situation were at the heart of what palliative care teams were required to address and drove the nature of attempts to deliver care. Teams noted that the need to understand and address the patient’s situation required collaboration, multidisciplinary teams, information sharing, cooperation, teamwork and the need for teams to manage themselves and the relationships within them. This central factor was said to also drive what was learnt and when it was learnt. It drove the inclusion of the patient in the team in an effort to better understand what was happening from the major informant.
4.2.2.5 Characteristics of Configuration

4.2.2.5.1 CH1: Specialists and professionals with high levels of skill and knowledge, who had undertaken long periods of training prior to working in palliative care, would be employed.

This configuration characteristic was described as existing and in use. Members of disciplines involved in multidisciplinary patient care teams commonly train for a number of years before entering palliative care. The following periods were reported: Doctors train for at least seven years after completion of their medical degree. Since the nineteen eighties nurses have had a three year university degree and commonly do not come to palliative care until they have matured in the profession. Social workers, physiotherapists and occupational therapists undertake a three or four year university degree and, again, generally practice in other places until maturing in the profession prior to working in palliative care. It was noted that sometimes an individual nurse or allied health worker, for example occupational therapy or physiotherapy, would come to palliative care work earlier in their careers than the majority would.

4.2.2.5.2 CH2: Work would often be complex.

This configuration characteristic was described as existing. Palliative care was noted as complicated by the number of potential drivers of distress in each patient and patient-based carers and by the fact that the manifestation of the symptoms of distress may not have an immediately obvious relationship to the cause or causes.

4.2.2.5.3 CH3: Staff would be grouped functionally for administrative purposes but allocated to multidisciplinary teams, sometimes at short notice, for particular situations or projects.

This configuration characteristic was described as existing and in use. Palliative care delivery staff are grouped functionally (by discipline). The head of each discipline is responsible for that discipline’s contribution to the care delivery process. The disciplines noted were medicine, nursing, physiotherapy, occupational therapy, social work, spiritual care and grief counselling. In this case study organisation there was a management team consisting of the heads of the disciplines that was responsible for maintenance of multidisciplinary operations. The composition of multidisciplinary patient care teams was mandated in part and situational in part. Each patient had two...
disciplines permanently allocated; medicine and nursing. Otherwise, the allocation of disciplines to a patient was described as completely dependent upon the patient’s situation at any given time. With regard to medicine and nursing it was said that nursing was in the permanent foreground, with regard to the patient, and medicine was in the background except for two occasions; a formally scheduled consultation, generally on a daily basis, and a crisis situation, which could occur at any time. In the latter, the presence of the medical component of the multidisciplinary patient care team, in front of the patient, was noted as driven by the patient’s situation.

4.2.2.5.4 **CH4: The great majority of work tasks would require collaborative effort.**

This configuration characteristic was described as existing and in use. Work tasks were described as necessarily collaborative because of the need to attend the whole of the range of drivers of the patient’s and patient-based carers’ situations. This was described as accomplished through formal weekly multidisciplinary meetings and frequent informal communications.

4.2.2.5.5 **CH5: A primary coordinator of collaborative effort would be informal communication between staff members on teams.**

The existence and use of this configuration characteristic was acknowledged in the interviews conducted regarding organisational capabilities, levers and individual behaviours. These interviews contained a number of references to the frequency of informal communication and its use as a driver of collaboration in multidisciplinary patient care teams. Informal communications were often described as integral with collaborative practices and the frequency of this type of communication was also described as resulting from two imperatives: the need to communicate changes in a patient’s situation as soon as possible and the need to communicate observations made across discipline boundaries.
4.2.2.5.6 CH6: Professionals would have a requirement to sustain levels of skill and knowledge using ongoing training within disciplines or other specialist or professional groups as well as to transfer knowledge and information between disciplines, teams and individuals.

This configuration characteristic was described as existing and in use. All professionals undertook ongoing professional development training within their discipline. As well, weekly formal multidisciplinary team meetings were used to transfer information and knowledge between the disciplines, as were shift changes, and more frequent informal meetings occurred for the same purpose. This case study organisation specifically and consciously attempted to recruit professionals that were viewed as “learners”, although it was acknowledged that this process was not always successful. For example, there was a standard interview question that sought to ascertain what, if any, studies a prospective professional employee was undertaking over and above training required for normal progression in the particular discipline. It was stated that this was an indicator of willingness to learn and openness to collaboration.

4.2.2.5.7 CH7: Decision making autonomy would accompany professionals to the multidisciplinary teams and authority would often be sourced in professional experience.

This configuration characteristic was described as existing and in use. In interviews with multidisciplinary teams it was noted that professionals who might be expected to rank at or near the top of a clinical hierarchy in an acute hospital were willing to defer to the experience of other disciplines, depending on the patient’s situation. Two examples of this were given. The first involved a doctor new to palliative care deferring some decision making to nurses or allied health workers who had long service in palliative care when the situation involved an assessment of the causes of distress that originally manifested themselves as a pain management problem. The second involved deferring a part of the decision making process, information gathering from a patient, to another discipline or perhaps a non-clinician who was particularly trusted by the patient or patient-based carers, perhaps because they shared a common first language. The senior palliative care professional in this case study organisation noted that the final responsibility for all decisions made ended with the doctor. This being the case there was a permanent level of tension in
decision making and its results because of the need to sometimes defer as described above.

4.2.2.5.8 CH8: Senior managers could commonly be found working in the multidisciplinary patient care teams.
This configuration characteristic was described as existing and in qualified use. Senior managers worked in the multidisciplinary patient care teams, although the level of involvement with the teams differed from frequent to sometimes depending on other roles undertaken by particular senior managers. For example, the senior social worker also worked at a local acute hospital and was senior in the discipline there also. So time and availability became issues. In another example the senior doctor in this case study organisation also spent time instructing medical students and doctors in acute hospitals in palliative care practices. At times, then, it was not common for senior managers to work in multidisciplinary patient care teams.

4.2.2.5.9 CH9: Broadly based singular focus on the purpose of the organisation, expressed as the organisation’s mission. The existence of this focus would be used as a tool for indoctrination of new staff and, at times, as a coordinating mechanism for work tasks.
This characteristic was described as existing and in use. The Mission statement was given a role in indoctrination and in training on the ethos and shared purpose found within palliative care. It was also noted that the Mission statement played a large part in establishing and maintaining the ethos and that there was a group of volunteer staff that presented to various groups on achievement against the Mission.

4.2.2.5.10 CH10: The organisation would be politicised and operating in a politicised environment.
This characteristic was described as existing and in use. It was stated that the multidisciplinary patient care teams displayed similar interpersonal and discipline-based conflicts to any other team that the senior professional interviewed had experienced anywhere else in healthcare. It was noted that this was, at times, regardless of common focus or goals. In the interviews with multidisciplinary teams regarding individual behaviours the issue of conflict within the teams was acknowledged under the heading of managing ambivalence. The common solution stated was face-to-face communication as soon as possible. The operating
environment was highly politicised for two primary reasons: 1) The environment was created by State owned and operated healthcare bureaucracies and healthcare in Australia is a political issue. 2) The euthanasia debate that arose from time to time invariably brought palliative care into the spotlight for at least part of the debate.

4.2.2.5.11 CH11: A section of the organisation would be structured and operate differently because it would be the section that interfaced with the healthcare bureaucracies and regulators.

This characteristic was described as existing and in use. It was noted that this case study organisation had more than one regulator. Commonly, there was the State Department of Health, then the owning organisation. As well, the case study organisation was and must remain accredited. Regulators were described as having requirements based generally on quantitative data. Data provided to the standards certifying authority was described as a mixture of quantitative and qualitative. As to the management of these interfaces and relationships, it was described as conducted by a group that stood away from the multidisciplinary teams and patient care.
4.2.3 Analysis Level 2 part 2 - Identifying Major Themes in the Data

4.2.3.1 Introduction to the Major Themes
At this point in the analysis all interview transcripts had been summarised and the data had been repackaged and aggregated under the headings of the various components of the model for palliative care. Themes began to appear. These took the form of recurring elements introduced by interview participants. In all, there appeared to be four of these elements; collaboration, learning, keeping the patient at the centre and informal communications. These Major Themes reflected major themes in the literature review to a large extent. On reflection, informal communications was renamed ad hoc communications for the purpose of analysis as the term “informal”, although commonly used in the summaries of interview transcripts and in interviews themselves, did not adequately describe what the interviews were raising; communications related to patient situations taking place across team and discipline boundaries and within teams as they needed to. These were Major Themes because they occurred, specifically or by implication, during interviews about many of the components of the model for palliative care. For example, informal communication was mentioned or implied during interviews on capabilities, management levers, behaviours in the teams and contingencies. The following contains descriptions of these occurrences and implications.

4.2.3.2 Thematic Analysis

4.2.3.2.1 T1: Collaboration
Collaboration was a recurring theme in interviews.
In Capabilities it arose in C4: Collaborative Operations, naturally enough. It was also mentioned in other Capabilities. In C1: Managing Knowledge and C2: Managing Information there were references to staff formally and informally, even opportunistically, collaborating to produce and exchange knowledge and information relevant to patients’ situations. C3: Multidisciplinary Operations contains mention of an informal collaboration where a physiotherapist leaves a note for a nurse regarding a patient’s mobility. In C6: Managing Change and the Effects of Change there is mention of the collaborative exchange of information at weekly formal multidisciplinary team meetings.
With regard to the Management Levers collaboration is central in *L1: Collaboration*. In other levers, though, there is also mention of collaboration. In *L3: Language* references were made to the generation of common languages, not only between disciplines but also between teams and patients as an enabler of collaboration. In *L6: Conflict* there was direct reference to the use of conflict to encourage collaboration. *L7 Trust*, while not containing direct references to collaboration from the particular interview is nevertheless bound up with collaboration. This is derived from the mention in *L7: Trust* of the relationship between collaboration and trust in other interviews, for example Behaviours, described in the following paragraphs.

Interviews regarding Behaviours in the multidisciplinary teams also produced direct references or indirect links to collaboration. *B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation* referred to its use in enabling and generating patient collaboration. In *B4: Understanding the Patient’s Situation as the Basis for Care* there were direct references to every discipline’s persistent and collaborative use of this Behaviour to build as complete a picture of the patient and patient-based carers as possible. *B5: Working in Teams* did not contain references to collaboration but referred instead to the basis of team mix and changes to the mix resulting from understanding of the patient’s situation generated to a large extent by the team. *B6: Collaborating Within the Patient Management Process* contained an obvious theme of collaboration and a reference to senior managers working in the teams. *B7: Managing Ambivalence in the Team* again contained no direct reference to collaboration but was concerned with noting the Behaviour as a natural part of working in teams.

The contingencies drawn from interviews produced references to collaboration. Each of the contingencies seemed, in some way or another, to drive or impact collaboration. Each contingency is addressed separately below in terms of links to collaboration through various components of the model for palliative care.

*CO1: Uncertainty*

Described as a driver of the application of *C1: Managing Knowledge*, *C2: Managing Information*, *C3: Multidisciplinary Operations*, *C4: Collaborative Operations*, *C6: Managing Change and the Effects of Change*. 
Described as a driver of the application of L1: Collaboration and L3: Language.
Described as a driver of the application of B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation and B4: Understanding the Patient’s Situation as the Basis for Care.

CO2: Workforce
Described as impacting the use of C1: Managing Knowledge, C2: Managing Information, C3: Multidisciplinary Operations and C6: Managing Change and the Effects of Change.
Described as impacting the use of L1: Collaboration and L3: Language.
Described as impacting the use of B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation, B4: Understanding the Patient’s Situation as the Basis for Care there were direct references to every discipline’s persistent and collaborative use of this Behaviour, B5: Working in Teams and B6: Collaborating Within the Patient Management Process.

CO3: Patients
Described as driving the application of C1: Managing Knowledge, C2: Managing Information, C3: Multidisciplinary Operations, C4: Collaborative Operations and C6: Managing Change and the Effects of Change.
Described as driving the application of L1: Collaboration and L3: Language.
Described as driving the application of B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation and B4: Understanding the Patient’s Situation as the Basis for Care.

CO4: Healthcare Environment, primary source of the palliative care workforce.
Described as sometimes impacting the quality of information available during the application of C1: Managing Knowledge and C2: Managing Information.
Described as impacting B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation and B4: Understanding the Patient’s Situation as the Basis for Care when patients were late referrals or transferred from the healthcare environment without adequate explanation to patients and patient-based carers.
CO5: Change
Described as driving C1: Managing Knowledge, C2: Managing Information, C3: Multidisciplinary Operations and C6: Managing Change and the Effects of Change.
Described as driving L1: Collaboration.
Described as driving B4: Understanding the Patient’s Situation as the Basis for Care, B5: Working in Teams and B6: Collaborating Within the Patient Management Process.

Having described this theme and its genesis in the interviews on various components of the model for palliative care it became necessary to understand how the case study organisation was able to collaborate in many different ways for many different reasons. The characteristics of configuration were explored for a role as enabling the theme of Collaboration. The following characteristics were determined as being directly related to an ability to collaborate.

CH2: Work would often be complex. This was acknowledged by the relationship of this theme to a large number of the components of the model for palliative care.

CH4: The great majority of work tasks would require collaborative effort. Apart from an obvious connection to collaboration, the number of components of the model for palliative care related to this theme is an indicator of the spread of tasks involved.

CH5: A primary coordinator of collaborative effort would be informal communication between staff members on teams. Noted in the references to C1: Managing Knowledge and C2: Managing Information.

CH7: Decision making autonomy accompanies professionals to multidisciplinary teams, authority often sourced in professional experience.

CH8: Senior managers found working in the multidisciplinary patient care teams. The influence of this characteristic is acknowledged in B6: Collaborating Within the Patient Management Process.

CH10: The organisation would be politicised and operating in a politicised environment. A reference to working in teams and acknowledged by the presence of the use of L6: Conflict as an enabler of collaboration and both B5: Working in Teams and B7: Managing Ambivalence in the Team.
Of these characteristics $CH_2$, $CH_4$, $CH_5$ and $CH_{10}$ belonged to a group described in the literature review as overview characteristics of the organisation’s internal and external working environments. $CH_7$ and $CH_8$ belonged to a group of characteristics describing the configuration of resources to suit the working environments.

4.2.3.2.2 T2: Learning
Learning was a recurring theme in interviews. However, it was rarely directly referred to as learning.
In the Capabilities interview, $C_1$: Managing Knowledge and $C_2$: Managing Information were both referred to as frequently applied to enable situationally based understanding. In $C_3$: Multidisciplinary Operations there was mention of the use of formal weekly multidisciplinary team meetings to exchange information about all patients amongst the whole team.

With regard to the Management Levers $L_4$: Absorptive Capacity was the obvious connection to learning. Direct references were made to recruitment practices that targeted “learners”, the monitoring of on-the-job learning and to the use of networks to support learning. $L_1$: Collaboration contained direct references also to the multidisciplinary team meetings to exchange information and also to the use of collaboration to generate high frequencies of exchange of information about patients. $L_3$: Language was described as an enabler of communication across discipline boundaries on a situational basis. $L_6$: Conflict was described as a necessity for learning at work and $L_7$: Trust was referred to as an enabler of the generation and transfer of information and knowledge.

In the interviews on Behaviours $B_1$: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation contained a description of the behaviour as enabling the exchange of information and knowledge at many levels. $B_2$: Rapid Inclusion in a Socially Stable Environment was described as enabling the articulation and understanding of the expectations of patients and patient-based carers. In $B_3$: Addressing Values Based Issues there was reference to the Behaviour as enabling the making of meaning of the end of life experience. $B_4$: Understanding the Patient’s Situation as the Basis for Care was described as providing direct inputs to the weekly multidisciplinary team meeting on patients, as generating knowledge and
information and as used by all disciplines in the building of a whole picture of a 
patient by collaboration. B5: *Working in Teams* was referred to as enabling the 
frequency of informal information exchange about patient situations. B6: *Collaborating Within the Patient Management Process* contained a direct reference 
to the use of the behaviour to generate and exchange information and knowledge.

The contingencies drawn from interviews also produced references to learning. Each 
of the contingencies seemed to drive or impact learning. Each contingency is 
addressed separately below in terms of links to learning through various components 
of the model for palliative care.

**CO1: Uncertainty**
Described as a driver of the application of C1: Managing Knowledge, C2: Managing 
Information and C3: Multidisciplinary Operations.
Described as driving the application of L1: Collaboration, L3: Language and L4: 
Absorptive Capacity.
Described as driving the need for B1: Using Organisational Artefacts to Enable 
Rapid Creation of Trust and Enculturation, B2: Rapid Inclusion in a Socially Stable 
Environment, B3: Addressing Values Based Issues and B4: Understanding the 
Patient’s Situation as the Basis for Care.

**CO2: Workforce**
Impacted the use of C1: Managing Knowledge and C2: Managing Information and 
C3 Multidisciplinary Operations.
Described as impacting the use of L1: Collaboration, L3: Language and L4: 
Absorptive Capacity.
Impacted the use of B1: Using Organisational Artefacts to Enable Rapid Creation of 
Trust and Enculturation, B2: Rapid Inclusion in a Socially Stable Environment and 
B4: Understanding the Patient’s Situation as the Basis for Care.

**CO3: Patients**
Drove the application of C1: Managing Knowledge, C2: Managing Information and 
C3: Multidisciplinary Operations.
Described as driving the application of L1: Collaboration and L3: Language.
Described also as driving **B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation**, **B2: Rapid Inclusion in a Socially Stable Environment** and **B4: Understanding the Patient’s Situation as the Basis for Care**.

**CO4: Healthcare Environment**

Influenced the application of **C1: Managing Knowledge** and **C2: Managing Information**.

Influenced the application of **L4: Absorptive Capacity**.

Influenced the application of **B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation** and **B2: Rapid Inclusion in a Socially Stable Environment**.

**CO5: Change**

Drove the application of **C1: Managing Knowledge**, **C2: Managing Information** and **C3: Multidisciplinary Operations**.

Drove the application of **L1: Collaboration** and **L4: Absorptive Capacity**.

Drove the application of **B4: Understanding the Patient’s Situation as the Basis for Care**.

Having described this theme and its genesis in the interviews on various components of the model for palliative care it became necessary to understand how the case study organisation would be resourced for learning in many different ways for many different reasons. The characteristics of configuration were explored for a role as enabling the theme of Learning. The following characteristic was determined as being directly related to an ability to learn.

**CH6: Professionals sustain levels of skill and knowledge using ongoing training within disciplines or other specialist or professional groups and transfer knowledge and information between disciplines, teams and individuals.**

This characteristic belonged to a group described in the literature review as describing the configuration of resources to suit the working environments.
4.2.3.2.3 T3: Keeping the Patient at the Centre
The patient at the centre of activities and efforts, at the centre of the care delivery process was a recurring theme in interviews.

In C1: Managing Knowledge, patients were considered as valid a source of knowledge as palliative care professionals. Knowledge was created in situ with patients. In C2: Managing Information it was noted that patient confidentiality was a primary concern in the handling of information. C3: Multidisciplinary Operations contained a description of cross-discipline informal communication in response to a change in a patient’s condition. In C4: Collaborative Operations there were references to collaborative effort in goal setting and goal review for patients, by staff outside of the patient care team or not dealing directly with the particular patient. C5: Managing Technologies specifically described the concept of the patient being served by the technology and patients’ situations being the guides for the application of technologies. In C6: Managing Change and the Effects of Change reference to the focus on patient-based change at weekly multidisciplinary team meetings and at informal exchanges of information.

With regard to the interview on Management Levers L1: Collaboration contained references to continuous communication, about patients, in the ward, all day, every day. In L2: Balance there is reference to the patient’s situation driving the balance of the multidisciplinary team engaged with the patient. L3: Language describes the generation and adaptation of common languages between disciplines to facilitate the exchange of information and knowledge about patients. L4: Absorptive Capacity contained references to the use of the lever to ensure the access and exchange of information as an everyday part of multidisciplinary care. In L5: Diversity there was a reference to the requirements of the disciplines for a relevant level of diversity in their makeup.

The interviews on Behaviours produced a number of references to this theme. B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation was described as essential in the organisation’s interactions with patients, particularly early in the relationship. Also in this Behaviour the patient’s role was described as central because the patient was in primary control of information about the patient. In B2: Rapid Inclusion in a Socially Stable Structure there were references to
broadening the relationship with the patient, enabling the alignment of the goals of the patient and the organisation and returning a level of control over events to the patient. B3: Addressing Values Based Issues was described as enabling self-grieving in patients and a sense of self-worth, both important parts of the end of life process. In B4: Understanding the Patient’s Situation as the Basis for Care it was noted that the delivery of palliative care as patient-centred care was not possible without this Behaviour. B5: Working in Teams was described as dependent on the needs of patients; changes in patient situation could drive changes in team mix.

The contingencies drawn from interviews also produced references to placing and keeping the patient at the centre of efforts. Each of the contingencies seemed to drive or impact this theme. Each contingency is addressed separately below in terms of links to placing and keeping the patient at the centre of efforts through various components of the model for palliative care. At times it was noted that contingencies directly drove or impacted this theme.

CO1: Uncertainty, included reference to patients and patient-based carers being the sources of the contingency.
Described as driving the application of C1: Managing Knowledge, C2: Managing Information, C3: Multidisciplinary Operations, C4: Collaborative Operations and C6: Managing Change and the Effects of Change.
Described as driving L1: Collaboration, L3: Language and L4: Absorptive Capacity.
Described as driving the application of B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation, B2: Rapid Inclusion in a Socially Stable Structure, B3: Addressing Values Based Issues and B4: Understanding the Patient’s Situation as the Basis for Care.

CO2: Workforce, included references to the workforce being instrumental in supplying palliative care in line with the ethos of palliative care.
Impacted the application of C1: Managing Knowledge, C2: Managing Information and C5: Managing Technologies.
Impacted the application of B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation, B2: Rapid Inclusion in a Socially Stable Structure, B4: Understanding the Patient’s Situation as the Basis for Care and B5: Working in Teams.

CO3: Patients, noted as the sources of uncertainty.
Drove the application of C1: Managing Knowledge, C2: Managing Information and C4: Collaborative Operations.
Drove the application of L1: Collaboration, L3: Language and L7: Trust.
Drove the application of B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation, B2: Rapid Inclusion in a Socially Stable Structure and B4: Understanding the Patient’s Situation as the Basis for Care.

C04: Healthcare Environment, the source of patients, information and a number of technologies not held in the case study organisation.
Influenced C1: Managing Knowledge and C2: Managing Information and C5: Managing Technologies.

CO5: Change
Drove B4: Understanding the Patient’s Situation as the Basis for Care and B5: Working in Teams.

Having described this theme and its genesis in the interviews on various components of the model for palliative care it became necessary to understand how the case study organisation was able to make and keep the patient central in many different ways for many different reasons. The characteristics of configuration were explored for a
role as enabling the theme of Patient Centrality. The following characteristics were
determined as being directly related to an ability to make and keep the patient
central.

\textit{CH1: Specialists and professionals with high levels of skill and knowledge, who had
undertaken long periods of training prior to working in palliative care, would be
employed.} It was noted in the interview on characteristics of configuration that many
professionals who worked in palliative care did so after maturing in their professions.
These professionals came to palliative care with a view about the centrality of people
rather than the centrality of disease.

\textit{CH2: Work would often be complex.} This is acknowledged by the relationship of
this theme to twenty one of the twenty six components of the model for palliative
care.

\textit{CH3: Staff grouped functionally for administrative purposes, allocated to
multidisciplinary teams for particular situations.} In the interview on characteristics
of configuration it was noted that staff were grouped in the disciplines for
administrative purposes and allocated to teams as patients’ situations required.

\textit{CH4: The great majority of work tasks would require collaborative effort.} Reflected
in the relationship to \textit{C4: Collaborative Operations} and \textit{L1: Collaboration} and the
application of Behaviours to build a collaborative relationship with patients.

\textit{CH5: A primary coordinator of collaborative effort would be informal
communication between staff members on teams.}

\textit{CH6: Professionals sustain levels of skill and knowledge using ongoing training
within disciplines or other specialist or professional groups and transfer knowledge
and information between disciplines, teams and individuals.} Related to the use of
\textit{C1: Managing Knowledge, C2: Managing Information, L3: Language and L4:
Absorptive Capacity.}

\textit{CH7: Decision making autonomy accompanies professionals to multidisciplinary
teams, authority often sourced in professional experience.}

\textit{CH9: Broadly based singular focus on the purpose of the organisation, expressed as
the organisation’s mission. Used as a tool for indoctrination of new staff and, at
times, as coordinating mechanism for work tasks.} This focus, as noted in a number
of interviews was the patient.
Of these characteristics \textit{CH2}, \textit{CH4} and \textit{CH5} belonged to a group described in the literature review as overview characteristics of the organisation’s internal and external working environments. \textit{CH1}, \textit{CH3}, \textit{CH6}, \textit{CH7} and \textit{CH9} belonged to a group of characteristics describing the configuration of resources to suit the working environments.

\subsection*{4.2.3.2.4 T4: Ad Hoc Communication.}
Informal communication was a recurring theme in interviews. Informal communication was noted as occurring with the application or utilisation of Capabilities, for example \textit{C1: Managing Knowledge} where interview participants described “corridor conferences” as informal applications of the capability used to create or offer knowledge to a given situation. \textit{C2: Managing Information} contained a similar example of informal communication, when members of one discipline read the patient notes of another discipline, in a description of the informal application of the capability. In \textit{C4: Collaborative Operations} there is another example of informal communications when interview participants noted that any member of any discipline could initiate a goal review discussion in the team at any time. This was also an example of the informal application of the capability. In \textit{C3: Multidisciplinary Operations} the example was a physiotherapist leaving a note for a nurse regarding changed condition in a patient. \textit{C6: Managing Change and the Effects of Change} contained references to informal conferences and notes regarding changes to a patient’s situation exchanged between the disciplines.

In the interviews on Management Levers there were examples of informal communication introduced during the interview. In \textit{L1: Collaboration} there was specific mention of the high frequencies of informal communication within the teams. There was also an accompanying mention of the informal application of the lever. In \textit{L3: Language} the purpose of generating common languages was stated as enabling formal and informal communication between the disciplines. While not specifically mentioned in other Management Levers informal communications was implied in several. For example, in the \textit{L4: Absorptive Capacity} interview participants described, as well as the lever’s informal application, the requirement for the lever as driven by the need to access and exchange information routinely as and everyday part of multidisciplinary patient care. Managing information, as noted
above at C2, involves informal communication. In L6: Conflict, conflict was described as healthy discussion and as a normal part of learning at work. As healthy discussion conflict could occur in combination with, among other components, the levers C1: Managing Knowledge, C2: Managing Information or C4 Collaborative Operations. As a normal part of learning at work conflict could occur with L3: Language or L4: Absorptive Capacity. L7: Trust was linked to C4: Collaborative Operations and L6: Conflict as well as a number of the behaviours discussed in the following paragraph.

The interviews on Behaviours in the multidisciplinary teams, a ward team and a community care team, also produced specific references to informal communications. In B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation interview participants specifically note trust as an enabler of the communication of knowledge and information at various levels, formally and informally. B3: Addressing Values Based Issues contained reference to the use of informal communication, by members of disciplines who had uncovered issues not within their expertise, to pass information about patients between the disciplines. B4: Understanding the Patient's Situation as the Basis for Care contained specific reference to the application of the behaviour to provide input to informal meetings about patients. In B5: Working in Teams there was specific mention of the high frequency of informal communication resulting from working in multiple multidisciplinary teams simultaneously. B7: Managing Ambivalence in the Team also contained a reference to informal communication, although not a direct one. Here the behaviour was applied informally as a normal part of working in teams and the description of formal application referred to talking through issues between members. It seemed also that informal communications could be implied relatively easily in the following behaviours. B6: Collaborating Within the Patient Management Process was said to involve frequent and persistent communication between the disciplines. Even though there is no specific mention of this happening informally C4: Collaborative Operations does contain mention of informal communications and it was not difficult to imply their use with regard to B6: Collaborating Within the Patient Management Process.
The contingencies drawn from interviews also produced references to the use of informal communication. Each of the contingencies seemed, in some way or another, to be a driver of informal communication. Each contingency is addressed separately below in terms of links to informal communication through various components of the model for palliative care. At times it was noted that contingencies directly drove informal communications.

**CO1: Uncertainty**, included references to the contingency directly driving informal communications.

Directly related to the application of C1: Managing Knowledge, C2: Managing Information, C3: Multidisciplinary Operations, C4: Collaborative Operations, C6: Managing Change and the Effects of Change. With regard to the Management Levers, there were references to L3: Language and L4: Absorptive Capacity. With regard to the Behaviours there were references to B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation, B3: Addressing Values Based Issues and B4: Understanding the Patient’s Situation as the Basis for Care.

**CO2: Workforce**.

Directly related to the application of C3: Multidisciplinary Operations and C6: Managing Change and the Effects of Change. With regard to Management Levers, there were references to L1: Collaboration, L3: Language and L4: Absorptive Capacity. With regard to the Behaviours there were references to B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation, B4: Understanding the Patient’s Situation as the Basis for Care, B6: Collaborating Within the Patient Management Process and B7: Managing Ambivalence in the Team.

**CO3: Patients**, included references to the contingency directly driving informal communications.

Directly related to the application of C1: Managing Knowledge, C2: Managing Information and C6: Managing Change and the Effects of Change. With regard to the Management Levers there were references to L1: Collaboration and L3: Language. With regard to the Behaviours there were references to B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation, B4:
Understanding the Patient’s Situation as the Basis for Care and B6: Collaborating Within the Patient Management Process

Directly related to C1: Managing Knowledge and C2: Managing Information. With regard to the Management Levers there were direct references to L4: Absorptive Capacity. With regard to the Behaviours there were references to B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation and B4: Understanding the Patient’s Situation as the Basis for Care.

CO5: Change, included references to the contingency directly driving informal communications.
Directly related to C1: Managing Knowledge and C2: Managing Information, C3: Multidisciplinary Operations and C6: Managing Change and the Effects of Change. With regard to the Management Levers there were references to L1: Collaboration and L4: Absorptive Capacity. With regard to the Behaviours there were references to B4: Understanding the Patient’s Situation as the Basis for Care, B5: Working in Teams and B7: Managing Ambivalence in the Team.

Having described this theme and its genesis in the interviews on various components of the model for palliative care it became necessary to understand how the case study organisation was able to accommodate the frequency of informal communication apparent in the interviews. The characteristics of configuration were explored for a role as enabling this. The following characteristics were determined as being directly related to an ability to accommodate high frequencies of informal communications.

CH2: Work would often be complex.
CH4: The great majority of work tasks would require collaborative effort.
CH5: A primary coordinator of collaborative effort would be informal communication between staff members on teams
CH6: Professionals sustain levels of skill and knowledge using ongoing training within disciplines or other specialist or professional groups and transfer knowledge and information between disciplines, teams and individuals
Of these characteristics $CH_2$, $CH_4$ and $CH_5$ belonged to a group described in the literature review as overview characteristics of the organisation’s internal and external working environments. $CH_6$ belonged to a group of characteristics describing the configuration of resources to suit the working environments.
4.2.3.3 Comments on the Thematic Analysis and a Simplified Display of Major Themes and Components

Following the Thematic Analysis a set of tables was developed to simplify the display of this data and enable an easier view of which components of the model for palliative care were related to which of the Major Themes. The drawing out of Major Themes and the description of their relationship to the components of the model for palliative care accounted for all of the components except for two; *CH11: Separate section of the organisation, structured and operating differently to interface with healthcare bureaucracies and regulators*, and *L8: Power Sharing*. The absence of *L8: Power Sharing* was not surprising as it was not found in the Management Interview. *CH11* was perhaps not surprising because it refers to the organisation’s interface with the healthcare bureaucracy and regulators. As such, it might be expected to appear later when the relationships between Major Themes, contingencies and components of the model for palliative care were examined.

At this point in the analysis it was possible to write that a number of Major Themes had been drawn from the data. These themes were reflected in many of the aspects of palliative care that were represented by the components of the model for palliative care. It was possible to see that some components of the model appeared related to all of the Major Themes, for example *C1: Managing Knowledge* and *C2: Managing Information*, some components were related to two Major Themes, for example *B7: Managing Ambivalence in the Team* in *T1: Collaboration* and *T4: Ad Hoc Communication*, and some, for example *L2: Balance* in *T3: Keeping the Patient at the Centre*, were only related to one major theme. However, only one complete set of components, the Contingencies, appeared in every major theme. Apart from the Contingencies one other set of components is displayed in total in one major theme; *Capabilities in T3: Keeping the Patient at the Centre*.

It was interesting to be able to see that each of the characteristics of configuration, apart from *CH11* noted above, was related to one or another major theme, sometimes multiple themes. An example of this was *CH2: Work would be complex*, which appeared to stand as a statement of required fundamental understanding, was related to *T1: Collaboration*, *T3: Keeping the Patient at the Centre* and *T4: Ad Hoc Communication*. The relationship between the characteristics of configuration and
the Major Themes seemed to place the characteristics, at least at this point in the analysis, as enablers of the Major Themes.

The simplified display that follows bundles the components related to each Major Theme as a result of the thematic analysis.

<table>
<thead>
<tr>
<th>Theme</th>
<th>Components</th>
</tr>
</thead>
</table>
| T1: Collaboration | C1: Managing Knowledge  
                         C2: Managing Information  
                         C3: Multidisciplinary Operations  
                         C4: Collaborative Operations  
                         C6: Managing Change and the Effects of Change  
                         L1: Collaboration  
                         L3: Language  
                         L6: Conflict  
                         L7: Trust  
                         B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation  
                         B4: Understanding the patient’s situation as the basis for care  
                         B5: Working in Teams  
                         B6: Collaborating Within the Patient Management Process  
                         B7: Managing Ambivalence in the Team  
                         CO1: Uncertainty  
                         CO2: Workforce  
                         CO3: Patients  
                         CO4: Healthcare Environment  
                         CO5: Change  
                         CH2: Work would often be complex  
                         CH4: The great majority of work tasks would require collaborative effort.  
                         CH5: A primary coordinator of collaborative effort would be informal communication between staff members on teams.  
                         CH7: Decision making autonomy accompanies professionals to multidisciplinary teams, authority often sourced in professional experience.  
                         CH8: Senior managers found working in the multidisciplinary patient care teams  
                         CH10: The organisation would be politicised and operating in a politicised environment. |

Table 9 Components Related to T1: Collaboration. Source: Case 1 Data Analysis
<table>
<thead>
<tr>
<th>Theme</th>
<th>Component</th>
</tr>
</thead>
</table>
| T2: Learning| C1: Managing Knowledge  
C2: Managing Information  
C3: Multidisciplinary Operations  
L1: Collaboration  
L3: Language  
L4: Absorptive Capacity  
L6: Conflict  
L7: Trust  
B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation  
B2: Rapid Inclusion in a Socially Stable Structure  
B4: Understanding the Patient’s Situation as the Basis for Care  
B5: Working in Teams  
B6: Collaborating Within the Patient Management Process  
CO1: Uncertainty  
CO2: Workforce  
CO3: Patients  
CO4: Healthcare Environment  
CO5: Change  
CH6: Professionals sustain levels of skill and knowledge using ongoing training within disciplines or other specialist or professional groups and transfer knowledge and information between disciplines, teams and individuals. |

Table 10 Components Related to T2: Learning. Source: Case 1 Data Analysis
<table>
<thead>
<tr>
<th>Theme</th>
<th>Component</th>
</tr>
</thead>
</table>
| **T3: Keeping The Patient at the Centre** | C1: Managing Knowledge  
C2: Managing Information  
C3: Multidisciplinary Operations  
C4: Collaborative Operations  
C5: Managing Technology  
C6: Managing Change and the Effects of Change  
L1: Collaboration  
L2: Balance  
L3: Language  
L4: Absorptive Capacity  
L5: Diversity  
L6: Conflict  
L7: Trust  
B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation  
B2: Rapid Inclusion in a Socially Stable Structure  
B3: Addressing Values Based Issues  
B4: Understanding the Patient’s Situation as the Basis for Care  
B5: Working in Teams  
CO1: Uncertainty  
CO2: Workforce  
CO3: Patients  
CO4: Healthcare Environment  
CO5: Change  
CH1: Specialists and professionals with high levels of skill and knowledge, who had undertaken long periods of training prior to working in palliative care, would be employed.  
CH2: Work would often be complex.  
CH3: Staff grouped functionally for administrative purposes, allocated to multidisciplinary teams for particular situations.  
CH4: The great majority of work tasks would require collaborative effort.  
CH5: A primary coordinator of collaborative effort would be informal communication between staff members on teams.  
CH6: Professionals sustain levels of skill and knowledge using ongoing training within disciplines or other specialist or professional groups and transfer knowledge and information between disciplines, teams and individuals.  
CH7: Decision making autonomy accompanies professionals to multidisciplinary teams, authority often sourced in professional experience.  
CH9: Broadly based singular focus on the purpose of the organisation, expressed as the organisation’s mission. Used as a tool for indoctrination of new staff and, at times, as coordinating mechanism for work tasks. |

**Table 11 Components Related to T3: Keeping the Patient at the Centre.**  
**Source:** Case 1 Data Analysis
<table>
<thead>
<tr>
<th>Theme</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C1: Managing Knowledge</td>
</tr>
<tr>
<td></td>
<td>C2: Managing Information</td>
</tr>
<tr>
<td></td>
<td>C3: Multidisciplinary Operations</td>
</tr>
<tr>
<td></td>
<td>C4: Collaborative Operations</td>
</tr>
<tr>
<td></td>
<td>C6: Managing Change and the Effects of Change</td>
</tr>
<tr>
<td></td>
<td>L1: Collaboration</td>
</tr>
<tr>
<td></td>
<td>L3: Language</td>
</tr>
<tr>
<td></td>
<td>L4: Absorptive Capacity</td>
</tr>
<tr>
<td></td>
<td>L6: Conflict</td>
</tr>
<tr>
<td></td>
<td>L7: Trust</td>
</tr>
<tr>
<td></td>
<td>B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation</td>
</tr>
<tr>
<td></td>
<td>B3: Addressing Values Based Issues</td>
</tr>
<tr>
<td></td>
<td>B4: Understanding the Patient’s Situation as the Basis for Care</td>
</tr>
<tr>
<td></td>
<td>B5: Working in Teams</td>
</tr>
<tr>
<td></td>
<td>B6: Collaborating Within the Patient Management Process</td>
</tr>
<tr>
<td></td>
<td>B7: Managing Ambivalence in the Team</td>
</tr>
<tr>
<td></td>
<td>CO1: Uncertainty</td>
</tr>
<tr>
<td></td>
<td>CO2: Workforce</td>
</tr>
<tr>
<td></td>
<td>CO3: Patients</td>
</tr>
<tr>
<td></td>
<td>CO4: Healthcare Environment</td>
</tr>
<tr>
<td></td>
<td>CO5: Change</td>
</tr>
<tr>
<td></td>
<td>CH2: Work would often be complex.</td>
</tr>
<tr>
<td></td>
<td>CH4: The great majority of work tasks would require collaborative effort.</td>
</tr>
<tr>
<td></td>
<td>CH5: A primary coordinator of collaborative effort would be informal communication between staff members on teams</td>
</tr>
<tr>
<td></td>
<td>CH6: Professionals sustain levels of skill and knowledge using ongoing training within disciplines or other specialist or professional groups and transfer knowledge and information between disciplines, teams and individuals</td>
</tr>
</tbody>
</table>

Table 12 Components Related to T4: Ad Hoc Communication. Source: Case 1 Data Analysis
4.2.3.4 Reverse Thematic Analysis
A reverse thematic analysis was conducted to verify the thematic analysis. The result of this process was a set of tables that displayed the Major Themes that occurred in relation to each of the components. These tables follow here but are preceded by two summary views. The first, immediately below shows 15 of the components of the model for palliative care related to all of the Major Themes.

<table>
<thead>
<tr>
<th>C1</th>
<th>Managing Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>C2</td>
<td>Managing Information</td>
</tr>
<tr>
<td>C3</td>
<td>Multidisciplinary Operations</td>
</tr>
<tr>
<td>L1</td>
<td>Collaboration</td>
</tr>
<tr>
<td>L3</td>
<td>Language</td>
</tr>
<tr>
<td>L6</td>
<td>Conflict</td>
</tr>
<tr>
<td>L7</td>
<td>Trust</td>
</tr>
<tr>
<td>B1</td>
<td>Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation</td>
</tr>
<tr>
<td>B4</td>
<td>Understanding the Patient’s Situation as the Basis for Care</td>
</tr>
<tr>
<td>B5</td>
<td>Working in Teams</td>
</tr>
<tr>
<td>CO1</td>
<td>Uncertainty</td>
</tr>
<tr>
<td>CO2</td>
<td>Workforce</td>
</tr>
<tr>
<td>CO3</td>
<td>Patients</td>
</tr>
<tr>
<td>CO4</td>
<td>Healthcare Environment</td>
</tr>
<tr>
<td>CO5</td>
<td>Change</td>
</tr>
</tbody>
</table>

Table 13 Components Related to All of the Major Themes. Source: Case 1 Data Analysis

The second of the summary views, overleaf, shows that at the completion of the reverse thematic analysis it was possible to see that the theme related to the greatest number of components, was \textit{T3: Keeping the Patient at the Centre} (31 of a possible 37 relationships). This was followed by \textit{T1: Collaboration} and \textit{T4: Ad Hoc Communication} with 25 relationships each then by \textit{T2: Learning} with 19 relationships.
<table>
<thead>
<tr>
<th>Component</th>
<th>Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1: Managing Knowledge</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>C2: Managing Information</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>C3: Multidisciplinary Operations</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>C4: Collaborative Operations</td>
<td>T1 T3 T4</td>
</tr>
<tr>
<td>C5: Managing Technologies</td>
<td>T3</td>
</tr>
<tr>
<td>C6: Managing Change and the Effects of Change</td>
<td>T1 T3 T4</td>
</tr>
<tr>
<td>L1: Collaboration</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>L2: Balance</td>
<td>T3</td>
</tr>
<tr>
<td>L3: Language</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>L4: Absorptive Capacity</td>
<td>T2 T3 T4</td>
</tr>
<tr>
<td>L5: Diversity</td>
<td>T3</td>
</tr>
<tr>
<td>L6: Conflict</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>L7: Trust</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>L8: Power Sharing</td>
<td></td>
</tr>
<tr>
<td>B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>B2: Rapid Inclusion in a Socially Stable Structure</td>
<td></td>
</tr>
<tr>
<td>B3: Addressing Values Based Issues</td>
<td>T3 T4</td>
</tr>
<tr>
<td>B4: Understanding the Patient’s Situation as the Basis for Care</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>B5: Working in Teams</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>B6: Collaborating Within the Patient Management Process</td>
<td>T1 T2 T4</td>
</tr>
<tr>
<td>B7: Managing Ambivalence in the Team</td>
<td>T1 T4</td>
</tr>
<tr>
<td>CO1: Uncertainty</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>CO2: Workforce</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>CO3: Patients</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>CO4: Healthcare Environment</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>CO5: Change</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>CH1: Employing specialists and professionals, high levels of skill and knowledge, long periods of training prior to working in palliative care.</td>
<td>T3</td>
</tr>
<tr>
<td>CH2: Work would often be complex.</td>
<td>T1 T3 T4</td>
</tr>
<tr>
<td>CH3: Staff grouped functionally for administrative purposes, allocated to multidisciplinary teams for particular situations or projects.</td>
<td>T3</td>
</tr>
<tr>
<td>CH4: Majority of Work Tasks Require Collaborative Effort</td>
<td>T1 T3 T4</td>
</tr>
<tr>
<td>CH5: A primary coordinator of collaborative effort would be informal communication between staff members on teams</td>
<td>T1 T3 T4</td>
</tr>
<tr>
<td>CH6: Professionals sustain levels of skill and knowledge using ongoing training within disciplines or other specialist or professional groups and transfer knowledge and information between disciplines, teams and individuals.</td>
<td>T2 T3 T4</td>
</tr>
<tr>
<td>CH7: Decision making autonomy accompanies professionals to multidisciplinary teams, authority is often sourced in professional experience.</td>
<td>T1 T3</td>
</tr>
<tr>
<td>CH8: Senior managers found working in the multidisciplinary patient care teams.</td>
<td>T1</td>
</tr>
<tr>
<td>CH9: Broadly based singular focus on the purpose of the organisation, expressed as the organisation’s mission. Used as a tool for indoctrination of new staff and, at times, as coordinating mechanism for work tasks.</td>
<td>T3</td>
</tr>
<tr>
<td>CH10: The organisation would be politicised and operating in a politicised environment.</td>
<td>T1</td>
</tr>
<tr>
<td>CH11: Separate section of the organisation, structured and operating differently to interface with healthcare bureaucracies and regulators.</td>
<td></td>
</tr>
</tbody>
</table>

Table 14 Components and the Major Themes to which they Relate. Source: Case 1 Data Analysis
4.2.4 Analysis Level 3a - Developing and Testing Propositions for an Explanatory Framework

4.2.4.1 Introduction to Level 3a – Matrix Analysis of Major Themes
At this level of the analysis, the final level for this individual case study organisation, the data and relationships within were displayed in coded form only. The analysis here takes the results of the Thematic Analysis and displays them in matrix form. This display enables the development of a contingency driven view of the data drawn from the explanatory phase of the Thematic Analysis. Once developed, this view relates Major Themes and components in response to or as influenced by the Contingencies.

4.2.4.2 Thematic Analysis in Matrix
The table overleaf displays the results of the thematic analysis as a matrix for each of the Major Themes. Each row within each theme contains a number of cells corresponding to the total number of that particular component contained in the model for palliative care. For example there are 6 Organisational Capabilities in the model, therefore 6 cells in the row of Capabilities. Not all cells contain components, reflecting the varying relationships between Major Themes and components from theme to theme. However, viewing all themes together accounts for all components except, as noted previously, CH11 and L8.
<table>
<thead>
<tr>
<th>Theme</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C1</td>
</tr>
<tr>
<td>T1</td>
<td>L1</td>
</tr>
<tr>
<td></td>
<td>B1</td>
</tr>
<tr>
<td></td>
<td>CO1</td>
</tr>
<tr>
<td></td>
<td>CH2</td>
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<tr>
<td>T2</td>
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<td>T3</td>
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<td>CH1</td>
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</tr>
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<td>B1</td>
</tr>
<tr>
<td></td>
<td>CO1</td>
</tr>
<tr>
<td></td>
<td>CH2</td>
</tr>
</tbody>
</table>

Table 15  Results of the Thematic Analysis in Matrix. Source: Case 1 Data Analysis
4.2.4.3 A Contingency Driven View of the Thematic Analysis

Following the thematic analysis and in terms of further understanding the relationships in the data there appeared to be two issues to address. The first was that while the thematic analysis included the relationship between Major Themes and contingencies it did not include the relationships between contingencies and the other components of the model for palliative care, although these relationships had been articulated in the explanatory section of the thematic analysis. The second issue was that while characteristics of configuration had been linked to Major Themes they could not be linked to the contingencies outside of the themes. This was perhaps because they were organisational characteristics expressed at that level and reflecting the requirements placed on the organisation by its external and internal operating environments. The first issue was addressed in the following section, where the thematic analysis was expanded by taking a contingency based view. The second issue was addressed by not attempting to force fit the characteristics of configuration into the expanded analysis.

In this section of the analysis contingencies were displayed as the drivers, with the components of the model for palliative care related to each major theme changing as the contingency changed. This was articulated in the explanatory section of the thematic analysis but not displayed as such because of the emphasis on Major Themes. Note that the following displays do not include the characteristics of configuration.

A contingency based view was sought because the model for palliative care was a contingency driven model, where a number of components interacted in response to contingencies from the external and internal operating environments. Following the development of the model for palliative care through the literature review process one thing was not clear; the dynamic/s, for want of a better term at this time, that connected one or more contingencies to a palliative care organisation’s response in the form of a combination of the components of the model.
4.2.4.4 Combining the Matrix Displays
In addition to the display of the contingency driven relationships in the data the tables following will also display all components relevant to each theme. This combined display enables a comparison of what components were used in response to, or were influenced by, contingencies via the Major Themes and what components are related to the Major Themes. The coded components appear in two different shadings; bold black indicates a component used in response to, or influenced by, a contingency via a Major Theme, grey indicates components defined in the Thematic Analysis but not used, or influenced, in that particular Major Theme when related to different contingencies.

Components not originally identified as related to particular themes in the Thematic Analysis can not now be identified in response to the contingencies. This is because the relationship between the contingencies and the Major Themes was drawn from the Major Themes.

4.2.4.5 Comments on the Contingency Driven View
The contingency driven view clearly displays the dynamic changes in components applied, or influenced, by contingencies within the Major Themes. For example, T3: Keeping the Patient at the Centre utilises 13 components when applied in response to CO1: Uncertainty, 9 components in response to CO3: Patients and 13 components in response to CO5: Change and the mix is different between CO1 and CO5. This variation in the number of components utilised, or affected, and the mix of components occurs in all contingencies.

It can be seen that in three of the four contingency driven Major Themes there is a small number of components that are found in the thematic analysis but not found in the contingency driven view. The only Major Theme where this did not occur was T3: Keeping the Patient at the Centre. Where it did occur it was limited to five components: two Management Levers; L6: Conflict and L7: Trust and three Behaviours; B5: Working in Teams, B6: Collaborating Within the Patient Management Process and B7: Managing Ambivalence in the Team.
With regard to the Management Levers the gaps occurred in all contingency driven views of T1: Collaboration, T2: Learning and T4: Ad Hoc Communication. As for the Behaviours, the gaps occurred in all contingency driven views of T1: Collaboration and T2: Learning. These are identified in the following tables with a circle.

The significance, if any, of these small gaps in the contingency driven view are not yet understood and it will be interesting to see if they recur in the other case study analyses. Perhaps they were the result of a simple failing in the interview process, such as not asking the right question at the right time. Perhaps they were the result of something else. For example, L7: Trust was not spoken of in the management team interview on Management Levers but was referred to as a Lever when multidisciplinary teams were interviewed regarding Behaviours in the multidisciplinary teams. So it is perhaps not unexpected that it appears in relation to T3: Keeping the Patient at the Centre and nowhere else.

4.2.4.6 Matrix Display of Contingency Driven Application or Influence of Components in Major Themes

<table>
<thead>
<tr>
<th>Contingency</th>
<th>Theme</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1</td>
<td></td>
<td>C1 C2 C3 C4 C6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L1 L3 L6 L7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B1 B4 B5 B6 B7</td>
</tr>
<tr>
<td>T2</td>
<td></td>
<td>C1 C2 C3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L1 L3 L4 L6 L7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B1 B2 B3 B4 B5 B6</td>
</tr>
<tr>
<td>T3</td>
<td></td>
<td>C1 C2 C3 C4 C5 C6</td>
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<tr>
<td></td>
<td></td>
<td>L1 L2 L3 L4 L5 L6 L7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B1 B2 B3 B4 B5</td>
</tr>
<tr>
<td>T4</td>
<td></td>
<td>C1 C2 C3 C4 C6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L1 L3 L4 L6 L7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B1 B3 B4 B5 B6 B7</td>
</tr>
</tbody>
</table>

Table 16 Components Applied in Major Themes in Response to CO1: Uncertainty. Source: Case 1 Data Analysis
<table>
<thead>
<tr>
<th>Contingency</th>
<th>Theme</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CO2</strong></td>
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</tr>
<tr>
<td>T1</td>
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<td>C1</td>
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<td>T2</td>
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<td>B1</td>
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<td>T3</td>
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<td>C1</td>
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<td>L1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B1</td>
</tr>
</tbody>
</table>

Table 17 Components Influenced During Application in Major Themes by CO2: Workforce. Source: Case 1 Data Analysis

<table>
<thead>
<tr>
<th>Contingency</th>
<th>Theme</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CO3</strong></td>
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<td>L1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B1</td>
</tr>
</tbody>
</table>

Table 18 Components Applied in Major Themes in Response to CO3: Patients. Source: Case 1 Data Analysis
### CO4: Healthcare Environment

<table>
<thead>
<tr>
<th>Contingency</th>
<th>Theme</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td></td>
<td>C1 C2 C3 C4 C6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L1 L3 L6 L7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B1 B4 B5 B6</td>
</tr>
<tr>
<td>T2</td>
<td></td>
<td>C1 C2 C3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L1 L3 L4 L6 L7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B1 B2 B3 B4 B5</td>
</tr>
<tr>
<td>T3</td>
<td></td>
<td>C1 C2 C3 C4 C5 C6</td>
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<td></td>
<td></td>
<td>L1 L2 L3 L4 L5 L6 L7</td>
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<td></td>
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<td>B1 B2 B3 B4 B5</td>
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<tr>
<td>T4</td>
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<td>C1 C2 C3 C4</td>
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<tr>
<td></td>
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<td>L1 L3 L4 L6 L7</td>
</tr>
<tr>
<td></td>
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<td>B1 B3 B4 B5 B6</td>
</tr>
</tbody>
</table>

Table 19 Components Influenced During Application in Major Themes by CO4: Healthcare Environment. Source: Case 1 Data Analysis

### CO5: Change

<table>
<thead>
<tr>
<th>Contingency</th>
<th>Theme</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td></td>
<td>C1 C2 C3 C4 C6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L1 L3 L6 L7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B1 B4 B5 B6</td>
</tr>
<tr>
<td>T2</td>
<td></td>
<td>C1 C2 C3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L1 L3 L4 L6 L7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B1 B2 B3 B4 B5</td>
</tr>
<tr>
<td>T3</td>
<td></td>
<td>C1 C2 C3 C4 C5 C6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L1 L2 L3 L4 L5 L6 L7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B1 B2 B3 B4 B5</td>
</tr>
<tr>
<td>T4</td>
<td></td>
<td>C1 C2 C3 C4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L1 L3 L4 L6 L7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B1 B3 B4 B5 B6</td>
</tr>
</tbody>
</table>

Table 20 Components Applied in Major Themes in Response to CO5: Change. Source: Case 1 Data Analysis
4.2.5 Comments at the Completion of the Case Study 1 Analysis

This case study analysis followed the model of abstraction described in the thesis methodology to Level 3a. This means that the data has been summarised from the interview transcripts, abstracted to depersonalise it and reviewed for Major Themes. Four Major Themes were found; \textit{T1: Collaboration}, \textit{T2: Learning}, \textit{T3: Keeping the Patient at the Centre} and \textit{T4: Ad Hoc Communication} and these provided the basis for a thematic analysis of the data. The thematic analysis was verified using a reverse thematic analysis. The data was then reduced to its coded form and presented in a series of matrices beginning with the results of the thematic analysis, then developing a contingency based view which was combined with a comparison of the thematic and contingency based views. Several interesting points arose.

The suggested components of the model for palliative care were found in the data and occurred in relation to multiple Major Themes, except for \textit{L8: Power Sharing} and \textit{CH11: Separate section of the organisation, structured and operating differently to interface with healthcare bureaucracies and regulators}. Finding multiple relationships between components and Major Themes seemed to indicate multiple usefulness and application of components for different purposes or in reaction to different stimuli.

4.2.5.1.1 General


The Major Theme \textit{T3: Keeping the Patient at the Centre} was related to 31 of a possible 37 components of the model for palliative care, a little over 80% of components. This was followed by \textit{T1: Collaboration} and \textit{T4: Ad Hoc Communication} with 25 relationships each, a little over 60% of components, and \textit{T2:}
Learning with 19 relationships, a little over 50%. An overlap in the utilisation of components of the model for palliative care is indicated here.

4.2.5.1.2 A Summary of the Thematic View
The Thematic View offered a picture of an organisation that was specifically resourced and structured for complex work involving heterogeneous teams of professionals that must maintain and exchange skills, knowledge and information between the disciplines in a workplace that demanded collaborative effort be applied. This organisation appeared to be managed collaboratively using conflict and trust persistently and learning, knowledge and information networks inside and outside the organisation commonly. This organisation appeared to persistently apply its capabilities for managing knowledge and information in multidisciplinary teams and commonly applies collaboration and change management as capabilities in the same teams. Resourcing, structure and capabilities appeared to be in place so that the teams were always available, could persistently work at generating trust and understanding a wide range of situational drivers surrounding and impacting each team’s focus; the patient, and work collaboratively at these tasks utilising high frequencies of ad hoc communications across disciplines and through networks inside and outside the organisation, to generate and exchange knowledge and information as a patient’s situation changed or change in that situation was anticipated or detected. The purpose of the application of these Behaviours was to define, package and deliver whatever mix of care types was necessary to address an individual patient’s situation. The patient could be an active member of this team if so choosing. The mix of delivery style, as well as the mix of care type, could be new or not new.

4.2.5.2 The Contingency Driven View
As described above, the Contingencies appeared as two types. CO1: Uncertainty, CO3: Patients and CO5: Change appeared as drivers of the application of components in Major Themes. CO2: Workforce and CO4: Healthcare Environment appeared to influence components during application in Major Themes. All of the Contingencies were related to all of the Major Themes. In the contingency driven view that was generated the application of components of the model for palliative
care and the components influenced during application varies from contingency to contingency. However, the degree of variation was less for the contingencies that influence components in application. A number of the components that appeared as persistent in the Thematic View remain as persistent in the contingency driven view.

Contingencies are addressed individually below.

4.2.5.2.1 General

Particular components were applied in all Major Themes in response to CO1: Uncertainty, CO3: Patients and CO5: Change. These were: C1: Managing Knowledge and C2: Managing Information.

With regard to the Contingencies influencing components during application, CO2: Workforce and CO4: Healthcare Environment, there were components of the model for palliative care that were persistently influenced in all Major Themes. In CO2: Workforce these were L1: Collaboration, L3: Language, B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation and B4: Understanding the Patient’s Situation as the Basis for Care. In CO4: Healthcare Environment these components were C1: Managing Knowledge, C2: Managing Information, B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation and B4: Understanding the Patient’s Situation as the Basis for Care.

In the Thematic View T3: Keeping the Patient at the Centre, was the Major Theme related to the greatest number of components. In the Contingency Driven View T3: Keeping the Patient at the Centre was the Major Theme related to the application of the greatest number of components except in CO3: Patients, where it was equal with T1: Collaboration. T3: Keeping the Patient at the Centre was the Major Theme with the greatest number of components influenced by CO2: Workforce and CO4: Healthcare Environment.

However, whereas in the Thematic View the difference in related components between T3: Keeping the Patient at the Centre and the next most frequent relationships was some 20% of the total components, in the Contingency Driven
View the difference in components applied and components influenced in T3: *Keeping the Patient at the Centre* and the other Major Themes was far smaller. As already noted, the difference was zero in one instance. In other comparisons the difference was commonly one or two components. This indicated a more even application of components in Major Themes responding to or influenced by Contingencies than was evident in the Thematic View.

Another interesting group of components was also apparent. This group occurred in every Major Theme in response to particular Contingencies and comprises the following. C3: *Multidisciplinary Operations* and L3, *Language* were applied in each Major Theme in response to CO1: *Uncertainty*; L3: *Language* was applied in each Major Theme in response to CO3: *Patients*; C3: *Multidisciplinary Operations* was applied in each Major Theme in response to CO5: *Change*.

The next most frequently applied component appeared to be L4: *Absorptive Capacity*, applied in all Major Themes except T1: *Collaboration* in response to CO1: *Uncertainty* and CO5: *Change*, as well as being among those components influenced by CO2: *Workforce* and CO4: *Healthcare Environment*.

There was another group of components that should not be forgotten, though already described. These are the components of the model for palliative care that were present in the data, articulated in the Thematic Analysis but rarely articulated where expected in the Contingency Driven View. These components were marked on the tables with circles. The only Major Theme where this did not occur was T3: *Keeping the Patient at the Centre*. Where it did occur it was limited to five components: two Management Levers; L6: *Conflict* and L7: *Trust* and three Behaviours; B5: *Working in Teams*, B6: *Collaborating Within the Patient Management Process* and B7: *Managing Ambivalence in the Team*.

With regard to the Management Levers the gaps occurred in all contingency driven views of T1: *Collaboration*, T2: *Learning* and T4: *Ad Hoc Communication*. As for the Behaviours, the gaps occurred in all contingency driven views of T1: *Collaboration* and T2: *Learning*. 
The significance, if any, of these small gaps in the contingency driven view was not yet understood. Perhaps they were the result of a simple failing in the interview process, such as not asking the right question at the right time. Perhaps they were the result of something else. For example, \textit{L7: Trust} was not spoken of in the management team interview on Management Levers but was referred to as a lever when multidisciplinary teams were interviewed regarding Behaviours in the multidisciplinary teams.

Those components influenced during their application by \textit{CO4: Healthcare Environment} were small in number, being approximately half the number influenced in application by \textit{CO2: Workforce}, but nevertheless influential. This was particularly the case for \textit{C1: Managing Knowledge} and \textit{C2: Managing Information}. These appear influenced by \textit{CO4: Healthcare Environment} in every application. Here might be the connection to the Characteristic of Configuration \textit{CH11: Separate section of the organisation, structured and operating differently to interface with healthcare bureaucracies and regulators} that was not made in the Thematic Analysis. The interface with the healthcare bureaucracy, through which all of the formal traffic in knowledge and information was managed, might need a separate unit because of the amount of potential traffic and its importance.

\textbf{4.2.5.2.2 A Summary of the Contingency Driven View}

In the Contingency Driven View the dynamics of the operation of the model for palliative care were more apparent. Therefore, so were the dynamics of the care delivery operations of the case study organisation. This appeared to be a quite dynamic organisation that utilised sets of components; Organisational Capabilities, Management Levers and Individual Behaviours applied in multidisciplinary teams. The drivers of the dynamics appeared to be the identified Contingencies.

The same components were applied through different Major Themes in response to the same Contingency, indeed in response to multiple Contingencies. This indicated an inherent flexibility in the management, the workforce and the components themselves. Given the Characteristics of Configuration, this did not appear to occur by chance. This Case study organisation appeared to be designed and managed for dynamic response to uncertain, changing situations.
4.2.6 Case Study 1 Data in Context

The dynamic relationships drawn from Case Study 1 are perhaps more clearly and concisely seen in the following two sets of Figures. Each set displays the operational components of the Model for Palliative Care and the relationships between these components, the Major Themes and Contingencies. The first set, Figure 14, displays these relationships with regard to the driving contingencies. Four components are shaded in this set because they are so persistent in their occurrence. The second set, Figure 15, displays the relationships with regard to the influencing contingencies.

In these Figures five events are observable.
1. The combination of components employed in response to any one of the driving contingencies varies from Major Theme to Major Theme.
2. The combination of Management Levers employed in response to any one of the driving contingencies varies from Major Theme to Major Theme.
3. Within the Major Themes related to any one of the driving contingencies the use of a particular combination of Management Levers is linked to the use of a particular combination of Organisational Capabilities and a particular combination of Individual Behaviours within the teams and this changes from Major Theme to Major Theme.
4. Events 1, 2 and 3 contain different combinations from driving contingency to driving contingency. The differences are not major but perceptible.
5. The influencing contingencies do not influence all of the components in play but CO2: Workforce certainly influences most of them.

The data displayed in Figure 14 is taken from Tables 16, 18 and 20 on pages 189, 190 and 191 respectively.
The data displayed in Figure 15 is taken from Tables 17 and 19 on pages 190 and 191.
<table>
<thead>
<tr>
<th>Major Theme</th>
<th>T1: Collaboration</th>
<th>T2: Learning</th>
<th>T3: Keeping the Patient at the Centre</th>
<th>T4: Ad Hoc Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symbol</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

**Figure 14  Responses via Major Themes to the Driving Contingencies**

**CO1: Uncertainty**

- **Capabilities**
  - C1 Managing Knowledge
  - C2 Managing Information
  - C3 Multidisciplinary Operations
  - C4 Collaborative Operations
  - C5 Managing Technologies
  - C6 Managing Change and the Effects of Change

- **Behaviours**
  - B1 Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation
  - B2 Rapid Inclusion in a Socially Stable Structure
  - B3 Addressing Values Based Issues
  - B4 Understanding the Patient’s Situation as the Basis for care

- **Performances**
  - B5 Working in Teams
  - B6 Collaborating Within the Care Delivery Process
  - B7 Managing Ambivalence in the Team

**CO3: Patients**

- **Capabilities**
  - C1 Managing Knowledge
  - C2 Managing Information
  - C3 Multidisciplinary Operations
  - C4 Collaborative Operations
  - C5 Managing Technologies
  - C6 Managing Change and the Effects of Change

- **Behaviours**
  - B1 Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation
  - B2 Rapid Inclusion in a Socially Stable Structure
  - B3 Addressing Values Based Issues
  - B4 Understanding the Patient’s Situation as the Basis for care

- **Performances**
  - B5 Working in Teams
  - B6 Collaborating Within the Patient Management Process
  - B7 Managing Ambivalence in the Team

**CO5: Change**

- **Capabilities**
  - C1 Managing Knowledge
  - C2 Managing Information
  - C3 Multidisciplinary Operations
  - C4 Collaborative Operations
  - C5 Managing Technologies
  - C6 Managing Change and the Effects of Change

- **Behaviours**
  - B1 Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation
  - B2 Rapid Inclusion in a Socially Stable Structure
  - B3 Addressing Values Based Issues

- **Performances**
  - B4 Understanding the Patient’s Situation as the Basis for care
  - B5 Working in Teams
  - B6 Collaborating Within the Patient Management Process
  - B7 Managing Ambivalence in the Team
<table>
<thead>
<tr>
<th>Major Theme</th>
<th>T1: Collaboration</th>
<th>T2: Learning</th>
<th>T3: Keeping the Patient at the Centre</th>
<th>T4: Ad Hoc Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symbol</td>
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<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

**CO2: Workforce**

- **Capabilities**
  - C1 Managing Knowledge
  - C2 Managing Information
  - C3 Multidisciplinary Operations
  - C4 Collaborative Operations
  - C5 Managing Technologies
  - C6 Managing Change and the Effects of Change

- **Behaviours**
  - B1 Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation
  - B2 Rapid Inclusion in a Socially Stable Structure
  - B3 Addressing Values Based Issues
  - B4 Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation
  - B5 Working in Teams
  - B6 Collaborating Within the Patient Management Process
  - B7 Managing Ambivalence in the Team

- **Performances**
  - L1 Collaboration
  - L2 Balance
  - L3 Language
  - L4 Absorptive Capacity
  - L5 Diversity
  - L6 Conflict
  - L7 Trust
  - L8 Power sharing

**CO4: Healthcare Environment**

- **Capabilities**
  - C1 Managing Knowledge
  - C2 Managing Information
  - C3 Multidisciplinary Operations
  - C4 Collaborative Operations
  - C5 Managing Technologies
  - C6 Managing Change and the Effects of Change

- **Behaviours**
  - B1 Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation
  - B2 Rapid Inclusion in a Socially Stable Structure
  - B3 Addressing Values Based Issues
  - B4 Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation
  - B5 Working in Teams
  - B6 Collaborating Within the Patient Management Process
  - B7 Managing Ambivalence in the Team

- **Performances**
  - L1 Collaboration
  - L2 Balance
  - L3 Language
  - L4 Absorptive Capacity
  - L5 Diversity
  - L6 Conflict
  - L7 Trust
  - L8 Power sharing

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**Figure 15** Components Influenced in Application via Major Themes by CO2: Workforce, CO4: Healthcare Environment
4.3 Case Study 2 Analysis

4.3.1 Introduction

Case Study 2, at the time of interview, was conducted in a stand alone palliative care organisation that contained some ninety five staff, including a team of 10 dedicated to the community care program where patients were cared for in their homes, and fifty inpatient beds. The organization’s catchment was a population of some 320,000 and included hospitals, specialists and general practitioners (family doctors). Multidisciplinary staffing consisted of the following disciplines: medicine, nursing, social work, spiritual care, physiotherapy, occupational therapy and grief counselling.

Five interviews were carried out at this case study organisation. The operational management team, consisting of the heads of disciplines and the Director of palliative care for the local Area Health Service, was interviewed about Organisational Capabilities and Management Levers. The management team was interviewed as a team on both occasions. Two interviews on Individual Behaviours within multidisciplinary teams were conducted, one with a ward-based team and one with the community care team. These teams were interviewed as teams. The interview regarding the Characteristics of Configuration was conducted with the Director.

The display of the case study organisation 2 data analysis does not contain Level 1b as the process is identical to that displayed for Case Study 1. However, Level 1b is available in Appendix 4. The Case Study 2 analysis description and display contained here begins at Level 2 part 1 - Repackaging and Aggregating the Data.
4.3.2 Analysis Level 2 part 1– Repackaging and Aggregating the Data

4.3.2.1 Organisational Capabilities

4.3.2.1.1 C1: Managing Knowledge
The application of the capability was not dependent on formal organisational occasions.
Application occurred in real-time and frequently, formally and informally.
Knowledge was said to be created from and required a collaboration of inputs. This produced a richer picture than that available if knowledge was created from a single source of information.
Openness was a characteristic of knowledge use.
Collaborative input included that of patients and patient-based carers.
Patients and patient-based carers brought their own knowledge to palliative care.
Knowledge was used to reduce uncertainty.
Any relevant source was used to create knowledge.
Knowledge creation occurred wherever and whenever it occurred, it did not require specified time or space.

4.3.2.1.2 C2: Managing Information
The application of the capability was not dependent on formal organisational occasions.
Application occurred in real-time and frequently, formally and informally.
All disciplines supplied information to the teams.
Information was shared among the disciplines.
Openness was a characteristic of information exchange.
Information was gathered from multiple sources and then shared among the sources.
Patients and patient-based carers were valid sources of information.
The use of information was situational.
Information was used to reduce uncertainty.
Information was valuable in generating a whole picture of a patient or patient-based carers.
4.3.2.1.3 C3: Multidisciplinary Operations
The application of the capability was not dependent on formal organisational occasions.
Application occurred in real-time and frequently, formally and informally.
Multidisciplinary operations enabled the creation, sharing and management of knowledge and information across discipline boundaries.
Multidisciplinary operations were described as a normal part of daily operations.
A lack of the type of temporal pressure found in acute hospitals (for example, bed turnover rates) was said to enable multidisciplinary operations.
Respect between the disciplines was said to be an enabler of multidisciplinary operations.

4.3.2.1.4 C4: Collaborative Operations
The application of the capability was not dependent on formal organisational occasions.
Application occurred in real-time and frequently, formally and informally.
Collaborative operations were a normal part of work.
Collaboration was a source of respect and recognition among team members.
Collaboration occurred not just in care delivery but also in managing staff shortages.
A lack of the type of temporal pressure found in acute hospitals (for example, bed turnover rates) was said to enable collaborative operations.
Staff viewed themselves as collaborators for the patient’s benefit.

4.3.2.1.5 C5: Managing Technologies
The case study organisation was described as low-tech with access to sophisticated technologies, held in other healthcare organisations, if required.
Technology was viewed as something with which to provide comfort for patients.
Technology was something to be applied only to suit and benefit the patient.
Patients were said to have the technology attached to them not to be attached to the technology.
4.3.2.1.6  C6: Managing Change and the Effects of Change

The application of the capability was not dependent on formal organisational occasions.
Application occurred in real-time and persistently, formally and informally.
Change occurred at organisational and care delivery levels.
Results and anticipation of change were managed collaboratively.
Results and anticipation of change were drivers of information and knowledge management.
Management of change in patient’s situations was said to include openness and honesty.
4.3.2.2 Management Levers

4.3.2.2.1 L1: Collaboration
Standard and routine practice in palliative care.
The application of the capability was not dependent on formal organisational occasions.
Application occurred in real-time and frequently, formally and informally.
Collaboration was an enabler of situation specific care delivery.
Enabled quick decision making.
Collaboration was an enabler of communication, particularly informal communication.
Collaboration was referred to as an enabler of the management of staff turnover.
Patients were noted as involved in collaboration with the multidisciplinary teams.
A lack of the type of temporal pressure found in acute hospitals (for example, bed turnover rates) was said to enable collaborative operations.

4.3.2.2.2 L2: Balance
The application of the lever was not dependent on formal organisational occasions.
Application occurred in real-time and frequently, formally and informally.
Driven by patients’ and patient-based carers’ situations.
Balance was a mix of skills, qualifications and depth of experience.
Balancing a team was said to be of primary importance.
Maintenance of balance required collaboration.

4.3.2.2.3 L3: Language
The application of the lever was not dependent on formal organisational occasions.
Application occurred in real-time and frequently, formally and informally.
The use of common languages occurred at more than one level; for example, between disciplines and between teams and patients.
Each discipline had a specific language.
Common languages enabled transfer of information between disciplines and between the teams and patients and patient-based carers.
The generation and use of common languages facilitated multidisciplinary care delivery.
4.3.2.2.4  **L4: Absorptive Capacity**
The application of the lever was not dependent on formal organisational occasions. Application occurred in real-time and frequently, formally and informally. Disciplines were used as conduits of information and for sourcing and disseminating information inside and outside of the case study organisation and palliative care. Information was imported from discipline based sources directly to the teams. The disciplines maintained active networks outside of palliative care. Results of information sourcing were recorded in a resource manual.

4.3.2.2.5  **L5: Diversity**
The application of the lever was not dependent on formal organisational occasions. Application occurred in real-time and frequently, formally and informally. Diversity was said to offer the teams a large range of experiences and knowledge. Non-clinical and non-palliative care experience were valued components of diversity, often embodied in volunteers. Diversity described in terms of functional, role and social. Diversity was described as necessary for the delivery of palliative care.

4.3.2.2.6  **L6: Conflict**
The application of the lever was not dependent on formal organisational occasions. Application occurred in real-time, formally and informally. Conflict was described as a natural part of working in teams. The voicing of opinions, use of discussions and debate were all considered as contributing to learning in teams and by patients. Described as useful in encouraging those perhaps slow or unwilling to participate or collaborate in the teams and the organisation. Required an honest expression of views. Important in gathering and exchanging information. Enabled interaction with patients and patient-based carers. Was not always associated with adverse outcomes.
4.3.2.2.7  L7: Trust
The application of the lever was not dependent on formal organisational occasions. Application occurred in real-time and frequently, formally and informally. Trust enabled collaboration, the situational mixing of teams and power sharing. Trust enabled the generation and dissemination of information and knowledge. Trust enabled the delivery of multidisciplinary care. Trust enabled palliative care.

4.3.2.2.8  L8: Power Sharing
The application of the capability was not dependent on formal organisational occasions. Application occurred in real-time and frequently, formally and informally. Patients were described as having a level of power in the relationship with the multidisciplinary team. Patients had choices that had to be respected. Power sharing was a method of everybody having the benefit of the expertise available in the decision making process.
4.3.2.3 Individual Behaviours – Ward Team and Community Team

4.3.2.3.1 B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation

This behaviour was in use formally and informally. The team described artefacts such as personal, inter-organisational, interdisciplinary and social networks, observation skills, interpersonal skills, experience, knowledge, record keeping procedures and formal and informal information gathering procedures. The willingness of patients and patient-based carers to trust at first encounter was varied.

Networks of the Community team included the patients’ General Practitioners. The quality of relationship between the Community team and the GP could be influential in trust building and maintenance. Trust building could be achieved by information sharing, staff demonstrating experience and knowledge of patient requirements, willingness to listen to the patient and willingness to explain things such as medication to patients. Patients were noted as bringing their own artefacts. Trust was described as two-way; being required by the team as well as the patient and patient-based carers. Trust building was described as necessary for information gathering. This behaviour was enabled by respect for the patient. The team sought opportunities to demonstrate trustworthiness.

4.3.2.3.2 B2: Rapid Inclusion in a Socially Stable Structure

This behaviour was in use formally and informally. First use of this behaviour was an assessment of the patient’s existing social support structure at admission to the organisation. The admission process was concentrated on equipping the patient for the ward socially. Patients’ answers to admission questions were used, in part, to brief staff on the social structure and requirements of the patient so that inclusion could occur, or begin effectively, as soon as possible. Guidelines for socialisation were sought from the patient and patient-based carers. Honesty was noted as an essential part of this process.
This behaviour was described as essential for all disciplines, to be applied as early as possible in their interactions with patients and patient-based carers. Sometimes required repeated application.

Attempts at socialisation or inclusion by the Community team were based on the patient’s local situation instead of on preparation for a ward. Regardless of the patient’s location a socially stable environment was noted as important for multidisciplinary care delivery.

This was not always possible while the patient remained within her or his local community or household.

Socially stable structures were said to assist with trust building and maintenance as they provided more opportunities to demonstrate trustworthiness.

4.3.2.3.3 B3: Addressing Values Based Issues

This behaviour was in use formally and informally.

Values based issues are described as essential parts of the “jigsaw” that each patient represents.

Team members saw themselves as responsible for putting together all of the parts of the jigsaw.

Values based issues were also referred to as spiritual or psychosocial issues.

Team members noted that all had to be aware of the existence or potential existence of these issues with any patient, or patient-based carers, so that relevant team members could be advised.

Addressing values based issues was described as making care delivery more complex than in other types of healthcare organisations as all of the patient had to be addressed.

This behaviour was described as persistently necessary and directly related to the philosophy of palliative care.

Dealing with the impact of values based issues on patients and patient-based carers was common.

A relationship between values based issues and the wellbeing of patients was noted.
4.3.2.3.4 B4: Understanding the Patient’s Situation as the Basis for Care
This behaviour was in use formally and informally.
Decision making during the end of life process was said to require as good and broad a picture of the patient’s situation as could be generated.
Team members actively sought to exploit opportunities for informal conversations with patients as these opportunities were said to provide more realistic patient opinions and feelings about requirements and the end of life process.
All opportunities to add more pieces of the “puzzle” were taken.
Understanding the patient’s situation was described as central to the philosophy of palliative care and fundamental to the delivery of holistic care.
Essential, even crucial, to the delivery of palliative care.
Utilised collaboratively.
Enabled the tailoring care to patients and patient-based carers.

4.3.2.3.5 B5: Working in Teams
This behaviour was in use formally and informally.
Team members described working in teams as being “interlinked” or “laced together almost”.
Teams were described as necessary for the delivery of holistic care because of the range of types of care delivered.
Respect was noted as an enabler of team work.
A lack of the type of temporal pressure found in acute hospitals (for example, bed turnover rates) was said to enable working in teams.
Sub-optimal when team members did not listen to each other.
Membership of patient care teams was dependant on the patient’s situation.
The case study organisation was described as “team oriented”.
Necessary for the delivery of palliative care because of the range of disciplines that needed to be permanently involved in holistic care.
Rotating staff from other organisations through palliative care teams was seen as disruptive to team dynamics.
4.3.2.3.6  B6: Collaborating Within the Patient Management Process
This behaviour was in use formally and informally.
Necessary for understanding patients’ situations and for multidisciplinary care delivery.
Ensured the exchange of information and knowledge within the team and between teams.
Communicating the outcomes of collaboration was described as an important part of the collaboration, enabling learning and the communication of the way contributions were utilised.
Collaboration was said to include the responsibility to voice an opinion.
Described as a learned behaviour, not existing or utilised as it was in palliative care, in other parts of healthcare.
A lack of the type of temporal pressure found in acute hospitals (for example, bed turnover rates) was said to enable this behaviour.
Created and maintained understanding between the disciplines involved in the multidisciplinary teams.
Involved sharing information and working jointly between the disciplines.
All information was available for sharing.
Collaboration was necessary for the delivery of palliative care.

4.3.2.3.7  B7: Managing Ambivalence in the Team
This behaviour was in use formally and informally.
Working in teams, working collaboratively and working in networks were said to provide a number of opportunities for friction and ambivalence.
Team members noted that people who worked in palliative care as a career chose to do so, valued people and were prepared to actively manage relationships within teams.
Managing relationships within the team was a normal part of working life.
Ambivalence could not be left unaddressed.
Working in teams created frictions between individuals that needed to be managed for the team to work.
Communication was the key to managing ambivalence.
Lack of communication was a primary cause of friction.
4.3.2.4 Contingencies

4.3.2.4.1 CO1: Uncertainty
Described as a persistent contingency influencing or driving many aspects of palliative care.
All interviews recorded uncertainty as an influencer.
Knowledge reduced uncertainty, particularly collaboratively generated knowledge.
Uncertainty drove information generation, transfer and synthesis.
Uncertainty was addressed formally and informally.
Collaborative operations were used to address uncertainty.
Uncertainty about changes in patient’s situations drove patient-specific change management efforts.
Collaboration as a lever facilitated teams’ responses to uncertainty.
Common languages facilitated efforts to deal with uncertainty, particularly in information and knowledge generation, exchange and management, with regard to patients and within the teams.
Absorptive capacity was required as another way of dealing with uncertainty related to patients and patient-based carers.
Formal and informal networks were noted by teams as conduits for information in dealing with or anticipating the results of uncertainty.
Understanding the patient’s situation, trust building and maintenance and socialisation of patients and patient-based carers were all behaviours undertaken, at least in part, to establish the best available opportunities to deal with uncertainty.
This can also be said for working in teams, collaboration in patient care and for managing ambivalence within the teams.

4.3.2.4.2 CO2: Workforce
Collaboration was required by the frequency of formal and informal information generation and exchange across discipline boundaries.
Workforce is a key component of knowledge and information management.
Informal communications, information and knowledge sharing and collaborative operations required particular characteristics in the workforce, as did collaborating across discipline boundaries and ongoing change management.
The workforce needed to be capable of generating and utilising common languages between disciplines, between team members and between the team and patients and patient-based carers.

Workforce was the source of team balance and diversity.

The workforce needed to be capable of utilising organisational artefacts to build and maintain trust.

Workforce needed to be capable of recognising and informing values-based issues for patients and patient-based carers.

Members of the workforce needed to be capable of and informed in holistic care delivery.

Relationship management was necessary within the multidisciplinary teams, managed from within the teams.

Staff needed to be capable of participating in the generation of a whole picture of the patient and patient-based carers.

4.3.2.4.3 CO3: Patients

Patients were the centre of palliative care.

Patients were noted as the primary source of information about their situation and changes to it and played a role in the generation and management of that information. The range of uncertainties and potential palliative responses that accompanied each patient was a driver of the use of multidisciplinary teams and the practice of holistic care delivery.

Patients could mediate the level of collaboration necessary in their dealings with the teams.

Patients were the primary sources of changes that needed to be managed.

Patients mediated the balance and diversity of the multidisciplinary teams.

Patients also influenced the use of common languages in the care delivery process. Patient’s situations, changes in situations or potential changes in situations were drivers of collaboration and informal communications across boundaries.

Patients drove the behaviours of socialisation, trust building and maintenance and addressing values based issues.
4.3.2.4 CO4: Healthcare Environment
The healthcare environment contains this case study organisation’s regulator and owners, both of which are contingent.

The regulator licences palliative care professionals, provides practice policies and changes to policies and assesses the case study organisation.

The owner provides practice policies, ethics policies and, being a religious organisation, spiritual guidelines.

Healthcare environment contains the housing hospital, which provides junior staff for rotation through the case study organisation and some practice and administrative policies.

This environment is the source of the palliative care workforce.

Level and quality of information accompanying patients during transfer into the case study organisation from hospitals often depended on the quality of personal and professional relationships between individuals within the two organisations.

4.3.2.4.5 CO5: Change
Changes in patients’ situations were primary drivers of the use of information and knowledge management capabilities.

Management of change was a primary activity of the multidisciplinary teams.

Change in patients’ situations drove the mix in multidisciplinary teams, as well as collaboration in and between teams.

Change sometimes drove or influenced the management of technologies.

Balance and diversity in the teams were a result of change or an attempt to deal with potential change.

Change affected absorptive capacity and on the job learning.

Power sharing occurred in the management of change.
4.3.2.5 Characteristics of Configuration

4.3.2.5.1 CH1: Employing specialists and professionals, high levels of skill and knowledge, long periods of training prior to working in palliative care.

Doctors at least seven years.

Nurses and Allied health commonly come to palliative care after maturing in careers.

4.3.2.5.2 CH2: Work would often be complex.

Confirmed from the interviews regarding capabilities, levers and individual behaviours in the multidisciplinary patient care teams.

4.3.2.5.3 CH3: Staff grouped functionally for administrative purposes, allocated to multidisciplinary teams for particular situations or projects.

Staff are grouped by discipline for administrative purposes. The head of each discipline is responsible for that discipline’s contribution to the care delivery process. The composition of the teams is mandated in part and situational in part. Medicine and nursing are always assigned to a patient. Allied health professionals allocated as the situation suggests.

4.3.2.5.4 CH4: Majority of Work Tasks Require Collaborative Effort

The range of typical causes of distress in patients and patient-based carers drives a collaborative effort. Confirmed by the interviews regarding capabilities, levers and individual behaviours in the multidisciplinary patient care teams.

4.3.2.5.5 CH5: A primary coordinator of collaborative effort would be informal communication between staff members on teams

Confirmed by the interviews regarding capabilities, levers and individual behaviours in the multidisciplinary patient care teams.
4.3.2.5.6 CH6: Professionals sustain levels of skill and knowledge using ongoing training within disciplines or other specialist or professional groups and transfer knowledge and information between disciplines, teams and individuals.

Members of all disciplines are required to undertake ongoing professional development and are monitored for this.

Transfer of knowledge and information occurs formally and informally. This is confirmed by the interviews regarding capabilities, levers and individual behaviours in the teams. Said to occur frequently. Willingness to learn indicates openness to collaboration.

4.3.2.5.7 CH7: Decision making autonomy accompanies professionals to multidisciplinary teams, authority is often sourced in professional experience.

While authority in the multidisciplinary teams is sometimes derived from the experience of professionals this is tempered by the fact that the doctor attending the patient is the professional who is liable for the conduct of treatment under law. This was said to add a level of tension to the decision making process within the teams given the need to defer to experience at times.

4.3.2.5.8 CH8: Senior managers found working in the multidisciplinary patient care teams.

Not necessarily common practice in this case study organisation as some senior managers also worked in other healthcare organisations or instructed medical students or doctors in other healthcare organisations.

4.3.2.5.9 CH9: Broadly based singular focus on the purpose of the organisation, expressed as the organisation’s mission.

Used as a tool for indoctrination of new staff and, at times, as coordinating mechanism for work tasks.

Mission statement has an active role in indoctrination, training and maintaining the ethos of the organisation. A small number of measures report against Mission.
4.3.2.5.10 CH10: The organisation would be politicised and operating in a politicised environment.
Main source of politics within the organisation is interpersonal reactions within the multidisciplinary teams, described as similar to those found in any other type of team in other organisations. Healthcare environment is politicised by the government of the day.

4.3.2.5.11 CH11: Separate section of the organisation, structured and operating differently to interface with healthcare bureaucracies and regulators.
Yes, conducted by a group standing away from patient care supplying primarily quantitative data.
4.3.3 Analysis Level 2 part 2 - Identifying Major Themes in the Data

4.3.3.1 Introduction to the Major Themes
At this point in the analysis all interview transcripts had been summarised and the data had been repackaged and aggregated under the headings of the various components of the model for palliative care. Themes began to appear. These took the form of recurring elements introduced by interview participants. In all, there appeared to be four of these elements; collaboration, learning, the patient at the centre and informal communications. These Major Themes reflected major themes in the literature review to a large extent. On reflection, informal communications was renamed ad hoc communications for the purpose of analysis as the term “informal”, although commonly used in the summaries of interview transcripts and in interviews themselves, did not adequately describe what the interviews were raising, communications related to patient situations taking place across team and discipline boundaries and within teams as they needed to. These were Major Themes because they occurred, specifically or by implication, during interviews about many of the components of the model for palliative care. For example, informal communication was mentioned or implied during interviews on capabilities, management levers, behaviours in the teams and contingencies.

4.3.3.2 Comments on the Thematic Analysis and a Simplified Display of Major Themes and Components
The drawing out of Major Themes and the description of their relationship to the components of the model for palliative care accounted for all of the components except for one, CH11: Separate section of the organisation, structured and operating differently to interface with healthcare bureaucracies and regulators. The absence of CH11 was perhaps not surprising because it refers to the organisation’s interface with the healthcare bureaucracy and regulators. As such, it might be expected to appear later when the relationship between Major Themes, contingencies and components of the model for palliative care were examined.

At this point in the analysis it was possible to write that a number of Major Themes had been drawn from the data. These themes were reflected in many of the aspects of palliative care that were represented by the components of the model for palliative care.
care. It was possible to see that some components of the model appeared related to all of the Major Themes, for example \textit{C1: Managing Knowledge}, some components were related to two Major Themes, for example \textit{L5: Diversity} in \textit{T1: Collaboration} and \textit{T3: Keeping the Patient at the Centre}, and some, for example \textit{C5: Managing Technologies} in \textit{T3: Keeping the Patient at the Centre}, were only related to one major theme. However, only one complete set of components, the Contingencies, appeared in total in every major theme. Two sets of components were displayed in total, each in one major theme; Management Levers in \textit{T1: Collaboration} and Capabilities in \textit{T3: Keeping the Patient at the Centre}.

It was interesting to be able to see that each of the characteristics of configuration, apart from \textit{CH11} noted above, was related to one or another major theme, sometimes multiple themes. An example of this was \textit{CH2: Work would be complex}, which appeared to stand as a statement of required fundamental understanding, was related to \textit{T1: Collaboration}, \textit{T3: Keeping the Patient at the Centre} and \textit{T4: Ad Hoc Communication}. The relationship between the characteristics of configuration and the Major Themes seemed to place the characteristics, at least at this point in the analysis, as enablers of the Major Themes.

The simplified display that follows bundles the components related to each Major Theme as a result of the thematic analysis.
<table>
<thead>
<tr>
<th>Theme</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1: Collaboration</td>
<td>C1: Managing Knowledge</td>
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<tr>
<td></td>
<td>C2: Managing Information</td>
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<tr>
<td></td>
<td>C3: Multidisciplinary Operations</td>
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<td></td>
<td>C4: Collaborative Operations</td>
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<td></td>
<td>C6: Managing Change and the Effects of Change</td>
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<tr>
<td></td>
<td>L1: Collaboration</td>
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<td></td>
<td>L2: Balance</td>
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<td></td>
<td>L3: Language</td>
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<td></td>
<td>L6: Conflict</td>
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<td>L7: Trust</td>
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<td></td>
<td>L8: Power Sharing</td>
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<tr>
<td></td>
<td>B1: Using Organisational Artefacts to Enable Rapid</td>
</tr>
<tr>
<td></td>
<td>Creation of Trust and Enculturation</td>
</tr>
<tr>
<td></td>
<td>B2: Rapid Inclusion in a Socially Stable Structure</td>
</tr>
<tr>
<td></td>
<td>B4: Understanding the patient’s situation as the basis for care</td>
</tr>
<tr>
<td></td>
<td>B5: Working in Teams</td>
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<td></td>
<td>B6: Collaborating Within the Patient Management Process</td>
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<td></td>
<td>B7: Managing Ambivalence in the Team</td>
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<td></td>
<td>CO1: Uncertainty</td>
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<td></td>
<td>CO2: Workforce</td>
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<td>CO3: Patients</td>
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<td></td>
<td>CO4: Healthcare Environment</td>
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<td>CO5: Change</td>
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<tr>
<td></td>
<td>CH2: Work would often be complex</td>
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<td></td>
<td>CH4: The great majority of work tasks would require collaborative effort.</td>
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<td></td>
<td>CH5: A primary coordinator of collaborative effort would be informal</td>
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<td></td>
<td>communication between staff members on teams.</td>
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<td>CH7: Decision making autonomy accompanies professionals to multidisciplinary</td>
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<td>teams, authority often sourced in professional experience.</td>
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<td>CH8: Senior managers found working in the multidisciplinary patient care</td>
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<td>teams</td>
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<td></td>
<td>CH10: The organisation would be politicised and operating in a</td>
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<td></td>
<td>politicised environment.</td>
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</tbody>
</table>

Table 21 Components Related to T1: Collaboration. Source: Case 2 Data Analysis
<table>
<thead>
<tr>
<th>Theme</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1: Managing Knowledge</td>
<td></td>
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<tr>
<td>C2: Managing Information</td>
<td></td>
</tr>
<tr>
<td>C3: Multidisciplinary Operations</td>
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<tr>
<td>C4: Collaborative Operations</td>
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<tr>
<td>L1: Collaboration</td>
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<td>L3: Language</td>
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<tr>
<td>L4: Absorptive Capacity</td>
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<td>L6: Conflict</td>
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<td>L7: Trust</td>
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</tr>
<tr>
<td>B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation</td>
<td></td>
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<tr>
<td>B2: Rapid Inclusion in a Socially Stable Structure</td>
<td></td>
</tr>
<tr>
<td>B3: Addressing Values Based Issues</td>
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<tr>
<td>B4: Understanding the Patient’s Situation as the Basis for Care</td>
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<tr>
<td>B5: Working in Teams</td>
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<tr>
<td>B6: Collaborating Within the Patient Management Process</td>
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<td>CO1: Uncertainty</td>
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<td>CO2: Workforce</td>
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<tr>
<td>CO3: Patients</td>
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<tr>
<td>CO4: Healthcare Environment</td>
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<tr>
<td>CO5: Change</td>
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<tr>
<td>CH6: Professionals sustain levels of skill and knowledge using ongoing training within disciplines, or other specialist or professional groups and transfer knowledge and information between disciplines, teams and individuals.</td>
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</tbody>
</table>

Table 22  Components Related to T2: Learning.  Source: Case 2 Data Analysis
<table>
<thead>
<tr>
<th>Theme</th>
<th>Component</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>C1: Managing Knowledge</td>
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<tr>
<td></td>
<td>C2: Managing Information</td>
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<tr>
<td></td>
<td>C3: Multidisciplinary Operations</td>
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<td></td>
<td>C4: Collaborative Operations</td>
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<td></td>
<td>C5: Managing Technology</td>
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<td></td>
<td>C6: Managing Change and the Effects of Change</td>
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<td></td>
<td>L1: Collaboration</td>
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<td>L2: Balance</td>
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<td></td>
<td>L5: Diversity</td>
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<td>L8: Power Sharing</td>
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<tr>
<td></td>
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<tr>
<td></td>
<td>CO4: Healthcare Environment</td>
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<tr>
<td></td>
<td>CO5: Change</td>
</tr>
<tr>
<td>T3: Keeping the Patient at the Centre</td>
<td>CH1: Specialists and professionals with high levels of skill and knowledge, who had undertaken long periods of training prior to working in palliative care, would be employed.</td>
</tr>
<tr>
<td></td>
<td>CH2: Work would often be complex.</td>
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<tr>
<td></td>
<td>CH3: Staff grouped functionally for administrative purposes, allocated to multidisciplinary teams for particular situations.</td>
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<td></td>
<td>CH4: The great majority of work tasks would require collaborative effort.</td>
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<td>CH5: A primary coordinator of collaborative effort would be informal communication between staff members on teams.</td>
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<td>CH7: Decision making autonomy accompanies professionals to multidisciplinary teams, authority often sourced in professional experience.</td>
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<td>CH9: Broadly based singular focus on the purpose of the organisation, expressed as the organisation’s mission. Used as a tool for indoctrination of new staff and, at times, as coordinating mechanism for work tasks.</td>
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</tbody>
</table>

Table 23 Components Related to T3: Keeping the Patient at the Centre.
Source: Case 2 Data Analysis
### T4: Ad Hoc Communication

<table>
<thead>
<tr>
<th>Theme</th>
<th>Component</th>
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<tbody>
<tr>
<td></td>
<td>C1: Managing Knowledge</td>
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<td></td>
<td>C2: Managing Information</td>
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<tr>
<td></td>
<td>C3: Multidisciplinary Operations</td>
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<td></td>
<td>C4: Collaborative Operations</td>
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<td></td>
<td>C6: Managing Change and the Effects of Change</td>
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<td></td>
<td>L1: Collaboration</td>
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<td></td>
<td>L3: Language</td>
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<tr>
<td></td>
<td>L4: Absorptive Capacity</td>
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<td></td>
<td>L6: Conflict</td>
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<td></td>
<td>L7: Trust</td>
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<tr>
<td></td>
<td>B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation</td>
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<tr>
<td></td>
<td>B3: Addressing Values Based Issues</td>
</tr>
<tr>
<td></td>
<td>B4: Understanding the Patient’s Situation as the Basis for Care</td>
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<td>B5: Working in Teams</td>
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<td></td>
<td>B6: Collaborating Within the Patient Management Process</td>
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<td>CO4: Healthcare Environment</td>
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<td></td>
<td>CH5: A primary coordinator of collaborative effort would be informal communication between staff members on teams</td>
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<td></td>
<td>CH6: Professionals sustain levels of skill and knowledge using ongoing training within disciplines or other specialist or professional groups and transfer knowledge and information between disciplines, teams and individuals</td>
</tr>
</tbody>
</table>

Table 24 Components Related to T4: Ad Hoc Communication. Source: Case 2 Data Analysis
4.3.3.3 Reverse Thematic Analysis

A reverse thematic analysis was conducted to verify the thematic analysis. The result of this process was a set of tables that displayed the Major Themes that occurred in relation to each of the components. These tables follow here but are preceded by two summary views. The first, immediately below shows 14 of the components of the model for palliative care related to all of the Major Themes.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>C1</td>
<td>Managing Knowledge</td>
</tr>
<tr>
<td>C2</td>
<td>Managing Information</td>
</tr>
<tr>
<td>C3</td>
<td>Multidisciplinary Operations</td>
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<tr>
<td>C4</td>
<td>Collaborative Operations</td>
</tr>
<tr>
<td>L1</td>
<td>Collaboration</td>
</tr>
<tr>
<td>L3</td>
<td>Language</td>
</tr>
<tr>
<td>B1</td>
<td>Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation</td>
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<td>B4</td>
<td>Understand the Patient’s Situation as the Basis for Care</td>
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<td>B5</td>
<td>Working in Teams</td>
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<td>CO1</td>
<td>Uncertainty</td>
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<td>CO2</td>
<td>Workforce</td>
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<td>CO3</td>
<td>Patients</td>
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<td>CO4</td>
<td>Healthcare Environment</td>
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<td>CO5</td>
<td>Change</td>
</tr>
</tbody>
</table>

Table 25 Components Related to All of the Major Themes. Source: Case 2

Data Analysis

The second of the summary views, overleaf, shows that at the completion of the reverse thematic analysis it was possible to see that the theme related to the greatest number of components was T3: Keeping the Patient at the Centre (31 of a possible 37 relationships). This was followed by T1: Collaboration with 28 relationships, T4: Ad Hoc Communication with 24 relationships, then by T2: Learning with 21 relationships.
<table>
<thead>
<tr>
<th>Component</th>
<th>Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1: Managing knowledge</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>C2: Managing information</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>C3: Multidisciplinary operations</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>C4: Collaborative operations</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>C5: Managing technologies</td>
<td>T3</td>
</tr>
<tr>
<td>C6: Managing change and the effects of change</td>
<td>T1 T3 T4</td>
</tr>
<tr>
<td>L1: Collaboration</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>L2: Balance</td>
<td>T1</td>
</tr>
<tr>
<td>L3: Language</td>
<td>T1 T2 T3 T4</td>
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<tr>
<td>L4: Absorptive Capacity</td>
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<td>L5: Diversity</td>
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<tr>
<td>L6: Conflict</td>
<td>T1 T2 T4</td>
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<tr>
<td>L7: Trust</td>
<td>T1 T2</td>
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<tr>
<td>L8: Power Sharing</td>
<td></td>
</tr>
<tr>
<td>B1: Using Organisational Artefacts To Enable Rapid Creation Of Trust And Enculturation</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>B2: Rapid Inclusion In A Socially Stable Structure</td>
<td>T1 T2 T3</td>
</tr>
<tr>
<td>B3: Addressing Values Based Issues</td>
<td>T2 T3 T4</td>
</tr>
<tr>
<td>B4: Understanding The Patient’s Situation As The Basis For Care</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>B5: Working In Teams</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>B6: Collaborating Within The Patient Management Process</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>B7: Managing Ambivalence In The Team</td>
<td>T1</td>
</tr>
<tr>
<td>Co1: Uncertainty</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>Co2: Workforce</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>Co3: Patients</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>Co4: Healthcare Environment</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>Co5: Change</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>Ch1: Employing Specialists And Professionals, High Levels Of Skill And Knowledge, Long Periods Of Training Prior To Working In Palliative Care.</td>
<td>T3</td>
</tr>
<tr>
<td>Ch2: Work Would Often Be Complex.</td>
<td>T1 T3 T4</td>
</tr>
<tr>
<td>Ch3: Staff Grouped Functionally For Administrative Purposes, Allocated To Multidisciplinary Teams For Particular Situations Or Projects.</td>
<td>T3</td>
</tr>
<tr>
<td>Ch4: Majority Of Work Tasks Require Collaborative Effort</td>
<td>T1 T3 T4</td>
</tr>
<tr>
<td>Ch5: A Primary Coordinator Of Collaborative Effort Would Be Informal Communication Between Staff Members On Teams</td>
<td>T1 T3 T4</td>
</tr>
<tr>
<td>Ch6: Professionals Sustain Levels Of Skill And Knowledge Using Ongoing Training Within Disciplines Or Other Specialist Or Professional Groups And Transfer Knowledge And Information Between Disciplines, Teams And Individuals.</td>
<td>T2 T3 T4</td>
</tr>
<tr>
<td>Ch7: Decision Making Autonomy Accompanies Professionals To Multidisciplinary Teams, Authority Is Often Sourced In Professional Experience.</td>
<td>T1 T3</td>
</tr>
<tr>
<td>Ch8: Senior Managers Found Working In The Multidisciplinary Patient Care Teams.</td>
<td>T1</td>
</tr>
<tr>
<td>Ch9: Broadly Based Singular Focus On The Purpose Of The Organisation, Expressed As The Organisation’s Mission. Used As A Tool For Indoctrination Of New Staff And, At Times, As Coordinating Mechanism For Work Tasks.</td>
<td>T3</td>
</tr>
<tr>
<td>Ch10: The Organisation Would Be Politicised And Operating In A Politicised Environment.</td>
<td>T1</td>
</tr>
<tr>
<td>Ch11: Separate Section Of The Organisation, Structured And Operating Differently To Interface With Healthcare Bureaucracies And Regulators.</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL 28 21 31 24

Table 26 Components and the Major Themes to which they Relate. Source: Case 2 Data Analysis
4.3.4 Analysis Level 3a Developing and Testing Propositions For an Explanatory Framework

4.3.4.1 Introduction to Level 3a – Matrix Analysis of Major Themes
At this level of the analysis, the final level for this individual case study organisation, the data and relationships within were displayed in coded form only. This Level of the analysis takes the results of the Thematic Analysis and displays them in matrix form. This mode of display enables the development of a contingency driven view of the data drawn from the explanatory phase of the Thematic Analysis. Once developed, this view relates Major Themes and components in response to, or influenced by, the Contingencies.

Overleaf is a key of the codes displayed in the tables comprising this part of the analysis.

4.3.4.2 Thematic Analysis in Matrix
The tables here display the results of the thematic analysis as a matrix for each of the Major Themes. Below is a combination matrix, one major grouping for each theme. Each row within each theme contains a number of cells corresponding to the total number of that particular component contained in the model for palliative care. For example there are 6 Organisational Capabilities in the model, therefore 6 cells in the row of Capabilities. Not all cells contain components, reflecting the varying relationships between Major Themes and components from theme to theme. However, viewing all themes together accounts for all components except, as noted previously, CH11.
### Table 27  Results of the Thematic Analysis in Matrix. Source: Case 2 Data Analysis

<table>
<thead>
<tr>
<th>Theme</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>C1 C2 C3 C4 C6</td>
</tr>
<tr>
<td></td>
<td>L1 L2 L3 L6 L7 L8</td>
</tr>
<tr>
<td></td>
<td>B1 B2 B4 B5 B6 B7</td>
</tr>
<tr>
<td></td>
<td>CO1 CO2 CO3 CO4 CO5</td>
</tr>
<tr>
<td></td>
<td>CH 2 CH 4 CH 5 CH 7 CH 8 CH 10</td>
</tr>
<tr>
<td>T2</td>
<td>C1 C2 C3 C4</td>
</tr>
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<td></td>
<td>L1 L2 L3 L4 L6 L7</td>
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<tr>
<td></td>
<td>B1 B2 B3 B4 B5 B6</td>
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<td>CH 6</td>
</tr>
<tr>
<td>T3</td>
<td>C1 C2 C3 C4 C5 C6</td>
</tr>
<tr>
<td></td>
<td>L1 L2 L3 L4 L5 L8</td>
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<tr>
<td></td>
<td>B1 B2 B3 B4 B5 B6</td>
</tr>
<tr>
<td></td>
<td>CO1 CO2 CO3 CO4 CO5</td>
</tr>
<tr>
<td></td>
<td>CH 1 CH 2 CH 3 CH 4 CH 5 CH 6 CH 7 CH 9</td>
</tr>
<tr>
<td>T4</td>
<td>C1 C2 C3 C4 C6</td>
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<tr>
<td></td>
<td>L1 L3 L4 L6 L7</td>
</tr>
<tr>
<td></td>
<td>B1 B3 B4 B5 B6</td>
</tr>
<tr>
<td></td>
<td>CO1 CO2 CO3 CO4 CO5</td>
</tr>
<tr>
<td></td>
<td>CH 2 CH 4 CH 5 CH 6</td>
</tr>
</tbody>
</table>
4.3.4.3 A Contingency Driven View of the Thematic Analysis
Following the thematic analysis and in terms of further understanding the relationships in the data there appeared to be two issues to address. The first was that while the thematic analysis included the relationship between Major Themes and contingencies it did not include the relationships between contingencies and the other components of the model for palliative care, although these relationships had been articulated in the explanatory section of the thematic analysis. The second issue was that while characteristics of configuration had been linked to Major Themes they could not be linked to the contingencies outside of the themes. This was perhaps because they were organisational characteristics expressed at that level and reflecting the requirements placed on the organisation by its external and internal operating environments. The first issue was addressed in the following section, where the thematic analysis was expanded by taking a contingency based view. The second issue was addressed by not attempting to force fit the characteristics of configuration into the expanded analysis.

In this section of the analysis contingencies were displayed as the drivers, with the components of the model for palliative care related to each major theme changing as the contingency changed. This was articulated in the explanatory section of the thematic analysis but not displayed as such because of the emphasis on Major Themes. Note that the following displays do not include the characteristics of configuration.

A contingency based view was sought because the model for palliative care was a contingency driven model, where a number of components interact in response to contingencies from the external and internal operating environments. However, following the development of the model for palliative care through the literature review process one thing was not clear; the dynamic/s, for want of a better term at this time, that connected one or more contingencies to a palliative care organisation’s response in the form of a combination of the components of the model.

4.3.4.4 Combining the Matrix Displays
In addition to the display of the contingency driven relationships in the data the tables following will also display all components relevant to each theme. This
combined display enables a comparison of what components are used in response to, or influenced by, contingencies via the Major Themes and what components are related to the Major Themes. The coded components appear in two different shadings; bold black indicates a component used in response to, or influenced by, a contingency via a Major Theme, grey indicates components defined in the Thematic Analysis but not used, or influenced, in that particular Major Theme when related to different contingencies.

Components not originally identified as related to particular themes in the Thematic Analysis can not now be identified in response to the contingencies. This is because the relationship between the contingencies and the Major Themes was drawn from the Major Themes.

4.3.4.5 Comments on the Contingency Driven View
Following the formation of the contingency driven view in the preceding tables several points came to view. The first was that the components displayed within each major theme changed when the contingency changed. For example, T3: Keeping the Patient at the Centre utilises 15 components when applied in response to CO1: Uncertainty, 11 components in response to CO3: Patients and 13 components in response to CO5: Change

It can be seen that in three of the four contingency driven Major Themes there was a small number of components that were found in the thematic analysis but not found in the contingency driven view. The only Major Theme where this did not occur was T3: Keeping the Patient at the Centre. Where it did occur it was limited to four components: three Management Levers; L2: Balance, L6: Conflict and L7: Trust and one Behaviour; B2: Rapid Inclusion in a Socially Stable Structure. These occurrences are marked in the tables with a circle.

With regard to the Management Levers the gaps occurred in relation to the contingency driven view of T1: Collaboration, T2: Learning and T4: Ad Hoc Communication. As for the Behaviours, the gap occurred in relation to the contingency driven view of T1: Collaboration.
The significance, if any, of these small gaps in the contingency driven view is not yet understood and it will be interesting to see if they occur in another case study analysis. Perhaps they were the result of a simple failing in the interview process, such as not asking the right question at the right time. Perhaps they were the result of something else. For example, *L7: Trust* was not spoken of in the management team interview on Management Levers but was referred to as a lever when multidisciplinary teams were interviewed regarding Behaviours in the multidisciplinary teams.

### 4.3.5 Matrix Display of Contingency Driven Application, or Influence, of Components in Major Themes

<table>
<thead>
<tr>
<th>Contingency</th>
<th>Theme</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO1</td>
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</tr>
<tr>
<td>T1</td>
<td>C1</td>
<td>C2</td>
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<td>L1</td>
<td>L2</td>
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<td></td>
<td>B1</td>
<td>B2</td>
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<tr>
<td>T2</td>
<td>C1</td>
<td>C2</td>
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<tr>
<td></td>
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<td>L3</td>
</tr>
<tr>
<td></td>
<td>B1</td>
<td>B2</td>
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<tr>
<td>T3</td>
<td>C1</td>
<td>C2</td>
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<tr>
<td></td>
<td>L1</td>
<td>L2</td>
</tr>
<tr>
<td></td>
<td>B1</td>
<td>B2</td>
</tr>
<tr>
<td>T4</td>
<td>C1</td>
<td>C2</td>
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<td>L1</td>
<td>L3</td>
</tr>
<tr>
<td></td>
<td>B1</td>
<td>B3</td>
</tr>
</tbody>
</table>

*Table 28 Components Applied in Major Themes in Response to CO1: Uncertainty. Source: Case 2 Data Analysis*
<table>
<thead>
<tr>
<th>Contingency</th>
<th>Theme</th>
<th>Components</th>
</tr>
</thead>
<tbody>
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</tr>
<tr>
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<td></td>
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<td>B1 B2 B3 B4 B5 B6</td>
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<tr>
<td></td>
<td>T3</td>
<td>C1 C2 C3 C4 C5 C6</td>
</tr>
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<td>L1 L2 L3 L4 L5 L8</td>
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<tr>
<td></td>
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<td>B1 B2 B3 B4 B5 B6</td>
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<tr>
<td></td>
<td>T4</td>
<td>C1 C2 C3 C4 C6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L1 L3 L4 L6 L7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B1 B3 B4 B5 B6</td>
</tr>
</tbody>
</table>

Table 29 Components Influenced in Application in Major Themes by CO2: Workforce. Source: Case 2 Data Analysis

<table>
<thead>
<tr>
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<th>Theme</th>
<th>Components</th>
</tr>
</thead>
<tbody>
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<td>T1</td>
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<td>L1 L2 L3 L6 L7 L8</td>
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<tr>
<td></td>
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<td>B1 B2 B4 B5 B6 B7</td>
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<tr>
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<td>T2</td>
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<td>L1 L3 L4 L6 L7</td>
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<td>B1 B2 B3 B4 B5 B6</td>
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<tr>
<td></td>
<td>T3</td>
<td>C1 C2 C3 C4 C5 C6</td>
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<td>L1 L2 L3 L4 L5 L8</td>
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<td>B1 B2 B3 B4 B5 B6</td>
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<tr>
<td></td>
<td>T4</td>
<td>C1 C2 C3 C4 C6</td>
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<td>L1 L3 L4 L6 L7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B1 B3 B4 B5 B6</td>
</tr>
</tbody>
</table>

Table 30 Components Applied in Major Themes in Response to CO3: Patients. Source: Case 2 Data Analysis
### Table 31 Components Influenced in Application in Major Themes by CO4: Healthcare Environment. Source: Case 2 Data Analysis

<table>
<thead>
<tr>
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<th>Components</th>
</tr>
</thead>
<tbody>
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<td>L1 L2 L3 L6 L7 L8</td>
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<tr>
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<td>B1 B2 B4 B5 B6 B7</td>
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<tr>
<td></td>
<td>T2</td>
<td>C1 C2 C3 C4</td>
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<td>L1 L3 L4 L6 L7</td>
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<td>B1 B2 B3 B4 B5 B6</td>
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<td>T3</td>
<td>C1 C2 C3 C4 C5 C6</td>
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<td>L1 L2 L3 L4 L5 L8</td>
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<td>B1 B2 B3 B4 B5 B6</td>
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<tr>
<td></td>
<td>T4</td>
<td>C1 C2 C3 C4 C6</td>
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<td>L1 L3 L4 L6 L7</td>
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<tr>
<td></td>
<td></td>
<td>B1 B2 B3 B4 B5 B6</td>
</tr>
</tbody>
</table>

### Table 32 Components Applied in Major Themes in Response to CO5: Change. Source: Case 2 Data Analysis

<table>
<thead>
<tr>
<th>Contingency</th>
<th>Theme</th>
<th>Components</th>
</tr>
</thead>
<tbody>
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<td></td>
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<td>L1 L2 L3 L6 L7 L8</td>
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<tr>
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<tr>
<td></td>
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<td>C1 C2 C3 C4</td>
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<td>L1 L3 L4 L6 L7</td>
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<td>T3</td>
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<td></td>
<td></td>
<td>B1 B2 B3 B4 B5 B6</td>
</tr>
</tbody>
</table>
4.3.6 Comments at the Completion of the Case Study 2 Analysis

This case study analysis followed the model of abstraction described in the thesis methodology to Level 3a. This means that the data has been summarised from the interview transcripts, abstracted to depersonalise it and reviewed for Major Themes. Four Major Themes were found; T1: Collaboration, T2: Learning, T3: Keeping the Patient at the Centre and T4: Ad Hoc Communication and these provided the basis for a thematic analysis of the data. The thematic analysis was verified using a reverse thematic analysis. The data was then reduced to its coded form and presented in a series of matrices beginning with the results of the thematic analysis, then developing a contingency based view which was combined with a comparison of the thematic and contingency based views. Several interesting points have arisen.

The suggested components of the model for palliative care were found in the data and occurred in relation to multiple Major Themes except for CH11: Separate section of the organisation, structured and operating differently to interface with healthcare bureaucracies and regulators. Finding multiple relationships between components and Major Themes seems to indicate multiple usefulness and application of components for different purposes or in reaction to different stimuli.

4.3.6.1.1 General

Leaving aside the contingencies, particular components of the model for palliative care occurred in all themes; C1: Managing Knowledge, C2: Managing Information, C3: Multidisciplinary Operations and C4: Collaborative Operations; L1: Collaboration and L3: Language; B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation, B4: Understanding the Patient’s Situation as the Basis for Care, B5: Working in Teams and B6: Collaborating Within the Patient Management Process.

The Major Theme T3: Keeping the Patient at the Centre was related to 31 of a possible 37 components of the model for palliative care, a little over 80% of components. This was followed by T1: Collaboration with 28 relationships, a little over 75%, and T4: Ad Hoc Communication with 24 relationships, some 60% of
components, and $T_2$: Learning with 21 relationships, a little over 56%. An overlap in the utilisation of components of the model for palliative care is indicated here.

### 4.3.6.1.2 A Summary of the Thematic View
The Thematic View offers a picture of an organisation that is specifically resourced and structured for complex work involving heterogeneous teams of professionals that must maintain and exchange skills, knowledge and information between the disciplines in a workplace that demands collaborative effort be applied. This organisation appears to be managed collaboratively using conflict and trust persistently and learning, knowledge and information networks inside and outside the organisation commonly. This organisation appears to persistently apply its capabilities for managing knowledge and information in multidisciplinary teams and commonly applies collaboration and change management as capabilities in the same teams. Resourcing, structure and capabilities appear to be in place so that the teams are always available, can persistently work at generating trust and understanding a wide range of situational drivers surrounding and impacting each team’s focus, the patient, and work collaboratively at these tasks utilising high frequencies of ad hoc communications across disciplines, and through networks inside and outside the organisation, to generate and exchange knowledge and information as a patient’s situation changes or change in that situation is anticipated or detected. The purpose of the application of these Behaviours is to define, package and deliver whatever mix of care types is necessary to address an individual patient’s situation. The patient can be a member of this team if so choosing. The mix of delivery style, as well as the mix of care type, can be new or not new.

### 4.3.6.2 The Contingency Driven View
As described above, the Contingencies appeared as two types. $CO_1$: Uncertainty, $CO_3$: Patients and $CO_5$: Change appeared as drivers of the application of components in Major Themes. $CO_2$: Workforce and $CO_4$: Healthcare Environment appeared to influence components during application in Major Themes. All of the Contingencies were related to all of the Major Themes. In the contingency driven view that was generated the application of components of the model for palliative care and the components influenced during application varies from contingency to
contingency. However, the degree of variation was less for the contingencies that influence components in application. A number of the components that appeared as persistent in the Thematic View remain as persistent in the contingency driven view.

4.3.6.2.1 General

Particular components were applied in all Major Themes in response to CO1: Uncertainty, CO3: Patients and CO5: Change. These were: C1: Managing Knowledge, C2: Managing Information, C4: Collaborative Operations, L1: Collaboration and B4: Understanding the Patient’s Situation as the Basis for Care.

With regard to the Contingencies influencing components during application, CO2: Workforce and CO4: Healthcare Environment, there were components of the model for palliative care that were persistently influenced in all Major Themes. In CO2: Workforce these were C1: Managing Knowledge, C2: Managing Information, C4: Collaborative Operations, L1: Collaboration, L3: Language, B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation and B4: Understanding the Patient’s Situation as the Basis for Care. In CO4: Healthcare Environment these components were C1: Managing Knowledge and C2: Managing Information.

In the Thematic View T3: Keeping the Patient at the Centre, was the Major Theme related to the greatest number of components. In the Contingency Driven View T3: Keeping the Patient at the Centre was the Major Theme related to the application of the greatest number of components except in CO3: Patients, where it was one component less than T4: Ad Hoc Communication. T3: Keeping the Patient at the Centre was the Major Theme with the greatest number of components influenced by CO2: Workforce and CO4: Healthcare Environment.

However, whereas in the Thematic View the difference in related components between T3: Keeping the Patient at the Centre and the next most frequent relationships was some 20% of the total components, in the Contingency Driven View the difference in components applied and components influenced in T3: Keeping the Patient at the Centre and the other Major Themes was far smaller. In general the difference was commonly one or two components. This indicates a more
even application of components in Major Themes responding to or influenced by Contingencies than was evident in the Thematic View.

Another interesting group of components was also apparent. This group occurs in every Major Theme in response to particular Contingencies and comprises the following. L3: Language, B5: Working in Teams and B6: Collaborating Within the Patient Management Process were applied in each Major Theme in response to CO1: Uncertainty; L3: Language was applied in each Major Theme in response to CO3: Patients; C3: Multidisciplinary Operations was applied in each Major Theme in response to CO5: Change.

The next most frequently applied component appears to be L4: Absorptive Capacity, applied in all Major Themes except T1: Collaboration in response to CO1: Uncertainty and CO5: Change, as well as being among those components influenced by CO2: Workforce and CO4: Healthcare Environment.

There was another group of components that should not be forgotten, though already described. These were the components of the model for palliative care that were present in the data, articulated in the Thematic Analysis but rarely articulated where expected in the Contingency Driven View. These components were marked on the tables with circles. The only Major Theme where this did not occur was T3: Keeping the Patient at the Centre. Where it did occur it was limited to four components: three Management Levers; L2: Balance, L6: Conflict and L7: Trust and one Behaviour; B2: Rapid Inclusion in a Socially Stable Structure.

With regard to the Management Levers the gaps occurred in relation to the contingency driven view of T1: Collaboration, T2: Learning and T4: Ad Hoc Communication. As for the Behaviours, the gap occurred in relation to the contingency driven view of T1: Collaboration.

The significance, if any, of these small gaps in the contingency driven view was not yet understood. Perhaps they were the result of a simple failing in the interview process, such as not asking the right question at the right time. Perhaps they were the result of something else. For example, L7: Trust was not spoken of in the
management team interview on Management Levers but was referred to as a lever when multidisciplinary teams were interviewed regarding Behaviours in the multidisciplinary teams.

Those components influenced during their application by $CO4$: Healthcare Environment were small in number, being generally one third the number influenced in application by $CO2$: Workforce, but nevertheless influential. This was particularly the case for $C1$: Managing Knowledge and $C2$: Managing Information. These appear influenced by $CO4$: Healthcare Environment in every application. Here might be the connection to the Characteristic of Configuration $CH11$: Separate section of the organisation, structured and operating differently to interface with healthcare bureaucracies and regulators that was not made in the Thematic Analysis. The interface with the healthcare bureaucracy through which all of the formal traffic in knowledge and information was managed might need a separate unit because of the amount of potential traffic and its importance.

4.3.6.3 A Summary of the Contingency Driven View
In the Contingency Driven View the dynamics of the operation of the model for palliative care were more apparent. Therefore, so were the dynamics of the care delivery operations of the case study organisation. This appears to be a quite dynamic organisation that utilises sets of components, Organisational Capabilities, Management Levers and Individual Behaviours applied in multidisciplinary teams. The drivers of the dynamics appear to be the identified Contingencies.

The same components were applied through different Major Themes in response to the same Contingency, indeed in response to multiple Contingencies. This indicates an inherent flexibility in the management, the workforce and the components themselves. Given the Characteristics of Configuration, this does not appear to occur by chance. This case study organisation appears to be designed and managed for dynamic response to uncertain, changing situations.
4.3.7 Case Study 2 Data in Context

The dynamic relationships drawn from Case Study 2 are perhaps more clearly and concisely seen in the following Figures. There are two sets of Figures. Each set displays the operational components of the Model for Palliative Care and the relationships between these components, the Major Themes and Contingencies. The first set, Figure 16, displays these relationships with regard to the driving contingencies. Four components are shaded in this set because they are so persistent in their occurrence. The second set, Figure 17, displays the relationships with regard to the influencing contingencies.

In these Figures five events are observable.
1. The combination of components employed in response to any one of the driving contingencies varies from Major Theme to Major Theme.
2. The combination of Management Levers employed in response to any one of the driving contingencies varies from Major Theme to Major Theme.
3. Within the Major Themes related to any one of the driving contingencies the use of a particular combination of Management Levers is linked to the use of a particular combination of Organisational Capabilities and a particular combination of Individual Behaviours within the teams and this changes from Major Theme to Major Theme.
4. Events 1, 2 and 3 contain different combinations from driving contingency to driving contingency. The differences are not major but perceptible.
5. The influencing contingencies do not influence all of the components in play but CO2: Workforce certainly influences most of them.

The data displayed in Figure 16 is taken from Tables 28, 30 and 32 on pages 229, 230 and 231 respectively.
The data displayed in Figure 17 is taken from Tables 29 and 31 on pages 230 and 231.
<table>
<thead>
<tr>
<th>Major Theme</th>
<th>T1: Collaboration</th>
<th>T2: Learning</th>
<th>T3: Keeping the Patient at the Centre</th>
<th>T4: Ad Hoc Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symbol</td>
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</tbody>
</table>

### CO1: Uncertainty
- **Capabilities**
  - B1 Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation
  - B2 Rapid Inclusion in a Socially Stable Structure
  - B3 Addressing Values Based Issues
  - B4 Understanding the Patient’s Situation as the Basis for care
- **Behaviours**
  - B5 Working in Teams
  - B6 Collaborating Within the Patient Management Process
  - B7 Managing Ambivalence in the Team
- **Performances**
  - L1 Collaboration
  - L2 Balance
  - L3 Language
  - L4 Absorptive Capacity
  - L5 Diversity
  - L6 Conflict
  - L7 Trust
  - L8 Power sharing

### CO3: Patients
- **Capabilities**
  - B1 Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation
  - B2 Rapid Inclusion in a Socially Stable Structure
  - B3 Addressing Values Based Issues
  - B4 Understanding the Patient’s Situation as the Basis for care
- **Behaviours**
  - B5 Working in Teams
  - B6 Collaborating Within the Patient Management Process
  - B7 Managing Ambivalence in the Team
- **Performances**
  - L1 Collaboration
  - L2 Balance
  - L3 Language
  - L4 Absorptive Capacity
  - L5 Diversity
  - L6 Conflict
  - L7 Trust
  - L8 Power sharing

### CO5: Change
- **Capabilities**
  - B1 Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation
  - B2 Rapid Inclusion in a Socially Stable Structure
  - B3 Addressing Values Based Issues
  - B4 Understanding the Patient’s Situation as the Basis for care
- **Behaviours**
  - B5 Working in Teams
  - B6 Collaborating Within the Patient Management Process
  - B7 Managing Ambivalence in the Team
- **Performances**
  - L1 Collaboration
  - L2 Balance
  - L3 Language
  - L4 Absorptive Capacity
  - L5 Diversity
  - L6 Conflict
  - L7 Trust
  - L8 Power sharing

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Figure 16  Responses via Major Themes to the Driving Contingencies CO1: Uncertainty, CO3: Patients, CO5: Change
<table>
<thead>
<tr>
<th>Major Theme</th>
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</tbody>
</table>

**CO2: Workforce**

- **Behaviours**
  - B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation
  - B2: Rapid Inclusion in a Socially Stable Structure
  - B3: Addressing Values Based Issues
  - B4: Understanding the Patient’s Situation as the Basis for care
  - B5: Working in Teams
  - B6: Collaborating Within the Patient Management Process
  - B7: Managing Ambivalence in the Team

- **Capabilities**
  - C1: Managing Knowledge
  - C2: Managing Information
  - C3: Multidisciplinary Operations
  - C4: Collaborative Operations
  - C5: Managing Technologies
  - C6: Managing Change and the Effects of Change

- **Levers**
  - L1: Collaboration
  - L2: Balance
  - L3: Language
  - L4: Absorptive Capacity
  - L5: Diversity
  - L6: Conflict
  - L7: Trust
  - L8: Power sharing

**CO4: Healthcare Environment**

- **Behaviours**
  - B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation
  - B2: Rapid Inclusion in a Socially Stable Structure
  - B3: Addressing Values Based Issues
  - B4: Understanding the Patient’s Situation as the Basis for care
  - B5: Working in Teams
  - B6: Collaborating Within the Patient Management Process
  - B7: Managing Ambivalence in the Team

- **Capabilities**
  - C1: Managing Knowledge
  - C2: Managing Information
  - C3: Multidisciplinary Operations
  - C4: Collaborative Operations
  - C5: Managing Technologies
  - C6: Managing Change and the Effects of Change

- **Levers**
  - L1: Collaboration
  - L2: Balance
  - L3: Language
  - L4: Absorptive Capacity
  - L5: Diversity
  - L6: Conflict
  - L7: Trust
  - L8: Power sharing

Figure 17 Components Influenced in Application via Major Themes by CO2: Workforce, CO4: Healthcare Environment
4.4 Case Study 3 Analysis

4.4.1 Introduction
Case Study 3, at the time of interview, was a stand alone palliative care organisation that contained some 19 staff, 20 inpatient beds and 10 day beds. The organization’s catchment was a population of some 400,000 and included hospitals, specialists and general practitioners (family doctors). Multidisciplinary staffing consisted of the following disciplines: medicine, nursing, social work, spiritual care, physiotherapy, occupational therapy, diversional therapy and grief counselling.

Four interviews were carried out at this case study organisation. The operational management team, consisting of the heads of disciplines and the Director of palliative care for the local Area Health Service, was interviewed about Organisational Capabilities and Management Levers. The management team was interviewed as a team on both occasions. One interview on Individual Behaviours within multidisciplinary teams was conducted with a ward-based team. These teams were interviewed as teams. The interview regarding the Characteristics of Configuration was conducted with the senior medical specialist.

The display of the Case Study 3 data analysis does not contain Level 1b as the process is identical to that displayed for Case Study 1. However, Level 1b is available in Appendix 4. The Case Study 3 analysis description and display contained here begins at Level 2 part 1 - Repackaging and Aggregating the Data.
4.4.2 Analysis Level 2 part 1– Repackaging and Aggregating the Data

4.4.2.1 Capabilities

4.4.2.1.1 C1: Managing Knowledge
The application of the capability was not dependent on formal organisational occasions.
Application occurred in real-time and frequently, formally and informally.
Knowledge creation and dissemination was central to care delivery.
Knowledge dissemination to patients could be mediated by language, cultural and relational difficulties.
Knowledge management was related to workplace learning for permanent and visiting staff.

4.4.2.1.2 C2: Managing Information
The application of the capability was not dependent on formal organisational occasions.
Application occurred in real-time and frequently, formally and informally.
Information about patients was described as belonging to patients.
Information was gathered from multiple sources and then shared among the sources.
The availability and use of information was situational.
All information sources were considered credible until such time as they might prove otherwise.
All staff could receive information, regardless of the specificity to a discipline, and were expected to relay information as necessary and as soon as possible.
Information was valuable in generating a whole picture of a patient or patient-based carers.
4.4.2.1.3 C3: Multidisciplinary Operations
The application of the capability was not dependent on formal organisational occasions.
Application occurred in real-time and frequently, formally and informally.
Multidisciplinary operations were enhanced by the small size of the team.
Small team size meant a better intra-team knowledge of the skills, experiences and knowledge of individual members, by members.
Multidisciplinary operations were described as a normal part of daily operations.

4.4.2.1.4 C4: Collaborative Operations
The application of the capability was not dependent on formal organisational occasions.
Application occurred in real-time and frequently, formally and informally.
Collaborative operations were a normal part of work.
Collaborative operations occurred at two levels; collaboration with the housing hospital and other local hospitals, driven by a dependence on those organisations’ community care teams and collaboration within the case study organisation.
Collaborative operations were necessary for care delivery.
High levels of collaboration were required.

4.4.2.1.5 C5: Managing Technologies
The case study organisation was described as low-tech with access to sophisticated technologies, held in other healthcare organisations, if required.
Technology was viewed as something with which to provide comfort for patients.
Technology was described as able to enhance some aspects of care delivery.
Patients at the end of their lives rarely benefited from high technology in the end of life process.
Technology was something to be applied only to suit and benefit the patient.
Technology could be used as a tool of absorptive capacity.
4.4.2.1.6  C6: Managing Change and the Effects of Change
The application of the capability was not dependent on formal organisational occasions.
Application occurred in real-time and persistently, formally and informally.
Change occurred at organisational and care delivery levels.
Organisational change included staff turnover.
Change at care delivery included patient turnover.
Results and anticipation of change were managed collaboratively.
Results and anticipation of change were drivers of collaboration and communication.
Management of change in patient’s situations was said to require constant monitoring.
4.4.2.2 Management Levers

4.4.2.2.1 L1: Collaboration
Standard and routine practice in palliative care.
The application of the capability was not dependent on formal organisational occasions.
Collaboration mandated by the organisation and the ethos of palliative care.
Collaboration was a necessity of multidisciplinary care delivery and multidisciplinary teams.
Ability to collaborate was specifically sought in job applicants.
Collaboration was used to generate and share information and knowledge.
Respect was referred to as an enabler of collaboration.

4.4.2.2.2 L2: Balance
The application of the lever was not dependent on formal organisational occasions.
Application occurred in real-time and frequently, formally and informally.
Patient and patient-based carers were the drivers of balance in a multidisciplinary patient care team.
Balance was a mix of skills, qualifications and depth of experience.
Balancing a team was said to be of primary importance.
Maintenance of balance required collaboration.

4.4.2.2.3 L3: Language
The application of the lever was not dependent on formal organisational occasions.
Application occurred in real-time and frequently, formally and informally.
Understanding jargon was a normal part of working in palliative care.
The use of common languages occurred at more than one level; for example, between disciplines and between teams and patients.
Each discipline had a specific language.
Common languages enabled transfer of information between disciplines and between the teams and patients and patient-based carers.
The generation and use of common languages facilitated multidisciplinary care delivery and collaboration.
4.4.2.4 L4: Absorptive Capacity
The application of the lever was not dependent on formal organisational occasions. Application occurred in real-time and frequently, formally and informally. Ability for on the job learning was specifically sought in job applicants. Disciplines are used as conduits of information and for sourcing and disseminating information inside and outside of the case study organisation and palliative care. Information was imported from discipline based sources directly to the teams.

4.4.2.5 L5: Diversity
The application of the lever was not dependent on formal organisational occasions. Application occurred in real-time and frequently, formally and informally. Diversity was said to offer the teams a large range of experiences and knowledge in healthcare and in life. Non-clinical and non-palliative care experience were valued components of diversity. Diversity was a way of dealing with changing patient situations.

4.4.2.6 L6: Conflict
The application of the lever was not dependent on formal organisational occasions. Application occurred in real-time, formally and informally. Conflict was an enabler of care delivery. Conflict was described as a natural part of working in teams. The ability of the team to talk through experiences without a sense of blame meant that learning was enabled. Conflict was an enabler of patient participation in decision making. Conflict required openness and honesty and an exchange of information and knowledge.
4.4.2.7 L7: Trust
The application of the lever was not dependent on formal organisational occasions. Application occurred in real-time and frequently, formally and informally. Trust enabled collaboration, the situational mixing of teams and power sharing. Trust enabled the generation and dissemination of information and knowledge. Trust enabled the delivery of multidisciplinary care. Trust enabled palliative care.

4.4.2.8 L8: Power Sharing
The application of the lever was not dependent on formal organisational occasions. Application occurred in real-time and frequently, formally and informally. Patients were described as the final arbiter of decisions made about them, although not all patients wanted this role. Patients had choices that had to be respected.
4.4.2.3 Individual Behaviours – Ward Team

4.4.2.3.1 B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation
This behaviour was in use formally and informally.
The team described artefacts such as personal, inter-organisational, interdisciplinary and social networks, observation skills, interpersonal skills, experience, knowledge, and formal and informal information gathering procedures.
Trust building could be achieved by demonstrating to the patient that the patient had a particular status within the ward and could question procedures and decisions.
Trust building could be achieved by team members acting or informing on the patient’s behalf in interactions with disciplines.
This behaviour was enabled by respect for the patient.

4.4.2.3.2 B2: Rapid Inclusion in a Socially Stable Structure
This behaviour was in use formally and informally.
Rapid inclusion in a socially stable structure could remove or allay fear in patients and patient-based carers.
Behaviour was enabled by trust building.
Patients could interact with any staff member that they chose as a primary interface with the organisation.
Behaviour enabled relationship building.
Behaviour enabled holistic care delivery.

4.4.2.3.3 B3: Addressing Values Based Issues
This behaviour was in use formally and informally.
This behaviour was referred to as addressing spiritual and emotional issues or issues other than medical or nursing issues.
Values based issues sometimes raised anger and fear in families at the end of life.
These issues could also lead to unresolved end of life issues such as the welfare of survivors or long buried events.
This behaviour was described as directly related to the philosophy of palliative care.
4.4.2.3.4 B4: Understanding the Patient’s Situation as the Basis for Care
This behaviour was in use formally and informally.
Understanding the patient’s situation was central to the delivery of good care and the ethos of palliative care.
Behaviour involved building a picture of the whole person.
Understanding ranged from a patient’s relationship with pets to deep seated unresolved issues that were preventing a response to care.
The situations of all patients were discussed by the whole team at the weekly multidisciplinary team meeting.
The need to understand the patient’s situation was a large driver of informal communication.
Successful use of this behaviour was dependent on success of previous behaviours.

4.4.2.3.5 B5: Working in Teams
This behaviour was in use formally and informally.
Working in teams was described as a normal part of working in palliative care.
Multidisciplinary teams were described as the best way to deliver palliative care.
Teams in palliative care were said to have more time available to them than teams in acute care.
Palliative care teams used and expected more observation across discipline boundaries than acute care teams.

4.4.2.3.6 B6: Collaborating Within the Patient Management Process
This behaviour was in use formally and informally.
Collaboration was described as valuable and necessary in palliative care.
Collaboration was a driver of the high frequency of informal communication.
Collaboration with patients and patient-based carers was expected.
Collaboration kept the patient at the centre of the care delivery process.
Collaboration was used within teams for structural purposes, for example in covering unplanned absences.
4.4.2.3.7 B7: Managing Ambivalence in the Team
This behaviour was in use formally and informally.
The emotionally charged environment was a source of problems in teams.
Ambivalence was one of the results of a failure of communications within multidisciplinary teams.
Ambivalence could frequently be managed with direct, sometimes informal, communication.
Ambivalence could not be left unaddressed.
4.4.2.4 Contingencies

4.4.2.4.1 CO1: Uncertainty
Described as a persistent contingency influencing or driving many aspects of palliative care.

All interviews recorded uncertainty as an influencer.

Rotating trainee doctors through the case study organisation brought with it cultural differences between the case study organisation and the housing hospital with regard to the relative status of the doctors, in the eyes of the doctors, causing resentment and uncertainty in teams.

Uncertainties and the need to deal with them also drove information and knowledge generation and exchange.

Multidisciplinary operations and collaboration were a response to the range and depth of uncertainties that accompanied patients.

Power sharing with patients and patient-based carers were a response to uncertainties accompanying these people.

Dealing with uncertainties accompanying patients and patient-based carers was a driver of trust building and the inclusion of the patient in a socially stable environment as soon as possible.

Working and collaborating in teams were ways of dealing with uncertainty.

4.4.2.4.2 CO2: Workforce
Collaborative operations required a particular workforce; prospective employees were tested specifically for an ability to work collaboratively in multidisciplinary teams.

Palliative care staff had to be capable change managers.

Working collaboratively meant the requirement for good communication skills.

Palliative care staff needed to be comfortable with low barriers between the disciplines and the expectations of observation and reporting across the boundaries.

The workforce was required to be capable in the generation and use of common languages.

The workforce was the source of diversity and balance in the multidisciplinary teams.

Absorptive capacity was product of the workforce.
The workforce was the source of all behaviours within the multidisciplinary teams.

4.4.2.4.3 CO3: Patients

Patients were constantly noted as the primary source of information about their situation and changes to it.

Patients were the major source of change.

Patients sometimes chose particular carers as interfaces with the case study organisation.

Patients required constant formal and informal observation by all team members.

Patients were the focus of the ethos of palliative care.

Patient requirements drove collaboration and information sharing.

Patients’ situations determined patient care team diversity and balance.

Patients’ situations drove learning and the use of absorptive capacity.

Patients’ situations priority setting and mediated the behaviours related to the multidisciplinary teams.

Care delivery required a level of flexibility commensurate with patient requirements.

4.4.2.4.4 CO4: Healthcare Environment

Healthcare environment provided regulators, certifying authorities and the owning organisation.

Healthcare environment provided practices, policies and the healthcare bureaucracy.

All clinical staff came from the healthcare environment.

Staff recruited from non-palliative care areas of the healthcare environment required more training than staff recruited with palliative care experience.

Clinical trainees from various disciplines rotated through the case study organisation as part of their learning.

The healthcare environment provided all patients and sometimes did so without complete information being provided to the case study organisation or to the patient.

This increased the workload in the case study organisation at the time of transfer.

The case study organisation depended on community (home) care teams from other parts of the healthcare environment.
4.4.2.4.5 CO5: Change
Management of change is a primary activity of the multidisciplinary teams in this case study organisation.

Staff turnover and patient turnover were fundamental changes needing to be managed.

The potential for change was a permanent presence in all patients, leading to an expectation of change that was not always realised but was resourced.

The need for collaboration was driven by change.

Change impacted the diversity and balance of the patient care teams.

Changes in patients’ situations drove many of the behaviours in the multidisciplinary teams.
4.4.2.5 Characteristics of Configuration

4.4.2.5.1 CH1: Employing specialists and professionals, high levels of skill and knowledge, long periods of training prior to working in palliative care.

Doctors at least seven years.
Nurses and Allied health commonly come to palliative care after maturing in careers.

4.4.2.5.2 CH2: Work would often be complex.

Confirmed from the interviews regarding capabilities, levers and individual behaviours in the multidisciplinary patient care teams.

4.4.2.5.3 CH3: Staff grouped functionally for administrative purposes, allocated to multidisciplinary teams for particular situations or projects.

Staff are grouped by Discipline for administrative purposes. The head of each discipline is responsible for that discipline’s contribution to the care delivery process. The composition of the teams is mandated in part and situational in part. Medicine and nursing are always assigned to a patient. Allied health professionals allocated as the situation suggests.

4.4.2.5.4 CH4: Majority of Work Tasks Require Collaborative Effort

The range of typical causes of distress in patients and patient-based carers drives a collaborative effort. Confirmed by the interviews regarding capabilities, levers and individual behaviours in the multidisciplinary patient care teams.

4.4.2.5.5 CH5: A primary coordinator of collaborative effort would be informal communication between staff members on teams

Confirmed by the interviews regarding capabilities, levers and individual behaviours in the multidisciplinary patient care teams.
4.4.2.5.6 CH6: Professionals sustain levels of skill and knowledge using ongoing training within disciplines or other specialist or professional groups and transfer knowledge and information between disciplines, teams and individuals.

Members of all disciplines are required to undertake ongoing professional development and are monitored for this.

Transfer of knowledge and information occurs formally and informally. This is confirmed by the interviews regarding capabilities, levers and individual behaviours in the teams. Said to occur frequently. Willingness to learn indicates openness to collaboration..

4.4.2.5.7 CH7: Decision making autonomy accompanies professionals to multidisciplinary teams, authority is often sourced in professional experience.

While authority in the multidisciplinary teams is sometimes derived from the experience of professionals this is tempered by the fact that the doctor attending the patient is the professional who is liable for the conduct of treatment under law. This was said to add a level of tension to the decision making process within the teams given the need to defer to experience at times.

4.4.2.5.8 CH8: Senior managers found working in the multidisciplinary patient care teams.

Common practice in this case study organisation for medical and nursing heads but for heads of various allied health disciplines who reside in the housing hospital this is not as common.

4.4.2.5.9 CH9: Broadly based singular focus on the purpose of the organisation, expressed as the organisation’s mission.

Used as a tool for indoctrination of new staff and, at times, as coordinating mechanism for work tasks.

Mission statement has an active role in indoctrination, training and maintaining the ethos of the organisation. A small number of measures report against Mission.
4.4.2.5.10 CH10: The organisation would be politicised and operating in a politicised environment.
Main source of politics within the organisation is interpersonal reactions within the multidisciplinary teams, described as similar to those found in any other type of team in other organisations. Healthcare environment is politicised by the government of the day.

4.4.2.5.11 CH11: Separate section of the organisation, structured and operating differently to interface with healthcare bureaucracies and regulators.
Yes, conducted by a group standing away from patient care supplying primarily quantitative data.
4.4.3 Analysis Level 2 part 2 - Identifying Major Themes in the Data

4.4.3.1 Introduction to the Major Themes
At this point in the analysis all interview transcripts had been summarised and the data had been repackaged and aggregated under the headings of the various components of the model for palliative care. Themes began to appear. These took the form of recurring elements introduced by interview participants. In all, there appeared to be four of these elements; collaboration, learning, the patient at the centre and informal communications. These Major Themes reflected major themes in the literature review to a large extent. On reflection, informal communications was renamed ad hoc communications for the purpose of analysis as the term “informal”, although commonly used in the summaries of interview transcripts and in interviews themselves, did not adequately describe what the interviews were raising, communications related to patient situations taking place across team and discipline boundaries and within teams as they needed to. These were Major Themes because they occurred, specifically or by implication, during interviews about many of the components of the model for palliative care. For example, informal communication was mentioned or implied during interviews on capabilities, management levers, behaviours in the teams and contingencies.

4.4.3.2 Comments on the Thematic Analysis and a Simplified Display of Major Themes and Components
The drawing out of Major Themes and the description of their relationship to the components of the model for palliative care accounted for all of the components except for one, CH11: Separate section of the organisation, structured and operating differently to interface with healthcare bureaucracies and regulators. CH11 was perhaps not surprising because it refers to the organisation’s interface with the healthcare bureaucracy and regulators. As such, it might be expected to appear later when the relationship between Major Themes, contingencies and components of the model for palliative care were examined.

At this point in the analysis it was possible to write that a number of Major Themes had been drawn from the data. These themes were reflected in many of the aspects of palliative care that were represented by the components of the model for palliative
care. It was possible to see that some components of the model appeared related to all of the Major Themes, for example *C1: Managing Knowledge*, some components were related to three Major Themes, for example *L7: Trust* in *T1: Collaboration*, *T2: Learning* and *T3: Keeping the Patient in the Centre*, and some, for example *L5: Diversity* in *T3: Keeping the Patient at the Centre*, were only related to one major theme. However, only one complete set of components, the Contingencies, appeared in total in every major theme. Apart from the Contingencies one other set of components is displayed in total in one major theme; Behaviours in *T3: Keeping the Patient at the Centre*.

It was interesting to be able to see that each of the characteristics of configuration apart from *CH11* noted above was related to one or another major theme, sometimes multiple themes. An example of this was CH2: Work would be complex, which appeared to stand as a statement of required fundamental understanding, was related to *T1: Collaboration*, *T3: Keeping the Patient at the Centre* and *T4: Ad Hoc Communication*. The relationship between the characteristics of configuration and the Major Themes seemed to place the characteristics, at least at this point in the analysis, as enablers of the Major Themes.
<table>
<thead>
<tr>
<th>Theme</th>
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<tr>
<td>B1: Using Organisational Artefacts to Enable Rapid</td>
<td></td>
</tr>
<tr>
<td>Creation of Trust and Enculturation</td>
<td></td>
</tr>
<tr>
<td>B2: Rapid Inclusion in a Socially Stable Structure</td>
<td></td>
</tr>
<tr>
<td>B4: Understanding the Patient’s Situation as the Basis for Care</td>
<td></td>
</tr>
<tr>
<td>B5: Working in Teams</td>
<td></td>
</tr>
<tr>
<td>B6: Collaborating Within the Patient Management Process</td>
<td></td>
</tr>
<tr>
<td>B7: Managing Ambivalence in the Team</td>
<td></td>
</tr>
<tr>
<td>CO1: Uncertainty</td>
<td></td>
</tr>
<tr>
<td>CO2: Workforce</td>
<td></td>
</tr>
<tr>
<td>CO3: Patients</td>
<td></td>
</tr>
<tr>
<td>CO4: Healthcare Environment</td>
<td></td>
</tr>
<tr>
<td>CO5: Change</td>
<td>CH2: Work would often be complex</td>
</tr>
<tr>
<td>CH4: The great majority of work tasks would require collaborative effort.</td>
<td></td>
</tr>
<tr>
<td>CH5: A primary coordinator of collaborative effort would be informal</td>
<td></td>
</tr>
<tr>
<td>communication between staff</td>
<td></td>
</tr>
<tr>
<td>members on teams.</td>
<td>CH7: Decision making autonomy accompanies professionals to multidisciplinary</td>
</tr>
<tr>
<td>teams, authority often</td>
<td></td>
</tr>
<tr>
<td>sourced in professional</td>
<td></td>
</tr>
<tr>
<td>experience.</td>
<td></td>
</tr>
<tr>
<td>CH8: Senior managers found</td>
<td></td>
</tr>
<tr>
<td>working in the multidisciplinary patient care teams</td>
<td></td>
</tr>
<tr>
<td>CH10: The organisation would</td>
<td></td>
</tr>
<tr>
<td>be politicised and operating in a politicised environment.</td>
<td></td>
</tr>
</tbody>
</table>

Table 33 Components Related to T1: Collaboration. Source: Case 3 Data Analysis
<table>
<thead>
<tr>
<th>Theme</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>T2: Learning</td>
<td>C1: Managing Knowledge</td>
</tr>
<tr>
<td></td>
<td>C2: Managing Information</td>
</tr>
<tr>
<td></td>
<td>L1: Collaboration</td>
</tr>
<tr>
<td></td>
<td>L3: Language</td>
</tr>
<tr>
<td></td>
<td>L4: Absorptive Capacity</td>
</tr>
<tr>
<td></td>
<td>L7: Trust</td>
</tr>
<tr>
<td></td>
<td>B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation</td>
</tr>
<tr>
<td></td>
<td>B2: Rapid Inclusion in a Socially Stable Structure</td>
</tr>
<tr>
<td></td>
<td>B4: Understanding the Patient’s Situation as the Basis for Care</td>
</tr>
<tr>
<td></td>
<td>B5: Working in Teams</td>
</tr>
<tr>
<td></td>
<td>B7: Managing Ambivalence in the Team</td>
</tr>
<tr>
<td></td>
<td>CO1: Uncertainty</td>
</tr>
<tr>
<td></td>
<td>CO2: Workforce</td>
</tr>
<tr>
<td></td>
<td>CO3: Patients</td>
</tr>
<tr>
<td></td>
<td>CO4: Healthcare Environment</td>
</tr>
<tr>
<td></td>
<td>CO5: Change</td>
</tr>
<tr>
<td></td>
<td>CH6: Professionals sustain levels of skill and knowledge using ongoing training within disciplines or other specialist or professional groups and transfer knowledge and information between disciplines, teams and individuals.</td>
</tr>
</tbody>
</table>

Table 34  Components Related to T2: Learning.  Source: Case 3 Data Analysis
### Theme  Keeping the Patient at the Centre

<table>
<thead>
<tr>
<th><strong>Theme</strong></th>
<th><strong>Component</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>C1:Managing Knowledge</td>
<td>C2: Managing Information</td>
</tr>
<tr>
<td>C4: Collaborative Operations</td>
<td>C5: Managing Technology</td>
</tr>
<tr>
<td>C6: Managing Change and the Effects of Change</td>
<td>L1: Collaboration</td>
</tr>
<tr>
<td>L3: Language</td>
<td>L5: Diversity</td>
</tr>
<tr>
<td>L6: Conflict</td>
<td>L7: Trust</td>
</tr>
<tr>
<td>L8: Power Sharing</td>
<td>B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation</td>
</tr>
<tr>
<td>B2: Rapid Inclusion in a Socially Stable Structure</td>
<td>B3: Addressing Values Based Issues</td>
</tr>
<tr>
<td>B4: Understanding the Patient’s Situation as the Basis for Care</td>
<td>B5: Working in Teams</td>
</tr>
<tr>
<td>B6: Collaborating Within the Patient Management Process</td>
<td>B7: Managing Ambivalence in the Team</td>
</tr>
<tr>
<td>CO1: Uncertainty</td>
<td>CO2: Workforce</td>
</tr>
<tr>
<td>CO3: Patients</td>
<td>CO4: Healthcare Environment</td>
</tr>
<tr>
<td>CO5: Change</td>
<td>CH1: Specialists and professionals with high levels of skill and knowledge, who had undertaken long periods of training prior to working in palliative care, would be employed.</td>
</tr>
<tr>
<td>CH2: Work would often be complex.</td>
<td>CH3: Staff grouped functionally for administrative purposes, allocated to multidisciplinary teams for particular situations.</td>
</tr>
<tr>
<td>CH4: The great majority of work tasks would require collaborative effort.</td>
<td>CH5: A primary coordinator of collaborative effort would be informal communication between staff members on teams.</td>
</tr>
<tr>
<td>CH6: Professionals sustain levels of skill and knowledge using ongoing training within disciplines or other specialist or professional groups and transfer knowledge and information between disciplines, teams and individuals.</td>
<td>CH7: Decision making autonomy accompanies professionals to multidisciplinary teams, authority often sourced in professional experience.</td>
</tr>
</tbody>
</table>
| CH8: Broadly based singular focus on the purpose of the organisation, expressed as the organisation’s mission. Used as a tool for indoctrination of new staff and, at times, as coordinating mechanism for work tasks. | **Table 35 Components Related to T3: Keeping the Patient at the Centre.**  
**Source: Case 3 Data Analysis** |
<table>
<thead>
<tr>
<th>Theme</th>
<th>Component</th>
</tr>
</thead>
</table>
| T4: Ad Hoc Communication | C1: Managing Knowledge  
                          C2: Managing Information  
                          C6: Managing Change and the Effects of Change  
                          L1: Collaboration  
                          L3: Language  
                          L4: Absorptive Capacity  
                          B1: Using Organisational Artefacts to Enable Rapid Creation  
                          B2: Rapid Inclusion in a Socially Stable Structure  
                          B4: Understanding the Patient’s Situation as the Basis for Care  
                          B5: Working in Teams  
                          B7: Managing Ambivalence in the Team  
                          CO1: Uncertainty  
                          CO2: Workforce  
                          CO3: Patients  
                          CO4: Healthcare Environment  
                          CO5: Change  
                          CH2: Work would often be complex.  
                          CH4: The great majority of work tasks would require collaborative effort.  
                          CH5: A primary coordinator of collaborative effort would be informal communication between staff members on teams  
                          CH6: Professionals sustain levels of skill and knowledge using ongoing training within disciplines or other specialist or professional groups and transfer knowledge and information between disciplines, teams and individuals |

**Table 36 Components Related to T4: Ad Hoc Communication. Source: Case 3 Data Analysis**
4.4.3.3 Reverse Thematic Analysis
A reverse thematic analysis was conducted to verify the thematic analysis. The result of this process was a set of tables that displayed the Major Themes that occurred in relation to each of the components. These tables follow here but are preceded by two summary views. The first, immediately below shows 14 of the components of the model for palliative care related to all of the Major Themes.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>Managing Knowledge</td>
</tr>
<tr>
<td>C2</td>
<td>Managing Information</td>
</tr>
<tr>
<td>L1</td>
<td>Collaboration</td>
</tr>
<tr>
<td>L3</td>
<td>Language</td>
</tr>
<tr>
<td>B1</td>
<td>Use Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation</td>
</tr>
<tr>
<td>B2</td>
<td>Rapid Inclusion in a Socially Stable Structure</td>
</tr>
<tr>
<td>B4</td>
<td>Understanding the Patient’s Situation as the Basis for Care</td>
</tr>
<tr>
<td>B5</td>
<td>Working in Teams</td>
</tr>
<tr>
<td>B7</td>
<td>Managing Ambivalence in the Team</td>
</tr>
<tr>
<td>CO1</td>
<td>Uncertainty</td>
</tr>
<tr>
<td>CO2</td>
<td>Workforce</td>
</tr>
<tr>
<td>CO3</td>
<td>Patients</td>
</tr>
<tr>
<td>CO4</td>
<td>Healthcare Environment</td>
</tr>
<tr>
<td>CO5</td>
<td>Change</td>
</tr>
</tbody>
</table>

Table 37 Components Related to All of the Major Themes. Source: Case 3 Data Analysis

The second of the summary tables, overleaf, shows that at the completion of the reverse thematic analysis it was possible to see that the theme related to the greatest number of components was T3: Keeping the Patient at the Centre (31 of a possible 37 occurrences). This was followed by T1: Collaboration with 29 occurrences, T4: Ad Hoc Communication with 20 occurrences then by T2: Learning with 17 occurrences.
<table>
<thead>
<tr>
<th>Component</th>
<th>Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1: Managing Knowledge</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>C2: Managing Information</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>C3: Multidisciplinary Operations</td>
<td>T1</td>
</tr>
<tr>
<td>C4: Collaborative Operations</td>
<td>T1 T3</td>
</tr>
<tr>
<td>C5: Managing Technologies</td>
<td>T3</td>
</tr>
<tr>
<td>C6: Managing Change and the Effects of Change</td>
<td>T1 T3 T4</td>
</tr>
<tr>
<td>L1: Collaboration</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>L2: Balance</td>
<td>T1</td>
</tr>
<tr>
<td>L3: Language</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>L4: Absorptive Capacity</td>
<td>T1 T2 T4</td>
</tr>
<tr>
<td>L5: Diversity</td>
<td>T3</td>
</tr>
<tr>
<td>L6: Conflict</td>
<td>T1 T3</td>
</tr>
<tr>
<td>L7: Trust</td>
<td>T1 T2 T3</td>
</tr>
<tr>
<td>L8: Power Sharing</td>
<td>T1 T3</td>
</tr>
<tr>
<td>B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>B2: Rapid Inclusion in a Socially Stable Structure</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>B3: Addressing Values Based Issues</td>
<td>T3</td>
</tr>
<tr>
<td>B4: Understanding the Patient’s Situation as the Basis for Care</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>B5: Working in Teams</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>B6: Collaborating Within the Patient Management Process</td>
<td>T1 T3</td>
</tr>
<tr>
<td>B7: Managing Ambivalence in the Team</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>CO1: Uncertainty</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>CO2: Workforce</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>CO3: Patients</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>CO4: Healthcare Environment</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>CO5: Change</td>
<td>T1 T2 T3 T4</td>
</tr>
<tr>
<td>CH1: Employing specialists and professionals, high levels of skill and knowledge, long periods of training prior to working in palliative care.</td>
<td>T3</td>
</tr>
<tr>
<td>CH2: Work would often be complex.</td>
<td>T1 T3 T4</td>
</tr>
<tr>
<td>CH3: Staff grouped functionally for administrative purposes, allocated to multidisciplinary teams for particular situations or projects.</td>
<td>T3</td>
</tr>
<tr>
<td>CH4: Majority of Work Tasks Require Collaborative Effort</td>
<td>T1 T3 T4</td>
</tr>
<tr>
<td>CH5: A primary coordinator of collaborative effort would be informal communication between staff members on teams.</td>
<td>T1 T3 T4</td>
</tr>
<tr>
<td>CH6: Professionals sustain levels of skill and knowledge using ongoing training within disciplines or other specialist or professional groups and transfer knowledge and information between disciplines, teams and individuals.</td>
<td>T2 T3 T4</td>
</tr>
<tr>
<td>CH7: Decision making autonomy accompanies professionals to multidisciplinary teams, authority is often sourced in professional experience.</td>
<td>T1 T3</td>
</tr>
<tr>
<td>CH8: Senior managers found working in the multidisciplinary patient care teams.</td>
<td>T1</td>
</tr>
<tr>
<td>CH9: Broadly based singular focus on the purpose of the organisation, expressed as the organisation’s mission. Used as a tool for indoctrination of new staff and, at times, as coordinating mechanism for work tasks.</td>
<td>T3</td>
</tr>
<tr>
<td>CH10: The organisation would be politicised and operating in a politicised environment.</td>
<td>T1</td>
</tr>
<tr>
<td>CH11: Separate section of the organisation, structured and operating differently to interface with healthcare bureaucracies and regulators.</td>
<td></td>
</tr>
</tbody>
</table>

Table 38 Components and the Major Themes to which they Relate. Source: Case 3 Data Analysis
4.4.4 Analysis Level 3a Developing and Testing Propositions for an Explanatory Framework

4.4.4.1 Introduction to Level 3a – Matrix Analysis of Major Themes
At this level of the analysis, the final level for this individual case study organisation, the data and relationships within were displayed in coded form only. This Level of the analysis takes the results of the Thematic Analysis and displays them in matrix form. This mode of display enables the development of a contingency driven view of the data drawn from the explanatory phase of the Thematic Analysis. Once developed, this view relates Major Themes and components in response to, or influenced by, the Contingencies.

4.4.4.2 Thematic Analysis in Matrix
The tables here display the results of the thematic analysis as a matrix for each of the Major Themes. Below is a combination matrix, one major grouping for each theme. Each row within each theme contains a number of cells corresponding to the total number of that particular component contained in the model for palliative care. For example there are 6 Organisational Capabilities in the model and therefore 6 cells in the row of Capabilities. Not all cells contain components, reflecting the varying relationships between Major Themes and components from theme to theme. However, viewing all themes together accounts for all components except, as noted previously, CH11.
<table>
<thead>
<tr>
<th>Theme</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>C1 C2 C3 C4 C6</td>
</tr>
<tr>
<td></td>
<td>L1 L2 L3 L4 L6 L7 L8</td>
</tr>
<tr>
<td></td>
<td>B1 B2 B4 B5 B6 B7</td>
</tr>
<tr>
<td></td>
<td>CO1 CO2 CO3 CO4 CO5</td>
</tr>
<tr>
<td></td>
<td>CH 2 CH 4 CH 5 CH 7 CH 8 CH 10</td>
</tr>
<tr>
<td>T2</td>
<td>C1 C2</td>
</tr>
<tr>
<td></td>
<td>L1 L3 L4 L7</td>
</tr>
<tr>
<td></td>
<td>B1 B2 B4 B5 B7</td>
</tr>
<tr>
<td></td>
<td>CO1 CO2 CO3 CO4 CO5</td>
</tr>
<tr>
<td></td>
<td>CH 6</td>
</tr>
<tr>
<td>T3</td>
<td>C1 C2 C4 C5 C6</td>
</tr>
<tr>
<td></td>
<td>L1 L3 L5 L6 L7 L8</td>
</tr>
<tr>
<td></td>
<td>B1 B2 B3 B4 B5 B6 B7</td>
</tr>
<tr>
<td></td>
<td>CO1 CO2 CO3 CO4 CO5</td>
</tr>
<tr>
<td></td>
<td>CH 1 CH 2 CH 3 CH 4 CH 5 CH 6 CH 7 CH 9</td>
</tr>
<tr>
<td>T4</td>
<td>C1 C2</td>
</tr>
<tr>
<td></td>
<td>L1 L3 L4</td>
</tr>
<tr>
<td></td>
<td>B1 B2 B4 B5 B7</td>
</tr>
<tr>
<td></td>
<td>CO1 CO2 CO3 CO4 CO5</td>
</tr>
<tr>
<td></td>
<td>CH 2 CH 4 CH 5 CH 6</td>
</tr>
</tbody>
</table>

Table 39  Results of the Thematic Analysis in Matrix. Source: Case 3 Data Analysis
4.4.4.3 A Contingency Driven View of the Thematic Analysis

Following the thematic analysis and in terms of further understanding the relationships in the data there appeared to be two issues to address. The first was that while the thematic analysis included the relationship between Major Themes and contingencies it did not include the relationships between contingencies and the other components of the model for palliative care, although these relationships had been articulated in the explanatory section of the thematic analysis. The second issue was that while characteristics of configuration had been linked to Major Themes they could not be linked to the contingencies outside of the themes. This was perhaps because they were organisational characteristics expressed at that level and reflecting the requirements placed on the organisation by its external and internal operating environments. The first issue was addressed in the following section, where the thematic analysis was expanded by taking a contingency based view. The second issue was addressed by not attempting to force fit the characteristics of configuration into the expanded analysis.

In this section of the analysis contingencies were displayed as the drivers, with the components of the model for palliative care related to each major theme changing as the contingency changed. This was articulated in the explanatory section of the thematic analysis but not displayed as such because of the emphasis on Major Themes. Note that the following displays do not include the characteristics of configuration.

A contingency based view was sought because the model for palliative care was a contingency driven model, where a number of components interact in response to contingencies from the external and internal operating environments. However, following the development of the model for palliative care through the literature review process one thing was not clear; the dynamic/s, for want of a better term at this time, that connected one or more contingencies to a palliative care organisation’s response in the form of a combination of the components of the model.
4.4.4.4 Combining the Matrix Displays
In addition to the display of the contingency driven relationships in the data the tables following will also display all components relevant to each theme. This combined display enables a comparison of what components are used in response to, or influenced by, contingencies via the Major Themes and what components are related to the Major Themes. The coded components appear in two different shadings; bold black indicates a component used in response to, or influenced by, a contingency via a Major Theme, grey indicates components defined in the Thematic Analysis but not used, or influenced, in that particular Major Theme when related to different contingencies.

Components not originally identified as related to particular themes in the Thematic Analysis can not now be identified in response to the contingencies. This is because the relationship between the contingencies and the Major Themes was drawn from the Major Themes.

4.4.4.5 Comments on the Contingency Driven View
Following the formation of the contingency driven view in the preceding tables several points came to view. The first was that the components displayed within each Major Theme changed when the contingency changed. For example, T3: Keeping the Patient at the Centre utilises 13 components when applied in response to CO1: Uncertainty, 10 components in response to CO3: Patients and 11 components in response to CO5: Change.

It can be seen that in three of the four tables there is a small number of components that are found in the thematic analysis but not found in the contingency driven view. The only Major Theme where this did not occur was T4: Ad Hoc Communication. Where it did occur it was limited to three components: two Management Levers; L6: Conflict and L7: Trust and one Behaviour; B7: Managing Ambivalence in the Team.

With regard to the Management Levers the gaps occurred in relation to the contingency driven view of T1: Collaboration and T2: Learning. As for the
Behaviours, the gap occurred in relation to the contingency driven view of **T1: Collaboration, T2: Learning and T3: Keeping the Patient at the Centre**.

The significance, if any, of these small gaps in the contingency driven view are not yet understood. Perhaps they were the result of a simple failing in the interview process, such as not asking the right question at the right time. Perhaps they were the result of something else. These components are identified in the following tables with a circle.

<table>
<thead>
<tr>
<th>Contingency</th>
<th>Theme</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td></td>
<td>C1  C2  C3  C4  C6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L1  L2  L3  L4  L6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L7  L8  B1  B2  B4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B5  B6  B7</td>
</tr>
<tr>
<td>T2</td>
<td></td>
<td>C1  C2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L1  L3  L4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L7  B1  B2  B4  B5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B7</td>
</tr>
<tr>
<td>T3</td>
<td></td>
<td>C1  C2  C4  C5  C6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L1  L3  L5  L6  L7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L8  B1  B2  B3  B4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B5  B6  B7</td>
</tr>
<tr>
<td>T4</td>
<td></td>
<td>C1  C2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L1  L3  L4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B1  B2  B4  B5  B7</td>
</tr>
</tbody>
</table>

Table 40  Components Applied in Major Themes in Response to CO1: Uncertainty. Source: Case 3 Data Analysis
<table>
<thead>
<tr>
<th>Contingency</th>
<th>Theme</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO2</td>
<td>T1</td>
<td>C1, C2, C3, C4, C6</td>
</tr>
<tr>
<td></td>
<td>T2</td>
<td>C1, C2</td>
</tr>
<tr>
<td></td>
<td>T3</td>
<td>C1, C2, C4, C5, C6</td>
</tr>
<tr>
<td></td>
<td>T4</td>
<td>C1, C2</td>
</tr>
</tbody>
</table>

Table 41 Components Influenced in Application in Major Themes by CO2: Workforce. Source: Case 3 Data Analysis

<table>
<thead>
<tr>
<th>Contingency</th>
<th>Theme</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO3</td>
<td>T1</td>
<td>C1, C2, C3, C4, C6</td>
</tr>
<tr>
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<td>T2</td>
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<tr>
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<td>T4</td>
<td>C1, C2</td>
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Table 42 Components Applied in Major Themes in Response to CO3: Keeping the Patient at the Centre. Source: Case 3 Data Analysis
<table>
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<td>C1 C2 C4 C5 C6</td>
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<td></td>
<td></td>
<td>B1 B2 B4 B5 B7</td>
</tr>
</tbody>
</table>

Table 43 Components Influenced in Application in Major Themes by CO4: Healthcare Environment. Source: Case 3 Data Analysis

<table>
<thead>
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</thead>
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<tr>
<td></td>
<td>T2</td>
<td>C1 C2</td>
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<tr>
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<td></td>
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<td>B1 B2 B4 B5 B7</td>
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<td>T3</td>
<td>C1 C2 C4 C5 C6</td>
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<td></td>
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</tr>
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<td></td>
<td></td>
<td>B1 B2 B4 B5 B7</td>
</tr>
</tbody>
</table>

Table 44 Components Applied in Major Themes in Response to CO5: Change. Source: Case 3 Data Analysis
4.4.5 Comments at the Completion of the Case Study 3 Analysis

This case study analysis followed the model of abstraction described in the thesis methodology to Level 3a. This means that the data has been summarised from the interview transcripts, abstracted to depersonalise it and reviewed for Major Themes. Four Major Themes were found; T1: Collaboration, T2: Learning, T3: Keeping the Patient at the Centre and T4: Ad Hoc Communication and these provided the basis for a thematic analysis of the data. The thematic analysis was verified using a reverse thematic analysis. The data was then reduced to its coded form and presented in a series of matrices beginning with the results of the thematic analysis, then developing a contingency based view which was combined with a comparison of the thematic and contingency based views. Several interesting points have arisen.

The suggested components of the model for palliative care were found in the data and occurred in relation to multiple Major Themes except for CH11: Separate section of the organisation, structured and operating differently to interface with healthcare bureaucracies and regulators. Finding multiple relationships between components and Major Themes seems to indicate multiple usefulness and application of components for different purposes or in reaction to different stimuli.

4.4.5.1.1 General
Leaving aside the contingencies, particular components of the model for palliative care occurred in all themes; C1: Managing Knowledge and C2: Managing Information, L1: Collaboration and L3: Language; B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation, B2: Rapid Inclusion in a Socially Stable Structure, B4: Understanding the Patient’s Situation as the Basis for Care, B5: Working in Teams and B7: Managing Ambivalence in the Team.

The Major Theme T3: Keeping the Patient at the Centre was related to 31 of a possible 37 components of the model for palliative care, a little over 80% of components. This was followed by T1: Collaboration with 29 relationships, a little over 75%, T4: Ad Hoc Communication with 20 relationships, some 60% of components, and T2: Learning with 17 relationships, a little over 50%. An overlap in the utilisation of components of the model for palliative care is indicated here.
4.4.5.1.2 A Summary of the Thematic View
The Thematic View offers a picture of an organisation that is specifically resourced and structured for complex work involving heterogeneous teams of professionals that must maintain and exchange skills, knowledge and information between the disciplines in a workplace that demands collaborative effort be applied. This organisation appears to be managed collaboratively using conflict and trust persistently and learning, knowledge and information networks inside and outside the organisation commonly. This organisation appears to persistently apply its capabilities for managing knowledge and information in multidisciplinary teams and commonly applies collaboration and change management as capabilities in the same teams. Resourcing, structure and capabilities appear to be in place so that the teams are always available, can persistently work at generating trust and understanding a wide range of situational drivers surrounding and impacting each team’s focus, the patient, and work collaboratively at these tasks utilising high frequencies of ad hoc communications across disciplines, and through networks inside and outside the organisation, to generate and exchange knowledge and information as a patient’s situation changes or change in that situation is anticipated or detected. The purpose of the application of these Behaviours is to define, package and deliver whatever mix of care types is necessary to address an individual patient’s situation. The patient can be a member of this team if so choosing. The mix of delivery style, as well as the mix of care type, can be new or not new.

4.4.5.2 The Contingency Driven View
As described above, the Contingencies appeared as two types. CO1: Uncertainty, CO3: Patients and CO5: Change appeared as drivers of the application of components in Major Themes. CO2: Workforce and CO4: Healthcare Environment appeared to influence components during application in Major Themes. All of the Contingencies were related to all of the Major Themes. In the contingency driven view that was generated the application of components of the model for palliative care and the components influenced during application varies from contingency to contingency. However, the degree of variation is less for the contingencies that
influence components in application. A number of the components that appeared as persistent in the Thematic View remain as persistent in the contingency driven view.

4.4.5.2.1.1 General

Particular components were applied in all Major Themes in response to CO1: Uncertainty, CO3: Patients and CO5: Change. These were: C1: Managing Knowledge, C2: Managing Information, L1: Collaboration and B4: Understanding the Patient’s Situation as the Basis for Care.

With regard to the Contingencies influencing components during application, CO2: Workforce and CO4: Healthcare Environment, there were components of the model for palliative care that were persistently influenced in all Major Themes. In CO2: Workforce these were C1: Managing Knowledge, C2: Managing Information, L1: Collaboration, L3: Language, B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation, B2: Rapid Inclusion in a Socially Stable Structure and B4: Understanding the Patient’s Situation as the Basis for Care. In CO4: Healthcare Environment these components were C1: Managing Knowledge and C2: Managing Information and B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation.

In the Thematic View T3: Keeping the Patient at the Centre, was the Major Theme related to the greatest number of components. In the Contingency Driven View this is not the case. Here, T1: Collaboration has the greatest number of component relationships with regard to CO3: Patients and an equal number of these relationships to T3: Keeping the Patient at the Centre with regard to CO1: Uncertainty. In CO5: Change, T3: Keeping the Patient at the Centre contains the greatest number of these relationships. T1: Collaboration is the Major Theme with the greatest number of components influenced by CO2: Workforce and as far as CO4: Healthcare Environment is concerned T3: Keeping the Patient at the Centre and T4: Ad Hoc Communication share the maximum number.

However, whereas in the Thematic View the difference in related components between T3: Keeping the Patient at the Centre and the next most frequent relationships was some 20% of the total components, in the Contingency Driven
View the difference in components applied and components influenced in T3: Keeping the Patient at the Centre and the other Major Themes is far smaller. In general the difference is commonly two or three components. This indicates a more even application of components in Major Themes responding to or influenced by Contingencies than was evident in the Thematic View.

Another interesting group of components was also apparent. This group occurred in every Major Theme in response to particular Contingencies and comprises the following. L3: Language, B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation and B5: Working in Teams in each Major Theme in response to CO1: Uncertainty; L3: Language and B2: Rapid Inclusion in a Socially Stable Structure were applied in each Major Theme in response to CO3: Patients; L1: Collaboration is applied in each Major Theme in response to CO5: Change.

The next most frequently applied component appeared to be L4: Absorptive Capacity.

There is another group of components that should not be forgotten, though already described. These were the components of the model for palliative care that were present in the data, articulated in the Thematic Analysis but rarely articulated where expected in the Contingency Driven View. These components were marked on the tables with circles. The only Major Theme where this did not occur was T4: Ad Hoc Communication. Where it did occur it was limited to three components: two Management Levers; L6: Conflict and L7: Trust and one Behaviour; B7: Managing Ambivalence in the Team.

With regard to the Management Levers the gaps occurred in relation to the contingency driven view of T1: Collaboration, T2: Learning and T3: Keeping the Patient at the Centre. As for the Behaviours, the gap occurred in relation to the contingency driven view of T1: Collaboration, T2: Learning and T3: Keeping the Patient at the Centre.
The significance, if any, of these small gaps in the contingency driven view was not yet understood. Perhaps they were the result of a simple failing in the interview process, such as not asking the right question at the right time. Perhaps they were the result of something else. For example, \textit{L7: Trust} was not spoken of in the management team interview on Management Levers but was referred to as a lever when multidisciplinary teams were interviewed regarding Behaviours in the multidisciplinary teams.

Those components influenced during their application by \textit{CO4: Healthcare Environment} were small in number, being generally half the number influenced in application by \textit{CO2: Workforce}, but nevertheless influential. This is particularly the case for \textit{C1: Managing Knowledge} and \textit{C2: Managing Information}. These appear influenced by \textit{CO4: Healthcare Environment} in every application. Here might be the connection to the Characteristic of Configuration \textit{CH11: Separate section of the organisation, structured and operating differently to interface with healthcare bureaucracies and regulators} that was not made in the Thematic Analysis. The interface with the healthcare bureaucracy through which all of the formal traffic in knowledge and information is managed might need a separate unit because of the amount of potential traffic and its importance.

4.4.5.3 A Summary of the Contingency Driven View

In the Contingency Driven View the dynamics of the operation of the model for palliative care were more apparent. Therefore, so were the dynamics of the care delivery operations of the case study organisation. This appears to be a quite dynamic organisation that utilises sets of components, Organisational Capabilities, Management Levers and Individual Behaviours applied in multidisciplinary teams. The drivers of the dynamics appear to be the identified Contingencies.

The same components were applied through different Major Themes in response to the same Contingency, indeed in response to multiple Contingencies. This indicates an inherent flexibility in the management, the workforce and the components themselves. Given the Characteristics of Configuration, this does not appear to occur by chance. This case study organisation appears to be designed and managed for dynamic response to uncertain, changing situations.
4.4.6 Case Study 3 Data in Context

The dynamic relationships drawn from Case Study 3 are perhaps more clearly and concisely seen in the following Figures. There are two sets of Figures. Each set displays the operational components of the Model for Palliative Care and the relationships between these components, the Major Themes and Contingencies. The first set, Figure 118, displays these relationships with regard to the driving contingencies. Four components are shaded in this set because they are so persistent in their occurrence. The second set, Figure 19, displays the relationships with regard to the influencing contingencies.

In these Figures five events are observable.
1. The combination of components employed in response to any one of the driving contingencies varies from Major Theme to Major Theme.
2. The combination of Management Levers employed in response to any one of the driving contingencies varies from Major Theme to Major Theme.
3. Within the Major Themes related to any one of the driving contingencies the use of a particular combination of Management Levers is linked to the use of a particular combination of Organisational Capabilities and a particular combination of Individual Behaviours within the teams and this changes from Major Theme to Major Theme.
4. Events 1, 2 and 3 contain different combinations from driving contingency to driving contingency. The differences are not major but perceptible.
5. The influencing contingencies do not influence all of the components in play but CO2: Workforce certainly influences most of them.

The data displayed in Figure 18 is taken from Tables 40, 42 and 44 on pages 268, 269 and 270 respectively.
The data displayed in Figure 19 is taken from Tables 41 and 43 on pages 269 and 270.
<table>
<thead>
<tr>
<th>Major Theme</th>
<th>T1: Collaboration</th>
<th>T2: Learning</th>
<th>T3: Keeping the Patient at the Centre</th>
<th>T4: Ad Hoc Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symbol</td>
<td>○</td>
<td>○</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CO1: Uncertainty**

- L1 Collaboration
- L2 Balance
- L3 Language
- L4 Absorptive Capacity
- L5 Diversity
- L6 Conflict
- L7 Trust
- L8 Power sharing

**Capabilities**

- C1 Managing Knowledge
- C2 Managing Information
- C3 Multidisciplinary Operations
- C4 Collaborative Operations
- C5 Managing Technologies
- C6 Managing Change and the Effects of Change

**Behaviours**

- B1 Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation
- B2 Rapid Inclusion in a Socially Stable Structure
- B3 Addressing Values Based Issues
- B4 Understanding the Patient’s Situation as the Basis for care
- B5 Working in Teams
- B6 Collaborating Within the Patient Management Process
- B7 Managing Ambivalence in the Team

**Performances**

**Figure 18** Responses via Major Themes to the Driving Contingencies CO1: Uncertainty, CO3: Patients, CO5: Change
Figure 19 Components Influenced in Application via Major Themes by CO2: Workforce, CO4: Healthcare Environment
4.5 Analysis Level 3b - Cross-Case Analysis, Delineating the Deep Structure

4.5.1 Introduction

The cross-case analysis is a component of the selected research strategy. Multiple case studies allow replication of responses to the research, or allow the description of circumstances where responses are not replicated (Yin, 1994).

Two views of the results of the individual case study analyses are presented here. The first is a cross-case comparison of the results of the Thematic Analysis in each case study organisation. This view contains only the Organisational Capabilities, Management Levers and Individual Behaviours as the Contingencies and Characteristics of Configuration are the same in each case study organisation. The second view presented is a cross-case contingency driven view of the Major Themes displaying Capabilities, Management Levers and Behaviours as applied in response to, or influenced by, Contingencies and grouped in each Major Theme in each case study organisation.
4.5.2 A Cross-Case View of the Major Themes

4.5.2.1 Comments on the Cross-Case View of the Major Themes
With regard to the thematic view of the case studies it was possible to see a number of similarities in the application of components of the model for palliative care within the different themes. It was also possible to see differences between the cases.

Each Case had in common with the others the persistent application of the Capabilities *C1: Managing Knowledge* and *C2: Managing Information*. Occurring almost as frequently was the application of three Capabilities, *C3: Multidisciplinary Operations* and *C4: Collaborative Operations* and *C6: Managing Change and the Effects of Change*, followed by *C5: Managing Technology*.

Each Case had in common with the others the persistent use of the Management Levers *L1: Collaboration* and *L3: Language*. Occurring nearly as frequently among the Management Levers was the use of both *L4: Absorptive Capacity* and *L6: Conflict*, followed by *L7: Trust*, *L8: Power Sharing*, *L5: Diversity* and *L2: Balance*.

Each Case had in common with the others the persistent application of the Behaviours *B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation*, *B4: Understanding the Patient’s Situation as the Basis for Care* and *B5: Working in Teams*. Occurring almost as frequently was the application of *B6: Collaborating Within the Patient Management Process*, *B7: Managing Ambivalence in the Team* and *B3: Addressing Values Based Issues*, then *B2: Rapid Inclusion in a Socially Stable Environment*.

Data is predominantly replicated across the Case Studies in the Thematic View.
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<thead>
<tr>
<th>Theme</th>
<th>Case</th>
<th>Components</th>
</tr>
</thead>
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<td></td>
<td>B1 B2 B4 B5 B6 B7</td>
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Table 45 Comparison of the Thematic Analyses in 3 Case Studies, T1: Collaboration and T2: Learning. Source Case Study 1, 2, and 3 Data Analyses.
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Table 46 Comparison of the Thematic Analyses in 3 Case Studies, T3: Keeping the Patient at the Centre and T4: Ad Hoc Communication. Source Case Study 1, 2, and 3 Data Analyses
4.5.3 A Cross-Case Contingency Based View

The cross-case Contingency Driven View in matrix can be seen in Appendix 6. This view compares the components active in Major Themes in response to, or influenced by, Contingencies. On a Contingency by Contingency basis the predominance, although not as overwhelmingly persistent as in the Major Themes themselves, of the Management Levers L1: Collaboration, L3: Language and L4: Absorptive Capacity is evident. This reflection of the Major Themes is repeated with the Capabilities C1: Managing Knowledge and C2: Managing Information. The prevalence of the Behaviours B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation and B4: Understanding the Patient’s Situation as the Basis for Care is also reflective of the Major Themes and again this is on a Contingency by Contingency basis. The matrix display supports the following views of the data in context.

4.5.4 Cross-Case Comparisons in Context

The similarity of the dynamics of the individual Case Studies is clearly and concisely displayed in the following Figures. There are five Figures, each containing a set of case study displays. Each set displays the operational components of the Model for Palliative Care and the relationships between these components, the Major Themes and Contingencies for each case study organisation. This enables comparison of the Case Studies. The first set, Figure 20, displays Case Studies 1, 2 and 3 related to the first driving contingency; CO1: Uncertainty. The second set, Figure 21, displays Case Studies 1, 2 and 3 related to the second driving contingency; CO3: Patients. The third set, Figure 22, displays Case Studies 1, 2 and 3 related to the third driving contingency; CO5: Change. Figures 23 and 25 then display Case Studies 1, 2 and 3 related to the first and second driving contingencies; CO2 Workforce and CO4: Healthcare Environment respectively:

In these Figures five events are observable.

1. The combination of components employed in response to any one of the driving contingencies varies from Major Theme to Major Theme.
2. The combination of Management Levers employed in response to any one of the driving contingencies varies from Major Theme to Major Theme.
3. Within the Major Themes related to any one of the driving contingencies the use of a particular combination of Management Levers is linked to the use of a
particular combination of Organisational Capabilities and a particular combination of Individual Behaviours within the teams and this changes from Major Them to Major Theme.

4. Events 1, 2 and 3 contain different combinations from driving contingency to driving contingency. The differences are not major but perceptible.

5. The influencing contingencies do not influence all of the components in play but CO2: Workforce certainly influences most of them.
Figure 20  Responses via Major Themes to the Driving Contingency CO1: Uncertainty
### Major Themes
- **T1:** Collaboration
- **T2:** Learning
- **T3:** Keeping the Patient at the Centre
- **T4:** Ad Hoc Communication

### Symbol
- **C1:** Managing Knowledge
- **C2:** Managing Information
- **C3:** Multidisciplinary Operations
- **C4:** Collaborative Operations
- **C5:** Managing Technologies
- **C6:** Managing Change and the Effects of Change

#### Levers
- **B1:** Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation
- **B2:** Rapid Inclusion in a Socially Stable Structure
- **B3:** Addressing Values Based Issues
- **B4:** Understanding the Patient’s Situation as the Basis for care
- **B5:** Working in Teams
- **B6:** Collaborating Within the Patient Management Process
- **B7:** Managing Ambivalence in the Team

#### Capabilities
- **L1:** Collaboration
- **L2:** Balance
- **L3:** Language
- **L4:** Absorptive Capacity
- **L5:** Diversity
- **L6:** Conflict
- **L7:** Trust
- **L8:** Power sharing

---

**Case 1**

**Capabilities**

- **C1** Managing Knowledge
- **C2** Managing Information
- **C3** Multidisciplinary Operations
- **C4** Collaborative Operations
- **C5** Managing Technologies
- **C6** Managing Change and the Effects of Change

**Behaviours**

- **B1** Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation
- **B2** Rapid Inclusion in a Socially Stable Structure
- **B3** Addressing Values Based Issues
- **B4** Understanding the Patient’s Situation as the Basis for care
- **B5** Working in Teams
- **B6** Collaborating Within the Patient Management Process
- **B7** Managing Ambivalence in the Team

**Performances**

**Figure 21** Responses via Major Themes to the Driving Contingency CO3: Patients

---

**Case 2**

**Capabilities**

- **C1** Managing Knowledge
- **C2** Managing Information
- **C3** Multidisciplinary Operations
- **C4** Collaborative Operations
- **C5** Managing Technologies
- **C6** Managing Change and the Effects of Change

**Behaviours**

- **B1** Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation
- **B2** Rapid Inclusion in a Socially Stable Structure
- **B3** Addressing Values Based Issues
- **B4** Understanding the Patient’s Situation as the Basis for care
- **B5** Working in Teams
- **B6** Collaborating Within the Patient Management Process
- **B7** Managing Ambivalence in the Team

**Performances**

**Case 3**

**Capabilities**

- **C1** Managing Knowledge
- **C2** Managing Information
- **C3** Multidisciplinary Operations
- **C4** Collaborative Operations
- **C5** Managing Technologies
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**Behaviours**

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**Performances**
<table>
<thead>
<tr>
<th>Major Theme</th>
<th>T1: Collaboration</th>
<th>T2: Learning</th>
<th>T3: Keeping the Patient at the Centre</th>
<th>T4: Ad Hoc Communication</th>
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<tbody>
<tr>
<td>Symbol</td>
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**Case 1**

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Figure 22 Responses via Major Themes to the Driving Contingency CO5: Change
Figure 23  Components Influenced in Application via Major Themes by CO2: Workforce
<table>
<thead>
<tr>
<th>Major Theme</th>
<th>T1: Collaboration</th>
<th>T2: Learning</th>
<th>T3: Keeping the Patient at the Centre</th>
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### Case 1

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<td>Managing Information</td>
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<td>C3</td>
<td>Multidisciplinary Operations</td>
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<td>Managing Technologies</td>
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<td>Managing Change and the Effects of Change</td>
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Figure 24 Components Influenced in Application via Major Themes by CO4: Healthcare Environment
Comments at the Conclusion of the Cross-Case Analysis

The data from the individual case studies is predominantly replicated in the Thematic and Contingency Driven views. The similarity of the findings of the three case studies, all being consistent with the proposed model for palliative care, supports the validity of the model.
Chapter 5 Discussion, Conclusions and Implications

5.1 Introduction to the Chapter

This Chapter summarises the research before describing and discussing the findings of the research and then suggesting the primary implications of the findings and areas of further research.

5.1.1 Literature Review

The literature review, as outlined in Chapter 2, was framed by two extant bodies of work; the European Union funded CIMA (Continuous Improvement in global product innovation MAnagement) model and Henry Mintzberg’s (1989) work on organisational configurations. The use of these frames to guide the literature review produced a model for palliative care that retained the original structural components of the CIMA model and extended it with Mintzberg’s (1989) work. The literature review produced sets of individual components to populate the model. The Model for Palliative Care became the framework for testing the research propositions and answering the research question.

5.1.2 Methodology

A research methodology appropriate to the research for the thesis, as outlined in Chapter 3, was developed from a range of alternatives and used in data collection and analysis, combining multiple case study research (Yin, 1994) with the use of Carney’s Analytical Ladder of Abstraction (Miles and Huberman, 1994) and explanation building (Yin, 1994; Robson, 1996).

5.1.3 Products of Analysis

Three individual case study analyses and a cross-case comparison were performed. Each case study analysis developed a thematically based view of the case study data and a contingency driven view. The produced thematic views were the same in each case study organisation, resulting in the four Major Themes:

T1: Collaboration;
T2: Learning;
T3: Keeping the Patient at the Centre; and
T4: Ad Hoc Communication.
The analysis also produced descriptions of the relationships between the Major Themes, Contingencies, Characteristics of Configuration, Organisational Capabilities, Management Levers and Individual Behaviours. Differences between the case studies were also described. The organisations studied were found to be similar with respect to the proposed model with the investigated data predominantly replicated across the cases.

5.1.4 Limitations of the Research
There are two primary limitations of this research; the small number of case study organisations involved and the explanatory nature of the research. These limitations are not deleterious to the research. The small number of case studies results from the nature of the organisations involved and the work that they do. Originally, six organisations were canvassed regarding the research. Only three responded positively. At the time that potential participating organisations were canvassed in 2000 there were some ten dedicated palliative care organisations in and around Sydney, along with one or two small public hospital wards exclusively for palliative care and two or three small private hospital wards. The three case study organisations do, however, represent a reasonable cross-section of the organisations available at the time, ranging from large stand alone to small embedded organisations. The explanatory nature of the research does not limit its validity because it is just that, explanatory. The limitation exists because the research is not yet at the stage where statistically valid findings have been produced. However, as will be seen, this is one of the recommendations for further research.

5.2 Discussion

5.2.1 The Model for Palliative Care
The Model for Palliative Care, developed from the literature and confirmed by the data, was developed in this thesis. It relates directly to the operation and management of multidisciplinary teams in palliative care while enabling them to produce innovative and routine responses, as necessary, to environmental variables in the delivery of patient care. The model fills a gap in the palliative care and healthcare management literatures regarding the management of multidisciplinary
teams to enable and encourage spontaneous innovative responses to environmental variables.

The palliative care literature reviewed, addressed a variety of topics ranging from a necessarily collaborative nature driven by the need to engage a particular ethos and so deliver holistic care, to the psychosocial impacts on palliative care professionals of some uses of technology. However, discussion of issues such as structuring a palliative care organisation to enable collaborative operations, resourcing multidisciplinary teams, selecting people to work in palliative care and enabling high frequencies of informal information and knowledge exchange, in short, the management of palliative care teams, was not found in the literature. This thesis begins to fill that gap.

While the unit of analysis (Yin, 1994) for this thesis was the multidisciplinary patient care team in palliative care, the Model for Palliative Care describes the structural and functional characteristics of the palliative care organisation that enables these teams. The importance of understanding these issues was drawn from the literature on organisational configuration and the characteristics themselves result from a synthesis of Mintzberg’s (1989) organisational typologies, using the palliative care literature and, to some extent, the healthcare literature as filters and guides. As to the multidisciplinary teams themselves, the Model for Palliative Care provides a specifically operational view of the contingencies that bear on the organisation and the teams and drive the application, or influence in application, of the Organisational Capabilities, Management Levers and Individual Behaviours within the teams. The structure of this part of the model, the operational components and the environmental variables, and the structure of the relationships between the components has as its foundation the CIMA model as described by Gieskes (2001).

The original components of the CIMA model, aligned to the manufacturing industry, were stripped and the framework of Organisational Capabilities, Management Levers, Individual Behaviours and Performances was kept along with the concepts of the relationships between the elements of the framework. This can be seen in Figure 25, following. Components under the heading of Performances were not addressed in this thesis as, at the time when potential case studies were being canvassed, it was
thought that these components could not be tested without interacting with palliative care patients and all potential participating organisations were averse to this.
Figure 25 The Model for Palliative Care
To look at the Model for Palliative Care as a diagram is to look at three levels; outer, intermediate and inner. Between them these three levels contain 37 components. The outer level contains the five contingencies, the environmental variables that, as described by Gieskes (2001), influenced the choice of Management Levers to stimulate Individual Behaviours and could also affect the relationships between Management Levers, Individual Behaviours and Organisational Capabilities. All of the Contingencies suggested in the literature were present in each case study organisation. The intermediate level contains the eleven Characteristics of Configuration divided into structural and functional groups. This represents the organisation level structural and functional responses to the Contingencies, enabling the multidisciplinary team response and understanding of the influence of the contingencies. Without a view of these characteristics it would be difficult to understand how the teams could operate as they did or how they could respond to different contingencies. The inner level contains six Organisational Capabilities, eight Management Levers and seven Individual Behaviours that determine organisational performance directly.

Organisational Capabilities were described by Gieskes (2001, p.76) as, “integrated stocks of resources that are accumulated over time through improvement and learning or established through deliberate decisions. These stocks of resources include internalised behaviours, technical skills, organisational routines, and corporate assets (for example, information systems, databases, libraries, tools and handbooks)”. All of the Organisational Capabilities suggested in the literature review were found in each case study organisation. Some were in persistent use, some in frequent use while only one, C5: Managing Technologies, was not in frequent use.

Management Levers were, according to Gieskes (2001, pp.75-76, p.67), “mechanisms that managers can use when managing the product innovation process,”, as having “substantial influence on the attitudes and practices of individuals and groups with regard to improvement and learning” and that “facilitate characteristic behaviour and activity”. In investigating the Model for Palliative Care it was found that Management Levers were not for the exclusive use of managers and this could be because decision making autonomy within the teams could be related to
operational experience rather than seniority or hierarchically based authority, when necessary. In other words, the Management Levers were still used in the way that Gieskes (2001) described and by decision makers, but not always by managers. All of the Management Levers suggested in the literature were found in all case studies with the exception of one; *L8: Power Sharing*, which was not found in case study 1.

Behaviours were described by Gieskes (2001) as related to learning, occurring at the individual level and influenced by both Organisational Capabilities and Management Levers, as well as being the basis for the improvement of performances. All of the Behaviours suggested by the literature review were found in each case study organisation. The literature review suggested that of the seven Behaviours one, *B4: Understanding the Patient’s Situation as the Basis for Care*, acted as a bridge between what was in effect two groups of Behaviours, as seen in the following Figure. Analysis supported this view in each case study organisation.

![Figure 26 Bridging Two Groups of Behaviours](image)

**Figure 26 Bridging Two Groups of Behaviours**
5.2.2 Major Themes and Persistent Components

Four Major Themes were identified in the analysis;

T1: Collaboration;
T2: Learning;
T3: Keeping the Patient at the Centre; and
T4: Ad Hoc Communication.

Each Major Theme was related to a set of components of the Model for Palliative Care. Related components differed between the Major Themes. This occurred in each case study organisation and the relationships were slightly different in each case study organisation.

However, in each Major Theme in each case study organisation a number of components were always displayed.

Capabilities:

C1: Managing Knowledge; and
C2: Managing Information

Management Levers:

L1: Collaboration; and
L3: Language

Behaviours:

B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation;
B4: Understanding the Patient's Situation as the Basis for Care; and
B5: Working in Teams.

Regardless of the mix of related components in any given Major Theme in any given case study organisation a particular pattern of component usage always emerged. This described the use of collaboration and common languages to leverage a multidisciplinary team’s efforts to utilise trust and enculturation to create and exchange information and knowledge. The purpose of this was to generate an ongoing understanding of a patient’s situation on which to base care delivery. This would be done in teams. Every case study organisation contained the structural and functional characteristics to enable this. This is interesting in terms of opening the door to a view of innovative behaviour and in terms of understanding how
multidisciplinary palliative care teams are managed. The description of the combination of structural, functional and operational components operating to generate an understanding of a patient’s situation fills a gap in the literature, as do the findings of the relationships between the Major Themes and the components of the Model for Palliative Care.

5.2.3 Dynamics of the Model for Palliative Care

To look at the Model for Palliative Care as a diagram is to look at a static display because the diagram can not convey the dynamics of the model that were described in the Analysis.

Each case study organisation analysed found that the Contingencies were related to particular individual components of the Model for Palliative Care via each Major Theme. When the set of components related to a Major Theme was overlayed with the set of components related to the Contingencies linked to that Major Theme the view presented was a contingency driven view. The results of the contingency driven view were interesting in each case study organisation for two reasons. The first was the two groupings of contingencies; comprised of three driving and two influencing contingencies.

The second reason for interest in the results of the contingency driven view was that, within each case study organisation, a Major Theme, for example T1: Collaboration, while containing the same mix of components displayed in the thematic analysis did not display all of the components all of the time, or have all of the components influenced all of the time. The mix of components applied or influenced, based on the mix set by the thematic analysis, could change when the Contingency changed. Across the case studies very similar, but not identical, dynamics could be seen. This description of the ability of Contingencies to drive or influence different mixes of components for different situations fills a gap in the literature.

The thematic view of the components of the Model for Palliative Care described a small number of components that were persistently displayed. Something similar occurred in the contingency driven view although the components concerned were
not as persistently on display as in the thematic view. This is explained in terms of the two groups of Contingencies, the drivers and the influencers.

5.2.4 Contingencies, Major Themes andPersistently Occurring Components

CO1: Uncertainty, CO3: Patients and CO5: Change were the contingencies identified as acting as drivers of the application of components of the Model for Palliative Care. When these contingencies were driving responses from multidisciplinary teams via every Major Theme these responses always utilised:

Capabilities:
C1: Managing Knowledge; and
C2: Managing Information

Management Levers:
L1: Collaboration; and
L3: Language

Individual Behaviours:
B4: Understanding the Patient’s Situation as the Basis for Care

CO2: Workforce and CO4: Healthcare Environment were the contingencies that influenced components of the Model for Palliative Care while the components were in application. There were a number of components that were almost always influenced in their application via all Major Themes:

Capabilities:
C1: Managing Knowledge; and
C2: Managing Information,

Management Levers:
L1: Collaboration; and
L3: Language

Individual Behaviours:
B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation; and
B4: Understanding the Patient’s Situation as the Basis for Care.

These results can be seen in Figures 20 to 24, pages 285 to 289 of the thesis.
5.2.5 The Effort to Create Purposeful, Focused Change in the Organisations’ Social Potential

The literature review produced two definitions specifically for the purpose of this thesis; innovation and social potential.

Innovation was defined as:
The effort to create purposeful, focused change in an enterprise's social potential.

Social potential was defined as:
The availability of alternatives relevant to an individual patient’s situation during the end of life process.

In the description of social potential it was noted that the potential did not need to change whenever a patient’s situation changed. Social potential would need to change whenever a change in a patient’s situation moved, or threatened to move, that situation outside of the range of alternatives available. There would be times when a change in a patient’s situation could not be matched by a change in social potential. The assessment of the need to change social potential and whether or not a change was possible was one of the results of the social interactions that occur between multidisciplinary team members, between teams, within and between disciplines, between team members and patients and patient-based carers.

The four Major Themes:
T1: Collaboration;
T2: Learning;
T3: Keeping the Patient at the Centre; and
T4: Ad Hoc Communication,

support this view of the social potential of the case study palliative care organisations. Of themselves, regardless of which components of the Model for Palliative Care they are related to, the Major Themes are basically collections of focused social actions and they indicate the primary groupings of activity within the case study organisations. Each Major Theme has a social focus. T1: Collaboration refers to the need for people involved in the end of life process, including patients
and patient-based carers, to work together to deliver care based on a collectively generated understanding of a patient’s situation. T2: Learning refers to all people involved in the end of life process of a patient generating, exchanging, transferring information and knowledge about the drivers of a patient’s situation, about any aspects of a patient’s life and relationships that might bear on the distress, that can be used in the design and delivery of care and the relief of distress. T3: Keeping the Patient at the Centre refers to a required focus, a fundamentally social process of changing the delivered care as required by changes in the various aspects of the patient’s situation. This is referred to as a fundamentally social process because its inputs are the products of T1: Collaboration and T2: Learning and it is enabled by T4: Ad Hoc Communication. T4: Ad Hoc Communication refers to the high frequencies of informal and spontaneous communications that were noted in the interview data as necessary for collaboration, learning about patients’ situations and keeping the patient at the centre. Ad hoc communication included informal observation and reporting across discipline boundaries, where the ex-discipline observations were treated credibly and discipline boundaries were actively suppressed to enable this. The preferred method of this communication was a face-to-face encounter where meaning as well as information could be transferred or exchanged. However, if face-to-face was not possible the report resulting from an informal observation would be documented in a location known to all staff and all staff would regularly check that location.

Palliative care organisations are predominantly socially focused organisations, meaning that they are focused on social interactions that produce the shared generation of meaning and understanding that enable care for each patient.

In the analysis of each case study organisation the Major Theme that was most frequently related to components of the Model for Palliative Care was T3: Keeping the Patient at the Centre. For the purpose of demonstrating the effort to create purposeful, focused change in the social potential of the case studies the structural and functional characteristics of configuration are removed because, while important, they are organisation level enablers. Left with the operational components, those that must be in use if potential is to be changed successfully, the frequency of relationships remains highest with T3: Keeping the Patient at the Centre in case
study 1 and case study 2 and equal highest in case study 3. This is demonstrated in Table 47 on the following page, displaying the frequency of relationships between Major Themes and operational components in each case study organisation. Data displayed in Table 47 is drawn from individual case studies as noted in the Table.
### Table 47  Operational Components and Major Themes From the Case Studies

<table>
<thead>
<tr>
<th>Component</th>
<th>Themes</th>
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The social potential of the case study organisations must be realised for individual patients, in the real world. This is accomplished by keeping the patient at the centre of effort, using collaboration, learning and ad hoc communication to do so. The real world impacts the case study organisations and their social potential, internally and externally, via a number of identified contingencies; three drivers and two influencers. The driving contingencies; CO1: Uncertainty, CO3: Patients and CO5: Change each demand a different response from the case study organisations so that social potential can be realised while the impact of the contingency is managed. In other words: so that the social potential is not diminished or made more difficult to realise. The influencing contingencies impact the case study organisations’ ability to realise their social potential in response to any of the driving contingencies. These concepts fill a gap in the literature.

The literature review described the contemporary palliative care environment as one of;

...active and compassionate care primarily directed toward improving the quality of life for people who are dying, and toward supporting patients and families as they incur multiple losses (McDonald and Krauser, 1996, p.2).

This environment was attended by a number of professions including nursing, medicine, pharmacology, physiotherapy, occupational therapy, social work, pastoral care, grief counselling and administration. Palliative care was described as a manifold environment where people were the centre, not diseases, where care resulted from the understanding of the causes of suffering (Barbato, 1999) and where multi-profession teams worked collegiately so that the primary issue became and remained patient comfort (Meyers, 1997). The quality of life of people at the end of their lives was stated as an issue of relief of distress, whether the cause was physical, emotional or spiritual; known or unknown (McDonald and Krauser, 1996; Higginson, 1999; Witt Sherman, 1999). The patient was described as central in the ethics, philosophy and practice of palliative care (McDonald and Krauser, 1996; Meyers, 1997; Rasmusson and Sandman, 1998; Krishnasamy, 1999; Witt Sherman, 1999). The patient's end-of-life state and central role in efforts to manage that state made the patient a participatory member of the palliative care team who maintained a level of autonomy and control in relation to the other team members (McDonald and Krauser, 1996, McGrath, 1998).
The palliative care environment was described as one of manifold uncertainty. In response to this, palliative care organisations were described as structured around their multidisciplinary teams. This structure provided individualised care for patients and their patient-based carers.

The palliative care literature predicted social potential in palliative care organisations and described its genesis in the ethos of palliative care but described neither the organisation level functional and structural resourcing that enabled the multidisciplinary teams to manifest social potential, nor the management of these teams to support the realisation of social potential in the face of real world impacts. The description of these in this thesis fills gaps in the literature.

The effort to create purposeful, focused change in the case study organisations’ social potential, for individual patients, through their multidisciplinary teams is demonstrated in the analysis. At the conclusion of each case study analysis data has been presented in the context of the Model for Palliative Care.

Case 1: Figures 14 and 15 on pages 198 and 199;
Case 2: Figures 16 and 17 on pages 238 and 239;
Case 3: Figures 18 and 19 on pages 277 and 278.

The conclusion of the cross-case analysis contains the same Figures but displayed comparatively. These can be seen in Figures 20, 21, 22, 23 and 24, pages 285-289.

In each set of Figures the driving contingencies;

*CO1: Uncertainty;*
*CO3: Patients;* and
*CO5: Change,*

are presented first, followed by the influencing contingencies;

*CO2: Workforce;* and
*CO4: Healthcare Environment.*

The application, or influence in application, of components of the Model for Palliative Care via the four Major Themes is represented by a shaded circle.
With regard to the driving contingencies; in each Figure *C1: Managing Knowledge, C2: Managing Information* and *B4: Understanding the Patient’s Situation as the Basis for Care*, are marked in a shaded area as they are the constants. The Management Lever *L1: Collaboration* is also marked with a shaded area as it is a constant in all of the Figures except with regard to one Major Theme in Case 1.

In each of the Figures representing components applied in response to, or in anticipation of, the driving contingencies the following four events are observable:

1. The combination of components employed in response to any one of the driving contingencies varies from Major Theme to Major Theme.
2. The combination of Management Levers employed in response to any one of the driving contingencies varies from Major Theme to Major Theme.
3. Within the Major Themes related to any one of the driving contingencies the use of a particular combination of Management Levers is linked to the use of a particular combination of Organisational Capabilities and a particular combination of Individual Behaviours within the teams and this changes from Major Theme to Major Theme.
4. Events 1, 2 and 3 contain different combinations from driving contingency to driving contingency. The differences are not major but perceptible.

In each of the Figures representing components influenced in application by *CO2: Workforce* or *CO4: Healthcare Environment* two observations are made:

1. *CO2: Workforce* is a major influence in all combinations of components.
2. *CO4: Healthcare Environment* is a major influence on the management of knowledge and information and on the creation of trust and enculturation.

In short, multidisciplinary palliative care teams react to or anticipate the impact of one or more of the driving contingencies by assessing and if necessary changing the socially derived alternative situations available to the patient in an effort to keep the patient within the bounds of available alternative situations. In doing this, members of the teams have a high level of influence on the process, including the social interactions generating understanding and on the availability of alternative situations. At the same time, the teams must deal with the healthcare environment’s influence
on the availability and quality of knowledge and information and on patients’ concepts and expectations of the quality of healthcare delivered.
5.3 Conclusions

5.3.1 Answering Questions and Commenting on Propositions

The objective of the research presented in this thesis was to test two propositions developed at the conclusion of Chapter 2, the literature review:

1. Within multidisciplinary patient care teams in palliative care innovative practices existed, sometimes occurring spontaneously without reference to committees, planning groups or research and development teams.
2. Within palliative care, the environment for patient care was highly innovative and was managed as such

To undertake this test the literature suggested that the following research question should be answered:

How do palliative care organisations, operating in a complex and dynamic environment, manage multidisciplinary patient care teams to deliver innovative responses to changing patient needs?

To answer the research question three subordinate questions were developed:

1. How are multidisciplinary patient care teams in palliative care managed?
2. Why are they managed this way?
3. Are they innovative?

5.3.1.1 The Subordinate Questions

5.3.1.1.1 Subordinate Question 1

How are multidisciplinary patient care teams in palliative care managed?

Patient care teams in palliative care are managed situationally and collaboratively with decision making authority situated within the team and often linked to the experience relevant to the particular situation. These multidisciplinary teams are resourced structurally and functionally at the organisation level. Heads of Discipline work in the multidisciplinary teams, although not all of the time, and can work in multiple teams simultaneously as can any other palliative care professional. Each patient will always be allocated a doctor and a nurse on each shift and it was noted in
the configuration interview, an interview with the senior clinician or manager, in all case studies that the organisation’s senior medical officer is ultimately responsible for patients, in medico-legal terms. Some nurses argue that this is not always the case and that nurses carry a legal responsibility as well. Either way, the multidisciplinary patient care teams can be managed from within the team formally via the hierarchy or informally based in the knowledge and experience in the team relative to the situation. In other words these teams can be self-managed or hierarchically managed as the situation or the team mix require.

Figures 20, 21 and 22 above demonstrate that whichever way the teams are managed the Management Levers in use are varied to suit the situation and their application enables and encourages the utilisation in combination of various mixes of Organisational Capabilities and Individual Behaviours in the multidisciplinary teams, again to suit the situation.

Major groupings of activity, the Major Themes, are used by the teams to employ combinations of resources, the components, in response to the driving contingencies. This occurs with an understanding that workforce is always an issue that impacts much of what is done, demonstrated in Figure 23 above, and the social potential that the multidisciplinary teams work to shape for each patient. Another understanding accommodated is that of the impact of the broader healthcare environment. This environment is the supplier of patients and the shaper of their experiences before they arrive, the supplier of the workforce and it requires regulatory compliance. It will not influence as much as the workforce but will always influence the bases of social potential in some way or another. This is demonstrated in Figure 24 above.

5.3.1.1.2 Subordinate Question 2

Why are they managed this way?

Multidisciplinary patient care teams in palliative care are managed in the manner described above for two reasons. The first comes from the literature, where palliative care is described as,
active and compassionate care primarily directed toward improving the quality of life for people who are dying, and toward supporting patients and families as they incur multiple losses" (McDonald and Krauser, 1996, p.2) and an environment where people are the centre, not diseases, where care results from the understanding of the causes of suffering (Barbato, 1999) and where multi-profession teams worked collegiately so that the primary issue became and remained patient comfort (Meyers, 1997). In this environment the patient is central in the ethics, philosophy and practice of palliative care (McDonald and Krauser, 1996; Meyers, 1997; Rasmusson and Sandman, 1998; Krishnasamy, 1999; Witt Sherman, 1999).

The second reason comes from the data, supporting the literature, where the primary grouping of activity in a Major Theme is related to keeping the patient at the centre of care. The relief of suffering and distress in the patient and in patient-based carers is a matter of flexible response to uncertainty and change in the individual patient’s situation, a situation that has multiple drivers operating on different levels and sometimes operating simultaneously.

As can be seen in Figures 20, 21 and 22 above the multidisciplinary teams are managed so as to utilise appropriate combinations of components of the Model for Palliative Care on a situational basis. Indeed, the need for the teams to be able to operate this way and be managed this way is the primary driver for the situational and functional resourcing at the organisation level.
5.3.1.1.3 Subordinate Question 3

Are they innovative?

Drucker (1985, pp.67-68) wrote that,

Most innovations, however, especially the successful ones, result from a conscious, purposeful search for innovation opportunities, which are found in only a few situations.

Four such areas of opportunity exist within a company or industry:

- Unexpected occurrences.
- Incongruities.
- Process needs.
- Industry and market changes.

Three additional sources of opportunity exist outside a company in its social and intellectual environment:

- Demographic changes.
- Changes in perception
- New knowledge

True, these sources overlap, different as they may be in the nature of their risk, difficulty, and complexity, and the potential for innovation may well lie in more than one area at a time. But among them, they account for the great majority of all innovation opportunities.

In Table 86 above, the data from all case studies indicates that a purposeful effort to keep the patient at the centre of care is central to palliative care. This Major Theme, a major grouping of activity, consists of all multidisciplinary team members observing patients and patient-based carers informally, meaning they observe the subjects of the work of other teams as well as their own, across their discipline boundaries and report the results of their observations as appropriate. According to the interviews this report is far more frequently a “corridor conversation”, a use of ad hoc communication, than a report at a formal meeting such as the weekly or fortnightly multidisciplinary team meeting of a ward team. This collaborative activity is not undertaken by team members to consciously locate opportunities for innovation. Rather, it is undertaken to identify and if possible anticipate changes in a patient’s situation. The response to what is observed might or might not involve an innovation. Whether or not the response involves an innovation will not answer the question posed.
Opportunities for innovation inside the case study organisations are abundant. Both the literature and the data describe an environment that is full of uncertainty that contains incongruity, for example in the differences towards a patient’s situation between the patient and the patient-based carers, and where the primary need of the care delivery process is to understand the patient’s situation so that the process is appropriate to the situation.

Opportunities for innovation that occur outside the case study organisations also exist. The literature and the data describe demographic changes in the population of potential patients, the diseases and stages of disease to which palliative care is being applied, the changes in perception, for example that of new patients arriving at palliative care after a, sometimes lengthy, interaction with other parts of healthcare and the new knowledge sought by team members within their formal discipline and informal social networks in the broader healthcare environment.

In Drucker’s (1985) terms palliative care is an innovative environment. The organisational configuration and palliative care literatures, confirmed in the data, describe palliative care organisations as hybrid organisations with the characteristics primarily of Missionary and Innovative organisations. The characteristics described structural and functional resourcing at the organisation level to suit these singularly focused, flexible, workplace learning based, collaborative, networked organisations that utilised high frequencies of informal communication to maintain their focus. In Mintzberg’s (1989) terms palliative care organisations have the characteristics of innovative organisations.

Burns and Stalker (1971, p.25) described the rapid rate of invention and innovation both in engineering and chemistry and in the technical and commercial exploitation of results in the latter half of the eighteenth century in Scotland where,

…the association between people like Watt, Black and Roebuck was founded not so much on their membership of a common profession or organization as on membership of a small, closely integrated society.

The definition of innovation developed for this thesis was,

the effort to create purposeful, focused change in an enterprise's social potential,
after Drucker (1985). The Figures 20, 21 and 22 above demonstrate an effort to create purposeful, focused change in the social potential of the case study organisations. This is an effort supplied by and often managed from multidisciplinary patient care teams in the case study organisations. By heterogeneous teams, each one of which seems to reflect Burns and Stalker’s (1971, p.25) description of a “small, closely integrated society”.

Multidisciplinary patient care teams in palliative care are innovative teams, when they need to be. That need is decided by the patient’s situation.

5.3.1.1.4 The Research Question

How do palliative care organisations, operating in a complex and dynamic environment, manage multidisciplinary patient care teams to deliver innovative responses to changing patient needs?

The answer to the research question is now described in the answers to subordinate questions 1, 2 and 3. In summary, what these individual answers describe is palliative care organisations that manage their multidisciplinary teams from inside the teams, utilising collaboration and allowing decision making commonly based in the experience located in the team. These organisations also utilise the generation of common languages between and across disciplines and teams and between teams and patients and patient-based carers. The case study organisations also enable absorptive capacity; a combination of learning, knowing how to learn and knowing where to source information and knowledge, not only as a way of keeping teams informed but also as a way of enabling learning in the teams. However, it seems that it would be difficult to achieve any of this without appropriate resourcing and so it must be said the foundation for the management of the multidisciplinary teams is in the structural and functional resourcing of the teams that is described in the characteristics of configuration for each case study organisation. This, in turn is based on an understanding of the contingent variables that impact the organisation.
5.3.1.1.5 Two Propositions
At the conclusion of the literature review two propositions were suggested:

1. Within multidisciplinary patient care teams in palliative care innovative practices existed, sometimes occurring spontaneously without reference to committees, planning groups or research and development teams.

This proposition was demonstrated initially in the early stages of the abstraction of data from the case study interviews, where there were a number of references to the high frequencies of ad hoc communications occurring spontaneously with regard to Organisational Capabilities, Management Levers and Individual Behaviours. These references are supported by the results of the analysis, where changes in social potential are demonstrated in all of the case studies. However, the analysis and discussion seem to indicate that spontaneous occurrence of innovative activities does not happen in palliative care without appropriate management nor without appropriate resourcing of the teams and configuration of organisation.

2. Within palliative care, the environment for patient care is highly innovative and is managed as such.

Palliative care, at least in terms of the case study organisations, has been characterised here as innovative within the terms used for this characterisation by other authors (e.g. Mintzberg, 1989; Burns and Stalker, 1971; Drucker, 1985). These organisations are specifically configured and managed to encourage and support spontaneous innovation when it is necessary with regard to maintaining a positive, useful relationship between an individual patient’s situation in the end of life process and the organisation’s social potential with regard to that patient. As the fundamental source of that social potential, the multidisciplinary teams often decide the necessity for innovation. This is a relatively sophisticated style of management, not required unless there is a need for it because along with the freedom to innovate as necessary comes the risk, acknowledged in all organisations studied, of decision making that does not directly involve those who will be held liable for mistakes before the law. However, because the patient care environment is highly innovative, it requires the structure and management that it has.
5.3.2 Research Findings

The research for this thesis has produced a number of findings. The original CIMA model has been substantially modified and now provides a model for the investigation of innovation in healthcare that includes structural and functional components as well as operational components. The research has found that the structural and functional resourcing of multidisciplinary palliative care teams is important in the enabling of multidisciplinary team management and operations. In short, palliative care organisations are configured to suit the way their multidisciplinary teams operate and are managed and there is a conscious realisation of this at the organisation level.

The configuration of these organisations results from an understanding of the Contingencies that impact palliative care and, therefore, the social potential of palliative care organisations. The driving Contingencies; CO1: Uncertainty, CO3: Patients and CO5: Change, do not necessarily impact the case study organisations discretely and it is their ability to impact in combination that drives multiple emphases in the configuration, beginning with the statement that work would often be complex as a structural realisation. Within that, the configuration displays 3 primary emphases:

Staff: skilled and experienced having had long periods of training, grouped for flexibility of deployment and operating with decision making authority sometimes based in experience;

Collaborative effort and informal communications; and learning that must be on the job, ongoing and shared; and

Singular focus.

Indeed, the configuration also enables the common attempt to pre-empt Contingencies with collaboration, learning and ad hoc communications; a combination of efforts.

The responses to and the attempts to pre-empt Contingencies are marshalled under major groupings of social actions, referred to here as Major Themes. The ability of the case study organisations to utilise Major Themes is enabled by the configuration
and Major Themes are utilised in practice by the multidisciplinary teams, which are also enabled by the configuration. Each Major Theme is composed of a combination of operational components of the Model for Palliative Care; Organisational Capabilities, Management Levers and Individual Behaviours. These combinations of components overlap; meaning that components occur simultaneously, sometimes in two Major Themes, sometimes in three and sometimes in all, in each case study organisation. The combinations differ from Major Theme to Major Theme and the mixes in the Major Themes differ slightly from case study to case study. What is important though is that the multidisciplinary teams, through the Major Themes, are mixing and utilising a finite set of operational components in a variety of ways in response to a range of contingencies. The mix, the combination, begins with the Management Levers and these enable and encourage the mix of Organisational Capabilities and Individual Behaviours to suit the situation. Multidisciplinary teams, therefore, generally choose a set of Management Levers that will enable the team to focus a combination of resources with a Major Theme, for example Collaboration, on an individual patient’s situation so that the patient’s situation does not move, or begin to move, outside of the organisation’s social potential; the potential to address the situation.

A degree of operational flexibility and sophistication is suggested here. The multidisciplinary teams not only vary the combination of components to suit a situation, they also make multiple and varied uses of the same components, depending on the situation to be addressed. Most frequently used of these components are C1: Managing Knowledge, C2: Managing Information and B4: Understanding the Patient’s Situation as the Basis for Care and these provide the foundation for the combinations. A multidisciplinary patient care team can identify an actual or imminent change in the status quo, often via ad hoc communication, and generate a response or attempt a pre-emption by enabling and choosing a combination of available resources to suit. The same resources will be marshalled and used differently from situation to situation when necessary.

Multidisciplinary patient care teams in palliative care are innovative teams when they need to be and they are enabled as such. They do not always need to be innovative. However, these teams are resourced and managed so that if an innovative response or
pre-emption is required to prevent an individual patient’s situation moving or beginning to move outside of the organisation’s social potential it is recognised and delivered where possible. This does not necessarily mean changing the patient’s situation; it can mean changing the organisation’s social potential.

This thesis introduces a new level of understanding to the management of multidisciplinary patient care teams in palliative care, the structural support available to the teams, the operation of the teams and the dynamics involved in a team based, sometimes innovative, response to the environmental variables in patient care in palliative care.

5.4 Implications

In one way, the implications of the research produced by this thesis are articulated by the range of fields in which research output from the thesis has been published. Since 2001 outputs from this research have been published in the literatures of teams, general management, innovation management, knowledge management and healthcare management. The research has also produced invitations to speak to the Palliative Care in Wales conference in 2003 and to palliative care teams in Australia and the United Kingdom. These activities and publications (Appendix 1) indicate an interest in the research within palliative care and healthcare as well as other fields.

Interest apart, the practical implications for the research produced from this thesis are in the understandings generated about the management of multidisciplinary teams where spontaneous innovation is a necessity in socially complex environments. This has extensions to many fields of management. Information regarding the fundamentals of the management of multidisciplinary palliative care teams is contained here, information that was not found in the literature. This information should be applied more broadly than palliative care to enable spontaneous and planned innovation. This thesis has described the underpinnings of the relationships between the structural and functional resourcing of organisations and their ability to perform as and when necessary in contingency driven environments. The Model for Palliative Care should be adopted and used in any team-based organisation where the performance of the teams is the mainstay of the organisation.
The Model for Palliative Care provides a working tool for the evaluation of team functionality and of an organisation’s support and enabling of innovative teams. The ability of contingencies to drive and influence team-based environments is described here, providing an opportunity and mechanism to investigate these impacts. The description of Major Themes as integrators of activities, capable of producing a coherent focus of resources and components in response to contingencies provides a further perspective on the operation of teams in a number of environments.

This thesis has also produced a definition of innovation relevant to non-profit organisations and to the social aspects of commercial and public sector organisations. A definition of social potential, a concept often found but not adequately described in the literature, has been developed that would suit a wide variety of organisations. The ability of contingencies to change an organisation’s social potential is also described, providing opportunities to assess an organisation’s ability to understand and meet its social potential in a contingency driven environment.

The other, perhaps more important, aspect of social potential described in this thesis is that of the resourcing and management of teams to realise the organisation’s social potential and to maintain an alignment between requirement and provision by understanding not only the concept but its reality in the lives of patients, or customers, or users of services.

This thesis has produced a range of information and tools lacking in the literature. These should be taken and put to use in places that will benefit from them because they offer opportunities for understanding and improvement. They should be tested. Results of their application and testing should be reported and they should be modified and improved as required. Their description here is, after all, only a step in a long journey.

5.5 Areas of Further Research

This research could be extended in a number of ways. The first avenue of extension could be a broadly based statistical validation of the data gathered here to confirm the model developed. One of the structural elements of the original CIMA model,
Performances, was not addressed in this research because it was thought by potential case study organisations that it would involve patients in the research. Had the research been clinically based instead of management based this might not have been a problem. However, now with an understanding of the concept of palliative care organisations’ social potential it could be possible to conduct this extension to the research without dealing with patients and so complete the conversion from the original CIMA model to the Model for Palliative Care or a model for healthcare.

Following a statistical validation of this research there could be a project to develop a workbook as an instruction in the use of the Model for Palliative Care or healthcare so that it might become a useful tool in the understanding of the management of multidisciplinary teams and innovative efforts.

This research should be verified in other innovative team based settings, where the Model for Palliative Care could be tested. This should not be limited to publicly funded or not-for-profit organisations.
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Glossary

Individual Behaviours: related to learning, occurring at the individual level and influenced by both organisational capabilities and levers; the basis of improvement performance. (Gieskes, 2001)

Innovation: the effort to create purposeful, focused change in an enterprise's social potential. (after Drucker, 1985)

Management Levers: “mechanisms that managers can use when managing the product innovation process.” and that have “substantial influence on the attitudes and practices of individuals and groups with regard to improvement and learning” (Gieskes, 2001, p.67)

Management team: A team consisting of the head of each discipline represented at the case study organisation and sometimes including other selected senior staff.

Multidisciplinary team: Care delivery teams that include any discipline relevant to the patient's needs.

Organisational Capabilities: “integrated stocks of resources that are accumulated over time through improvement and learning or established through deliberate decisions.” (Gieskes, 2001, p.76)

Social Potential: The availability of relevant alternatives to an individual patient’s situation during the end of life process.

Technology: “the tools, equipment or materials; knowledge and skills to use them; and coordinative mechanisms and patterns of activity utilised to accomplish the organisation’s work.” (Jelinek, et al, 1984, p.171)
Appendices

Appendix 1 Publications of Research

Davison, G. and Blackman, D. 2005, ‘The role of mental models in innovative teams’, refereed journal article, European Journal of Innovation Management, vol. 8, no. 4, accepted for publication


Davison, G and Blackman, D 2004, ‘The impact of mental models in the collective management of information and knowledge in contexts of uncertainty’, Refereed proceedings of the 2004 ANZAM conference, University of Otago, Dunedin, New Zealand, 8-11 December

Blackman, D and Davison, G 2004, ‘The role of mental models in sustaining innovative teams’, Refereed proceedings of the 2004 CINet conference, Sydney, Australia, 22-25 September


Davison, G. 2003, ‘Organisational levers to enable innovation in palliative care’, Proceedings of the 3rd annual Hospital of the Future conference, Warwick Business School, Warwick, United Kingdom, 7-9 September


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Davison, G., and Hyland, P. 2001 ‘Palliative care: an environment that promotes continuous improvement, learning and innovation?’, Proceedings of the Inaugural Hospital of the Future Conference, University of Twente, Netherlands, April
Appendix 2 A Demonstration of the Comparative Lack of Literature Available to the Thesis in Palliative Care and Healthcare

On February 26th 2002 a search was conducted of the literature available on the ProQuest online information services research database available to the researcher through the University of Western Sydney library website using the following URL: (http://www.bellhowell.infolearning.com/proquest/). ProQuest was, and remains, an internationally recognised research database. At the time of the search ProQuest database contained the following collections of articles:

ABI/INFORM Global
Academic Research Library
Academic Research Newspapers
Academic Research Periodicals
Accounting & Tax
Accounting & Tax Newspapers
Accounting & Tax Periodicals
Applied Science & Tech Plus
Banking Information Source
Career and Technical Education
General Science Plus
Health & Medical Complete
Pharmaceutical News Index
ProQuest Asian Business
ProQuest Computing
ProQuest Education Complete
ProQuest European Business
ProQuest Telecommunications
Religious Periodicals
Social Science Plus

The search was conducted across all of these collections, using seven keywords, searched exclusively and then combined and searched. Using the “Guided Search” option these were applied to the three date ranges then available in the ProQuest database; Current (1999-2002); Backfile (1986-1998); Deep Backfile (<1970-1985).
At the time of the search any given year returned a maximum of 20,000 articles. The keywords used were “health care”, “healthcare”, “palliative care”, “death and dying”, “interdisciplinary teams”, “multidisciplinary teams”, “project teams”, “innovation”, innovate” and “innovative”. “Death and dying” was sometimes used in the literature when discussing palliative care concepts and issues. “Interdisciplinary teams” and “multidisciplinary teams” were sometimes used to describe the same thing; teams consisting of representatives of more than one discipline. The term “All Basic Search Fields” referred to all available searchable fields in the database. These fields were:

Abstract
Article Title
Author
Company/Org
Geographical Name
Subject
Personal Name
Product Name
Publication Name
Article Text
Image Caption
Publication Type

When keywords were combined, as in “palliative care + innovate”, the Boolean expression AND was used. The tables below display the results of this search and the paucity of relevant literature derived from keyword combinations suggested by the research purpose and applied to databases covering some twenty five years of articles.
<table>
<thead>
<tr>
<th>Keywords</th>
<th>Number of references “Current”</th>
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<th>Number of references “Deep Backfile”</th>
<th>Total References</th>
<th>Fields searched</th>
</tr>
</thead>
<tbody>
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<td>innovation</td>
<td>10,000</td>
<td>10,000</td>
<td>7,385</td>
<td>27,385</td>
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<tr>
<td>innovate</td>
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<td>“All Basic Search Fields”</td>
</tr>
<tr>
<td>death and dying</td>
<td>3,749</td>
<td>10,000</td>
<td>68</td>
<td>13,817</td>
<td>“All Basic Search Fields”</td>
</tr>
<tr>
<td>healthcare **</td>
<td>20,000</td>
<td>20,000</td>
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<td>45,738</td>
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<tr>
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<td>244</td>
<td>19</td>
<td>385</td>
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<tr>
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<td>174</td>
<td>334</td>
<td>12</td>
<td>520</td>
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</tr>
<tr>
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<td>317</td>
<td>2587</td>
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</table>

** Total of references for keywords “health care” and “healthcare”.

Table 48 Results of a Research Keyword search on the ProQuest online database
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<th>Keywords and Keyword Combinations</th>
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<th>Number of references “Backfile”</th>
<th>Number of references “Deep Backfile”</th>
<th>Total References</th>
<th>Fields searched</th>
</tr>
</thead>
<tbody>
<tr>
<td>palliative care</td>
<td>826</td>
<td>442</td>
<td>0</td>
<td>1,268</td>
<td>“All Basic Search Fields”</td>
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<tr>
<td>palliative care + innovation</td>
<td>1</td>
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<td>0</td>
<td>1</td>
<td>“All Basic Search Fields”</td>
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<tr>
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<td>4</td>
<td>2</td>
<td>0</td>
<td>6</td>
<td>“All Basic Search Fields”</td>
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<tr>
<td>palliative care + innovative</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>“All Basic Search Fields”</td>
</tr>
<tr>
<td>death and dying</td>
<td>3,749</td>
<td>10,000</td>
<td>68</td>
<td>13,817</td>
<td>“All Basic Search Fields”</td>
</tr>
<tr>
<td>death and dying + innovation</td>
<td>1</td>
<td>12</td>
<td>0</td>
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<td>“All Basic Search Fields”</td>
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<tr>
<td>death and dying + innovate</td>
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<td>1</td>
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Table 49 Results of a Keyword Combination search on the ProQuest online database

Table 50 Results of a Keyword Combination search on the ProQuest online database
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<th>Number of references “Deep Backfile”</th>
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<th>Fields searched</th>
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<td>20,000</td>
<td>20,000</td>
<td>5,738</td>
<td>45,738</td>
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</tbody>
</table>

** Total of references for keywords “health care” and “healthcare”.

**Table 51 Results of a Keyword Combination search on the ProQuest online database**

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<th>Keywords and Keyword Combinations</th>
<th>Number of references “Current”</th>
<th>Number of references “Backfile”</th>
<th>Number of references “Deep Backfile”</th>
<th>Total References</th>
<th>Fields searched</th>
</tr>
</thead>
<tbody>
<tr>
<td>interdisciplinary teams</td>
<td>122</td>
<td>244</td>
<td>19</td>
<td>385</td>
<td>“All Basic Search Fields”</td>
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<tr>
<td>interdisciplinary teams + innovation</td>
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**Table 52 Results of a Keyword Combination search on the ProQuest online database**
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<th>Number of references “Deep Backfile”</th>
<th>Total References</th>
<th>Fields searched</th>
</tr>
</thead>
<tbody>
<tr>
<td>multidisciplinary teams</td>
<td>174</td>
<td>334</td>
<td>12</td>
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</table>

Table 53 Results of a Keyword Combination search on the ProQuest online database

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<th>Number of references “Backfile”</th>
<th>Number of references “Deep Backfile”</th>
<th>Total References</th>
<th>Fields searched</th>
</tr>
</thead>
<tbody>
<tr>
<td>project teams</td>
<td>725</td>
<td>1545</td>
<td>317</td>
<td>2587</td>
<td>“All Basic Search Fields”</td>
</tr>
<tr>
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Table 54 Results of a Keyword Combination search on the ProQuest online database
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<th>Number of references “Deep Backfile”</th>
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<td>1</td>
<td>0</td>
<td>1</td>
<td>“All Basic Search Fields”</td>
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</tbody>
</table>

** Total of references for keywords “health care” and “healthcare”.

Table 55 Results of a Keyword Combination search on the ProQuest online database
Appendix 3  Sample participation form and information sheet supplied to team members contemplating participation in the research.

Below is a typical information and consent form. Potential participants would read the information after being briefed by the researcher and decide, without the presence of the researcher, whether or not to participate. The researcher would collect consent forms at the first interview. Participants retained the information sheet. Organisation and employee names have been removed from this sample. Each page of this document contained the following footer:

“The ethical aspects of this study have been approved by the Human Research Ethics Committee of XXXXXXX. If you have any complaints or reservations about the ethical conduct of this research, you may contact XXXXX XXXXX, Executive Officer, Human Research Ethics Committee, XXXX XXXX on XXXXX.”
INFORMATION SHEET AND CONSENT FORM

Innovative Practice in the Process of Patient Management in Palliative Care

Dear Participant,

I am conducting a research project on innovative practice in the patient management process in palliative care. I am undertaking this research to complete a PhD at the University of Western Sydney, under the supervision of Dr. Terry Sloan. The research has the approval of the Human Research Ethics Committee of XXXXX and the Ethics Review Committee (Human Subjects) of the University of Western Sydney. This document contains information about the research and a consent form for those who will volunteer to become a participant.

Your participation as a volunteer is deeply appreciated. The research seeks to test two ideas. The first is that innovation occurs in your work processes and that it occurs informally. This means that it happens but it is not managed as a resource. The second is that palliative care is a unique environment that contains lessons in innovation not found elsewhere and that these lessons are beneficial to a wider audience in general health care and in business. Having tested these ideas and analysed the results the research will generate and test a design for a system to formally manage innovation across and within your work processes.

I must emphasise that the research focuses on how XXXX XXXX, as an organisation, manages innovation, learning and knowledge on a work process basis. The research is not focused on individuals. Personal data will not be gathered. The research is not concerned with patients. Data will not be gathered about patients or from patients, or about relationships between patients and participants. Neither will data be sought about relationships between individual participants. Involvement in the research will not affect your employment at XXXXX. The data gathered at interview is the property of the University of Western Sydney and can only be revealed to XXXXXXX with the participants' consent.

If you agree to be a voluntary participant you will take part in interviews about the management of innovation, learning and knowledge in your work processes. The interview will take approximately one hour and will be conducted in a space provided at XXXXXXX for the purpose during work time. The interview will be audio taped for analysis purposes only and your anonymity is ensured by your personal details not appearing in any raw data or in any written reports. However, data may be collected on a departmental basis and may also be reported on a departmental basis. I am personally responsible for the security of the audio tapes and they will be erased once they have been transcribed. Transcription will take place within two weeks of the interview. Neither the audio tapes nor the transcriptions will be made available to XXXXXXX. No personal details of any participant will appear in any reports or analysis. All data collected at interview remains confidential and anonymous. Any reports made to XXXXXXX will ensure that the anonymity of individual participants and any particular group of staff members is maintained.

I can be contacted at 46 203217 (work), 9586 2400 (home), email: g.davison@uws.edu.au or gdcpl@tig.com.au. Terry Sloan can be contacted at 46
203239 or emailed at t.sloan@uws.edu.au. Below is a consent form for you to complete if you decide to volunteer. If you do volunteer, please keep the copy of this information attached at the rear.

Yours sincerely

Graydon Davison

| I (the participant) have read and understand the information above, and any questions I have asked have been answered to my satisfaction. I understand that my participation is voluntary and I agree to participate in this research, knowing that I can withdraw at any time. I have been given a copy of this form to keep. |
| Participant's name: |
| ........................................................................................................ (print) |
| Participant's signature: |
| ........................................................................................................ date: ................. |

| Investigator's name: Graydon Davison |
| Investigator's signature: |
INFORMATION SHEET

Innovative Practice in the Process of Patient Management in Palliative Care

Dear Participant,

I am conducting a research project on innovative practice in the patient management process in palliative care. I am undertaking this research to complete a PhD at the University of Western Sydney, under the supervision of Dr. Terry Sloan. The research has the approval of the Human Research Ethics Committee of XXXXX and the Ethics Review Committee (Human Subjects) of the University of Western Sydney. This document contains information about the research and a consent form for those who will volunteer to become a participant.

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Yours sincerely

Graydon Davison
Appendix 4 Sample Interview Transcript

This is the transcript of a semi-structured interview conducted by the researcher with a ward-based multidisciplinary team in one of the case study organisations. The topic of the interview was individual behaviours within the multidisciplinary team. The purpose of the interview was to test the existence and use of behaviours suggested by the literature review and confirmed at interview in the pilot case study.

PHY: Physiotherapist x1
MED: Doctor x4
PC: Pastoral Care x1
NU: Nursing x6
PHA: Pharmacist x1
SW: Social Worker x1
CNE: Clinical Nurse Educator x1
GD: When a new patient comes to the team, what happens?

MED: Usually we get a referral from another medical team. They ring the ward, give information about the patient. The patient arrives, um, I can only speak from a medical point of view, gets seen, generally by the resident, um, gets seen medically, um, forms are filled in, in terms of, um, medical history, past history, medication, allergies, social history, family history. Um, issues management plan, medication chart get filled out. Um, he or she gets admitted by the nursing staff. And, I don’t know, some of the nursing staff might like to.......  

PHY: Um, yeah, actually the person who’s probably key in this whole thing is the ward clerk. And, um, he will, like I know for myself being a physiotherapist, he will let me know that there’s a new patient and I’ll go and see the patient and either himself (ward clerk) or amongst the allied health we will refer that patient appropriately to one another, whether it be social work or occupational therapy or pastoral care.

NU: This’d also depend on where the patient is referred from, to some extent. Um, part of my role, and another colleague, also depends on work over at the general hospital, so that patients come from there. Then part of the referral process comes via nursing as well, where its able to, I guess, embellish the, um, referral information to some extent, which I guess provides more information than is provided previously.

MED: Yeah, I should also say then from a medical point of view, once the resident’s seen the patient he liaises with the registrar and consultants (doctors) in terms of management plan. Um......

GD: What else happens?

SW: I think individually, in allied health as well, when a new patient comes in we’ll be looking at their past, any old notes, we’ll go and talk to the resident, to the nurses that have just admitted them, and looking for highlighter points before then going and doing your own assessment. But just so that you’ve got some kind of background information so that you can prioritise for yourself as well. It’ll be is there anything in particular that I need to know.

NU: During the nursing admission if there’s a need for an allied person to be involved, like pastoral care if a relative’s upset and needs to speak to pastoral care, or if there’s a social work problem that need’s to be attended to straight away, or a physio problem, we’ll contact them direct.

MED: Generally the idea of the admission is to understand why the person is here, what is the aim of the admission and who needs to know what so that the things will flow smoothly. Some, a lot, of the times the information about the person referred here comes in the form of a written note, often associated with the written note is verbal information which is passed on from colleague to colleague about what has been interpreted before, which might not necessarily be conveyed in the notes. From a medical point of view, looking at the patient, we get an idea of how sick they are but this is what’s just written there. And similarly with other different services, they often talk to similar services. The nurses might talk to nursing staff, when they hand over nursing to nursing, doctors to doctors, social work to social work. Each of them
have their own individual aims and objectives. That information, which may not be in the notes will be conveyed verbally.

GD: Is it just the patient that you concentrate on?

MED: Initially, well initially, they’re the object of why we’re here. We come to them to find out why, specifically, what is wrong with them. Often with that you’ll get other information either through talking to the patient, occasionally by running into the relatives, but not necessarily always straight off ‘cause that would be developed in the next couple of days when you see who comes and who visits, who the patient’s responding to and that might give you another area of concern in terms of the family unit as such. But initially the admission process is concentrated on equipping this patient for the ward and putting the services in place so that the job gets done.

GD: Do you get the patient involved in the admission?

NU: One of the things we always ask them whether they have any concerns about their care, um, in the nursing admission. What they perceive to be a problem that we may not have gotten handed over from the hospital they’re at, or coming from home what particularly they’re concerned about in staying here, and um, what we can do to help alleviate their stresses and address their issues.

CNE: Yeah, I mean formally it’s in the nursing and medical admission that you ask the patient what their expectation of the admission is. But I think, probably even in an ad hoc manner, the allied health staff would also do that. You know, you gauge from the patient, and very much it’s patient focused and patient led, what the care should be. Very much so.

NU: We use what we call a holistic approach to patient care, that means we focus on the physical, the psychological the social and the spiritual aspects of that individual and their significant others, whoever they might be, whether it’s their closest friend or their partner or their relatives.

GD: Is time an issue?

MANY: Always.

MED: I think one of the issues in terms of time, which is going back to whether its patient lead or our lead, is that some component of omission is pre-formed in that its a pre-formatted eight pages or whatever it is, of questions to ask. And that’s to make sure we cover what has been the acquired learning of the information we need to get across and get collected, and then there’s the time, so that is a time, is aimed to be a time saver, but can limit in some way the investigation, the initial approach to the patient, ‘cause that’s the information you’ve been asked to get on behalf of the service as such. But time of course is an issue, there’s multiple time, there’s one person, there’s other issues, other things going on at the same time. You’re not just looking after one person for that moment of time. For a doctor, for example, he’s got a pager on, can be contacted or interrupted. The nursing staff might be interrupted by other nurses who need help with patients in the room or other family and they need to deal with that. Of course time’s an issue.
GD: What do you need from the patient?

NU: Behave themselves.

Laughter

NU: Honesty.

MED: Cooperation.

SW: To tell us how they’re going. What problems they’re having. Have they got any pain or issues emerging?

NU: We’re looking for them to tell us what their needs are because often we can, with the nursing assessment or the medical assessment, and like all the other assessments where you have, I guess, a list of things that we feel would be beneficial for the patient, um, but if the patient sort of doesn’t see that the same way then we can be working at cross purposes. It’s really complex and actually having a really good guideline from the patient as to what they’re actually wanting, um, I guess that actually helps us I guess have a far more streamlined approach and probably better outcomes for the patient.

SW: It’s really the situation from their perspective rather than from our perspective and our solutions put on to them.

GD: You (indicating nurse) mentioned honesty.

NU: They’ve got to be honest with us about whether their pain’s out of control, or say they’ve got pain, they’re not just waiting for the four hours to come up for the next dose of morphine or whatever drug they’re on. They’ve got to tell us how they’re feeling, if they’re more settled, if they’re nauseous. We can adjust medications and so forth.

GD: This is just an ad hoc question. Does it work the other way as far as the honesty goes?

NU: It goes both ways. We, um, we expect them to be honest with us and, I guess its a, its a reciprocal relationship. The nurse patient relationship is reciprocal, um, we have expectations of them and they have expectations of us as well. So it does go both ways.

GD: What sort of issues do you need to cover with the patient?

NU: I often ask them how they’re loved ones are going or how they’re family members are going. It’s pretty important and we need that information and so do the support services. We need to know what they’ve got in outside resources.

MED: Their expectations of the care. If all their needs are met in that respect.

GD: Any other issues that you need to cover with patients?
MED: Symptom control.

NU: Emotional, whether they’re terrified, how they’re handling it.

SW: Their adjustment to their illness and how they perceive they are, and the whole process of it. And what, the kind of things they talk about, whether they talk about death and dying or whether they’re still talking about treatment. What kind of phase they’re in emotionally and psychologically.

NU: Discharge planning, I guess is sometimes a bone of contention, um, sometimes we actually bring that in fairly early with clients that have come in for a particular reason. Um, then we try and start discharge planning with the patient like really quite early.

GD: Do you need to cover the same sorts of issues or different issues with the family?

MED: They’re often different but, or they come from a different angle on the same issue. Differences are sometimes the impact of the care on what they’ve had to struggle with, um, and that role is different from the patient’s. The similarities are to do with the patient’s concerns about pain and other symptoms and sometimes the overall plan can be different perspective between the patient and the carers.

GD: Do you need to understand anything about the patient?

MED: Yes, it’s very important. I think the thing that often you, I mean, we use acquired learned skills but we also acquire human skills for interacting with another human being. Many of the people that you’re meeting for the first time, it’s like meeting anyone else, and often you use those learned social skills to work out what sort of person are they. Often it’s just, are they the sort of person that can cope with what’s happening to them? Um, do they need more support than another person? Are they an outgoing person or a withdrawn person? Are they being honest with you? Do they come across as genuine? All those other people skills you use to try and build a rapport, to try and get information. It needs honesty, it needs trust and therefore that’s what we build. Of course you pick up the other things, is this person going to be a good patient? You know, is it going to be easy to look after them or are they going to need prompting. Will we need to recheck again and again, are you sure you’ve got no pain? It’s fine if you have, you can tell me if you’ve got pain. Some people will be straight out and tell you everything while others will be reticent. You need to pick that up, because that will change your management from one patient to another.

PHY: From my perspective, I try and pick up whether the patient is, um, yeah, honest, as we’ve spoken about before, um, whether they’re, um, reliable, um, most of my concerns are safety issues, whether they’re realistic in their assessment of their situation, um, because I need to know whether they’re going to, um, abide by our advice with their mobility and whatnot. So I try and pick up those types of things.
GD: OK. So let’s say you’ve admitted a patient, you’ve spent some time with the patient, or the family or both, and learnt a lot of stuff. What do you do with all the stuff that you’ve learnt?

MED: Well, we have to record it. So it’s the recording process in the notes that’s making it a permanent record. Then of course, there’s the exchange of information between the medical team, to start with. What does this all mean in terms of our medical management?, which is what we’ve been entrusted with and what we’re responsible for. Now, what are we going to do next? And often that means stepping away from the patient, so there’ll be paperwork, phone calls, writing up notes, writing up medication charts, talking with people we need to talk to. So often it steps then away from the patient back to the management of the patient as being in the system as such.

CNE: It’s like making a big jigsaw puzzle. Where you’re getting pieces and putting them together to form who this person is, so we can have an understanding of this person’s needs.

GD: That’s a very nice analogy. Who’s getting the pieces and where are they getting them from?

CNE: Well, we are the multidisciplinary team and everybody (indicates interview participants) has a piece of the puzzle to find and fit in the right place.

SW: There’d not be a day when you didn’t talk to other members of the multidisciplinary team about most patients. You’d be saying, what’s happening with this patient? You know, this something that’s come up as a highlighter for me, you know, and we discuss possible solutions or ideas around issues. You know, no one person really makes decisions on, you know, their bit of information that there’ve found and this is the solution for it. We all kind of rely on each other for opinions and, you know, ideas of how to then move forward with the information that we’ve all gathered individually.

NU: And its an ongoing process as well. I mean the patient may be here for a week and, sort of, I may be talking to them and find a new piece of information and then, sort of, I go and speak to the key people, sort of, with that particular issue and say, hey I just found out this, so what can we do about it?

NU: And it may be our area of specialty either. Maybe, you know, I’m talking to a patient and they’ve got some, you know, big family concern or some concern about their pastoral care and their spirituality. And it may not be my area of expertise but I can then go and refer that patient to the most appropriate person. You know, they may have some query about their medication and need to speak to the pharmacist or the doctor, or, you know, whoever that expert is.

MED: ‘Cause often its not, your picking up things that are out of your area of interest and often then you’re referring it, seeing how it comes back and then from that you pick up an idea of the other person’s job. So it’s a quicker process next time ‘round. So you can even, then after time you can give information to the patient and know that you’ll get similar information coming from the other team member and that often helps allay concerns or sort things out quicker. Initially the learning
process might be longer because you don’t know anything about them and you ask this person and they say no its that person’s job. And then together you work it out.

GD: How do you get patients to give you the information that you need?

PC: I think some questions have to be asked very directly, depending on which of the disciplines is requiring information. From a pastoral care perspective, um, people that I meet in here for the first time are completely unknown to me, generally. And I think that when some issues of, perhaps, emotional well being or spiritual well being, um, perhaps need to be explored by the person, I find it takes a very gentle approach, requires a very gentle approach and the establishment of a relationship doesn’t always happen in the first or second encounter. So it can often require of someone like myself to be available for those sorts of moments that often just present. And so in saying that, I will also miss some moments too because I can’t be in two places at once, but it is a gentle approach. And just sort of being a regular presence can actually help establish trust and confidence before they then begin to reveal aspects of themselves.

NU: They may not have anticipated ?????.

GD: Is this group a team?

NU: Yep.

General assent.

GD: What makes you think it’s a team?

NU: We all work all together. Interlinked all the way through. We’re laced together almost.

SW: I mean, I think we’ve acknowledged in the past though that sometimes certain aspects of that teamwork, um, maybe could be streamlined. So we’ve certainly done some active planning to try and look at the way we communicate changes to the patients, we’ve changed the structure of the multidisciplinary team, um, slightly, just to try and facilitate that exchange of communication and information to try and, I guess, enhance the function of the team.

GD: Do you think a team is necessary for this type of care?

General assent.

GD: Why?

SW: Otherwise you can’t get the whole picture. This is a major part of someone’s life and it requires not just a single view of it to support them in the best way.

NU: Yeah, I mean I think there are no interdisciplinary boundaries, per se, here. I think nobody’s going to get annoyed if a physio comes to a doctor and says this patient needs more pain relief. Or if an OT comes to a social worker and says this
person’s having problems with their ????. You know, it’s that interlinking and the blending of the roles that hopefully creates a better care model for the patient.

MED: I’m new to the team here and I think that more than anywhere else I’ve been before that everyone respects each other a lot more and each others’ opinion. Like, quite often in regard to a patient someone will come up and say what do you think about this patient, or you’ve gone, you know, I’m having trouble with this person, what do you think is the best way to approach it. And I think there’s a lot more respect than there is in say other areas of the health system.

MED: Our patients are more complex, by themselves, because unlike other medical problems where it might be that there is an end and as you do your work things become easier in a sense as they get better and they go home after a short time, these are the reverse. These people each day things change as their illness goes onwards and therefore they always have changing needs. It’s much more complex because we’re talking about cancer, we’re talking about end of life decisions, we’re talking about stuff which involves more the family and therefore more people into it, plus, you know, emotional, social and spiritual needs.

MED: Just to add to that, I think it is the flexibility of the team structure that makes it work. You wouldn’t be able to have that initiative if you didn’t have that team structure.

SW: And when we refer (patients) to each other we don’t just leave a message, we go and talk to each other. So you can really present what your concerns are and get some analysis feedback. It’s not just can the social worker see them, its people coming to you and being able to relay why they have that concern and then being able to feed back. It’s not just your official connection between each other either.

MED: I think that it’s shown time and time again that where it falls down is where people don’t listen to each other, or when people don’t respect other people in the team and I think it doesn’t work well when they don’t believe in the team. I think that has happened in the past.

GD: Do people always work together in this type of care?

MED: That’s the aim. I mean there’s often areas where your expertise is particular to that area and often, you know, you tend to work, because that’s your own particular expertise, that particular work, then often it doesn’t necessarily need as much team work. But what then is the issue is the communication of the outcome, which is more important because there’s multiple people involved at the same time.

GD: How much time do you spend talking to each other?

Much laughter.

MED: A fair bit, a fair bit. I think we spend more, we spend more time than in the general medical ward situation. Um, but we also have more time in some ways, in that the patients are here longer, there’s less pressure on beds, and there’s the ethos as well, communications between us and patients. What’s going on, so everybody’s got a general idea of what’s going on, who the patients are, what they’re here for.
PHA: There are fixed meetings on a daily basis, but there’s also a lot of informal, you know, even over lunch you may mention something. And there’s a lot of informal interaction just on the ward. It happens, you know, several times a day.

GD: And with patients as well?

CNE: Nurses are very good at doing and talking at the same time.

NU: Because when you’re, um, if you’re there doing the bed or if you’re doing the shower, it’s a good opportunity to interact with that person and, um, find out a lot about them. And much of the time they willingly give you information and a lot of that information is so personal, um, that it’s just not the sort of thing that people would normally tell you but they tend to tell us very personal things.

NU: Especially when they’re in the shower and they’re naked. They’ve got no coverings on and they’re very vulnerable.

MED: There’s a lot of informal discussions. I guess I do a lot of informal sort of discussions with the patients. Um, just, like, you’re sitting out on the balcony or those sorts of things and it may not be about anything clinical, but it’s just general, sort of filling in more pieces of the puzzle.

MED: And often the nursing staff, because they’re directly, they spend the most time with the patients generally in terms of day to day, they often act as a filter to, say, the medical team. Because the medical team has prescribed times when it sees the patients, through the ward round process and then through individual responding to filtered messages coming from the nursing staff, on a one to one basis as required. So often all the information that’s picked up by the nurses is filtered down to something we can then take in for each of the numerous patients we look after. So we won’t necessarily here about every sneeze and every fart and every whatever. So your reliant on that sort of filtered information. This, you know, is a trust in itself, because you’re relying on that what your hearing is what you’re getting.

GD: One of the really interesting things for me about this environment is that its relationship rich.

MED: Some of the way in which that comes through, you know, is in story telling. Its that sort of echoing story telling process that a multidisciplinary team can keep going and think back and search the thread of how someone was managed. So communication is the actual key sometimes. It becomes the power to move things forward.

GD: So with all these relationships going on, particularly relationships within the team, are there problems when people work together in a team like this?

PHY: Of course. If there’s communication breakdown, I think that’s the number one, um, thing that pops up. If something’s not communicated then that’s usually where our problems begin. But, I mean, one of the good things about this team is positive atmosphere and the relationships. You know, there’s little communication breakdowns here and there once in a while, from my experience, and, but it’s not a
great thing, you get over it and move on. I think ‘cause there is that respect, you know, it’s not a personal affront to anybody, it’s just that you recognise that it’s just a communication breakdown.

GD: Is that a typical cause of problems within the team, communications breakdown? Are there other typical causes?

NU: I think another, sort of, thing we find, because although the teams are static there’s a number of rotating positions and often, well it doesn’t happen often, but, if somebody comes into the team that doesn’t value the team, or doesn’t value the principal of teamwork, that can become really noticeable. Um, and it can leave a great big hole in the team.

SW: I guess there’s the assumption from people who are part of the team that things will be discussed and so it’s a shock to the system if things aren’t discussed.

NU: A sense of something missing, too, can be frustrating, if you, sort of feel that you’ve got some information about a particular client and its not taken on board, or somebody says yes that’s fine, or something, that can be a frustration. Doesn’t happen very often, which is the sign of a good team.

GD: So, how do you get around these things?

Muffled comments from some followed by much loud laughter.

MED: I mean, there’s an informal discussion (general agreement from team) through intermediaries. Then there’s the normal hierarchical structure of any management. You know, going to the one above and them coming down and discussing the issues.

PHY: I mean, as I think it was suggested that for people coming in, whether they’re from a remote location or whether they’re just new, like other places just aren’t a team or as team oriented kind of thing. So for me, when I came here, you have to learn, you know, how it feels kind of thing. Someone can explain it to you but then you still won’t understand how it all works until you see it and feel it around you and then you start to understand how much to communicate and you know who to talk to and when its happening. And of course a lot of it is informal, um, and yeah, and I guess like in that first little bit there can be some, communication breakdowns if that new person doesn’t understand. But then there’s that constant dialogue of, you know, and that person will learn that they need to communicate kind of thing.

CNE: But we also do things like talk about them behind their back, or make jokes about them, (much laughter).

NU: Or let their car tyres down.

Loud laughter.

CNE: Gentle persuasion usually works.
GD: How does it feel moving from other environments to a relationship rich environment a team environment like this one?

NU: I think its really refreshing. In the areas I’ve worked in before, I mean I’m only new to this field, and, um, its very much, you come here and you feel like your opinion matters and if you know something with a patient and you say, you know you might just say to the medical team or physiotherapist or to allied health, this is concerning me, I think your opinion’s valued. And we value each other’s opinion and respect expertise in the field and that’s very different from a lot of other areas and its good. It makes you feel like you’re really working for the good of the patient.

PHA: I think its got a supportive environment. Its a nice environment in which to learn because you’re not expected to know everything all at once. You know what I mean? Because other members of the team can, you know....

NU: Its quite an easy environment too. If you have a problem you go straight to the social worker or straight to the pharmacist. Its a very comfortable, easy, you don’t feel like you’re alone.

PC: When I first started to work here, having worked only in the hospital across the road, I was very taken by the fact that, um, that I could detect the sense of respect, deep respect, that people had for each other and I’d say that’s what really underpins what happens here. It’s deep respect for the person as a patient who comes in here. And it isn’t, I don’t think, because many of the people who come in here are at that stage of their lives when they’re having to confront their own mortality. And I think that my sense of everybody who works here is that people work here because they choose to be here. We don’t have people working here, not wanting to be here. I think that people are, out of that generous spirit, inclined to want to give their best when they can be supportive of people who are at the end stage of their life, going through some pretty difficult issues and some concepts and that, to me was the most noticeable thing about coming here was that time happened differently. You know, I heard people say that there’s never enough time but by comparison to the hospital, I was really delighted by the amount of time that people seemed to be able to give to people in their care.

GD: So time is an issue on more than one level?

MED: I think its true that in other areas of the hospital, um, things are more rushed, um, and time is less I suppose, um, I don’t know, I find, like I’ve just finished working in emergency and intensive care and certainly things are a lot more rushed. Um, turnover of patients is higher, I suppose, and you just see more patients per hour or per whatever.

PHA: But again, picking up on what XXXX said, its palpable almost that people who are here want to be here. So people come to work early and people leave late and there’s no, people don’t get aggrieved about that because they can see the bigger picture.

GD: Well that’s an argument I’ve heard several times, that people are here because they want to be here, because they care. I respond by saying that bankers do the same thing. I can tell you that they care about what they do, they care passionately about it.
They come to work early and they go home late. But they can’t run a team like you guys can run a team.

PC: But they’re not responding to people in the situations that we are.

PHY: What they’re dealing with is totally different. This is very real, very important life stuff.

NU: It’s a person. I guess the difference here is its a personal setup. We are all personally involved to a certain degree. It’s more personal than professional I think.

MED: And the reasons we stay behind are sometimes quite different, sometimes it might be pharmacists sorting out drugs, sometimes it might be just two members of staff talking for half an hour about, sort of, the difficult time they’ve had during the day or just sort of debriefing or something like that. So again its, I guess its what you value in the team that all sort of keeps you sort of there for longer.

GD: Would it be fair to say that most of you have worked in other care environments?

General agreement.

GD: Is it like working here in a team like this?

General “no”.

GD: What’s the difference?

CNE: I think communication’s easier here. More readily available, we don’t have to chase people around the hospital and find them, to communicate with them. Everyone’s sort of....

NU: I suppose the philosophy here is to care, whereas the philosophy in acute areas is to cure. So....

NU: Respect is really important here.

MED: I think there’s a difference, for a medical sort of team, that there’s less stress here because, maybe because you remove the cure part. I mean, the fear for a doctor is being called to someone who’s dying and you being relied on to save their life. And maybe there’s less of that here because you can’t necessarily save their life. You can alleviate their symptoms and that’s what you can do. But, and, therefore there’s less stress. And I think maybe we’re more willing to give of our time here because we’re less beholden by stressful situations, the stress of the acute wards where you’re always being forced to give up more of your time. Because of how much work has to be done and how stressed the system is. Here, when we relieve the stress well then we choose to give of that extra time when we can. Its not beholden on us, its not forced upon us, its just part of the work here.

GD: How tough is it, or how easy is it, to work in a team like this?
OT: I think its easy because you’re supported. You’re supported the whole way through.

PHY: The place is well funded and well staffed and well educated. Its a safe environment to work in.

SW: It’s about a responsibility you put onto yourself as well. I mean, if you’re going to other people for their opinion you also have the responsibility on yourself to give your professional opinion as well. So its about giving as much as taking in from other people.

NU: I think its a learned skill, to be able to work in a team like this. You go from, I mean from the last area I worked in it was, you know, your own set of patients, you have to do your certain things for them during the day and you might have to liaise, you know, only with their doctor at some stage. But it was just you read the notes and you carried out the plans for the day. And it was very set and rigorous and didn’t have so much of the communication that we have here. I think that working in an environment like this you need to learn how, you know, coming into it new, you don’t sort of know how it works, and it takes a while to see how everybody reacts to each other and you learn off everyone else around you. I mean, when I came to this setting you just observe about what everybody else is doing, and take a while to be part of the team.

MED: While its, um, its easy to work in a team like this I think its, there’s a fair bit of effort to keep it that way and I think there’s a good structure behind that you don’t necessarily see up front that’s quite solid. And I think that if you didn’t have that solid infrastructure then we wouldn’t have that freedom to work effectively as a team. That’s a good plus. Where you don’t have sometimes I think that teams can get out of sync.

NU: Yeah, and I think that, in the time that I’ve been here, I mean we’ve had sort of, numerous meetings as time has gone on looking at how we can support the team functioning better. It’s probably more so than other teams that I’ve worked in but I, sort of, rather than it being a sign that the team’s dysfunctional or doesn’t work I think its a really good indicator that we just value teamwork so much that we actually put those formal processes in where a lot of other teams won’t do that, they actually won’t acknowledge the importance of the team. So they actually don’t do the work towards it.

PHA: We could use the analogy of the bankers again. I mean I guess their relationship is going to be very much more adversarial. If they’re coming in early and leaving late and their passionate about their work, they may well be up against one of their colleagues one day for promotion or something like that. We don’t have that. By bringing other members of the team in we can only win. We can only lessen our burden or share the responsibility. So it’s beneficial for us to work in a good team.

GD: I’m going back to that paradigm conflict of care and cure that somebody was talking about before. In the health care management literature it’s a big issue. How big an issue is it here?
MED: You’ve put aside the cure bit and you’ve got the care. I think that’s the difference. I think, someone said to me once you’ve got somebody with a broken leg and he’s got pain tonight and you haven’t quite got it under control. Well there’s always tomorrow. But for some of these people (indicates the ward) there might not be a tomorrow. They might die in pain. And that’s one of the worst fears that people have, that’s what they say to us and tell us, I don’t want to die in pain, or I don’t want to die choking to death or I don’t want to die in agony.

MED: There’s another thing we could add too. I think that we give a different type of satisfaction here as opposed to the acutes (hospitals). I think that drives us together as we have a different type of satisfaction.

PHY: That’s right. Like you said earlier that people had chosen to be here, and what is here is people and their life basically. And so people who have chosen to work here value people, and their life and their holistic life. They’re not about earning more money. So, therefore, that value of people just doesn’t stop with the patient. They’re people who value people, generally, and so you value other people in the team. Like you’re a people person and so that’s why I think the team works better too. So it’s just the spirit of the people here or the attitude of the people here.

GD: Infrastructure, you mentioned it before. How does an infrastructure support what this man (indicates physio) was just saying?

MED: Um, You find people who are compatible with that team mentality, including all of its requirements. Also, the infrastructure allows communication and has set ways of doing it formally and encourages it informally as well.
Appendix 5 Levels of Individual Case Study and Cross-Case Analyses not Displayed in the Thesis

Case Study 1 Analysis Level 2 part 1– Repackaging and Aggregating the Data Capabilities

C1: Managing Knowledge
The application of the capability was not dependent on formal organisational occasions.
Application occurred in real-time and frequently.
Knowledge created during interactions between team members and between team members and patients and patient-based carers.
Knowledge was situational.
Knowledge was portable between situations.
Knowledge was not characterised or stratified by source.
Knowledge created with a patient had the same value as knowledge created between professionals.
Any source of relevant knowledge was utilised.
Knowledge creation occurred wherever and whenever it occurred, not requiring specified time or space.
Knowledge was valuable and worthy of its resourcing.
Knowledge was necessary.
Knowledge was primarily tacit.

C2: Managing Information
The application of the capability was not dependent on formal organisational occasions.
Application occurred in real-time and frequently.
Information was bundled discreetly, often by discipline, but owned commonly.
All available information was not used all of the time.
Information creation was opportunistic.
Application occurred wherever and whenever it occurred, not requiring specified time or space.
All disciplines maintained access to the information of all disciplines, enabling the maintenance of a whole picture of patients. Use of information was situational. Information could be managed discretely with regard to the confidentiality of patient information and impacts on families. A wide range of information sources was necessary. Information was valuable.

**C3: Multidisciplinary Operations**
The application of the capability was not dependent on formal organisational occasions. Application occurred in real-time and frequently. Multidisciplinary operations were ongoing, on a daily basis. Enabled collaboration by mixing disciplines. Enabled monitoring of patients’ situations. Enabled informal communication. Enabled information and knowledge generation and transfer. Discussion of this capability introduced the concept of respect between the disciplines. Respect was described as an enabler of multidisciplinary operations.

**C4: Collaborative Operations**
The application of the capability was not dependent on formal organisational occasions. Application occurred in real-time and frequently. Required team members to be responsible to the team as well as their discipline. Collaboration and its products were situationally based. Driven by the need to deliver care to the whole of the patient’s situation. Collaboration produced learning, information transfer and knowledge transfer. Enabled informal communication. Required communication between collaborators and between collaborators and disciplines.
C5: Managing Technologies
The case study organisation was described as low-tech with access to sophisticated technologies, held in other healthcare organisations, if required.
Technology not applied in an effort to reduce costs.
The cost of utilising sophisticated technologies frequently for the same patient, to confirm something already known was an issue, as was the value of this exercise.
Use of technology could increase stress on staff.
Concept of the patient’s centrality was raised with regard to the capability.
Technology would be used for the patient’s benefit.
Technology must not control the patient care process.

C6: Managing Change and its Effects
The application of the capability was not dependent on formal organisational occasions.
Application occurred in real-time and persistently.
Change occurred at organisational and care delivery levels.
Team membership gave managers a unique view of the effects of change and the requirements of team members.
Relationship between management and staff was different to other organisations because managers work in the teams.
Change was persistent.
Use of the capability was described as ongoing because patient situations changed frequently.
The most frequent changes were commonly incremental changes.
Management Levers

L1: Collaboration
Standard and routine practice in palliative care.
The application of the capability was not dependent on formal organisational occasions.
Application occurred in real-time and frequently, formally and informally.
Evidenced in continuous communication about patients.
Contributed to workplace learning.
Driven by a philosophy of care being provided by all members of the team, creating interdependency between members, between disciplines.
Influenced decision making positively.
Worked better in palliative care than in other types of care delivery because palliative care is structured differently, team membership is more heterogeneous in palliative care, no demand for fast patient turnaround in palliative care, and palliative care organisations are relatively small, meaning easier establishment and maintenance of working relationships.
Patient was a collaborator.

L2: Balance
The application of the lever was not dependent on formal organisational occasions.
Application occurred in real-time and frequently, formally and informally.
Patient and patient-based carers situations were the drivers of balance in a multidisciplinary patient care team.
Enabled by a heterogeneous workforce.
Balance was a mix of skills, qualifications and experience.
Balancing a team with regard to the patient’s situation was said to be sometimes automatic.
L3: Language
The application of the lever was not dependent on formal organisational occasions. Application occurred in real-time and frequently, formally and informally. Applicable at more than one level; inter-discipline, team-patient. Each discipline had a specific language. Frequent collaboration between the disciplines meant that each learnt a part of the others’ languages. Frequent collaboration between the disciplines meant that each abbreviated or simplified parts of their languages for dealing with other disciplines. Common languages developed between disciplines for collaborative operations. Disciplines also sometimes simplified or translated their languages differently for different disciplines. Concepts and rationale were also translated at times.

L4: Absorptive Capacity
The application of the lever was not dependent on formal organisational occasions. Application occurred in real-time and frequently, formally and informally. Required ongoing maintenance because frequency of change opened and closed opportunities for learning and information sourcing, staff turnover affected the knowledge base apparently because knowledge was primarily tacit, and the technical qualifications required by each discipline must be consistently upgraded. Required for the maintenance of clinical and ethical practice. Driven by the requirement for ongoing generation and exchange of information to suit situational changes. Maintenance of the lever was said to be essential. The lever drove a practice of actively attempting to recruit “learners”, meaning staff who are judged to be innately capable of utilising the lever with minimum instruction. Application was referred to as routine.
L5: Diversity
The application of the lever was not dependent on formal organisational occasions. Application occurred in real-time and frequently, formally and informally. Diversity was a requirement of situationally based care delivery. Each discipline had its own requirements for the skills, qualifications and experience of its members. As palliative care professionals commonly came to palliative care after a long period of education, training or maturation within their own discipline a diversity of work background was also provided. Diversity was referred to as valuable.

L6: Conflict
The application of the lever was not dependent on formal organisational occasions. Application occurred in real-time and frequently, formally and informally. Understood as healthy discussion as well as debate or disagreement. Seen as a necessity for work-based learning. Described as a natural part of change processes. Enabled honest expression of views. Seen as a way to encourage those slow to participate or collaborate.

L7: Trust
The application of the lever was not dependent on formal organisational occasions. Application occurred in real-time and frequently, formally and informally. Trust enabled collaboration, the situational mixing of teams and power sharing. Trust enabled the generation and dissemination of information and knowledge. Trust enabled the delivery of multidisciplinary care. Trust enabled palliative care.
L8: Power Sharing
The application of the lever was not dependent on formal organisational occasions.
Little or no awareness of the use of this lever in the management team.
Discussed in the multidisciplinary teams as a part of collaboration.
Enables the work and observation across discipline boundaries at times.
Enables decision making in the multidisciplinary teams

Individual Behaviours – Ward Team and Community Care Team

B1: Using Organisational Artefacts to Enable Rapid Creation of Trust and Enculturation
Applied to all except unconscious patients.
Used experience, skills, knowledge and information commonly.
Patients and patient-based carers brought and used their own artefacts.
Patient reaction to the use of artefacts could be based on previous experiences in healthcare.
Artefacts commonly used to create trust included the skills, prior knowledge, life experience and clinical experience of the staff plus the organisation’s admission process.
Required good communication and information sharing.
Generated the beginnings of trust between the patient and patient-based carers and the team.
Essential to the organisation’s interactions with patients and patient-based carers.
Sometimes required repeated attempts.
Patients brought their own artefacts such as knowledge of their treatment history and control of their personal information about expectations and requirements.
Established the beginnings of collaboration between patients and patient-based carers and the team.

B2: Rapid Inclusion in a Socially Stable Structure
Attempted with all except unconscious patients.
Enhanced and broadened the relationship with the patient and patient-based carers.
Application enhanced by the generation of trust.
Enabled articulation and understanding of the expectations of patients and patient-based carers.
Enabled the understanding of values based issues.
Enabled understanding by patients and patient-based carers.
Applied as necessary for all disciplines.
Sometimes required repeated attempts.
Application was continuous and accompanied all activities with patients and patient-based carers.

**B3: Addressing Values Based Issues**
Dependent on respect for patients and patient-based carers.
Required an ability to listen.
Necessary precursor to understanding the patient’s situation.
Required trust.
Required time.
Required honesty.
Enabled self-grieving in patients and patient-based carers.
Could enable patient’s sense of self worth and control.
Assisted in the management of physical symptoms.
Persistently in use.
Used by all disciplines.
Directly related to the philosophy of palliative care.

**B4: Understanding the Patient’s Situation as the Basis for Care**
Essential to the delivery of palliative care.
Enabled by the previous behaviours.
Provided direct input to formal and informal communication between and within disciplines
Utilised by all disciplines collaboratively.
Applied persistently.
Enabled the building of a whole picture of the patient and patient-based carers.
Directly related to the philosophy of palliative care.
Drove the generation and transfer of information and knowledge.

**B5: Working in Teams**
Dependent on the needs of patients and patient–based carers.
Team mix was decided by the situation of the patient and patient-based carers.
Changes in patient’s situation drove changes in team mix.
Discipline members could be allocated to multiple teams simultaneously.
Enabled high frequency of communication within and between disciplines.
Required discipline members to understand discipline boundaries.
Required team members to observe and report across discipline boundaries.
Enabled the exchange of ideas.

**B6: Collaborating Within the Patient Management Process**

Common in the multidisciplinary patient care teams.
Occurred between palliative carers and patients and patient-based carers to generate and exchange information and knowledge.
Utilised to create and maintain understanding between the disciplines.
Requires frequent and persistent communication.
Enabled cohesion in the team and cohesive output by the team.
Required face to face communication when collaborating with patients and patient-based carers.
Occurred frequently in all phases of the patient care process.
Occurred formally and informally.

**B7: Managing Ambivalence in the Team**

Normal part of working in palliative care teams.
Occurred formally and informally as a normal part of patient care.
Formal application included the whole team.
Managed differences between team members that could disrupt team effort.
Used to address failure to meet expectations.
Involved explanation of positions more often than changing of minds.
Ambivalence must be managed.
Contingencies

CO1: Uncertainty
Persistent contingency influencing or driving many aspects of palliative care.
Recorded as an influencer in all interviews.
Influenced the creation, transfer and management of information and knowledge during interactions with patients and patient-based carers.
A primary driver of the need for and use of multidisciplinary teams and collaboration.
A primary driver of the management of change in patients and patient-based carers.
Required the generation and use of common languages at the boundaries between patients, patient-based carers and multidisciplinary teams.
Required the matching of staff skills and experience to patient situations over a large potential range.
Drove levels of diversity in management and multidisciplinary teams.
Required early trust building then trust maintenance and establishment of stable social situation for patients.
Deep seated in the personal histories, experiences and relationships of patients and patient-based carers; located with values systems and sometimes required to be addressed as such during the end of life process.
Related to symptom management in that there was not always a certain relationship between symptoms and their causes; requiring a broad range of knowledge and experience to assess appropriately.

CO2: Workforce
Workforce required particular types; “learners” capable of self-learning were specifically sought; as were collaborators who could do so independently of management.
Collaboration was required by the frequency of formal and informal information generation and exchange across discipline boundaries.
The workforce required an ability to create modified languages at the team/patient boundary and at the boundaries between disciplines.
Workforce was sometimes required to negotiate the use of technologies with patients and patient-based carers.
Management of change was an ability also noted as required in the workforce. This was change related to the situations of patients and patient-based carers.

Trust building skills were required of all members of the workforce, as was a knowledge of the need of patients and patient-based carers for social inclusion in the palliative system.

Members of the workforce were required to be information sharers and to observe and report across discipline boundaries.

The work required that members of the workforce view and treat other members with high levels of respect and as credible sources of skill, expertise and information.

CO3: Patients
Primary source of information about their situation and changes to it.

Patients contained uncertainties at many levels and with many potential impacts on the end of life experience.

Patients’ situations drove collaboration, information sharing, learning, multidisciplinary team mix and balance and change management practices.

Patients’ situations drove team diversity and team balance.

Central role of the patient drove the need for collaboration between the patient, patient-based carers and the multidisciplinary team.

Patients and patient-based carers influenced the language modification requirements on the multidisciplinary team, not just first language requirements but levels of comprehension and expression.

The requirements of patient situations could pre-empt any activity in the case study.

Patients and patient-based carers required trust building and maintenance and the creation of stable social environments as enablers of care delivery.

Understanding of the patient’s situation was the focus of the multidisciplinary team.

Understanding of the patient’s situation drove information and knowledge management, collaboration, team work, learning, use of common languages and many other aspects of palliative care.
CO4: Healthcare Environment
Level and quality of information accompanying patients during transfer into the case study from hospitals often depended on the quality of personal and professional relationships between individuals within the two organisations. Affected information and knowledge management. Management of technology often meant managing access to technologies located in other parts of the healthcare environment. Other areas of the healthcare environment were used as comparators when describing the differences in and benefits of working in palliative care. Staff arriving new to palliative care from other parts of healthcare were said to require more support, training and orientation than staff arriving from other palliative care organisations. This was in terms of teamwork, collaboration, information generation and exchange and cross-discipline observation and communication. Patients were sometimes transferred to this case study without proper explanation of the nature of the case study organisation or that the patient had entered the end of life phase. This lack of information also occurred with patient-based carers. Some instances of patients and patient-based carers being deliberately misinformed as to the purpose of their transfer were noted. Lack of information, or deliberate misinformation, increased stresses on patients and patient-based carers and on the multidisciplinary teams as well, increasing time necessary for trust building and inclusion in a stable social environment. In some of these instances the time remaining for the patient precluded these activities and therefore all effort was focused on the patient-based carers. Late referrals to the community care team were also an issue, decreasing time needed for relationship building with the patient’s own doctor. Contained the healthcare bureaucracy, regulators, certifying authority and owners. Shaped patient’s perceptions of healthcare.
CO5: Change
Management of change is a primary activity of the multidisciplinary teams in this case study.
Changes in patient situations required changes in the type of information and knowledge generated and exchanged within the multidisciplinary teams.
Changes in patient situations drove diversity and balance of multidisciplinary teams.
The need to anticipate and manage change in patients was described as a driver of the need for multidisciplinary teams and collaborative operations.
The ad hoc occurrence of these changes drove cross-discipline observation and reporting and informal communications.
A driver of the need to maintain relationships within the teams and across the disciplines in an effort to maintain the informal information exchanges that encouraged and enabled collaboration and change management.
Affected learning in the multidisciplinary teams, whether in dealing with changes in a patient’s situation or in the formal weekly debriefings where the results of these changes were formally and publicly examined by the multidisciplinary team.
A driver of the diversity of disciplines necessary in palliative care.
Change in patient demographics noted as introducing the multidisciplinary teams to different cultural attitudes to and ways of dealing with death.

Characteristics of Configuration

CH1: Employing specialists and professionals, high levels of skill and knowledge, long periods of training prior to working in palliative care.
Doctors at least seven years.
Nurses and Allied health commonly come to palliative care after maturing in careers.

CH2: Work would often be complex.
Confirmed from the interviews regarding capabilities, levers and individual behaviours in the multidisciplinary patient care teams.

CH3: Staff grouped functionally for administrative purposes, allocated to multidisciplinary teams for particular situations or projects.
Staff are grouped by Discipline for administrative purposes. The head of each discipline is responsible for that discipline’s contribution to the care delivery process. The composition of the teams is mandated in part and situational in part. Medicine and nursing are always assigned to a patient. Allied health professionals allocated as the situation suggests.

**CH4: Majority of Work Tasks Require Collaborative Effort**
The range of typical causes of distress in patients and patient-based carers drives a collaborative effort. Confirmed by the interviews regarding capabilities, levers and individual behaviours in the multidisciplinary patient care teams.

**CH5: A primary coordinator of collaborative effort would be informal communication between staff members on teams**
Confirmed by the interviews regarding capabilities, levers and individual behaviours in the multidisciplinary patient care teams.

**CH6: Professionals sustain levels of skill and knowledge using ongoing training within disciplines or other specialist or professional groups and transfer knowledge and information between disciplines, teams and individuals.**
Members of all disciplines are required to undertake ongoing professional development and are monitored for this.
Transfer of knowledge and information occurs formally and informally. This is confirmed by the interviews regarding capabilities, levers and individual behaviours in the teams. Said to occur frequently. Drives the active recruitment of “learners”. Willingness to learn indicates openness to collaboration.

**CH7: Decision making autonomy accompanies professionals to multidisciplinary teams, authority is often sourced in professional experience.**
While authority in the multidisciplinary teams is sometimes derived from the experience of professionals this is tempered by the fact that the doctor attending the patient is the professional who is liable for the conduct of treatment under law. This was said to add a level of tension to the decision making process within the teams given the need to defer to experience at times.
CH8: Senior managers found working in the multidisciplinary patient care teams.
Not necessarily common practice in this case study as some senior managers also worked in other healthcare organisations or instructed medical students or doctors in other healthcare organisations.

CH9: Broadly based singular focus on the purpose of the organisation, expressed as the organisation’s mission. The existence of this focus would be used as tool for indoctrination of new staff and, at times, as a coordinating mechanism for work tasks.
Used as a tool for indoctrination of new staff and, at times, as coordinating mechanism for work tasks.
Mission statement has an active role in indoctrination, training and maintaining the ethos of the organisation. A small number of measures report against Mission.

CH10: The organisation would be politicised and operating in a politicised environment.
Main source of politics within the organisation is interpersonal reactions within the multidisciplinary teams, described as similar to those found in any other type of team in other organisations. Healthcare environment is politicised by the government of the day.

CH11: Separate section of the organisation, structured and operating differently to interface with healthcare bureaucracies and regulators.
Yes, conducted by a group standing away from patient care supplying primarily quantitative data.
Case Study 2 Level 1b - Summarising and Packaging Data
Level 1a comprised the transcription of interviews and the making of notes regarding interviews, as necessary.
Level 1b follows here:

Organisational capabilities
The team interviewed about organisational capabilities was this organisation’s operational management team, consisting of the head of each discipline represented at the organisation. Heads of the following disciplines comprised this team at the time of interview: medicine, nursing, social work, spiritual care (known as pastoral care at this organisation) and occupational therapy. This team also included the coordinator of the community care (sometimes known as home care) team that visits patients who are located at home, as a permanent member. This person had a nursing background. The existence and use of the organisational capabilities suggested by the literature review was confirmed at interview in this case study organisation. No new or different capabilities were suggested.

C1: Managing Knowledge
This capability was described as existing and in use. The initial views on knowledge management in this case study organisation involved the creation of knowledge by changing perceptions of the organisation among patients and patient-based carers, among the community within which the case study was located and in the large hospital that supplied the bulk of patients. Discussion then moved to the frequent use of informal communication to build and exchange knowledge within the teams. Interview participants noted that this occurred far more frequently in palliative care than in their experiences in acute hospitals. Participants also noted that they could be very open with patients and patient-based carers because in the end of life process the end was known, if not the timing or type, and this allowed a greater level of frankness.

Participants introduced the concept of the formal and informal application of this capability. Examples of formal application of the capability included a fortnightly multidisciplinary meeting to discuss patients and patient management. Examples of informal application of this capability included the high frequency of informal
communication already noted. These at times seemed to be real-time applications of the capability. Knowledge was said to be created from a collaboration of inputs with participants stating that all information for building knowledge was rarely available from a single source. The advantage noted in this process was that as well as acquiring information from a number of sources, the information came with a range of views that were shared as part of the knowledge building process, offering the opportunity to build in experiences and histories.

Knowledge was said to be used to reduce uncertainty, particularly in new patients, who were noted as often not having been properly informed of their condition or the role of this case study organisation before being transferred. Collaboratively created knowledge was said by participants to be used in drawing a richer picture of the patient’s situation than could be provided from a single source, or that was provided on transfer from other parts of the healthcare system. This was said to lead to more accurate and faster diagnoses of changes and situations.

Patients were said to be complicit in the creation of knowledge because they were not only central sources of information but contained their own knowledge that was applicable and transferable in many situations. It seemed that the common concept of knowledge was of something that was located with people. Whether knowledge was created in situ in a given situation or transported to the situation as a general body of knowledge located with an individual or transported following a search that included people not necessarily involved in the situation, the common and key component was people.

**C2: Managing Information**

This capability was described as existing and in use. Again, interview participants introduced the concept of formal and informal applications of this capability. Examples of formal application of the capability included the fortnightly multidisciplinary meeting to discuss patients and patient management. Examples of informal application included a discussion of the freedom of information available between the disciplines, with all disciplines said to make information available as necessary regardless of the origin of the questioner. This access could occur without recourse to the formal requests or meetings. Discussion also occurred about
Information made available to the community and to other parts of the healthcare environment to enable education, training and research. This case study utilised a dedicated “education centre” for these activities and the centre was noted as an important tool for dissemination of information for the management of community and other perceptions about palliative care.

Information was viewed as something that all disciplines brought to the multidisciplinary teams. Information was shared, frequently through informal communications about patients or patient-based carers. Participants noted that the level of informal communication was much greater than they had experienced in other healthcare posts, particularly hospitals. Informal communication, including information sharing was considered a normal, characteristic, part of work in this case study organisation and in palliative care more generally. Interview participants noted that there was a lot of information that could be exchanged and that the exchange facilitated patient care. Openness was also noted as linked to information exchange, particularly with patients and patient-based carers. One reason offered for this was that in palliative care there is not the need to shield patients from diagnosis until maximum certainty about the diagnosis could be achieved.

Information was said to be gathered from more than one source, as a rule, and then shared among the sources so that as complete a picture as possible could be drawn of the patient’s situation. Sources of information included patients and patient-based carers and the use of information was situational. Information was said to be used to reduce anxiety and uncertainty in patients and patient-based carers.

Interview participants reinforced the value of being able to generate a whole picture of a patient, or of patient-based carers, to the provision of palliative care.

**C3: Multidisciplinary Operations**

This capability was described as existing and in use. Interview participants described formal and informal application of this capability. Examples of formal application of the capability included the fortnightly multidisciplinary meeting to discuss patients and patient management. Examples of informal application included the examples of information and knowledge management across discipline boundaries already cited.
in this analysis. Multidisciplinary operations were described as a normal and expected part of the work environment and this was facilitated by the lack of the type of temporal pressure found in hospitals. Interview participants agreed that members of individual disciplines recognised that they were working in multidisciplinary teams. Respect was noted as an enabler of multidisciplinary operations.

**C4: Collaborative Operations**

This capability was described as existing and in use. Interview participants described the application of this capability in a number of different activities. Collaborative operations were noted as a normal part of work in the case study. Multidisciplinary team members were said to collaborate on information gathering and dissemination to ensure as broad a picture as possible of a patient’s situation. Collaboration, as well as being expected, was said to be a source of respect and recognition among team members because it demonstrated a willingness to work on behalf of the patient. Participants noted also that collaboration was common because it provided an avenue for team members and others to help each other at difficult times. It was then added that this was not just applicable in difficult times, that collaboration was a common way to work. With regard to collaborating, the question was asked, “..why not?”.

Interview participants noted that members of disciplines collaborated to overcome or manage staff availability problems, unplanned and planned absences, gaps in information and knowledge and changes in patients’ situations. Collaboration was said to occur formally and informally and it was noted by one interview participant that collaborative operations were not formally mandated in this case study organisation. In other words, there were no written instructions or procedures prescribing collaboration. It was also noted that collaboration was enabled to some extent, when compared to hospitals, by the comparatively greater amount of time available for work in care delivery.

Interview participants described themselves specifically as collaborators for the patient's benefit. This capability was utilised frequently in the course of patient care.
C5: Managing Technologies
This capability was described as existing and in use. The first reference to the management of technology occurred during a discussion on equipment used by physiotherapists, where the major point was a need to keep up to date with developments in this technology, which was referred to as a “functional thing.”

More generally, technology was viewed as capable of providing much comfort for patients. Technologies commonly referred to included drips, pumps, catheters and pain relief technologies including drugs. It was noted that more sophisticated technologies were available at the nearby acute hospital and that patients could be transported to them if necessary.

Technology was not applied in an effort to reduce costs. Technologies were managed from an anthropocentric view. Discussing the use of catheters and drips, interview participants described introducing patients to technologies from the point of view that the technology would be attached to the patient not vice versa; that the patient was the focus. Attempts to humanise the technology, even to disguise it so that it did not detract from the patient, were described. A simple example offered of this was the use of small knitted covers placed over catheter bags that were suspended from the bed frame.

Interview participants concluded this part of the interview by noting that patient centrality was paramount, that their guide was the needs of the patient. This group was adamant that technology must be applied to suit and benefit the patient.

C6: Managing Change and the Effects of Change
This capability was described as existing and in use. Change was first discussed in terms of staff turnover and the rotation of staff through the case study from local teaching hospitals. Changes referred to as requiring management included the loss of skills and experience in multidisciplinary and attitudinal and practice changes required of staff rotating through. Change was also noted as having occurred at the organisational level in the years recently preceding the interview, when the case study organisation was more closely aligned with the nearby acute hospital’s record keeping and administrative systems. The management of the results of these changes
was said by interview participants to be ongoing primarily because the paradigmatic differences and differences in record keeping requirements were not well enough recognised by the acute hospital.

In terms of patient care, change was discussed a number of times, although rarely directly. Change was more often discussed in terms of its results and the impact they had on the need to collaborate, find and exchange information and creating and transferring knowledge. Any of these activities could happen formally or informally. Changes in a patient’s location were also said to require management as patients were moved to or from their home during the end of life process. Changes in patients’ situations were also managed by the use of openness and honesty in the explanation of the end of life process and the drivers of changes occurring during that process. This was said by participants to be enabled because, as mentioned with regard to a previous capability, certainty of diagnosis before explanation was no longer a requirement.

Interview participants noted that change was managed informally and formally. Discussion of changes in patients’ situations was a defined section of the fortnightly multidisciplinary team meeting.
5.5.1.1 Management Levers

The team interviewed about management levers was this organisation’s operational management team, consisting of the head of each discipline represented at the organisation. Heads of the following disciplines comprised this team at the time of interview: medicine, nursing, social work, spiritual care (known as pastoral care at this organisation), physiotherapy and occupational therapy. This team also included; the coordinator of the community care (sometimes known as home care) team that visits patients who are located at home, as a permanent member, this person had a nursing background; the coordinator of volunteers and the pharmacist. The existence and use of all management levers suggested by the literature review was not confirmed at interview in this case study organisation. No new or different levers were suggested.

L1: Collaboration

This lever was described as existing and in use. The lever was noted early in the interview and mentioned directly as an enabler of the delivery of the broad range of expertise resident in the case study organisation. Following this, collaboration was noted as an enabler of a number of important activities and aspects of care delivery in this organisation. This lever was said to be used formally and informally. Examples of formal use included the fortnightly multidisciplinary team meeting where information and knowledge were combined and shared in the building of pictures of individual patients’ situations. Examples of informal application of this lever included using informal communications to collaborate on information and knowledge sharing to form a picture of a patient’s situation so that quick decisions could be made on which staff were appropriate for a patient care team.

Collaboration was often referred to in conjunction with communication in this case study organisation. An example given of this was the practice of medical and nursing staff communicating informally with allied health staff about patient developments as allied health staff began work in the mornings and continuing the practice during shifts. Collaboration was also referred to as an enabler of managing staff turnover, with remaining team members lifting the level of collaboration and communication to make up for having lost a staff member and associated experience.
and skill. The increased level of collaboration in this circumstance was noted as continuing when a new staff member joined the team, until such time as no longer considered necessary. It was explained that this was not always an extended period of time.

Interview participants noted that patients were involved in collaboration. This involvement was said to consist of consulting patients on reactions to changes in medical or other circumstances and, more basically, whether patient needs and expectations of the end of life process were being met.

Collaboration was also mentioned several times in this interview in conjunction with time. Participants noted that palliative care does not have the demand for fast bed turnover and that healthcare professionals who come to palliative care are often pleasantly surprised at the amount of time available for care delivery when compared to, say, acute hospitals. Time was noted as an enabler of collaboration.

**L2: Balance**
This lever was described as existing and in use. However, discussion of this lever was the briefest of that for any lever. The point made by interview participants about this lever was that the patient and patient-based carers were the drivers of the balance sought for a patient care team. For multidisciplinary patient care teams balance was seen as a mix of skills, qualifications and depth of experience. Getting the balance of a team appropriate to the needs of a patient and patient-based carers was said to be of primary importance. Maintenance of balance required collaboration.

**L3: Language**
This lever was described as existing and in use. Interview participants understood the use of common languages across the borders between disciplines and described common languages as necessary for the achievement of outcomes. It was also noted that the generation of common language was important in communication with patients as not to do so made time spent in front of patients unproductive and unhelpful. Common languages were said to enable transfer of information between disciplines and between multidisciplinary teams and patients and it was noted that
common languages also facilitated the practice boundaries between disciplines. Each discipline had a language that was technically or clinically relevant and specific to the discipline.

Interview participants described the use of a common language away from the patient. This was a “medically-based” language that was understandable to the members of the involved disciplines.

The use of this lever was said to be encouraged and facilitated by the organisation and these took the form of use by example by senior management.

**L4: Absorptive Capacity**
This lever was described as existing and in use. Interview participants acknowledged that the disciplines imported and exported information and noted that this occurred for two reasons; to reach outside the organisation when events inside could not be addressed with existing knowledge, experience or information; and to inform the disciplines generally about occurrences inside palliative care in terms such as patient reactions to new combinations of care resources.

Information was said to be imported by members of the disciplines directly to the multidisciplinary teams. Sometimes information was easy to find, sometimes not so. Regardless of difficulties encountered from time to time the disciplines maintained active networks outside of palliative care. Participants described the process as being wide in scope and taking a lot of energy. It was also noted that results, as well as being used in specific teams, were recorded in a resource manual that was available to all staff.

Staff interviewed gave examples of formal and informal utilisation of this lever. The formal, as noted above, was the inclusion of imported information via this lever, and the results of its application, in the resource manual. A second example of formal application was noted; the use of this lever to fill information gaps noted during audits and debriefings. The example given for informal application of the lever was of an individual discipline member ringing a member of the same discipline in an outside organisation during or immediately following a patient consultation.
L5: Diversity
This lever was described as existing and in use. Interview participants spoke of diversity in the makeup of multidisciplinary teams in palliative care as important and useful. Diversity was said to offer the teams a large range of experiences and knowledge. According to participants valued experience included non-palliative care experience and non-clinical experience. This was because of the broad range of issues addressed in palliative care. Volunteers were mentioned specifically as a group that offered varied experiences that were therapeutically useful to patients and patient-based carers.

The multidisciplinary teams were said to comprise functional, role and social diversity. Diversity was said to require commitment on the part of those involved if it was to be useful in enabling the teams in providing care. Examples of the necessity of diversity included the level of flexibility required in the multidisciplinary teams, during a discussion on gathering various inputs for decision making, an acknowledgement that even routine tasks can have different requirements at times and the range of requirements that patients have with regard to the demands made on the teams.

In terms of demographic diversity this team was predominantly female. Regardless of the level of conscious awareness of diversity as a lever the interview participants spoke repeatedly during the interview of the necessity of the lever.

L6: Conflict
This lever was described as existing and in use. Interview participants described the existence of disagreements between multidisciplinary team members and noted that it was not expected that members get on all of the time. Participants described the case study working environment as one where staff could voice an opinion without being adversely affected. Indeed, voicing opinions formally and informally was encouraged as an important way of gathering and exchanging information. Discussion and debate were described as occurring during decision making regarding patients and as a part of the interaction with patients and patient-based carers.
The voicing of opinions, use of discussions and debate were all considered as contributing to learning in the teams and by patients. An honest expression of views was expected.

Conflict was seen as also encouraging those who were slow or perhaps unwilling to participate or collaborate within the patient care teams and in the organisation generally.

**L7: Trust**
This lever was not described specifically in the interview. However, the number of references to the use of collaboration, the mixing of teams on a situational basis, power sharing and the management of conflict within the teams implied the existence of trust as a lever in use. In addition to this, the issue of trust arose a number of times in the interviews on Behaviours where it was used to drive successful collaboration and generation and transfer of information and knowledge.

**L8: Power Sharing**
This lever was described as existing and in use. Patients were described as having a level of power in their relationship with the organisation or with the multidisciplinary patient care team. This was said to be the case because patients had choices and those choices had to be respected. Interview participants also noted that power sharing was a method of giving everybody the benefit of the expertise of the different disciplines.

Whether or not patients chose to exercise power, for example in decision making, they had power.
5.5.1.2 Individual Behaviours
This case study organisation provided care for patients in two groups. The first group contained ward-based inpatients, located physically within the case study organisation. The second group contained patients who had the opportunity to stay in their homes. This required two types of multidisciplinary team, a ward-based team and a community care team. Both teams were interviewed about individual behaviours.

Ward-Based Team
Disciplines represented in the interviewed team were medicine, nursing, social work, spiritual care, physiotherapy and pharmacology.

B1: Using Organisational Artefacts to Generate Trust
This behaviour was described as existing and in use. Interview participants described artefacts such as networks between organisations and disciplines and within disciplines, interpersonal skills, experience gained from previous admissions and interactions with patients and patient-based carers, record keeping procedures for admissions and formal and informal information gathering and exchange processes. The networks described were formal and informal and the majority of conversation about these networks concerned their informal use. An inter-organisational network was noted as a case of both formal and informal in the transfer of patients from the local acute hospital to the case study organisation. In this example it was noted that transfer was accompanied by formal notification and documentation exchanged between the organisations, although it was noted that part of the reason for questioning patients during the admission process was to ensure that all information relevant to transfer was found. Interview participants also described the use of personal networks between organisations as they described the use of these networks within the local acute hospital to gain more information about new patients than formally came with the patients.

Interpersonal skills were described as something formally developed in the organisation and necessary at all parts of the end of life process but especially in trust building at admission and in the early interactions between the organisation and
patients and patient-based carers. The context for mentioning this artefact was a discussion on the need to gather as much information as possible for the range of disciplines during admission. This discussion also mentioned the use of experience from previous admissions and interactions with patients. It was noted that staff new to palliative care could not gather as much information or understand where to distribute information as well as experienced staff. This was not expressed as a criticism, merely an expression of the usefulness of this artefact is dynamically linked to the experience of the staff.

Record keeping procedures were described by interview participants as a formal part of the admission process. These were noted by interview participants as formally required and also operating as prompts for the gathering of cross-disciplinary information. An example offered was one where a formal question about the new patient’s expectations of the experience in the case study organisation prompted not just a direct answer to the question but also more general comments on the patient’s progress through the healthcare system, problems with pain management and fear of particular types of death such as dying in great pain or dying by asphyxiation. Thus the formal request for information that could be organisationally useful resulted also in information specifically useful to the medical, nursing and psychosocial disciplines. Any member of any discipline could read the patient’s notes and documents and see the patient’s answers. However, the medical, nursing and psychosocial disciplines would have been informed through the networks generally before members got to the notes. Some interview participants described not waiting to be informed but actively seeking to be informed. This seemed to be limited to allied health workers, perhaps because they might have had more time available.

The relationship to trust building occurred when the information shared could be used by team members to demonstrate knowledge, experience and skill by addressing priority requirements first, during or shortly after patient admission. The priority requirements would demonstrably be based, at least in part, on the patient’s admission interview.

Patients were noted as bringing their own artefacts, including networks, to palliative care.
Trust was spoken of as something that was required by members of the multidisciplinary teams as well as by patients and patient-based carers. A number of activities were noted as trust-focused. Demonstrating knowledge and skills have already been addressed. Another trust-building activity noted by participants was observing which team members the patient seemed most responsive to; the feeling being that this would be the person who would have the best chance for trust building, therefore through whom much communication could be channelled. The ethos of palliative care; holistic care, was described trust-requisite. The view put by interview participants was that without trust holistic care delivery became very difficult.

The concept of respect, for the patient and patient-based carers, was also noted as an enabler in the application of this behaviour.

**B2: Rapid Inclusion in a Socially Stable Structure**

This behaviour was described as existing and in use. The first mention of this behaviour was in a discussion on the patient admission process when it was noted that staff observed the interactions between patient and patient-based carers in an effort to assess relationships and come to some early assessment about social concerns within the family or other social grouping that would apparently be supporting the patient during the end of life experience. These observations would assist in accommodating the patient and patient-based carers socially within the case study organisation. Indeed, the admission process itself was noted as being concentrated on “equipping the patient for the ward”. This included asking patients their expectations of the stay, what they were concerned about and what they thought could be done to relieve any stresses. Answers to these question were used to prepare the disciplines or team members who would be immediately involved with the patient, thus enabling relevant staff to more quickly include the patient and patient-based carers in the ward.

Guidelines for socialisation were sought from patients and patient-based carers. It was noted by interview participants that the attempt was to create a situation from the patient’s perspective rather than the organisation’s perspective or that of individual disciplines or team members. The issue of honesty was introduced during this
discussion as something that was necessary on both sides; on the patient’s part and on the part of members of the multidisciplinary patient care team. Without honest information from the patient, it was noted as an example that some stoic patients were not honest about the level of their distress or pain or family concerns, it was difficult to provide any sort of socially stable structure in the end of life experience. On the other hand, without honesty on the part of the team members, for example in terms of expectations or the reality of the situation or the levels of uncertainty involved or the patient’s part in the process, it was difficult for the patient to respond appropriately to the team’s attempts to provide structure.

Patients and patient-based carers were described as sometimes having different perspectives or different views of the patient’s situation. These differences were taken into account when attempting to apply this activity.

Interview participants described this behaviour as necessary for all disciplines and first applied as early in the relationship as possible, indeed the first questionnaire that new admissions complete seeks information to begin this behaviour. The application of the behaviour appeared to occur more often than just at admission, it was described as ongoing.

**B3: Addressing Values Based Issues**

This behaviour was described as existing and in use. The first explicit mention of this behaviour came during a short discussion on patients as jigsaw puzzles, where the picture could not be completed until all of the pieces are in place. The pieces were seen as generally available; the patient had some, members of the team had some and patient-based carers had some. The question was more one of getting access to the pieces rather than the pieces being available. Some of the difficult pieces to access, it was noted, were those regarding spiritual and emotional well-being. These had to be actively and sometimes directly sought, often during or following a process of relationship building. Successful use of this behaviour was said to require patience and trust but the behaviour was important to the provision of holistic care and so was pursued by all disciplines. Honesty was said to be an issue here as it facilitated the production and exchange of information as noted in the previous behaviour. A lack of honesty, for example a family not wanting the patient
told the real reason for being in the case study organisation, increased the stresses on all involved.

Having to address values-based issues, commonly described as addressing issues on the spiritual and emotional levels, was noted as making care delivery more complex than in other healthcare organisations because the patients were more complex as more of the patient had to be addressed than in other healthcare organisations.

Interview participants described this behaviour as persistent in application, utilised by all disciplines and as directly related to the philosophy of palliative care.

**B4: Understanding the Patient’s Situation as the Basis For Care**

This behaviour was described as existing and in use. Applications of this behaviour have already been described. These included observing patients to determine whether there was a particular member of the multidisciplinary team to whom the patient responded more positively who could be used for exchange of information and knowledge and observing the relationships between the patient and members of the patient-based carer group in an attempt to understand issues that may need to be addressed. Also noted previously was the acceptance of patient generated guidelines for the process of socialisation within the ward and the canvassing of patient-based carers for information, perspectives and opinions regarding the patient.

In addition to these examples, interview participants also described other applications of the behaviour. Decision making during the end of life process, by the multidisciplinary team or by the patient and patient-based carers, was said to require as good and broad a picture of the patient’s situation as could be generated. Team members said that they actively exploited opportunities for informal conversations with patients, during which patients were often more forthcoming with personal information that at formal discussions. Small talk that occurred during showering and bed making were said to be particularly useful opportunities, as was just sitting with a patient on a balcony in the sun. These activities were referred to as “just filling in more pieces of the puzzle”.

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It was noted that patients deserved and received respect because they were, usually knowingly, facing the prospect of their mortality. The term “usually” was used here because some patients were unconscious when they arrived and remained that way and some patients had patient-based carers who denied to the patient that the patient was dying, regardless of what the patient has been told by palliative care professionals.

Understanding the patient’s situation was described as central to the philosophy of palliative care and fundamental to the delivery of holistic care. As well as the informal and formal applications of the behaviour already noted it was also said to occur during the multidisciplinary team meetings where all patients, their situations and their changes were discussed.

**B5: Working in Teams**

This behaviour was described as existing and in use. Interview participants described working in the team as being “interlinked” and “laced together almost”. Teams were seen as necessary for the delivery of holistic care because of the range of types of care to be delivered. Respect was mentioned a number of times as an enabler of teamwork in this case study. This opinion was contributed by new and established staff members. New members noted that, compared to teams in which they had worked in other types of healthcare organisations, respect between individuals and disciplines was far more apparent in palliative care and one of the first things noticed on arriving at the case study organisation. Time was also noted as an enabler of team work, it being said that in palliative care there was not the push for fast bed turnover and soonest possible patient discharge. This meant that not only was there more time with patients, there was also more time available to be a team member.

Interview participants noted that the team structure, the ward team providing a pool for patient care teams, provided flexibility for the patient care teams at the same time as maintaining an overall feeling of “team”. Team work was said to fall down when team members did not listen to each other or when there was a lack of respect between individuals or disciplines and also when people did not believe in or value the team. Another issue that caused team work to be sub-optimal was when
members did not share the information that they held. This was also described as
providing an unnecessary level of frustration for the team or individual team
members.

Membership of the patient care teams was said to be dependent upon the needs of the
patient’s situation. Team work was described by some new staff attending the
interview as something that needed to be learnt after entering the organisation
because it was quite different in this case study, or in palliative care, than in other
places. Being a member of the team was said to facilitate problem resolution as well
as care delivery.

This case study organisation was described by interview participants as “team
oriented”.

**B6: Collaborating Within the Patient Management Process**

This behaviour was described as existing and in use. This behaviour was mentioned
frequently during the interview. Collaboration was not described directly as such.
However, much of the discussion on working in the team, understanding patients and
creating a stable environment for patients included references to collaborative effort.
Examples included team members belonging to different disciplines exchanging
information to build understandable pictures of patient situations, observing across
discipline boundaries and then reporting the results of the observation to the relevant
discipline member and high frequencies of informal communications about patients
and patient-based carers. Informal communication included written and face to face
communication and participants noted that written informal communications were
frequently followed up face to face to ensure understanding.

Communication of outcomes was said to enhance collaboration as it completed a
picture that might have begun with a number of variously sourced inputs.
Communicating the outcome of the application of that information was seen as
useful by those who supplied the information as well as by the wider audience of
palliative care professionals. Interview participants noted that collaboration included
the responsibility to put an opinion as well as listen to those of others. Collaboration
was also described as a learned skill that required trust and was quite different in
palliative care than in other parts of the healthcare environment. Two reasons were offered for this difference; the time available to collaborate and the underlying respect that could often be found among team members.

**B7: Managing Ambivalence in the Team**
This behaviour was described as existing and in use. Working in teams, working collaboratively and working in networks were acknowledged by interview participants as sometimes providing friction between team members. It was also acknowledged that, apart from staff who rotated through palliative care as part of their discipline training, for example junior doctors, people who worked in palliative care chose to do so. It was stated that those who chose to work in palliative care valued people and so were more likely to seek to resolved perceived issues in the team.

Managing relationships within the team seemed a normal part of working in the teams. Formal support of teams and team functioning by the organisation was stated as an enabler of the teams. This support took the form of providing a framework for problem resolution; formal meetings, and training. It was noted that ambivalence could not be left unaddressed.
Community Care Team
Only one discipline was represented in this interview; nursing. Other disciplines were not available at the time of interview. There were five nurses in attendance.

B1: Using Organisational Artefacts to Generate Trust
This behaviour was described as existing and in use. Interview participants noted that they used this behaviour frequently and especially with new patients. Examples of artefacts used in trust building included networks, experience, knowledge, skill and record keeping processes. The networks that this team utilised included their own discipline, other disciplines such as social work, counselling and spiritual care and a group that stood outside of palliative care; General Practitioners (family doctors). It was noted in this interview that when new patients come to the community care team the treating doctor remains the patient’s GP even though palliative care doctors may be involved from time to time. The relationship between team members interviewed and the GP was seen as sometimes influential in persuading the patient of the trust worthiness of the team. It was noted that this relationship was not always easy to manage.

Experience and knowledge were described as useful in the initial understanding of patients where assessments included how the patient wanted to be treated and what levels and types of communication would be volunteered. This was also applied to patient-based carers encountered on the first visit. It was noted that some patients required more trust building effort than others because some were almost instantly willing to trust and others were far more defensive and resentful of the condition that had brought them to this point in their lives. The first visit was viewed as an information collecting visit and generally lasted around one hour.

Encouraging patients to ask many questions was described as a tactic that, if successful, allowed the nurses to then demonstrate their knowledge and experience, leading to building trust.
Record creation and record keeping processes were also artefacts that enabled trust building as they could be used to trigger opportunities for the demonstration of experience and knowledge. Building trust was described as a necessity.

**B2: Rapid Inclusion in a Socially Stable Structure**
This behaviour was described as existing and in use. Interview participants noted that in the community environment they were a guest in the accommodation of the patient they were visiting. This meant that any attempt at socialisation or inclusion had to be based on the patient’s community situation instead of on a ward in the case study organisation. According to the team this involved coming to an understanding of the patient’s social situation at first meeting, or at least beginning that process, in an attempt to assure that the patient was at the centre of that situation.

Whether the patient was in a ward in a hospice or hospital or located in accommodation within the community, it was important to have the patient in a socially stable environment. Within the community, however, interview participants noted that this was not always possible. Reasons for this varied from patient-based carers being very involved in their own situations, for example anticipatory grief, to patients not wanting to change anything about their situation because to do so was to acknowledge their illness and the approaching end of life.

This behaviour was said to assist in trust building as it offered opportunities to demonstrate skills, knowledge, experience and understanding.

**B3: Addressing Values Based Issues**
This behaviour was described as existing and in use. As stated in the introduction to this team interview, only the nursing component of the team was available for interview. While the nurses themselves did not refer directly to their addressing of values-based issues with either patients or patient-based carers, they referred a number of times to their need to identify, or at least estimate, the impact of values-based issues on patients and patient-based carers so that this information could be conveyed to other members of the team such as the social worker or the spiritual care worker.
Several references were made to the need for the team to tailor care delivery to suit the patient’s situation and that this need was concerned with all of the requirements of the patient’s situation.

Examples of assessment on behalf of other disciplines included seeking information from patients and patient-based carers regarding memberships of community or religious groups, initial assessments of psychological wellbeing and mental anguish. Interview participants repeatedly referred to having to get an understanding of “everything” because that was what made up a patient in their charge.

A relationship between values-based issues and the physical wellbeing of patients was also noted.

**B4: Understanding the Patient’s Situation as the Basis For Care**
This behaviour was described as existing and in use. Interview participants repeatedly referred to the centrality of the patient and the need to understand the patient’s situation because understanding kept the patient at the centre.

Participants noted that care would be tailored to individual patient’s situations and that the role of the team interviewed was to begin and maintain the process of tailoring by a combination of direct questioning, observation and assessment of many facets of the situation. The result of this process was keeping other disciplines and the case study organisation informed of the state of the situation and any changes that might occur. The patient’s situation was said to include any social or other support that was or might be supplied.

**B5: Working in Teams**
This behaviour was described as existing and in use. Participants considered themselves as part of a team and considered their team as part of a larger team. Teams were noted as necessary for palliative care because of the range of disciplines that needed to be permanently involved in delivery of this type of care. Palliative care was described as necessitating holistic care.
Interview participants noted that teams required maintenance from the organisation and that this was facilitated with formal meetings and a part of the regular fortnightly multidisciplinary team meeting being devoted to teams refreshing the membership with latest changes to situations and memberships. The practice, in this case study organisation, of rotating junior doctors from the local acute hospital through the teams on a three month rotation was said to cause some stress in the teams as new rotations learnt and then moved on without necessarily having the opportunity to fully apply their learning. This practice was also said to disrupt team dynamics.

**B6: Collaborating Within the Patient Management Process**

This behaviour was described as existing and in use. This behaviour was described in terms of creating and maintaining understanding between the disciplines involved in multidisciplinary patient care teams. As with the previous behaviour, this was said to involve in formal and informal communication between the disciplines.

Various aspects of collaboration were mentioned persistently during the interview, such as sharing information and working jointly with other disciplines. Interview participants stated that the reason for assessing and gathering as much information as possible on the first visit was to share it with other disciplines. Sharing of information occurred whether or not the information gathered was specifically relevant to one particular discipline. According to these participants all information, even that applying only to their own discipline, was for sharing. This was then maintained for the life of the relationship between the community care team and the patient.

Collaboration was said to be necessary because patients had so many individual needs to be cared for.

**B7: Managing Ambivalence in the Team**

This behaviour was described as existing and in use. Interview participants acknowledged that working in teams created frictions between individuals and that these had to be managed so that the team could continue its work.
Communication was said to be the key to managing ambivalence and it was noted that this communication was sometimes time consuming. Being a community team, this team noted here that much of the day to day communication occurred over the telephone.

Sometimes the cause of frictions within the team was a patient’s GP, some of whom were said not to appreciate the opinions of team members. However, these were not the only causes. Lack of communication was the primary cause and then misunderstandings. The rotations of staff already mentioned also caused problems within the team.

Contingencies
For the purposes of this thesis contingencies were defined as variables that influenced the choice of levers to stimulate behaviours and could also affect the relationship between levers, behaviours and capabilities. These variables could be sourced inside or outside the organisation (Gieskes, 2001). Contingencies were sought unannounced from all interviews, making them, in effect, the result of unstructured elements of the interviews.

CO1 Uncertainty
This contingency was noted in all interviews conducted in the case study organisation. During the interview of the management team on Capabilities, uncertainty was mentioned a number of times as a central theme. Knowledge was said to be used to reduce uncertainty and the range of issues generating uncertainties was better addressed by the use of collaboratively generated knowledge. These processes also involved the use of information. Indeed, uncertainty produced information which could be synthesised in context to produce knowledge pertinent to a patient’s situation. Information and knowledge were both described as produced formally and informally in the attempt to address uncertainty. Collaborative Operations were also said to be a response to uncertainty driven by changes in patients’ situations. The management of change in response to the uncertainties that could be driven by changes in patients’ situations was also an example of the application of a capability in response to this contingency.
In interviews with this case study’s management team on Management Levers uncertainty was again noted. Collaboration was mentioned in this interview as a response to uncertainty in patients’ situations and in patients’ responses to their situations; the role of Collaboration being to facilitate generation of information and discussion relevant to the situation as well as the delivery of care. The use of Language as a lever was noted as a way of transferring information between disciplines, multidisciplinary teams, team members and teams and patients. Language was also an important facilitator of knowledge generation. Interview participants also noted the use of common languages away from the patient, during formal and informal planning and response generation. Absorptive Capacity was said to be a necessary lever with regard to providing sources and applications of information outside the case study organisation and palliative care; with the results of this being made available to disciplines and multidisciplinary teams in the creation of knowledge or the communication of information. This was also noted as useful in Collaborative Operations in response to changing patient situations. Another lever that facilitated a response to uncertainties was Diversity. During this interview it was noted that diversity offered multidisciplinary teams the range of experiences and skills and backgrounds generally necessary to deal with uncertainties inherent in care delivery in palliative care.

Uncertainty was also mentioned a number of times in interviews with a multidisciplinary ward team and community (home) care team about individual behaviours in multidisciplinary teams. The ward team described the use of social networks with the local hospital to gather information about transferred patients that did not formally come with the patients. The information was necessary to paint as complete a picture as possible on admission to the case study organisation because past experiences indicated that sometimes patients did not come with appropriate information. Uncertainty, on the part of patients and the staff was a driver of a number of activities, particularly the management of information and knowledge distribution. These could be used to establish the patient in a socially stable environment and for trust building. Working with patients and patient-based carers to address values based issues in their lives, at the end of life, was a response, in part, to the uncertainties of those parties about the end of life process, their abilities to
cope and important relational issues that had perhaps been left unaddressed for a number of years. Understanding the patient’s situation as the basis for care was, apart from an expression of the ethos of palliative care, a fundamental response to the uncertainties generated in many places by the patient’s situation and which caused different types of distress. Working in teams and collaborating within the patient care process were both described as responses to uncertainties such as the timing of changes in patients’ situations and the lack of certainty in linking symptoms to causes.

It appeared that attempts to manage uncertainty directed resource allocation and the use of a collaborative multidisciplinary approach.

**CO2 Workforce**
This contingency was noted in all interviews conducted in the case study organisation. The interviews with the case study management committee, addressing Capabilities and Management Levers, produced more occurrences of workforce as contingent. During the interview on Capabilities people, including the workforce, were noted as key components in knowledge management. The creation, dissemination and management of knowledge was said to occur informally and formally, requiring a workforce capable of both. Knowledge was noted as a key factor in managing uncertainty. The workforce was also required to share information, experience and skills as members collaborated in the patient management process. Team members were required to gather information from multiple sources, maintain information networks within and outside of their disciplines and work in multidisciplinary teams. Collaborative Operations was a key part of palliative care in this case study, requiring a workforce that could and did collaborate across discipline, hierarchical and organisational boundaries. Finally, members of the workforce had to be change managers because change in patient’s situations, team memberships and people’s reactions to events in the end of life process was constant.

In the interview on Management Levers the central role of Collaboration was noted in the discussions on informal and formal communications and in a discussion about dealing with workforce turnover. All members of the workforce were required to
collaborate in teams and in disciplines as a normal part of the working day as this facilitated the delivery of holistic care. The requirement for the use of Collaboration was not limited to the palliative care staff but extended also to patients and patient-based carers, meaning that staff also had to be capable of collaboration with these groups across a wide range of issues at times. The generation and use of common languages was a lever commonly in use and also dependant on the workforce for its useful application. Common languages were created and used as a useful cross-discipline communication technique and as a technique for communicating with patients and patient-based carers. The latter was noted as important and central to understanding the patient’s situation. Without an ability on the part of staff to adequately interpret or translate what was happening to the patient and patient-based carers, or to interpret or translate the reactions of patients and patient-based carers then the multidisciplinary delivery of holistic care was quite difficult. Balance and Diversity were also workforce dependant Levers. Multidisciplinary teams in this case study required both. Balance was the mix of depth of experience available to the team and Diversity was the breadth of experience and skills available to the team. Both were characteristics of the workforce.

Interviews with multidisciplinary teams; one ward-based and one community (home) care, also produced references to workforce as a contingency factor in palliative care, during interviews on individual behaviours in the multidisciplinary teams. Team members had to be able to use organisational artefacts to build trust with patients and patient-based carers. Trust building was an early, sometimes the first, step in locating patients and patient-based carers socially within the palliative care system. This in turn enabled the investigation of values-based issues. This, the investigation and addressing of values-based issues, might not be the province of every team member but all needed to be able to recognise these types of issues as they surfaced or as patients and patient-based carers attempted to surface them. The delivery of holistic care was also an important issue with the team, being described as part of the palliative care ethos. All team members, it was noted, worked at putting together the “puzzle” that made up the various aspects of a patient’s situation, so that more relevant care could be provided. This making sense of the “puzzle” also required collaboration and teamwork, therefore staff who were capable of these things. This
lead to the requirement for staff who could also successfully manage relationships within the teams.

**CO3 Patients**
This contingency was noted in all interviews conducted in the case study organisation. The interview with the management team on Capabilities produced a number of references to patients as a contingent factor in care delivery. Patients, it was noted, were the centre of palliative care; the centre of the ethos as well as the centre of care. Patients played a central and contributory role in the production of information and knowledge and provided the central reason for the production and dissemination of information and knowledge. It was also noted that the fundamental reasoning behind the need for a multidisciplinary care delivery model that included such a wide range of disciplines was the range of issues that might need to be addressed in individual patients. Interview participants described patients as mediating the level of collaboration necessary in the teams and between disciplines generally and the level and types of technologies required to be managed during the end of life process. Patients were also the primary source of change that needed to be managed.

During the interview with the management team on Management Levers participants described the use of Collaboration driven by the frequency of informal communications about patients and the involvement of patients in this process. Patients mediated the balance of the multidisciplinary patient care teams through the variety of conditions and diagnoses that had to be dealt with. In the case of the generation and use of common languages interview participants noted another instance of the patient as an influence. Here, it was said during the interview that team members sought and generally found a level of language to suit the patient and patient-based carers. This level of language had to be useful as a two-way conduit because it had to be used to inform and to be informed with, by the team regardless of its composition and by the patient and patient-based carers. Patients were also an influence on the diversity of the multidisciplinary team, again because of the range of symptoms, diagnoses and changes to be dealt with.
Two interviews were conducted in this case study on individual behaviours within the multidisciplinary teams; one with a ward-based team and one with the community (home) care team. Patients were a central theme in these interviews, largely because of the range of influences they have on the multidisciplinary teams. Interview participants noted that the high levels of interaction between team members, patients and patient-based carers drove a need for well developed interpersonal skills in the team members and for an ability to build trust. Development and maintenance of these skills were formally supported by the case study organisation. Patients were described as requiring specific behaviours of the team; for example understanding changes in the patient’s situation, trust building, establishing the patient socially in the ward or the palliative care system for patients at home, and understanding the need to look for and address values based issues in patients and patient-based carers. The range of issues, symptoms and reactions to the end of life process varied with each patient meaning that as well as individuals, patients as a group mediated behaviours within the multidisciplinary teams.

**CO4 Healthcare Environment**

This contingency was noted in all interviews conducted in the case study organisation. The interview on Capabilities with the case study’s management team produced mentions of other parts of the healthcare environment that directly influenced palliative care. These included the State owned healthcare bureaucracy being a regulator and a source of environmental and, sometimes, practice change. The local acute hospital, by agreement, rotated staff in training, generally junior doctors, through the case study organisation for three months at a time. This produced a stress on the multidisciplinary teams of having the equivalent of one or more perpetual new members, resulting in the teams being in perpetual training mode. Another example of the influence of other parts of the healthcare environment was noted during a discussion on the transfer of patients into the case study organisation. It was said that these transfers were not always accompanied by the totality of the information necessary, forcing members of the case study organisation to go looking for it. Looking for it was one of the reasons for multidisciplinary team members to maintain informal social networks with staff in organisations that transferred patients.
During the management team interview on Levers it was noted that the healthcare environment was the source of palliative care staff. As such, and distinct from other palliative care organisations, it was seen as the source of raw staff who had then to be trained not just in palliative care but in multidisciplinary, collaborative, holistic, largely informally communicative care delivery.

The interviews on Behaviours; one with a ward-based team and one with a community (home) care team produced references to patients being transferred without being fully informed, or sometimes misinformed, and the extra stresses that were placed on the multidisciplinary teams as a result. The community care team noted their requirement to work with the General Practitioners (GPs) of patients who were still at home and how this was sometimes problematic as some GPs did not operate in the same way as dedicated palliative care doctors and thus required different communication methods.

**CO5 Change**

This contingency was noted in all interviews conducted in the case study organisation. The interview with the management team on Capabilities produced a number of descriptions of change as contingent in palliative care. These included changes in patient situations, potential or extant, as primary drivers of the need for information and knowledge management capabilities. Multidisciplinary teams were a response to the range of changes that might occur in any patient and also to the range of change drivers that might be encountered. Also with regard to Capabilities, interview participants noted that collaborative operations were a response to change in patients. The identification of real or potential change was an activity that was undertaken by all members of the multidisciplinary teams regardless of the discipline to which they belonged and it was undertaken on behalf of all disciplines. The communication of information derived from these activities and a team’s response to these communications were both collaborative actions. The management of technologies was also said to have some relationship to change as technologies were used in response to some changes and to predict some changes. Of course, the management of change was a Capability directly related to change as a contingency and seemed to utilise a lot of resources.
During the management team’s interview on Management Levers change was described a number of times as a contingency. Collaboration was, as already mentioned, a requirement based on the need to identify, communicate and manage change regardless of the discipline with which any change might be logically located. The Balance and Diversity required in multidisciplinary were to a large extent based on the changes that might need to be managed in patients and patient-based carers. Change was noted as a driver of on the job learning and affected Absorptive Capacity in that it directed the use of learning conduits and networks inside and outside the case study organisation. Power Sharing was also affected by change as it was a part of including patients and patient-based carers in decision making processes.

In the interviews on Behaviours in the multidisciplinary teams; one with a ward-based team and one with a community (home) care team, change was a theme that ran through many of the issues discussed. Changes in patient’s situations were the predominant changes discussed. Interview participants noted that these changes drove many of the behaviours used by the teams and their members.

Characteristics of Configuration
This interview was conducted with the Director of the case study organisation.

CH1 Specialists and professionals with high levels of skill and knowledge, who had undertaken long periods of training prior to working in palliative care, would be employed.
This configuration characteristic was described as existing and in use. Members of disciplines involved in multidisciplinary patient care teams commonly train for a number of years before entering palliative care. The following periods were reported: Doctors train for at least seven years following their medical degree. Since the nineteen eighties nurses have had a three year university degree and usually arrive in palliative care after following some years in their discipline. Social workers, physiotherapists and occupational therapists undertake a three or four year university degree and spend time in other parts of the healthcare environment before arriving in palliative care. It was noted that sometimes an individual nurse or allied
health worker, for example occupational therapy or physiotherapy, would come to palliative care work earlier in their careers than the majority would.

**CH2 Work would often be complex.**
This configuration characteristic was described as existing. Palliative care was noted as complicated by the number of potential drivers of distress in each patient, and patient-based carers, and by the fact that the manifestation of the symptoms of distress may not have an immediately obvious relationship to the cause or causes. Complexity was noted in the need to sometimes address multiple causes of distress simultaneously. It was also noted that complexity is sometimes added by the management of the teams and the reactions that some palliative care professionals have to particular patients or events in their working life.

**CH3 Staff would be grouped functionally for administrative purposes but allocated to multidisciplinary teams, sometimes at short notice, for particular situations or projects.**
This configuration characteristic was described as existing and in use. Palliative care delivery staff are grouped functionally (by discipline). The head of each discipline is responsible for that discipline’s contribution to the care delivery process. The disciplines noted were medicine, nursing, physiotherapy, occupational therapy, social work, spiritual care and grief counselling. Management of this case study organisation consisted of an executive team comprising the Director and two deputies. This team is responsible for long term planning and strategy. A separate team consisting of the heads of the disciplines was responsible for maintenance of multidisciplinary operations. The composition of multidisciplinary patient care teams was mandated in part and situational in part. Each patient had two disciplines permanently allocated; medicine and nursing. Otherwise, the allocation of disciplines to a patient was described as completely dependent upon the patient’s situation at any given time.

**CH4 The great majority of work tasks would require collaborative effort.**
This configuration characteristic was described as existing and in use. Work tasks were described as necessarily collaborative because of the need to attend the whole of the range of drivers of the patient’s and patient-based carers’ situations. This was
described as accomplished through formal fortnightly multidisciplinary meetings and frequent informal communications.

**CH5 A primary coordinator of collaborative effort would be informal communication between staff members on teams.**
The existence and use of this configuration characteristic was acknowledged in the interviews conducted regarding organisational capabilities, levers and individual behaviours. These interviews contained a number of references to the frequency of informal communication and its use as a driver of collaboration in multidisciplinary patient care teams. Informal communications were often described as integral with collaborative practices and the frequency of this type of communication was also described as resulting from two imperatives: the need to communicate changes in a patient’s situation as soon as possible and the need to communicate observations made across discipline boundaries.

**CH6 Professionals would have a requirement to sustain levels of skill and knowledge using ongoing training within disciplines or other specialist or professional groups as well as to transfer knowledge and information between disciplines, teams and individuals.**
This configuration characteristic was described as existing and in use. All professionals undertook ongoing professional development training within their discipline. As well, fortnightly formal multidisciplinary team meetings were used to transfer information and knowledge between the disciplines, as were shift changes, and more frequent informal meetings occurred for the same purpose.

**CH7 Decision making autonomy would accompany professionals to the multidisciplinary teams and authority would often be sourced in professional experience.**
This configuration characteristic was described as existing and in use. It was noted that the medico-legal liability remained with the doctor of record and that this provided a level of tension for those doctors. However, it was also noted that authority within the team was often sourced in experience. With regard to the level of tension that this characteristic raised, it was said that some doctors managed this better than others. Some doctors, even doctors who had spent long periods in
palliative care, were not always comfortable with this characteristic. In the past this had lead to doctors resigning.

**CH8 Senior managers could commonly be found working in the multidisciplinary patient care teams.**

This configuration characteristic was described as existing and in qualified use. Senior managers worked in the multidisciplinary patient care teams, although the level of involvement with the teams differed from frequent to sometimes depending on other roles undertaken by particular senior managers. Most senior staff spent some period of time outside of the case study, usually instructing or planning. For example, the Director in this case study organisation spent time instructing medical students and doctors in acute hospitals in palliative care practices. At times, then, it was not common for senior managers to work in multidisciplinary patient care teams.

**CH9 Broadly based singular focus on the purpose of the organisation, expressed as the organisation’s mission. The existence of this focus would be used as tool for indoctrination of new staff and, at times, as a coordinating mechanism for work tasks.**

This characteristic was described as existing and in use. However, it was not the organisation’s Mission statement that was commonly in use, it was the ethos of palliative care. People were said to rarely refer to the Mission statement unless it was as a last resort in a defence against changes that were viewed as counter to the ethos.

**CH10 The organisation would be politicised and operating in a politicised environment.**

This characteristic was described as existing and in use. It was stated that the multidisciplinary patient care teams displayed similar interpersonal and discipline-based conflicts to any other team that the Director had experienced anywhere else in healthcare. Politics were said to sometimes create problems in the teams, often when one discipline did not respect another. At times, this type of problem could only be resolved by removing a person or people from the organisation. The operating environment of this case study organisation contained three regulators; a State owned healthcare bureaucracy, an arm of the local acute hospital and the religious
organisation that owned and operated the case study. The environment was described as quite politicised at times.

**CH11 A section of the organisation would be structured and operate differently because it would be the section that interfaced with the healthcare bureaucracies and regulators.**

This characteristic was described as existing and in use. It was noted that this case study had three regulators; a State owned healthcare bureaucracy, an arm of the local acute hospital and the religious organisation that owned and operated the case study. The management of these interfaces and relationships was conducted by a group that stood away from the multidisciplinary teams and patient care.
Case Study 3 Analysis Level 1b - Summarising and Packaging Data
Level 1a comprised the transcription of interviews and the making of notes regarding interviews, as necessary.
Level 1b follows here:

Organisational capabilities
The team interviewed about organisational capabilities was this organisation’s operational management team. Case study 3 is the smallest of the case studies in this thesis, having 10 beds. This case study is a palliative care ward in a small hospital. The management team is not comprised of heads of discipline as are the management teams in cases 1 and 2. In the hospital that houses case study 3, heads of disciplines have a hospital-wide role, except for palliative medicine. In this case study, the management team was made up of the Director of Palliative Care and the senior discipline members from the ward, commonly five people. The following disciplines comprised the team that was interviewed: medicine, nursing, social work, spiritual care (known as pastoral care at this organisation) and diversional therapy. The existence and use of the organisational capabilities suggested by the literature review was confirmed at interview in this case study organisation. No new or different capabilities were suggested.

C1: Managing Knowledge
This capability was described as existing and in use. This capability was used formally and informally. Knowledge creation and dissemination was noted by interview participants as central to care delivery in this case study. Patients were described in this context as needing to know “everything”. This was a reference to keeping patients informed at the same time as members of the care delivery team and the disciplines were kept informed. Keeping patients informed as completely as possible was said to be complicated at some times, for example with patients who did not have English as a first language or where patient-based carers did not want the patient informed completely.

Creation of knowledge and the dissemination of the results of that process was also described in terms of workplace learning for palliative care staff and other, hospital, staff who were rotated through the palliative care ward.
C2: Managing Information
This capability was described as existing and in use. This capability was described as in use formally and informally. Information was created, reported, exchanged and put to use in formal weekly multidisciplinary team meetings where the situation of each patient and their patient-based carers was discussed. Information was frequently exchanged informally between members of the multidisciplinary team. Informal communications were referred to as doing “the drop in”, where members of the team would report the results of observation in the ward, sometimes even parts of overheard conversations between patient-based carers if these were thought relevant, pass on information that had come from a discipline, or information that had been provided by a patient during a consultation but that was not relevant to the discipline in the consultation. These reports would be delivered as soon as possible following observation.

Information about the patient was described as belonging to the patient.

C3: Multidisciplinary Operations
This capability was described as existing and in use, formally and informally. Interview participants described multidisciplinary operations as a normal part of daily work. Multidisciplinary operations were said to be enhanced by the small size of the team, which allowed and encouraged staff to know the operations of the various disciplines very well and also to know each other well. Team members knowing each other well was a reference also to knowing the experience and expertise of each team member.

C4: Collaborative Operations
This capability was described as existing and in use, formally and informally. Interview participants described the application of this capability at two levels; one where it was applied in collaboration with the housing hospital and local area hospitals, the other where it was applied in the delivery of patient care. With regard to the housing hospital and the local hospitals it was noted that collaboration was a necessity in the transfer of patients. With regard to these hospitals also, it was noted
that the case study did not have a community care team attached, the only case study in the thesis in this situation. The case study utilised the community care teams attached to the housing hospital and local hospitals. This required high levels of collaboration with those teams. With regard to patient care delivery within the ward, collaboration was described as being at high levels and necessary for care delivery.

C5: Managing Technologies
This capability was described as existing and in use, formally and informally. Interview participants described the case study as a low-technology organisation, in terms of investigations and treatments. The view was put that Computers were used for record keeping and data management. A view was put that patients at the end of their lives did not require high technology equipment or high levels of interactions with technologies. Technology was noted as being able to enhance care delivery in some ways. An example given was the use of the internet to access and retrieve information on grief and spiritual counselling practices in palliative care in the United States and the United Kingdom so that local practice could be compared and, if appropriate, improved.

Data management was described as a task that could benefit from the use of more sophisticated technologies than those currently in use. This was because of the large number of patients in the case study’s catchment and the fragmentation of effort resulting from dealing with a number of hospitals and the use of community care teams that did not belong to the case study. In care delivery the choice of technologies was predicated on the patient’s situation.
C6: Managing Change and the Effects of Change
This capability was described as existing and in use, formally and informally. Staff and patient turnover were the first types of change mentioned in this interview. Staff turnover included the rotation of staff belonging to the housing hospital or other area hospitals through the case study for periods up to three months. Other types of change discussed included practice and policy changes, some of which were said to be more window dressing than anything else and appeared to be resented as such. An example of this was a current policy emphasis on customer service. This was resented because it was seen as implying that prior to the current policy emphasis customer service did not exist. Resentment was also to the terminology that referred to patients as customers. Change in patient’s situations were discussed as something that was always occurring somewhere in the ward and that required constant monitoring. Change in patients’ situations was not only seen as something to be managed but as something that drove a number of other activities such as collaboration and communication.

Management Levers
The team interviewed about organisational capabilities was this organisation’s operational management team. Case study 3 is the smallest of the case studies in this thesis, having 10 beds. This case study is a palliative care ward in a small hospital. The management team is not comprised of heads of discipline as are the management teams in cases 1 and 2. In the hospital that houses case study 3, heads of disciplines have a hospital-wide role, except for palliative medicine. In this case study, the management team was made up of the Director of Palliative Care and the senior discipline members from the ward, commonly five people. The following disciplines comprised the team that was interviewed: medicine, nursing, social work, spiritual care (known as pastoral care at this organisation) and diversional therapy. The existence and use of the management levers suggested by the literature review was confirmed at interview in this case study organisation. No new or different levers were suggested.
L1: Collaboration
This lever was described as existing and in use, formally and informally. The use of collaboration was a constant theme in this interview. Participants noted several times that collaboration was mandated by the case study organisation and the ethos of palliative care and was supported by example by the senior clinicians. Collaboration was spoken of most frequently with regard to the delivery of multidisciplinary care by multidisciplinary teams. An ability and willingness to collaborate in a multidisciplinary environment was also said to be consciously sought in job interviews. Interview participants noted that collaboration was used to generate and share information and knowledge, observe across discipline boundaries and to adjust care delivery processes for patients. Respect was said to be an enabler of collaboration.

L2: Balance
This lever was described as existing and in use. However, discussion of this lever was the briefest of that for any lever. Interview participants described the balance of a patient care team as dependant on the situation of the patient. Depth of experience, as well as the mix of skills was noted by interview participants as a component of getting the team balance correct. The best utilisation of balance depended on collaboration.

L3: Language
This lever was described as existing and in use, formally and informally. Interviews initially referred to picking up jargon as a normal part of working in palliative care. Communications between teams and patients and between team members were described as ‘very human, not very medical”. At shift change the whole of the team met and discussed each patient. According to interview participants this gave all disciplines the chance to learn and generate common languages with the aim of better understanding patients and their situations. It was noted that the high level of collaboration expected in the team meant that common languages were necessary. Patients were also said to be involved here as they were included in formal and informal communications and in the decision making process and had to understand what they were considering when making decisions.
L4: Absorptive Capacity
This lever was described as existing and in use, formally and informally. Interview participants noted the necessary role of on the job learning in palliative care. Learning was also an aspect of the recruitment process, in that the case study organisation sought staff who were undertaking ongoing formal learning, as well as seeking indications or histories of a capacity for on the job learning in applicants. Learning was also a formal result sought in the debriefing of patients’ experiences at the case study during the end of life experience. Current staff were described as a mix of people who were eager to learn formally and informally and people who were at a stage in their careers where at least formal ongoing learning was not sought. It was noted by interview participants that staff who were not engaged in formal learning were not bad or undesirable staff.

Cross-discipline communication was noted as enabled by collaboration and by a willingness on the part of the disciplines to be involved in this. The use of the disciplines as conduits for information was not mentioned in this interview.

L5: Diversity
This lever was described as existing and in use, formally and informally. Diversity was discussed in this interview in terms of the value of staff members bringing their experiences in healthcare and in life to the case study organisation. The multidisciplinary team offered a diversity of disciplines generally relevant to patients’ requirements and the range of backgrounds and experiences that accompanied individual team members was valued because of the constant potential of patients in the end of life process to surprise the teams. These surprises were not always medical and could comprise a combination of all of the elements of the patient’s makeup, this is one of the reasons why a diversity of life experiences as well as clinical experience was necessary and valued.

In terms of demographic diversity this team was predominantly female.
L6: Conflict
This lever was described as existing and in use. Conflict was mentioned specifically once in the interview as an enabler of care delivery. This occurred during a discussion on debriefing care delivery experiences that had not gone well. It was noted by participants that an ability in the team for talking through the experience without a sense of blame avoided putting people on the defensive, from where they might not participate as well as they could in an information exchange. Conflict was also mentioned, although not explicitly, in relation to patient involvement in decision making, where along with the use of common languages there was a need for openness and honesty in the exchange of information and knowledge on which decisions would be made. The centrality of the patient was a large driver of this.

L7: Trust
This lever was not described specifically in the interview. However, the number of references to the use of collaboration, the mixing of teams on a situational basis, power sharing and the management of conflict within the teams implied the existence of trust as a lever in use. In addition to this, the issue of trust arose a number of times in the interviews on Behaviours where it was used to drive successful collaboration and generation and transfer of information and knowledge.

L8: Power Sharing
This lever was described as existing and in use, formally and informally. Patients were described as owning the information that existed about them and as having a right to access it during decision making. Interview participants also described patients as being the final arbiters in decisions made about them, although not all patients wanted this role and were not forced to take it if this was the case. This was the same for information. Some patients did not wish to know all of the available information about them and, again, were not forced to take it if this was the case.
Individual Behaviours
This case study organisation provided care for patients in the palliative care ward of the housing hospital. The case study did not employ its own community (home) care team. The housing hospital and the area health authority contained community care teams and these teams looked after palliative care patients who were still located within the community. As ethics clearance was not obtained to interview these teams they were not interviewed.

Ward-Based Team
Disciplines represented in the interviewed team were medicine, nursing, social work, spiritual care and social work.

B1: Using Organisational Artefacts to Generate Trust
This behaviour was described as existing and in use, formally and informally. Interview participants described the use of artefacts such as networks, experience and knowledge as useful in establishing trust. Networks were formal and informal, for example the network of community based carers provided information and knowledge on patients at home who were being transferred to the case study and these allowed the team to be prepared for the patient and to demonstrate that the patient had a particular status and priority within the ward. This demonstration, accompanied by information sharing about the ward and the palliative service, are used to locate the patient at the centre of the care delivery process and to have the patient and patient-based carers understand this. Another point noted by participants was that during the process opportunities were sought to convince patients that they had a voice in their care, sometimes for the first time in their interactions with the healthcare environment. Patients were given the opportunity to state their priorities. These were all efforts to create trust.

Descriptions of other trust building and maintenance efforts involving the use of organisational artefacts such as information and knowledge included examples of team members following up patients’ queries about treatment or care with other disciplines and then taking information back to the patient or having the relevant discipline visit the patient as soon as possible.
The concept of respect, for the patient and patient-based carers, was also noted as an enabler in the application of this behaviour.

**B2: Rapid Inclusion in a Socially Stable Structure**

This behaviour was described as existing and in use, formally and informally. This behaviour was more often spoken of in passing than spoken of directly. Interview participants noted the need to remove or allay fear in patients and patient-based carers on their arrival at the case study so that they could be more easily incorporated into the care delivery process. This was described as easing the patient. Easing the patient into a stable social structure was described as one of the results of trust building. One way of accomplishing this was to let the patient interact with whomever of the staff that the patient most trusted or most preferred to deal with, whether that person was the Director of Palliative Care or the tea lady. It was noted by interview participants that this approach enabled relationship building between the patient and the case study organisation and built rapport between the organisation and the patient and the patient-based carers. Without a solid social connection between the patient and the organisation, it was said that holistic care delivery was made more difficult because the patient and patient-based carers would not proffer the depth and range of information required for the design and application of care delivery.

**B3: Addressing Values Based Issues**

This behaviour was described as existing and in use, formally and informally. Again, this behaviour was more often spoken of in passing than spoken of directly. Nevertheless, it was spoken of, although not as frequently as the previous behaviour. This behaviour was referred to as addressing spiritual and emotional issues or issues other than medical or nursing issues, for example family relationships. Examples included; dealing with anger within families at the patient’s situation as being at the end of life; dealing with anger in patients and families about unresolved issues; dealing with patient’s fears at the end of life and their concerns about the welfare of people and sometimes pets, left after the patient’s death.
B4: Understanding the Patient’s Situation as the Basis For Care
This behaviour was described as existing and in use, formally and informally. Application of this behaviour was mentioned frequently during this interview. Understanding the patient’s situation was described as central to the delivery of good care and to the ethos of palliative care. Examples of the application of this behaviour included: asking new patients to nominate their priorities as part of the admission process, allowing patients to deal with any member of staff with whom they feel comfortable so that more information and more levels of information can be retrieved as early as possible in the care delivery process, and investigating the social characteristics and relationships of patients and patient-based carers in an effort to understand how they might react to various phases of the end of life process. Understanding the patient’s situation involved building a picture of a whole person, and ranged from understanding a patient’s relationship with pets and the concerns the patient has about them being looked after, to realising that a level of conflict existed between a patient and family that was keeping both from responding to care. All patients’ situations were discussed by the whole team at the weekly multidisciplinary team meeting. Much of the informal communication that occurred within the team and the case study was concerned with the generation and expansion of an understanding of individual patients. This was also the case with the preceding behaviours, used to establish an environment within which understanding could be generated and maintained.

B5: Working in Teams
This behaviour was described as existing and in use. This behaviour was mentioned a number of times by interview participants. Working in teams was described as a normal part of working in palliative care. Multidisciplinary teams were noted as the most appropriate way to deliver holistic care. The team interviewed was described as a team within a team. In this case study this meant that the palliative care team was a team within a wider team within the housing hospital, although relatively self-contained as the broader team rarely provides members to the palliative care team. It was noted that a single-discipline team or a team containing predominantly one discipline could not deliver the range of care required. Interview participants had all belonged to teams in acute hospitals at various times in their careers and comparisons were made between teams in those locations and teams in palliative care. It was said
that teams in palliative care had more time to work with, not having the pressure for
bed turnover. This meant comparatively more time for patients and also more time
for team membership. The other difference noted was that in palliative care teams
observation across discipline boundaries and the reporting of observations was
encouraged, whereas in acute care it was more often resented.

B6: Collaborating Within the Patient Management Process
This behaviour was described as existing and in use, formally and informally.
Interview participants commented a number of times on the value and necessity of
collaboration in the delivery of patient care. Examples of collaboration included the
high frequency of informal communications that occurred as information about
patients and patient-based carers was exchanged within the team and the willingness
of disciplines to delay programmed interaction with a patient, unless absolutely
necessary, if the patient was engaged with another discipline or a volunteer at the
time. It was noted that patients and team members collaborated at times. An
example was given of a patient not being able to engage patient-based carers, the
family, in a required discussion and the social worker and nurses helping to position
the family for the patient. Collaboration was also described as being used to keep the
patient at the centre of care delivery. Finally, interview participants described
collaborative effort to cover absences of team members or shortages sue to staff
turnover.

B7: Managing Ambivalence in the Team
This behaviour was described as existing and in use, formally and informally.
Working in teams and working collaboratively were said to provide problems for the
teams due to the emotionally charged work environment and the fact that patients
were a part of the collaborative effort. Problems occurred with communications and
personal interactions. These were managed formally by the organisation providing a
system of alerts where staff could register distress or problems and these could be
mediated. Patient deaths and care delivery were debriefed and problems arising in
the teams during or arising from these things were talked through in the team
meetings or, again, in a mediated session. Informally, issues within the teams were
said to be addressed by direct communication between the parties concerned.
Contingencies
For the purposes of this thesis contingencies were defined as variables that influenced the choice of levers to stimulate behaviours and could also affect the relationship between levers, behaviours and capabilities. These variables could be sourced inside or outside the organisation (Gieskes, 2001). Contingencies were sought unannounced from all interviews, making them, in effect, the result of unstructured elements of the interviews.

CO1 Uncertainty
This contingency was noted in all interviews conducted in the case study organisation. During the interview of the management team on Capabilities, uncertainty was mentioned a number of times. First direct mention of uncertainty occurred during a discussion on the practice of rotating interns from the housing hospital through the case study. It was noted that interns brought with them the culture of an acute hospital and the concept of the relative status of doctors and others. This often caused resentment in the teams and, to some extent, a breakdown of the informal communication of information and knowledge between team members. This increased the uncertainties being dealt with by the team as well as making relationships within the team more uncertain. Multidisciplinary operations were a response to the range and depth of uncertainties that accompanied patients and were noted, along with collaborative operations, as the best way to deliver holistic care.

In the interview with the management team on Levers the management of uncertainty was one of the reasons for sharing power with patients, using information sharing to keep patients and patient-based carers informed as well as equipping them to take part in decision making processes if they wanted to. The use of Collaboration as a lever was also noted as a way of addressing uncertainty. For example, the team spoke of experiencing lower discipline boundaries in palliative care, where for example patients were able to select and deal with a member of a discipline who was trusted for whatever reason, on any topic that the patient wanted to refer to. This
team member became the conduit between the other disciplines and the patient, and sometimes patient-based carers as well.

The interview with the ward-based multidisciplinary team on Behaviours also revealed uncertainty as contingent. Dealing with the uncertainty accompanying patients and patient-based carers at admission was a driver for trust building and including the patient in a stable social situation as quickly as possible. Trust building and socialisation enabled information and knowledge exchange early in the relationship, which meant a better chance for the organisation to tailor care delivery. Working in teams and collaborating in the care delivery process were also ways of addressing the range of uncertainties accompanying patients and patient-based carers in the end of life process.

**CO2 Workforce**

This contingency was noted in all interviews conducted in the case study. The management team interview on Capabilities produced references to the workforce as contingent in capabilities such as collaborative operations, where prospective employees at interview were tested specifically for an ability to work collaboratively and in multidisciplinary teams. Staff had to be capable change managers within the care delivery process, which was a process that dealt with and, at times, enabled change in patients and patient-based carers. Staff had to be capable of dealing with change within the case study, in terms of changing practice and changing policies. Working collaboratively meant that staff had to be, of necessity, good communicators, given the high frequencies of informal communication noted. Staff also had to be comfortable with low barriers between the disciplines that enabled and expected observation and reporting across the disciplines. This might be found in staff with palliative care experience but staff who came from other areas of healthcare took some time to adapt to this.

The interview with the management team on Management Levers produced references to the workforce as contingent. Collaboration, multidisciplinary teams and observation and reporting across discipline boundaries also meant that staff were capable of generating and utilising common languages within the teams between the disciplines and between staff and patients and patient-based carers. In this interview
workforce was referred to in a number of different ways as all levers were based in the workforce. Examples include the following. The workforce was the source of both diversity and balance in the teams, based on the variety of experiences and skills brought to the team, the length of experience in palliative care and the demographic variety. Absorptive capacity is a product of the workforce, in terms of an ability and willingness to learn on the job, the social and professional networks necessary and the knowledge of how to use networks to source and provide information inside and outside of the team and the organisation.

Similarly, the interview with the multidisciplinary ward team on Behaviours produced a number of references to workforce as a contingency.

**CO3 Patients**

This contingency was noted in all interviews conducted in the case study organisation. In the management team interview on Capabilities patients were noted as a continual source of change that needed to be dealt with. Participants described patient turnover causing changes as well the progression or evolution of patient situations during the end of life process. Participants also noted that patient turnover at times brought grieving to some members of the teams. Patients were able to choose their points of contact with the organisation; sometimes preferring to deal with a single individual regardless of whether or not that individual belonged to a discipline relevant to what the patient wished to communicate. This had a real impact on the management of information and the generation of knowledge; helping to drive the frequency of informal communication and collaboration, as well as sometimes meaning that the chosen individual could be kept from some duties while acting as the sole contact with the patient. These chosen “sole contacts” were not necessarily permanently in the role as they made efforts to have the patient deal directly with relevant disciplines. Interview participants also stated that patients were always observed, formally or informally, by all members of all disciplines, on behalf of all other disciplines, whenever they were on the ward.

During the interview with the management team on Levers patients were noted as a contingency. Patients were described as the focus of the ethos of palliative care. Interview participants described patients as the key link in a continuum of care that
began with the patient’s first contact with the palliative care network and ended with the completion of assistance to patient-based carers in grief following the patient’s death. Patient requirements were said to drive collaboration and information sharing. Also, a patient’s situation was the determinant of the balance and diversity found in the patient care team at any particular time. Interview participants noted that patients’ situations and changes in situations were both drivers of the use of learning and absorptive capacity.

In the interview with the multidisciplinary ward team patients were again noted as contingent. Patients were a central theme in this interview, largely because of the range of influences they have on the multidisciplinary teams. For example, new patients’ requirements and situations established priorities for care delivery and mediated a pattern of behaviours on the part of the multidisciplinary team to establish trust and enable the inclusion of the patient in a socially stable environment. Interview participants described patients as central to their work, which was driven by the patient’s situation and what the patient stated as priorities. Understanding the patient’s situation was said to be an ongoing process that involved formal and informal observation and a willingness to utilise all available sources of information and knowledge. Participants also noted that patients sometimes select carers regardless of the carers allocated to the patient. These selections were often, it was said, for the purpose of trusted communications, where the patient chose a particular individual carer to trust. This behaviour on the part of patients required a flexibility of role in the palliative care clinical and non-clinical staff as any individual could be chosen. Patients also were said to give information to any member of the team that was available and the team member was then responsible for passing the information to relevant parties if necessary. This, again, was said to require a level of flexibility as well as a willingness to communicate informally.

**CO4 Healthcare Environment**

This contingency was noted in all interviews conducted in the case study organisation. During the interview on Capabilities with the management team there were a number of mentions of the impact of other parts of the healthcare environment on this case study. At the time of interview the Department of Health was pursuing a policy of “consumer participation” and all organisations regulated by
the Department had to prove that they were implementing consumer participation by reporting against a supplied set of measures. Apart from the level of resentment produced among the management team at being told to offer consumer participation the measurements were said to be inadequate in palliative care and so were seen as providing extra work for no extra return. Other areas of the healthcare environment described as impacting the case study organisation were, through its policies, the housing hospital, as well as the owning organisation, which provided a set of ethical and moral expectations and guidelines. There was also a certifying authority which conducted annual reviews and without the approval of which the case study could not operate. The housing hospital rotated staff through the case study, particularly junior doctors, for three months at a time. This meant that the multidisciplinary team had to spend three months bringing new people up to speed and then lose them for another rotation.

During the management team interview on Levers it was noted that the healthcare environment was the source of palliative care staff. As such, and distinct from other palliative care organisations, it was seen as the source of raw staff who had then to be trained not just in palliative care but in multidisciplinary, collaborative, holistic, largely informally communicative care delivery.

The interview on Behaviours with the ward-based team produced references to patients being transferred without being fully informed, or sometimes misinformed, and the extra stresses that were placed on the multidisciplinary teams as a result. However, because this case study was embedded in a housing hospital the problem of badly informed transfers did not occur as frequently as reported in the other case studies. This case study did not operate a community (home) care team and depended on the community care teams belonging to the housing hospital or the local area health service. Interview participants noted that this meant that they needed to operate good networks that included all of these teams and would sometimes accompany members of these teams on home visits.

**CO5 Change**

This contingency was noted in all interviews conducted in the case study organisation. The interview with the management team on Capabilities produced a
number of descriptions of change as contingent in palliative care. Staff turnover and patient turnover were the first changes mentioned in this interview. Staff turnover was said to impact the use of capabilities such as information management, knowledge management and collaborative operations. Patient turnover was said to impact collaborative operations and change management. Patient turnover interrupted the care delivery process. Interview participants also described change as occurring in care delivery practice, in regulatory requirements and in the policies of the housing hospital and the owning organisation.

In the interview on Levers, again with the management team, change was described as contingent on a number of occasions. Interview participants described the need for collaboration as being driven by change, or the potential for change, in any aspect of the patient’s situation. This change also impacted the diversity and balance of the care delivery team and any wider group that was involved in accessing, processing or supplying information or knowledge.

Change was a theme through the interview on Behaviours with the ward team. Changes in patient’s situations were the predominant changes discussed. Interview participants noted that these changes drove many of the behaviours used by the teams and their members.
Characteristics of Configuration
This interview was conducted with the Director of the case study organisation.

CH1 Specialists and professionals with high levels of skill and knowledge, who had undertaken long periods of training prior to working in palliative care, would be employed.
This configuration characteristic was described as existing and in use. Members of disciplines involved in multidisciplinary patient care teams commonly train for a number of years before entering palliative care. The following periods were reported: Doctors train for at least seven years following their medical degree. Since the nineteen eighties nurses have had a three year university degree and usually arrive in palliative care after following some years in their discipline. Social workers, physiotherapists and occupational therapists undertake a three or four year university degree and spend time in other parts of the healthcare environment before arriving in palliative care. It was noted that sometimes an individual nurse or allied health worker, for example occupational therapy or physiotherapy, would come to palliative care work earlier in their careers than the majority would.

CH2 Work would often be complex.
This configuration characteristic was described as existing. Palliative care was noted as complicated by the number of potential drivers of distress in each patient, and patient-based carers, and by the fact that the manifestation of the symptoms of distress may not have an immediately obvious relationship to the cause or causes. Complexity was noted in the need to sometimes address multiple causes of distress simultaneously. It was also noted that complexity is sometimes added by the management of the teams and the reactions that some palliative care professionals have to particular patients or events in their working life.

CH3 Staff would be grouped functionally for administrative purposes but allocated to multidisciplinary teams, sometimes at short notice, for particular situations or projects.
This configuration characteristic was described as existing and in use. Palliative care delivery staff are grouped functionally (by discipline). The composition of multidisciplinary patient care teams was mandated in part and situational in part.
Each patient had two disciplines permanently allocated; medicine and nursing. Otherwise, the allocation of disciplines to a patient was described as completely dependent upon the patient’s situation at any given time.

CH4 The great majority of work tasks would require collaborative effort.
This configuration characteristic was described as existing and in use. Work tasks were described as necessarily collaborative because of the need to attend the whole of the range of drivers of the patient’s and patient-based carers’ situations. This was described as accomplished through formal weekly multidisciplinary meetings and frequent informal communications.

CH5 A primary coordinator of collaborative effort would be informal communication between staff members on teams.
The existence and use of this configuration characteristic was acknowledged in the interviews conducted regarding organisational capabilities, levers and individual behaviours. These interviews contained a number of references to the frequency of informal communication and its use as a driver of collaboration in multidisciplinary patient care teams. Informal communications were often described as integral with collaborative practices and the frequency of this type of communication was also described as resulting from two imperatives: the need to communicate changes in a patient’s situation as soon as possible and the need to communicate observations made across discipline boundaries.

CH6 Professionals would have a requirement to sustain levels of skill and knowledge using ongoing training within disciplines or other specialist or professional groups as well as to transfer knowledge and information between disciplines, teams and individuals.
This configuration characteristic was described as existing and in use. All professionals undertook ongoing professional development training within their discipline. As well, weekly formal multidisciplinary team meetings were used to transfer information and knowledge between the disciplines, as were shift changes, and more frequent informal meetings occurred for the same purpose.
**CH7 Decision making autonomy would accompany professionals to the multidisciplinary teams and authority would often be sourced in professional experience.**

This configuration characteristic was described as existing and in use. It was noted that the medico-legal liability remained with the doctor of record and that this provided a level of tension for those doctors. However, it was also noted that authority within the team was often sourced in experience. With regard to the level of tension that this characteristic raised, it was said that some doctors managed this better than others.

**CH8 Senior managers could commonly be found working in the multidisciplinary patient care teams.**

This configuration characteristic was described as existing and in qualified use. This case study organisation was embedded in a hospital as a palliative care ward. Heads of some disciplines worked more frequently in the hospital than the case study. However, the Nurse Unit Manager, the Director of Palliative care (medical) belonged specifically to the case study organisation and spent much time as patient care team members.

**CH9 Broadly based singular focus on the purpose of the organisation, expressed as the organisation’s mission. The existence of this focus would be used as tool for indoctrination of new staff and, at times, as a coordinating mechanism for work tasks.**

This characteristic was described as existing and in use. However, it was not the organisation’s Mission statement that was commonly in use, it was the ethos of palliative care. The mission statement was said to have a role in accreditation. People were said to rarely refer to the Mission statement unless it was as a last resort in a defence against changes that were viewed as counter to the ethos.

**CH10 The organisation would be politicised and operating in a politicised environment.**

This characteristic was described as existing and in use. It was stated that the multidisciplinary patient care teams displayed similar interpersonal and discipline-based conflicts to any other team that the Director had experienced anywhere else in healthcare. Politics were said to sometimes create problems in the teams, often when one discipline did not respect another. The operating environment of this case study
organisation contained three regulators; a State owned healthcare bureaucracy, the housing hospital and the religious organisation that owned and operated the case study and the housing hospital. The environment was described as politicised at times.

CH11 A section of the organisation would be structured and operate differently because it would be the section that interfaced with the healthcare bureaucracies and regulators.

This characteristic was described as existing and in use. It was noted that this case study had three regulators; a State owned healthcare bureaucracy, an arm of the local acute hospital and the religious organisation that owned and operated the case study. The management of these interfaces and relationships was conducted by a group that stood away from the multidisciplinary teams and patient care.
A Cross-Case Contingency Based View in Matrix

The cross-case Contingency Driven View compares the components active in Major Themes in response to, or influenced by, Contingencies. These matrices are displayed by Contingency, grouped in Major Themes, for each Case Study. The matrices also contain two counts of occurrences; one of the total occurrences of components across the Case Studies and the other a total of the occurrences of components within Case Studies. These counts are useful in assessing the level of replication of the data. Two examples are displayed here, taken from Contingency CO1: Uncertainty.

From the first example it is possible to describe total replication of the data in terms of the number of Case Studies utilising these components and in the number of components utilised within each Case Study.

From the second example it is possible to see a lower, but still substantial, level of replication of the data across the Case Studies and a substantial replication of the data within Case Studies 2 and 3 but lower in Case 1.

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Table 56  An Example of Total Data Replication Across Cases

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Table 57  An Example of a Substantial Level of Data Replication Across Cases
5.5.1.3 Combining the Views
In addition to the display of the contingency driven relationships in the data the
tables following will also display all components relevant to each theme, as was done
in the individual Case Study analyses. This combined display enables a comparison
of what components are used in response to, or influenced by, contingencies via the
Major Themes and what components are related to the Major Themes. The coded
components appear in two different shadings; bold black indicates a component used
in response to, or influenced by, a contingency via a Major Theme, grey indicates
components defined in the Thematic Analysis but not used, or influenced, in that
particular Major Theme when related to different contingencies.
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Table 58 Components Applied in T1: Collaboration in Response to CO1: Uncertainty. Sources: Case 1, 2 and 3 Data Analyses

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Table 59 Components Applied in T2: Learning in Response to CO1: Uncertainty. Sources: Case 1, 2 and 3 Data Analyses
### Table 60 Components Applied in T3: Keeping the Patient at the Centre in Response to CO1: Uncertainty. Sources: Case 1, 2 and 3 Data Analyses

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### Table 61 Components Applied in T4: Ad Hoc Communication in Response to CO1: Uncertainty. Sources: Case 1, 2 and 3 Data Analyses

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**Table 62** Components Influenced in Application in T1: Collaboration by CO2: Workforce. Sources: Case 1, 2 and 3 Data Analyses

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**Table 63** Components Influenced in Application in T2: Learning by CO2: Workforce. Sources: Case 1, 2 and 3 Data Analyses
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Table 64 Components Influenced in Application in T3: Keeping the Patient at the Centre by CO2: Workforce. Sources: Case 1, 2 and 3 Data Analyses

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Table 65 Components Influenced in Application in T4: Ad Hoc Communication by CO2: Workforce. Sources: Case 1, 2 and 3 Data Analyses

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### Table 66  Components Applied in T1: Collaboration in Response to CO3: Patients. Sources: Case1, 2 and 3 Data Analyses

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### Table 67  Components Applied in T2: Learning in Response to CO3: Patients. Sources: Case 1, 2 and 3 Data Analyses

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### Table 68 Components Applied in T3: Keeping the Patient at the Centre in Response to CO3: Patients. Sources: Case 1, 2 and 3 Data Analyses

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### Table 69 Components Applied in T4: Ad Hoc Communication in Response to CO3: Patients. Sources: Case 1, 2 and 3 Data Analyses

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### Table 70  Components Influenced in Application in T1: Collaboration by CO4: Healthcare Environment. Sources: Case 1, 2 and 3 Data Analyses

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### Table 71  Components Influenced in Application in T2: Learning by CO4: Healthcare Environment. Sources: Case 1, 2 and 3 Data Analyses

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**Table 72** Components Influenced in Application in T3: Keeping the Patient at the Centre by CO4: Healthcare Environment. Sources: Case 1, 2 and 3 Data Analyses

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**Table 73** Components Influenced in Application in T4: Ad Hoc Communication by CO4: Healthcare Environment. Sources: Case 1, 2 and 3 Data Analyses
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Table 74 Components Applied in T1: Collaboration in Response to CO5: Change. Sources: Case 1, 2 and 3 Data Analyses

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Table 75 Components Applied in T2: Learning in Response to CO5: Change. Sources: Case 1, 2 and 3 Data Analyses
### Table 76  Components Applied in T3: Keeping the Patient at the Centre in Response to CO5: Change. Sources: Case 1, 2 and 3 Data Analyses

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### Table 77  Components Applied in T4: Ad Hoc Communication in Response to CO5: Change. Sources: Case 1, 2 and 3 Data Analyses

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