A process evaluation of a shared leadership model in an intensive care unit

by

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Abstract

Shared leadership has been touted in the United States and United Kingdom as a model of staff management that fosters active involvement of staff, in this case nurses as experienced professionals, in patient management. This study uses process evaluation for the examination of a shared leadership model in an intensive care environment following a period of significant change and restructuring.

The model was based on the shared leadership literature (Porter-O'Grady, 1992) which focuses on clinical practice as a key accountability and on decentralised clinical leadership at the point of service. The model aligned with the skill acquisition framework used by the employer organisation called the Professional Development Programme (PDP). This programme aims at enhancing the development of expertise in clinical practice and supports the principles of shared leadership.

This research study was undertaken to evaluate the process of implementation of the model and to discover whether there is evidence nurse involvement in the management of patient care. The results are based on the responses of 104 registered nurse respondents (56%) working in the intensive care unit of a specialised hospital. Documentation was also examined for evidence of nursing input into indirect patient management process development. The results indicate that nurses are becoming more settled in their working environment and feel more confident in their ability to provide an active role in the management of their patients within a multidisciplinary team.

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Finally, I would like to dedicate this work to the nursing leaders of the past who pioneered the professionalism of nursing and fostered autonomy of practice, and to the future nursing leaders who will continue working at the frontiers of change.

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Chapter One

Introduction

Nurses are an essential component of safe health service delivery. They contribute significantly to the assessment, decision making, planning of care and provision of complex treatment practices that facilitate health recovery. Despite considerable literature (Bucknall & Thomas, 1997; Dixon, 1999; Doherty & Hope, 2000; Porter-O'Grady, 1992), that suggests that registered nurses prefer to work in a clinical setting that facilitates their input and enhances their ability to actively contribute to the management of patients, few employers consider this approach. The use of a shared leadership approach requires considerable courage and ability to facilitate a change in professional perspectives, to harness motivation and take risks.

This research study presents a process evaluation of the introduction of a shared leadership model in the context of an intensive care unit of a specialist hospital in a large city in New Zealand, and seeks to evaluate the impact and benefit of this change in a professional practice paradigm. Shared leadership was introduced as a model for clinical and professional change management after a major restructuring of an intensive care environment. This chapter introduces the rationale for the decision to use this model and sets the scene for the process evaluation that follows.

The context of the thesis

The period of change that is described in this study was from 1997 to 2000. A management review had been undertaken in 1997 in the intensive care unit because of concern relating to high staff turnover and poor skill mix that had an impact on morale, clinical standards, relationships within the unit and with other departments. Review of leadership, management structure and practice processes reflected a unit 'at the cross roads'. Contemporary approaches were sought. Staff feedback indicated an urgent need for change, as did external factors such as current changes to New Zealand health policy and the introduction of clinical governance to health care delivery. Involvement of registered nurses in the management of patients and clinical decision-making in the unit was identified as critical to the success of the restructuring.

After some deliberation the theoretical framework of shared leadership was utilised to guide the management of change in clinical nursing practice with particular emphasis on clinical decision-making inherent in clinical governance (Porter-O'Grady, 1992). Shared leadership requires change in role boundaries within a medically dominated environment and changes in expectation of professional clinical decision-making. This approach appeared to encompass all of the issues identified by the nurses and a decision was made to progress using this model. This study evaluates the process of implementation of the shared leadership model focussing on the nurses' ability to become actively involved in patient management.

The intensive care unit

The ICU in which this study was undertaken is situated in a metropolitan hospital. It accepts paediatric and adult patients. It has 16 beds with an average patient turnover for the period 1997 to 1999 of 1535 patients per annum. The registered nursing staff compliment is 85 full time equivalent registered nurses with a head count that averages 100 registered nurses.

For the years 1999 and 2000, 65% of the work comprised acute referrals. The average patient length of stay was 2.2 days, with between 10 and 15% of the patients remaining in the unit for longer than 4 days. Those patients remaining in the unit for longer than 4 days scored above 45 on the Therapeutic Intervention Scoring System for Critical Care (TISS) (Keene & Cullen, 1983). This score indicates specialised requirements for nursing patients in this category *(Appendix 1)*. TISS is a clinically based set of measurement criteria that enables retrospective analysis of staffing requirements based on an assessment of patient illness severity. TISS has been used in the study ICU since the commencement of the new structure in 1998.

In 1997, events occurring in the unit caused the hospital management to realise that the level of patient care in the unit was being affected by a large turnover of registered nurses exceeding an annual rate of 54%. The average length of stay for a nurse in the unit was less than one year. The skill mix was less than 33% senior nurses, which was unacceptable by international standards of care recommended for a unit of this nature. The survey undertaken as part of the review indicated that nurses perceived working relationships between members

of the interdisciplinary team as poor, resulting in poor communication and inconsistent teamwork. It was concluded that the unit had grown too large for the current management structure to remain as it was.

A review of the unit was carried out and the findings were presented and accepted by the General Manager in November 1997. The review indicated that the registered nurses perceived themselves as being undervalued by their medical colleagues and that they were frequently excluded from patient management discussions. The lack of active involvement by registered nurses into patient management and marginalisation of registered nurses in clinical decision-making within the unit were a major feature. Recommendations suggested that the unit be restructured, focusing on nursing leadership.

The management structure was disestablished in February 1998 with the new unit structure being implemented in the following month *(Appendix 2).* The Unit Leader was appointed in February 1998 so that the incumbent could begin to develop the vision and the leadership model prior to the commencement of the new structure.

Valuing staff was identified as the pivotal driver. In order to create an environment of opportunity for all staff to develop to their potential, the 1997 Review recommended the development of new nursing positions. These included a Nurse Leader, two Care Co-ordination Nurses and eight designated Clinical Nurse Specialist roles. This structure was developed to integrate with appropriate medical, technical and administrative functions that aimed at

providing direction and clear functions for the unit. In order for the Unit Leader to focus on the responsibilities of the position, a Unit Administrator and ICU Technician were employed to undertake some of the tasks that had been carried out by the previous charge nurse manager.

In addition to the ICU Review, a hospital accreditation process carried out earlier in the year indicated that the nursing staff required better professional development opportunities. The accreditation report also noted that the physical environment of the unit was inadequate for the level of care being delivered. A new unit was therefore planned and the move to a new location was to coincide with the implementation of the new leadership structure.

The restructuring focused on facilitating nurses to have more authority in order to develop their clinical skills and to enhance leadership skills in their professional practice. It was anticipated that this development would allow nurses to actively contribute to patient management, become involved in unit decision making activities, and afford nurses with a sense of well-being and of being valued as members of a multidisciplinary team.

The ICU review panel of 1997 indicated that a shared leadership approach might be the most appropriate way to govern a unit of this size and nature. The new structure was developed for this purpose. The Unit Leader carried out an analysis of the nursing strengths and weakness in the unit in February 1998. Apart from the issues identified in the ICU Review (1997), other specific nursing concerns were identified. These included the standard of care, which

was perceived as acceptable for the short-stay patients, but not so for patients remaining in the unit for longer than 72 hours who lacked continuity and multidisciplinary input. The paediatric patients were increasing in acuity and required an increase in the specialist nature of care. Ward rounds were medically inclusive and nursing and allied health disciplines were not readily consulted in a collaborative way. It was also identified that nursing documentation and care plans required further development in order to meet accreditation standards.

The nurse leader reviewed various leadership models and chose to base the unit model on the Porter-O'Grady (1992) unit based shared leadership model. This model was chosen because it seemed the most appropriate model in conjunction with the organisation's Professional Development Programme (PDP) which is based on Benner's (1984) "Novice to Expert" skill acquisition approach. The Unit Leader believed that a model based on shared principles would allow nurses the opportunity to develop within a creative and secure environment, using the PDP as the foundation from which to build. It was anticipated that nurses would gain confidence and have the ability to work actively within an interdisciplinary team.

The leadership model initially focused on the clinical practice within the unit. A committee-based structure was used as the framework from which to develop a selected multidisciplinary Senior Team (Porter-O'Grady, 1992). These committees become the guiding group from which other committees worked *(Appendix 3)*. The Senior Team consisted of the 8 Clinical Nurse Specialists, an

ICU Technician, the ICU Administrator, the Clinical Director (medical), the Unit Leader and 2 Clinical Care Co-ordinators. Initially the Senior Team objectives were to establish what would be required to care for patients in a cost effective way, and the quality of that care whilst maintaining a happy and settled work force.

In order to classify patients into identified groups based on the level of care required, the Therapeutic Intervention Scoring System (TISS) (Keene & Cullen, 1983) was introduced as a general guideline to patient acuity. At the same time, the Clinical Care Co-ordinators became involved in a service-wide multidisciplinary team project set up to create a surgical pathway for the care of patients within the identified diagnostic-related group. This pathway was implemented towards the end of 1998 and remains in use across the service for these patients from admission into the wards through to discharge home. The ICU admission integrates to form an episode of care within the pathway. The team also used this new pathway as a guide to refine and set guidelines for the division of patients in the unit.

The patient population was divided into three groups as identified by TISS and the pathway. These were paediatrics, adult long stay (patients who remain in the unit for longer than 72 hours or who deviate from the pathway), and adult short stay (patients remaining on the pathway and who leave the unit in under 72 hours). The goal was to enable the process and quality of care delivery for each identified patient group to be managed by a core group of nursing staff, utilising

multidisciplinary input as required for the planning and developing of caremaps, protocols and guidelines.

From this clarification of the population groups in the unit and the identification of clinical need, the Senior Team created objectives for the development of the unit leadership process that would address continuity and improvement of patient management. These objectives were to:

- Set up committees in the unit, which would address specific aspects of unit management and care delivery for example the Unit Review Committee, the Audit Committee and the Infection Control Committee. Membership was to include any member of the ICU team who had an interest in the identified area or needed to be included due to their discipline or the nature of their work in the unit.
- Review all documents in the unit with a view to changing and adapting these to facilitate streamlined delivery of care where appropriate.
- Review all current Recommended Best Practices, guidelines and protocols and develop a new care plan for patients remaining in the unit longer than 72 hours.
- Establish a "long-term care group" and a "paediatric group", which would address the unique needs of these two patient population groups in the unit.
- Re-establish and restructure the weekly Multidisciplinary Team Meetings (MDT), which would be led and co-ordinated by the Clinical Care Co-ordinators.
- Set up a nursing education framework, based on the unit needs and the PDP, which would address the maintenance of the standards of nursing practice

and patient care delivery within acceptable accreditation standards for the size and nature of the unit.

- Divide the nurses into six teams, each team being led by a Clinical Nurse Specialist. The objective of this move was to improve communication and provide individual clinical and professional development and co-ordination. The nurses in the teams did not necessarily work together on a shift, unless required to do so for reasons of orientation, support and follow-up on assessments and clinical practice, but each team was to meet on a structured and regular basis.

It was anticipated that these changes would provide support and encouragement for nurses to gain professional status in the unit in which active involvement by nurses in the management of their patients would become the norm.

The shared leadership model that was implemented in ICU had very defined roles. The parameters required being set so that staff could find security and would feel supported and safe during the change process. Porter-O'Grady (1992) advises that nurses require definite boundaries within which to work and explore at the beginning of a new model, to provide them with security and space to develop.

The defined nursing roles in the shared leadership model

A brief overview of each nursing role and its function is given here as it will provide the reader with a greater understanding and insight into the role that each position has played in the shared leadership process.

Unit Leader

The Unit Leader provides the leadership and vision for the unit. Human resource services and general management form part of this role. The focus of the role is on leadership, which emphasises coaching, support, facilitation and guidance rather than control and management. Overall direction, performance management and quality standards for the unit form part of the accountabilities for this role. Final authority and accountability of activities in the unit rest with this position and that of the Clinical Director.

Clinical Nurse Specialists, Operational Management (CNS)

The CNSs provide the clinical leadership over a duty or shift. They co-ordinate the team and manage the distribution of nursing staff and the clinical resources required to adequately care for patients on a shift. Each CNS also manages a team of nurses ensuring that professional development is maintained. They are involved in the performance management of their team members and provide the link and the communication between the nurses in their nursing team and the Senior Team. Part of the CNS education function is to assist with teaching and inservice in the unit. Each CNS is also required to manage a portfolio of clinical practice in which quality, teaching, support and evidence based practice is maintained for the unit.

Clinical Nurse Educators (CNE)

The 2 educators provide the framework and co-ordination of education and professional development in the unit. They research and develop educational courses and study opportunities taking into account specific needs of the unit. The educators work with staff to develop skills, knowledge and practice and provide advice to the clinical team regarding management of complex nursing requirements.

Clinical Care Co-ordinators (CCC)

These 2 nurses provide care co-ordination and management for those patients who deviate from the Pathway. They also assist in establishing criteria and systems for case management, providing liaison and advice to staff on the care of long term patients. They assist nursing staff in managing the patients on the pathway where required and work across the service, linking the care of the patients between the ICU and wards, thus supporting continuity of care delivery.

Teams

As there are over 100 nursing staff, it was decided to divide the nurses into teams. There are 6 teams, each lead by a CNS. The aim of the teams is to provide individual support in all aspects of their work, including the professional development needs and performance management and maintenance of clinical practice standards. The team process has been left up to each individual team to develop. The teams each have developed their own practice

focus and team format. The CNSs are given allocated non-clinical time to manage the teams in a structured and co-ordinated manner.

Committees

The committees were set up according to the initial needs analysis of the unit at the new structure's inception and they encompass the relevant aspects as identified. Other committees have been developed since the inception of the model when deficits in practice or areas of need have been identified. The aim of the committees is to allow nurses and identified multidisciplinary team members to participate fully in the clinical decision making processes of the unit. All staff in the unit were encouraged to participate in the committees. Committees are not necessarily led by a senior staff member and those nurses showing particular interest in leading the team members are encouraged to do so. Each committee has terms of reference and objectives specific to the overall needs of the unit. They all link into the Senior Team and each committee is required to report back at the meetings on a regular basis.

From this foundation, the model for the unit was developed and created in a dynamic and responsive approach according to the needs of the unit's core work and as staff became more confident and accepting of the change *(Appendix 4).*

Nursing Professional Development and Recognition Programme (PDP)

The PDP uses a nursing professional development and recognition and skill-acquisition framework based on the *"Novice to Expert"* concept (Benner, 1984). This author describes nurses' evolving competence as stages of skill acquisition

within a framework of critical thinking and reflective practice. This model complements shared leadership as it requires the nurses to become progressively more involved in quality issues and unit administration as they become more advanced and expert in their field of practice.

According to Benner (1984), nurses move from novice to expert taking on a more comprehensive and holistic approach to patient management as they become clinical experts in their field of practice. The PDP uses the Benner (1984) framework of skill acquisition for progression through the levels of practice in the PDP (Auckland Healthcare Department of Nursing & Midwifery, 1998; Peach, 1999). Nurses are given more responsibility as they progress through the levels and this is also rewarded with financial increments in the nursing salary scale. There are specific guidelines in the PDP based on clinical practice, attitude and leadership skills development. Level 4 nurses are considered to be clinical leaders and are expected to role model this behaviour. Nurses at this level are required to reapply for level 4 annually, indicating their continued expert practice in their field of specialty. The organisation accepts that levels 3 and 4 are type 1 (senior nurses) in relation to skill mix. There are 4 levels to the PDP as follows:

Table 1. **Professional Development Programme categories**

PDP levels	Stages of skill acquisition (Benner,1984)
Level 1 - Beginner	Stage 1 – Novice Stage 2 – Advanced beginner
Level 2 - Competent	Stage 3 – Competent
Level 3 - Proficient	Stage 4 – Proficient
Level 4 - Expert	Stage 5 – Expert

Because of the size and complexity of the ICU, the first 3 months for any new employee in the unit is considered a time when tasks and competencies are the all-encompassing workload. During this period, nurses are not expected to become involved in any quality projects or management aspects of the unit.

There is a standard policy in the unit for new employees' development along the PDP. All new employees commence on level 1 for a minimum period of between 4 and 10 weeks. During this time, the nurses are given 4 weeks orientation where they are "buddied" and do not take a patient load. The balance of 6 weeks in this period allows for assessment and a "settling in" period. Depending on assessment and individual confidence levels nurses progress to level 2 at any point during this time.

Progression and further development through the PDP during the first year of employment is dependent on nurses' previous experience combined with ability to adapt and to meet the required competencies for each level of practice. Experienced nurses progress through the levels rapidly and can be preparing for level 4 by the end of their first year of employment in the unit. Less experienced nurses seldom reach level 3 by the end of their first year. Benner (1984) comments that nurses commence their careers as beginners with no experience and are not proficient in any nursing speciality. As they work and gain experience in an area, they gradually become more and more proficient in the speciality until finally they are recognised as expert in their field of practice.

The Benner (1984) model provides the foundation for nurses to become involved in the clinical leadership and management of patient care within the shared leadership framework. Nurses moving to advanced levels of practice are given the authority to embark on projects for their PDP portfolios that will actively support and maintain excellence in patient care. As nurses become advanced in their practice it is expected that they will become actively involved in clinical leadership activities. These activities focus on development and improvement of clinical practice as well as other points of interest in the management of the unit that a nurse may be responsible for. The objective of the shared leadership model gives nurses the authority to develop and expand their skills, providing that they remain responsible and accountable in their activities.

Thesis construction, style and flow

Participants in the study were registered nurses in the ICU as this population was the target of a review of the ICU in 1997. The research question is *" Has the introduction of a shared leadership model in an intensive care unit, enabled nurses to take an active role in patient management? "*

The study aims were to:

- Explore nurses' perceptions of their involvement in the management of their patients.
- Identify potential organisational and professional factors influencing nurses' involvement.
- Describe the management of change in enhancing clinical decision-making and nursing input into the management of patients in ICU.

In order to explore the impact of the shared leadership model on nursing involvement in patient management in an intensive care unit (ICU) a process evaluation and triangulation of data were used. This approach elicited thematic concerns to determine the degree to which nurses perceived that the shared leadership framework had enhanced their input into patient management. The evaluation also sought to elicit evidence of success or failure of the change process. A process of evaluation and critical analysis is used.

Table 2. **Diagrammatic representation of the process followed for this study**

Research question • Has the introduction of a shared leadership model in the intensive care unit enabled nurses to take an active role in patient management?
Research approach • Process or implementation evaluation
Methods of data collection and analysis • Questionnaire • Examination of documents relating to patient management
Methods for analysis of data • Descriptive statistical analysis for the questionnaire • Content analysis for the open ended questions and the documents • Thematic analysis for the open ended questions
Collation of results
Discussion of findings
Conclusion and Recommendations • Support further development of the shared leadership model.

The influence of the researcher on the work

The researcher's role in the development of the shared leadership model was that of Unit Leader for the first two years of its development. The researcher subsequently moved to the position of Nurse Advisor to the General Manager of the hospital. This removed the researcher from the central leading role within the unit to that of overall leader of professional nursing practice in the hospital. The role of the researcher in this study can therefore be described as that of participant observer.

Conclusion

The focus of this study therefore is an evaluation of the process change in nurses' ability to enhance their clinical decision-making skills as a result of the implementation of a shared leadership model. The model is based on Porter-O'Grady's (1992) committees-based structure and is underpinned by Benner's (1984) process of skill acquisition in nursing. The development and refining of the model has been a dynamic process that is changing and will continue to change over time in response to the needs of the unit. Porter-O'Grady (1992) contends that a model such as this takes 5 years to settle. This evaluation has taken place 2 years after the implementation of the shared leadership model in the ICU.

This chapter has provided the reader with a background to the study, the ICU and the influences on the decision to adopt the shared leadership model in the change process. Subsequent chapters will guide the reader through the study with a literature review reflecting on both leadership and shared leadership in

chapter two and the methodology used will be explored in chapter three. The results are presented in chapter four with analysis using Porter-O'Grady (1992) and Benner (1984) as a commentary. A discussion of the results will be developed further in chapter five. Chapter six brings together the main themes and considers conclusions and recommendations for further research.

Chapter Two

Literature Review

The purpose of this study is to evaluate the process of implementation of a shared leadership model in an intensive care unit (ICU) focusing on the nurses' ability to become actively involved in patient management. The dissatisfaction identified in the 1997 ICU Review (as discussed in chapter one) related in part to the demand for autonomy in clinical practice by nurses and the fact that the traditional management styles were no longer effective support for professional nursing practice. Literature was, therefore, reviewed relating to leadership and shared leadership concepts.

With the development of advanced nursing roles over the last decade, tension has arisen between the increased workload and expectations of managers on nursing, graduate education expectations that the profession now demands and nurses' desire for clinical autonomy. Approach to patient care is also changing with patients presenting with more complex diagnoses coupled with a push for reduced length of hospital stay and the move to caring for the patient in the community within the current environment of reduced health care budgets. This chapter will review the literature with regard to leadership, leadership in nursing and shared leadership in the light of the changes taking place within the health system. The literature will be shown to support the need to document the implementation of the shared leadership model being evaluated in this study, as it is relevant to the changes taking place in the health system.

Leadership

The definition of leadership emphasises the individual's ability to lead others (Collins English Dictionary, 1992). This very simple term obscures the complexity of the concept and the literature indicates that concise definitions are elusive. For example, key aspects of leadership are identified involving social activities in which status differs between the leader and those who are led (Marriner-Tomey, 1993; Yukl, 1989). The concept of leadership can induce feelings of initiative and responsibility where people support people. It also carries negative connotations where poor leadership imposes control, direction and the belief that one knows what is best for others (Block, 1993). The enigmatic position of the leader (Grint, 1997) has been identified whereby the leader can be controlled by events. For example, leaders can be influenced by trends of the time in which they live; leadership itself changes over time and certain kinds of leadership are considered more appropriate than others. Although leaders are in front, they may be actually pulling or being pushed by those behind them. Leaders should not injure those who are critical to their own survival.

Block (1993) contends that by the very nature of humans, our visionary leaders are placed in a role that people determine and it can be both restrictive and at times does not achieve desired results. The effect of this is localised power and privilege, which does not allow others to take ownership and responsibility for a vision. Focusing power and purpose at one point within an organisation has, over time, the impact of destroying the culture and the very outcomes that were intended. Grint (1997) discusses Tolstoy's bow wave metaphor and suggests

that leadership is an extremely fruitful but enigmatic position in which leaders are described as figureheads, propelled by events which are beyond their control, even though it appears that they control these same events. Traditional leadership has influenced 20th century models and is influenced by leadership that comes from the turbulence of the time, reflecting an appreciation of a triangle of elements that include the individual leader, the followers and the conditions, an interrelationship of interdependent elements which create the forum of leadership.

Block (1993) notes that during the period of 1960 to 1970 the term leadership was rarely used and the emphasis was on the term manager and management. During this time, it was felt that managers could be trained and that leadership was too vague and undefined. It was only in the 1980s that leadership was again defined. Leadership training became a requirement for managers and leadership skills encouraged the development of vision and transformation of quality (Block, 1993). According to Block (1993), people looked to leaders for this passion and vision and in response to this desire, society created folk heroes. These leaders were put into positions with company expectations. They implemented programmes and provided guidance but because of people expectations, became parent figures rather than partners (Block, 1993).

In the last decade, there was a real desire to develop more effective leaders and upgrade leadership attributes. These attributes are the inner personal qualities that make up the so-called effective leadership picture (Ulrich, Zenger & Smallwood, 1999). There are examples from many companies in recent years of

a developed and more refined way of identifying leadership attributes (Ulrich et al, 1999). The use of competencies is one such way of identifying leaders in a large organisation. Ulrich et al (1999) discusses key elements that make up leadership attributes. These authors suggest that leadership attributes can be grouped into four categories which consist of what leaders need to know, what they need to do and what direction they need to set. Leaders should follow a common pathway in which they set the direction of the organisation, have a particular character which allows for lateral thinking and integrity and they should be able to motivate individuals to give commitment to the organisation in which they work.

Bennis & Townsend (1995) indicate that the leader of today does not have absolute power and that their approach needs to be collaborative. A leader needs be humble and not egotistical. In this way endless power from others can be tapped into. In today's market climate of increased technology and downsizing of the workforce, the leader has to be creative, take risks and be flexible in approach (Bennis & Townsend, 1995). These authors suggest that a leader should also be a good follower, be able to listen, have the ability to step back and learn from others. A leader works with people and allows others to take the lead and feel valued. The environment is one of learning and belonging where all parties have input into their work. This approach stimulates intrinsic motivation, engendering excitement and improvement in the quality and output of work from the bottom up (Bennis & Townsend, 1995).

Leadership in nursing

The main influences on nursing leadership arose from the secular, religious and military orders over the centuries. Dolan, Fitzpatrick & Hermann (1983) say that leadership in nursing was first mentioned as an organised development in the early centuries where people such as the Good Samaritans who tended to the ill and infirm, influenced health care delivery. Dolan et al (1983) contends that the earliest "bearers of the lamp" were the Deaconesses who worked under a code and ethic called the "Corporal works of Mercy". These intellectually and socially skilled women were said to set the standards of caring and support social reform (Dolan et al, 1983). In later centuries, military nursing orders started developing with the Crusaders and the Knights of St John. Dolan et al (1983) also notes the influence that the secular nursing orders had on leadership. The nurses joined together as a group with a common mission but were not bound by monastic vows. The salient point to note with all these orders was that they were said to have provided quality and structure to nursing during a time when the profession had little formal direction or leadership (Dolan et al, 1983).

Florence Nightingale is well known for the tenacity and strength that she displayed in her leadership in nursing during the Crimean War. Nightingale formed part of the sanitation movement and created managers of nursing services, later known as matrons (Dolan et al, 1983). Nightingale emphasised a holistic approach to nursing care in which primary prevention was stressed. Nightingale's model of care created in the Crimean War set the stage for future well disciplined and ordered nurses.

In the latter part of the 20th Century, nursing management replaced the matron and the nurse manager became a popular term. Charge nurses expanded their practice into management roles, whose key accountabilities included human resource and financial management, addressing staffing levels, acuity measures, scheduling, setting policy and standards and ensuring that their wards remained cost neutral (Relf, 1995). However nurses were not trained for financial management. Those charge nurses traditionally promoted because of their leadership abilities and clinical excellence were forced to leave behind their expert clinical practice role in order to manage the ward budget. Nursing turnover increased as nurses tackled their new roles and grappled with the organisational and management expectations for which they were poorly prepared (Relf, 1995). The changes to the management of publicly funded health organisations in New Zealand in 1988, following the enactment of the State Sector Act, shifted the role of the charge nurse from clinical leadership to ward management. A business management system was created, designating management of units to responsibility centres within services. The role of the charge nurse manager encompassed aspects of the ward budget, including all service and human resources.

In the last decade, organisations delivering healthcare have explored new ways of leading. This has been an essential exercise due to the rapid changes in both the focus of health care delivery and the funding of such organisations (Porter-O'Grady & Wilson, 1998). The new paradigm has not been clearly defined and this has created chaos and uncertainty (Dixon, 1999). One such model of leadership in nursing has been the development of shared leadership. The issue

of shared leadership is embedded in the new term "clinical governance" (Swage, 2000) in which a cycle of quality, accountability, preparation for clinical practice and performance are intricately linked to the delivery of effective health care. It is not possible in this thesis to incorporate a study of this concept, as it would require extensive research, but shared leadership is an integral part of the clinical governance cycle.

Shared leadership

Shared leadership is a concept first used in the 1980s and revived later in the United Kingdom (UK) as the model of choice for the leadership of nursing, given the adoption of the clinical governance model for health care delivery by the National Health System (Swage, 2000). The theoretical foundations for shared leadership have their beginnings in participatory leadership, which can be traced back to the Mayo's Hawthorne Studies (Ludermann & Brown, 1989). Human relations' perspectives were then continued with such theorists as Likert, McGregor and Argyris (Ludermann & Brown, 1989). It was not until 1980 that systems showing true participatory leadership were implemented (Ludermann & Brown, 1989).

Shared leadership is a model based on a shared governance philosophy which assumes that individuals or teams performing the work are the ones who know best how work processes can be improved (Spooner, Keenen & Card, 1997). This is based on the assumption that staff involvement, empowerment, responsibility and autonomy will produce innovation, accountability and satisfaction in the workplace. For employees, in this instance nurses, to move from a traditional

model of leadership to a new paradigm they require a degree of cognitive transition and an understanding of how management works (Porter-O'Grady, 1992). A model with a shared leadership based model differs from a traditional leadership structure, as there is no central locus of control. Each unit is authorised to establish a format that best meets its own needs and there is considerable latitude in the system as each unit is accountable for its decisions and performance. Each unit is required to submit a plan to the manager and, despite the flexibility, the manager still needs to approve the plan and monitor the unit's progress (Porter-O'Grady, 1992). Governance or self regulation has been recognised as a privilege given to those professions that earn trust by demonstrating accountability for their specialised practice (Maas & Specht, 1989).

According to Porter-O'Grady (1992), a professional's work and goals are interdependent with the management and mission of the organisation. The professional worker needs an organisational structure that emphasises lateral rather than hierarchical communication and patterns in relationships. The essential component of a shared leadership structure supports the work of nursing and includes five fundamental elements namely: Management, Peer relations, Professional development, Practice and Quality (Porter-O'Grady, 1992).

Management assumes accountability for issues of resource development and support whilst the profession becomes accountable for the definition, delivery and evaluation of nursing practice. Talents of professional nurses are integrated

and synthesised with those of the administrative professionals to create a stronger dimension of nursing (Porter-O'Grady, 1992).

A shared leadership approach initiates a third dimension of a collaborative management framework by granting authority for true decision making to the nurses in their practice. This allows for valuing of staff and their contribution to the quality of care (Porter-O'Grady, 1992). The author suggests that it provides nurses with the realisation that the organisation needs their input and that the team cannot function without their clinical leadership and decision making. Bocchino (1993) clarifies this context of shared leadership by suggesting that people are inherently interdependent and cannot do anything without it having some impact on someone else. Therefore, in any area of work, decisions impact on others and are interrelated (Bocchino, 1993). Governance supports the activities of the nursing profession in a given setting into the governing, ruling and decision making processes. It indicates that as a professional discipline, nursing is able to make decisions within the framework it is situated in (Bocchino, 1993).

The difficulty of evaluating shared leadership

Shared leadership has been described as vague in nature but the model does contain core assumptions, values and principles from which a logical framework can be devised (Gavin, Wakefield & Wroe, 1999). Gavin et al (1999) describe shared leadership as an approach to nursing rather than a model. The approach allows nursing staff control over their professional practice and development and allows them to make a genuine contribution to the wider organisation. The authors contend that because of the social and vague nature of shared leadership,

there is a lack of critical stance in evaluating it. Westrope, Vaughn, Taunton & Bott (1995) supported this argument in a longitudinal study on the satisfaction of nurses working in a shared leadership structure. The study noted the difficulty in evaluating a model of this nature due to the subjectivity of the surveys. Arber (1994) conducted a similar study and also found that there was bias in the subjectivity and nature of the survey. Gavin et al (1999) contend however that research regarding shared leadership does show a good association between job design and satisfaction of the worker.

The difficulty in evaluating shared leadership was highlighted by Spooner, Keenan & Card (1997) who suggested that shared leadership is a very complex concept, which makes it difficult to evaluate. Spooner et al (1997) conducted an evaluation that explored the use of 'mental models' to assess organisational management change in the implementation of a shared leadership model. The aim of the study was to determine what change had been incorporated into daily practice by the nurses. The study design focused on partnership in decision making, empowerment and accountability which are noted to be three key principles underpinning a shared leadership model. The study found that participants practiced with a high degree of empowerment but assumed less accountability for situations (Spooner et al, 1997).

Endacott (1996) noted that nurses in intensive care are increasingly extending the specialist nature of their roles as the acuity of patients increases requiring more specialist input. Bucknall & Thomas (1997) support this contention in a study conducted on the clinical decision making of nurses in an ICU. The results of the

study found that ICU nurses were high frequency information providers but low frequency decision-makers as a result of the medical domination in the specialist environment of ICU. The recommendations from the study by Spooner et al (1997) were that key partners in patient care should be identified, and that staff required further development in decision making and mentoring.

Shared leadership in intensive care

In the intensive care situation, technological change and development is rapid and nurses are often faced with polarised aspects of their job, technology and humanity. Nurses are charged with the responsibility of balancing the two poles (Endacott, 1996). In the current cost-contained healthcare environment, the emphasis is on outcomes and bed numbers within an ethical quality of life framework. Nurses in this environment are increasingly required to provide evidence of process of nursing activity in order to justify nursing expenditure.

Extended roles are becoming more and more a part of specialist nurses' life and the high acuity of patients is requiring nurses to take on more and more responsibility (Endacott, 1996). Whilst this extended practice naturally lends itself to an interdisciplinary approach, it is important for nurses to maintain a holistic approach to care. Porter-O' Grady (1996) notes that shared leadership is a concept that addresses the development and operation of systems. With this concept no one discipline can develop in isolation from those surrounding them. Shared leadership principles allow for an interdisciplinary decision making environment.

In highly technical and specialised units such as intensive care, the behaviour of groups working together has an impact on each other either positively or negatively depending on their outlook and approach (Porter-O'Grady & Wilson, 1998). Shared leadership provides the direction for the construction of powerful, horizontally integrated systems.

The extent of the change of nursing roles is largely in the hands of the nurses working in an intensive care setting. The leadership model needs to reflect an inquiring approach where nurses are involved in the decision making. A shared leadership approach allows for this development (Porter-O'Grady & Wilson, 1998). The traditional hospital bureaucratic system creates barriers to nursing autonomy, as there is often a distinct hierarchical pyramid, even in decentralised services. Nurses are not satisfied in their work until they are satisfied with the institution within which they work (Jones & Ortiz, 1989). Strong leadership is required to influence staff toward achieving goals, managing daily unit matters and promoting nursing performance beyond expectations (Ohman, 1999). Leaders are required to role model this behaviour (Cook, 1998).

Increasingly the focus is on integrated systems of care and this is a direct response to cost constraints and changing market demands (Gilmartin, 1996). Integrated systems require open communication, teamwork, professional security and autonomy within the area of practice. In this environment clinical integration is an incremental process that moves along a continuum of competition, co-operation, co-ordination, collaboration and finally integration of previously separate spheres of care (Gilmartin, 1996).

Medical domination in the acute care environment has always been acknowledged. Because of the traditional health care model and the nature of specialist practice in ICU, doctors assume ultimate responsibility for the patient. Consensual management occurs as a result and nurses assume the role decision-maker for nursing related matters. However, with the expanding role of the nurse in advanced clinical practice, the requirements for nursing education at graduate level, and the changing health care environment amidst cost constraints and budget cuts, these traditional boundaries are being challenged. A study conducted at Allegheny General Hospital in Pennsylvania indicated the difficulty in changing traditional cultures and building trust in a new system (Spicuzza, 1995). On evaluation at the second year of implementation, Spicuzza found that there was still a lack of trust and old cultures and ways were still evident. Results indicated however, a perception that the structure change was positive and that it was worth continuing with the development of the model. Staff believed that the transition time was a period of great emotion but also of great growth. Managers were the most resistant to change in this study, exhibiting many signs of passive aggression towards change and this was attributed to the fear of the unknown (Spicuzza, 1995).

The role of managers in shared leadership

The role of nurse managers in a shared leadership system shows that at this level there is resistance to the structure. There is evidence that a parallel structure develops alongside the traditional chain of command (Gavin et al, 1999). The outline of the structure is evident but power sharing is documented as not existing as an entirely shared system of approach to decision making. In a critical review

of studies carried out on shared leadership, the role of nurse managers was an issue in all studies appraised. Managers resisted the introduction of innovations intended to empower staff at the point of service. Studies show that these nurses battled to accept that their role changed to become facilitator of a system in which they had to ensure a high standard of care within a budget whilst having no perceived authority over staff who became autonomous. The perception was that the manager's role would become redundant so that the leadership model threatened many middle managers (Gavin et al, 1999).

In a similar study conducted in Canada by Merkins & Spencer (1998), it was noted that as the team developed decision-making skills and they made the process work because the team assumed ownership of the decisions. This study focused on the evolving transition of the model, the environment around the participatory approach to changes made, and the cost savings indicated thus far as a result of the implementation. Of concern in this study was the cost of the change process. Conclusions noted the continuous process of change, communication that was required for the process, and the trust that required fostering during the change process. It was noted too that shared decision making takes time and that any organisation embarking on a shared leadership model needed to factor in lengthy time frames whilst the team was developing the required decision making skills (Merkins & Spencer, 1998).

The effectiveness of shared leadership

Positive aspects of shared leadership have been noted in some studies. Job satisfaction and staff turnover have been indicated as having improved as a result

of the implementation of shared leadership. All studies indicate the difficulty in measuring the outcomes. Ludermann & Brown (1989) studied the perceptions of staff within a shared leadership model. The methodology used for this study was exploratory and included descriptive surveys that were completed at two different points in time. The target population was the total nursing population within a nursing division 18 months after the implementation of a shared leadership model and then again 6 months later. Research objectives included evaluation of staff perceptions measured by attitudes regarding work environment, functional influence, job satisfaction and commitment to the organisation. Demographic characteristics of the respondents were included (Ludermann & Brown, 1989). Conclusions indicated that results could not be transferred and generalised. However the study did provide the beginning evidence that shared leadership supported a system in which nurses gained participation in decision making, had better job satisfaction and had greater influence and freedom to change clinical practice (Ludermann & Brown 1989).

Changes to clinical practice and approaches to decision making ultimately create changes to the organisational culture in any organisation. Joiner (1986) evaluated a shared leadership structure that was implemented in Ohio. The study found that the greatest change was the quality of the leadership. Actual decision making took approximately a month longer but recommendations were made with much wider staff input. Communication was enhanced and there were significant increases in decision making at the point of service. Some drawbacks were noted in the study. One of these was time for staff to attend meetings, which would not have normally been required under a traditional structure. A benefit however was the

increased interdisciplinary collaboration and decision making which impacted directly on the quality of care delivery at the consumer point of service (Joiner, 1986).

Tucker (1998) noted that a shared leadership approach across a multidisciplinary team involving case management of a group of patients, limited the "turf battles" and patient focused outcomes became easier to establish and achieve. Meeting times were also decreased by 75%, as there was no longer need to "protect" the expertise of each individual team member. Leicester General Hospital in the United Kingdom implemented a shared governance (leadership) model and this study conducted by Doherty & Hope (2000) described the progress and success of the model from a snap shot survey. Results from this survey indicate that changes to work practice require time and perseverance and the implementation of the model needs to be gradual and ongoing. The attitude of the middle managers and the leadership styles of the ward charge nurse largely determined commitment to the development of the model. This study did not fully evaluate the progress of the implementation and therefore provides interim support and evidence of progress.

Relf (1995) suggests that shared leadership styles have shown that productivity at work is increased and staff feel more valued. Patient outcomes have been shown to improve and staff turnover is reduced. Jacoby & Terpstra (1990) discuss the fact that an environment of trust and respect has improved outputs and motivation when guidelines are implemented rather than rules. When a hierarchical pyramid structure is softened and a more egalitarian approach to management of staff is

taken, the centre of the circle becomes the nurse whom by both role and location connects the organisation to the service it provides (Jacoby & Terpstra, 1990). This creates an environment in which individual accountability originates and rests within the individual (Mintzberg, 1988). A sense of ownership is created for one's actions and their impact on others (Mintzberg, 1988).

Ludermann & Brown (1989) carried out a study on staff perceptions of shared leadership. This study was carried out at Rose Medical Centre, Denver, Colorado. From the study it was found that nurses perceived themselves as working in an environment that gave them greater influence, autonomy and freedom to innovate. The findings also noted that there was more acceptance of the model in nurses who fitted into the categories of greater age, education and experience. Maas & Specht (1989) suggest that shared leadership makes sense as the clinical experts have the opportunity to get the job done more effectively and decide how the work is to be carried out. Nurses have welcomed shared leadership if it is implemented with their support and participation. Nursing knowledge is often sufficient to form foundational, consensus decision-making, provided the appropriate structures are put in place. Maas & Specht (1989) do note however, that for a structure of shared leadership to be successful, nurses must be assisted to learn skill negotiation, collaboration and decision making.

Shared leadership is a complex system, which is difficult to evaluate. Each model that is implemented is different and adopts the uniqueness of the organisation and the system within which it is situated. It becomes an individual and dynamic

model (Porter-O'Grady, 1992). There are however key issues that need to be acknowledged when implementing a shared leadership model.

Key issues in shared leadership

The key issues impacting on implementation of shared governance are the clear understanding of the accountabilities of each person within the team (Porter-O'Grady, 1992). Accountability differs from responsibility-based processes and reflects the attributed roles and responsibility of those assigned roles (Porter-O'Grady, 1992). This means that the professional nurse must be given the right (autonomy) to undertake a specified action and the power (authority) to implement action, together with the ability to enforce (control) that action in an ongoing and consistent manner. Shared leadership is underpinned by the concept of accountability. Porter-O' Grady (1992) notes that shared leadership is not a democracy or a unilateral self-directed operation. It is a community concept, which gives form to the creation of an organisational community. Professions can usually express their accountability in a number of ways and Porter-O'Grady (1992) discusses professional accountability under specific topics, which are elaborated on below.

- **Practice**

This is related to the specific work that a person in that profession does. It is the starting point from which a professional person embarks. Activities result from fundamental values and beliefs that drive the work. This is fundamental to the role of a nurse and accountability for this activity can only rest with the nurse and not the organisation. In traditional organisations, this is often removed from the

nurse and the nurse then loses confidence in his/her basic abilities within the profession. The belief that the practitioner is ultimately accountable for defining practice is fundamental to shared leadership. The challenge becomes the ability to provide a structure that supports individual control of practice within a team (Porter-O'Grady, 1992).

- **Quality assurance**

Auditing and monitoring of quality is required to ensure that planned outcomes are achieved. It is dependent on the definition of practice and its exercise and becomes a subset of the clinical role of a nurse. The locus of control rests with the individual practitioner as quality assurance is viewed as clinical accountability and is the function of clinical work in a shared leadership model. Quality of care becomes interrelated with the quality of the worker. Historically these are separated as a matter of institutional control, not as a legitimate expression of staff accountability. In shared leadership these two aspects are united (Porter-O'Grady, 1992).

- **Competence**

Competence is vital to any profession. This is an assurance to the public accessing healthcare that the performance of the professional is of an acceptable standard. Realistically this should be placed in the hands of those who deliver the care, that is, the individual nurse. In traditional structures, it has been removed and placed under the control of management. Rules have been made by management without the involvement of those having to adhere to the rules. Those at the clinical face have the ability to know what is required and therefore should play a decision-

making role in the establishment of rules and regulations for the delivery of care. In shared leadership there is a dual role of the individual and the organisation for development of standards of practice. This accountability is manifested in the obligation to both teaching and learning processes directed to obtaining and ensuring competence and the colleagueship to the role of mutually learning by agreeing to share knowledge as well as obtain it (Porter-O'Grady, 1992).

- **Research**

For a profession to maintain credibility and maintain quality of practice, research is essential. If a service is to remain current and to advance the work of the profession and the service it provides, time must be spent in research activities. This requires time and investment, which with today's cost constraints, are often dropped from the budget. The principle of research accountability is becoming more focused and supported and is a given in a shared leadership model (Porter-O'Grady, 1992).

- **Management of resources**

Resource management indicates that the organisation needs to utilise resources accordingly. Nurses are often placed in management without realising the full extent of the role. The role is expanded in the traditional model and the nurse manager often loses sight of the clinical issues. Shared leadership allows management accountability to be clearly defined and managed across the team (Porter-O'Grady, 1992).

The focus of shared leadership

Shared leadership is a trust-based system, which ensures that all members of the nursing staff are full participants in the profession's work. Nurses are worthy of trust and ownership of their practice and their work. Jenkins (1996) comments that the very nature of shared leadership is inclusive. Each person has something valuable to offer. Only by inclusion can an organisation find holistic solutions to problems. The same author states further that shared leadership is exponential. When the model works well people believe that anything is possible. The collective intelligence of the group can be fully realised only when the majority believes that each person is valuable (Jenkins, 1996).

Jenkins (1996) argues that shared leadership is a passion. It is the intensity of the belief that everyone is valuable as they contribute to the collective intelligence and this can only be achieved through the passion of doing. However Porter-O'Grady (1992) points out that in the development of the model, firm parameters need to be set for the system to operate effectively. Both the culture and the operating system need to reflect the character of the model. Doherty & Hope (2000) noted in their study at Leicester General Hospital that commitment to staff training was important and that communication and building of trust needed to be key drivers from the outset. This study noted that changing working practices required time and perseverance. The successful implementation of a shared structure required time and ongoing refinement. Perceived benefits of the shared approach to leadership in this study were that processes are faster than waiting for decisions and the unit can form groups at which they then work at their own pace (Doherty & Hope, 2000).

Innovation is encouraged in shared leadership and groups develop from doing and learning from each other as they go. Shared leadership styles create an atmosphere of autonomy where mutual trust and respect are encouraged (Porter-O'Grady, 1992). This gives nurses greater control over their work. Principles underpinning shared leadership are that clinical staff are given accountability for all issues relating to clinical practice whilst management is accountable for the provision of necessary financial, human and material resources for nursing staff to do their work (Porter-O'Grady, 1992). Management roles shift from leading, organising and controlling to integrating, facilitating and co-ordinating. Shared leadership fosters professionalism and accountability whilst decreasing staff turnover. It provides a flexible framework that provides support for the team and encourages continued growth (Jacoby & Terpstra, 1990).

Nurses are faced with conflict regarding their professional practice. There is a tension that results from the split accountabilities between professional nursing practice and the organisation within which they work as well as the increasing acuity of the patients they care for. Because of the changing health care environment and the preparation of the nurse, boundaries are constantly being challenged within the traditional bureaucracy of health care. The role of the nurse manager has the potential and background to be a key player in facilitating leadership change and consumer partnership.

Managers in nursing have a leading role in leadership and change which is dynamic and requires vision, motivation and innovation (Gilmartin, 1996).

Weisbord & Janoff (1995) explain that participation in organisations involves the "whole person". Historically there has been a split between cognitive work and creative work that is perpetuated by a task focused work environment. People bring to their work creativity and knowledge from previous experiences and capabilities that are not utilised (Weisbord & Janoff, 1995). By allowing staff to become creative and to become involved in strategic planning, nursing practice can benefit by the wealth of knowledge and innovative ideas. These together can help an organisation to produce the best quality improvement programme and patient care (Weisbord & Janoff, 1995). The leadership of this change and shift in the focus of leadership structures needs to be carefully planned and managed.

Conclusion

Despite various criticisms, shared leadership has again been recognised in both the United Kingdom and United States as being conducive to flexibility and creative working in an environment of cost cutting and down sizing (Gavin et al, 1999). Due to the issues of lack of commitment to the National Health System (NHS) the United Kingdom is again examining ways to introduce shared leadership into the NHS. Shared leadership is a model which allows nurses to develop a set of principles which support role expansion and allows nurses to develop and become involved in patient care processes.

Based on the findings in the literature, the evaluation of the shared leadership model which was implemented in the study ICU is an important step for nursing and it is appropriate for this formal analysis to provide guidance and support for

the continuance of the model. The methodology used to carry out the evaluation is discussed in Chapter 3.

Chapter Three

Methodology

The study undertaken in the intensive care is an evaluation of one aspect of a change in progress using a process evaluation methodology. There are a number of approaches to evaluation, but process evaluation seemed the most appropriate method for this study because it allows the researcher to assess the progress of the change during the implementation phase. This chapter is divided into two parts. The first discusses the types of evaluation available for a study such as this. The second part of the chapter outlines the methodology and the research process used for this study.

Programme evaluation

Posavac & Carey (1997) contend that information is needed to meet the obligation to provide services effectively. Evaluation research is used in social studies and health services to assess the value or outcome of a service, or to monitor the progress of the service with an aim to make recommendations for future improvements. It addresses various aspects of a health care programme, the choice of which is dependent on the need of the service or the stakeholder (Posavac & Carey, 1997). This study is one such programme in which evaluation monitors the progress of implementation of shared leadership and provides recommendations for future development and direction.

Patton (1986) has described evaluation as any effort which increases human effectiveness through systematic data based inquiry. Evaluation facilitates the continued appropriateness of a programme and allows appropriate resources to be invested in it. It also allows programmes to become more rational, effective and accountable (Posavac & Carey, 1997). Social science methodology attempts to provide an explanation, which is based on the systematic use of evidence (Lewins, 1992). Evaluation research can be used in a wide range of settings and disciplines. An intensive care unit is such a setting (Lewins, 1992). The aim of evaluation research is to inform or enhance decision-making and apply knowledge to solve societal problems (Thomas, 1991). The evaluation of the shared leadership model in ICU can be placed in the context of both health care and social evaluation. The perceptions of nurses on the extent to which the implementation of a change process has allowed them to enhance their involvement in clinical decision making involvement is being explored within an ICU setting.

Historical perspectives of evaluation

Evaluation in some form has been carried out since the 19th century, however structured planning, monitoring and assessing the quality of services has only been formalised since 1960 (Posavac & Cary, 1997). Until more recently social evaluation has not withstood the rigors of scientific research expectations. Morse (1994) notes that there have been four generations of evaluation that have evolved over time. The first generation of evaluation existed around World War 1 and focused on measurement. The role of the evaluator was to administer, score and

interpret tests.

The second generation of evaluation focused on description and the role of the evaluator was to describe an individual or group in behavioural terms (Morse, 1994). By 1960, the third generation of evaluation judged merit and worth on the basis of standards and models. The evaluator during this era sought to identify claims and concerns and then, with stakeholders, negotiated possible improvements and change. Pre-selection of methods and instruments was not possible in this generation due to the pre-set variations of issues that were requested by the stakeholders. Posavac & Carey (1997) comment that during this period time evaluation was carried out informally in organisations. These evaluations were confined to impressionistic evaluations made informally by supervisors. They tended to serve the interests of the organisation but did little to challenge the programme (Posavac & Carey, 1997).

The fourth generation of evaluation is currently being used and is described later on in this chapter. Evaluation approaches have been refined to the extent that there are now defined categories, which address different aspects of a programme being evaluated (Thomas, 1997). Evaluation can provide information directly to staff working in the service with the intention that changes will be made in order to improve the programme. Programme evaluation also contributes to quality of services by providing feedback from programme activities and the outcomes to those who can make the changes in programmes (Posavac & Carey, 1997). This

approach is appropriate in the study undertaken in ICU. The study is looking to provide feedback to the nurses so that further change will enhance the programme as a result of the study.

Types of evaluation

Evaluation consists of 4 basic approaches, these being formative evaluation, process or monitoring evaluation, impact or outcome evaluation, and cost efficiency evaluation. Formative evaluation aims to help develop or improve the programme. It is closely tied to programme planning and frequently occurs in the early stages of programme development (Thomas, 1997). The evaluator can be a participator in the process, communicating regularly with programme staff so that changes can be made during the implementation process. This evaluation expects that the programme will evolve and develop over time as a result of the findings in the evaluation (Thomas, 1997).

Process, monitoring or implementation evaluation attempts to clarify the day to day reality of the programme, identifying its weaknesses and strengths. This evaluation focuses on specific operations of a programme so that an understanding of the actual impacts of the programme can be made. Data gathering is developmental, descriptive, flexible and inductive and it examines the intended and unintended outcomes (Thomas, 1997). The evaluator may or may not be involved in the programme. Process monitoring evaluation uses both qualitative and quantitative data gathering tools (Thomas, 1997). Veney & Kaluzny (1991) discuss monitoring

evaluation as a comparison between the programme and expectations which involves a continual endeavour to learn about all aspects of a process and to use that knowledge to improve the quality of the programme. Posavac & Cary (1997) call this approach "process evaluation" and suggest that evaluators document the extent to which implementation has taken place, the nature of the people being serviced and the degree to which the programme operates as expected. The evaluation involves checking on the assumptions made while the programme was being planned (Posavac & Cary, 1997).

Outcome evaluation assesses the impact or effects the programme has had on its target population or group. It looks at the intended and unintended impacts and qualitative and quantitative methods are usually used to collect data (Posavac & Cary, 1997). This kind of evaluation is often requested by funding institutions seeking to find out whether the money spent has delivered the planned or required outcome (Thomas, 1997). Posavac & Carey (1997) refer to this as a quality improvement focused approach as it helps staff to discover discrepancies between programme objectives and the needs of the target population or programme outcomes.

Cost efficiency evaluation involves the analysis of cost benefits or comparisons between similar independent programmes (Thomas, 1997). Posavac & Cary (1997) contend that these evaluations look at cost only and how the budget has been spent.

Process evaluation has been employed for this study as it aims to analyse the effectiveness that the shared leadership model has had on supporting nurses to becoming actively involved in patient management. As discussed earlier in the chapter, process evaluation allows an assessment on how the implementation of a programme is progressing and assesses the degree to which the programme is operating according to the initial or planned expectations. The programme in this instance has not been completed, rather it is still evolving and therefore this study forms the check on how the implementation of the model is progressing and what outcomes it is achieving in relation to nurses' active participation in the management of patients.

Perspectives in evaluation

Evaluation takes account of the social context of where a programme is being implemented and because of this there are always different agendas and interpretations of results (Denzin & Lincoln, 2000). Evaluation research, as applied to social inquiry, is considered unique and can be distinguished by its value dimension of its knowledge claims, the political nature, of its context and the multiple perspectives of the people involved in it. Because of the subjective and political nature of evaluation, it is important to use a diverse set of approaches and methods to represent what the evaluation shows and how this has been achieved (Denzin & Lincoln, 2000).

This aspect of the evaluation approach was pertinent to the study in ICU. By asking

nurses to respond to their personal perceptions of the shared leadership model, the researcher needed to ensure that there was another form of data collection to support these perceptions and to provide the triangulation required for data collection in a study of this nature.

The political perspective encountered in evaluating programme decisions and how they are communicated can be influenced and information produced is likely to enhance the power of certain stakeholders and threaten others as a result (Denzin & Lincoln, 2000). During the production of this information, evaluation can take a position on the programme and its findings, which is inherently and unavoidably political. The aim should be to ensure that the reporting is as comprehensive and as full an assessment as possible (Denzin & Lincoln, 2000). This study focused on one population group working in the unit. Results therefore are representative of those perceptions of registered nurses working in ICU at the time of the survey and are therefore personal and subjective in nature.

It is also argued that values are subjective and form part of the social nature of evaluation. It is appropriate therefore to acknowledge the origin of these perceptions in this study, as it would be difficult to absolutely validate the data collected as a result of the personal nature of the responses. They become important in social change when empowerment and egalitarianism are being promoted. Programme beneficiaries become the key audience (Denzin & Lincoln, 2000). A programme evaluation therefore judges effectiveness by looking at the outcomes of

the programme (King, Morris & Fitz-Gibbon, 1987). The organisational process highlights the structures and steps that facilitate implementation (Veney & Kaluzny, 1991).

If a programme has no effect on outcomes, decisions should be made as to the importance and validity of maintaining the programme in its current form (Veney & Kaluzny, 1991). Effectiveness of the programme in the ICU study can be assessed by the shift in the nurses' perceptions as to whether the shared leadership has supported more active involvement by nurses in patient management. The values and perceptions of nurses in this study are their own personal response to the change process.

Veney & Kalusny (1991) contend that individual or cognitive perspectives present a micro view of the implementation process emphasising existing attitudes of the individuals involved in the process. Outcome and value can be the most difficult to measure and assess and therefore multiple methods of data collection need to be used in the evaluation. Stakeholder participation in evaluation, agenda setting, data collection, interpretation and action has to be included in the preferred method (Denzin & Lincoln, 2000).

With this research, the interests of the stakeholder closest to the programme were being evaluated. These were the nurses who were caring for the patients in intensive care. By using the questionnaire method of data collection, the nurses'

perspectives would be gleaned. It was hoped that nurses would then take ownership of the evaluation and the changes made as a result of the recommendations. The study involved finding out whether nurses' perceive themselves as having more involvement in patient management as a result of the new model of leadership. By adding the dimensions of clinical record audits and evaluation of documentation, it was hoped that a broader perspective of the evaluation would be achieved which would add validity to the results. Using the implementation model of evaluation, questions could then be phrased in a way that lent itself to the evaluation of the shared leadership model as it centres around how the programme is moving towards the outcomes being achieved.

Denzin & Lincoln (2000) contend that answers will be influenced by specific historical, political and cultural practices of those within the society (ICU) being studied. It is for this reason that Denzin & Lincoln (2000) suggest that the evaluator is the inquirer who is attempting to understand the context as seen by the stakeholders in the programme. The study therefore has a subjective bias. Inquirer bias, experience, expertise and insight become part of the meanings constructed and prescribed (Denzin & Lincoln, 2000).

As discussed earlier in the chapter, the social nature of this evaluation means that values are intertwined as there are "no facts without values, and different values can actually lead to different facts" (Denzin & Lincoln, 2000. P. 986). In this study the nurses were the focus of the evaluation. Their answers in the questionnaire reflected

their own perceptions of experiences and values which they have encountered whilst working in a multidisciplinary team within the shared leadership model. Values and bias require the researcher to understand contextualised meaning based on the assumption that the social world co-exists with the physical world and therefore many facets of the system impact on the final outcome of the programme being evaluated (Denzin & Lincoln, 2000).

The research framework used for the study

The framework chosen for this study is the process or implementation evaluation approach. The methods used for data collection were a questionnaire and the examination of technical data in the form of documents and clinical audits. Denzin & Lincoln (2000) advise active engagement of stakeholders in the evaluation process so that ownership of the process and the results can be enhanced. By this engagement, there is a participatory aspect to the evaluation with less powerful stakeholders, in this case, the nurses in ICU, having the ability to identify weaknesses in the programme and contribute to results and ultimately changes that will directly affect them.

The research approach: process, monitoring or implementation evaluation

The ICU shared leadership model is currently in the implementation stages and it is an evolving process. Porter-O'Grady (1992) suggests that any development of a shared leadership model takes between three and five years to establish. During this time, constant reviews of the process are required in order to support changes that

will improve and develop the model (Porter-O'Grady, 1992). Process evaluation seemed the most appropriate methodology to use in this case as it would provide nurses with feedback from their responses and would allow for further development of the model.

Since the implementation of the leadership structure, there had been one short informal survey carried out in September 1999 aimed at obtaining a brief overview of issues that still required attention. The survey consisted of a short questionnaire, which was handed out to the nurses. Topics involved nurses' perception of the shared leadership model in terms of support given to them in order for them to carry out their work. Nurses were asked to voluntarily complete and return the questionnaires to the Unit Leader. The survey resulted in a 45% return rate from nurses with results and comments being constructive and useful. A short summary was prepared from these results and planning for the following year was based on the issues identified. No further formal evaluation has been carried out in the unit.

Participants

Convenience sampling was used for this study. The total population of registered nurses working in the study ICU was used. Exclusions from the survey included all medical and allied staff, support staff and orderlies, enrolled nurses and hospital aides who work in the unit. The population chosen for this study was influenced by the fact that the 1997 ICU Review focused on registered nurses and it was largely due to their responses that the restructuring of the leadership occurred. It was

important therefore to revisit the perceptions of registered nurses in this evaluation.

Setting

The setting was one intensive care unit in a tertiary specialist hospital following the introduction of a shared leadership model 2 years earlier.

Data collection

As noted earlier in the chapter, it is important in evaluation research to use methods that allow for triangulation of data. Posavac & Carey (1997) suggest multiple sources of information and multiple variables from each data source should be included for evaluation. Use of multiple variables reduces the likelihood of distorting results. Evaluators can then draw conclusions from the convergence of the variables, which adds strength to the evaluation. Thomas (1991) suggests that implementation evaluation should always use qualitative data gathering approaches. Quantitative methods are commonly used in conjunction with these. Denzin & Lincoln (2000) support this form of data collection and add the additional aspect of interpretation of documents and observation. In implementation evaluation, Thomas (1991) suggests the use of surveys, questionnaires, structured interviews, examination of support documentation and observation. The researcher has used a combination of qualitative and quantitative data for this study evaluating the initial two and half years of the implementation of shared leadership in the unit. Three instruments were used to collect data for this study. These were: A standard Likert-type questionnaire; clinical audits; document examination. Clinical audits were not

ultimately used and this is discussed later in the chapter. The researcher therefore obtained data from two sources to enhance validity and to reduce bias in the results.

Standard Likert-type scale questionnaire

The questionnaire *(Appendix 5)* designed for this research focused on nurses' perceptions of their participation in direct and indirect involvement in patient management. The questionnaire was chosen to allow for direct participation of a greater number of nurses than could have been achieved through face to face interviews. Posavac & Carey (1997) claim that probably the most widely used method of gathering data is the written survey, which is administered to programme participants. It provides the most information for the cost and effort required. Reliability of a survey that focuses on current specific behaviours is likely to be fairly high (Posavac & Carey, 1997). The questionnaire, which was used in ICU, was divided into sections.

The first section involved collecting demographic data. One of the study factors is that experienced nurses have anecdotally been seen to be able to work independently of management issues going on around them and therefore have the ability to maintain relative consistency with their personal approach to caring for patients. This section was also included in order to discover the variation in experience and levels of practice to avoid bias.

The second section was divided into questions involving nurses' involvement in

direct and indirect patient management, broadly grouped as follows:

- Direct patient management involvement included ward rounds, multidisciplinary team meetings and relationships with other health care disciplines.
- Indirect care included development of documentation, policies and quality of nursing practice audits.
- General clinical practice was divided into aspects that addressed nurses' ability to work independently as well as interdependently within the unit. The aim of this set of questions was to determine nurses' involvement in patient management processes.

Space was left at the end of the questionnaire for additional comments and ideas.

In shared leadership, clinical involvement in the development of standards of practice forms an integral part of the measurement of the team's effectiveness and involvement (Porter-O'Grady & Wilson, 1998). Involvement and effectiveness of care can be audited through the use of clinical documentation. It supports a continuous quality cycle which involves education and support for staff, involvement in evidence based practice development and measurement of outcomes (Swage, 2000). Examination of the documentation provides the triangulation of data required in process evaluation. Analysis of involvement in indirect care and the variations of responses from the ICU questionnaire would indicate the degree to which nurses are involved in the management of their patients both directly at the

bedside and indirectly in developing processes and documentation which will best support patient management by nurses.

Questions involved tick boxes with a response between 1 and 5 as follows: Always; often; sometimes; seldom; never. The questionnaire was sent out in November 2000, with a time period of two weeks for completion. A self-addressed envelope was provided with each questionnaire as indicated in the information sheet *(Appendix 6)*. The questionnaire was sent out to all registered nurses who were working in the intensive care unit at the time of the survey.

Clinical audits

Detailed patient records kept by nurses record the type of care given to patients. Summarising this information can provide insights not previously available (Posavac & Carey, 1997). Clinical audits are done in the hospital annually. The Quality Manager randomly selects a number of files from patients who had accessed the Service during the past year. A group of senior health workers are chosen to work through the files systematically, with a view to checking the quality of the recording in the files. There is a set process that is used to audit the files. All the audit documents are numbered and the results are quantified at the end of the process. Using the data collected, a report is made summarising findings and providing recommendations for improvement in the following year's quality plan. Information from the summaries would provide evidence that nurses were in fact actively participating in patient management.

The ethics approval included use of clinical record audits. The audits were chosen so that patient confidentiality was not breached, as this is a secondary data source however this part of the study was not completed as the organisation was in the process of redesigning the clinical audit process. The approval of this part of the study by the Ethics Committee did not cover the use of patient notes as a primary source of data collection, therefore after consultation with the supervisor, this aspect of the data collection was omitted.

Examination of documents

Shared leadership focuses on clinical governance so that nurses at the point of service become actively involved in patient care processes such as clinical guideline development, which will support effective and active involvement in patient management (Porter-O'Grady, 1992). The predominant framework for measuring a health care team's behaviour is with clinical measures. Standards of practice, clinical outcome measures, best practice criteria are tools of measuring team performance (Porter-O'Grady & Wilson, 1998).

Clinical guidelines encompass documentation and processes, which support clinical practice. They encompass standing orders, caremaps, pathways and processes. These guidelines enable routine procedures to be supported within boundaries so that the multidisciplinary team can work autonomously within their scope of practice (Granata & Hillman, 1998). Effective use of supporting documentation in a

care delivery environment supports the notion of clinical governance and clinical quality (Swage, 2000). This provides a pathway for the quality cycle to be implemented, which encompasses professional management, efficiency, risk management and patient satisfaction (Swage, 2000). Documents that have been carefully prepared within an evidence based approach will allow nurses to follow a process of care delivery, giving them room to manage patient care within guidelines and identified boundaries. Clinical leadership supports the involvement of nurses in the process.

At the commencement of the new leadership structure, one of the objectives of the Senior Team in the unit was to evaluate existing documentation in the unit to ascertain the effectiveness and relevance of the documentation to effective patient management. Nursing input in changes to documentation was evident over the period of implementation of the shared leadership model. The objective of this section of the study was to assess the level of involvement that nurses have had in the development of clinical processes in the unit.

The documents that were selected for examination were chosen because they are used predominantly by nurses managing patient care at the bedside. The amount of involvement in the development process of the documents by nurses would indicate the degree to which nurses are actively involved in the clinical decision making processes. Documentation that was targeted for examination included: The Surgical Pathway; examples of various nursing charts which had been reconfigured as a

direct result of nurse initiation; ICU 24 hour observation chart; wound care assessment charts; nursing summary sheets; recommended best practice guidelines; standing orders; protocols and procedures; intra-aortic balloon pump check list; ECMO protocols and practices; pacing; Caremaps and care plans; haemofiltration charts; fast track extubation charts; respiratory weaning; multidisciplinary plans; examples of clinical care co-ordination summary sheets and weekly plan sheets.

Ethical considerations

Approval for the study was obtained through the Massey University Human Ethics Committee *(Appendix 7)* and the Hospital's Research Department *(Appendix 8)*. The General Manager of the hospital, the Clinical Director and the current Unit Leader in the ICU gave permission for the study to proceed *(Appendix 9)*. Approval included the participation of nurses in completing a questionnaire, evaluation of clinical audits, and examination of documentation in ICU.

The Massey University Human Ethics Committee had concerns with regard to the confidentiality of the questionnaires, in view of the researcher's close association with the nurses in the unit and the smallness of the sample being used. The Committee thought that the researcher might recognise individual responses and there was concern that negative responses may affect subsequent working relationships between the researcher and the nurses. Denzin & Lincoln (2000) suggest that criticism around qualitative research include that of interpreter bias. The inquirer's world becomes entwined within the inquiry and becomes part of the

constructions and representation of the meaning in any particular context.

With the researcher's involvement in the development of the shared leadership structure, it was important to ensure objectivity. Questionnaires were left in the unit in a private area decided upon by the Unit Leader. A letter of invitation accompanied the questionnaire, inviting participation in the survey. The questionnaire did not have any identifying marks that could relate it back to the participant, and the researcher initiated no participant contact. Return of questionnaires was by self-addressed envelope to the researcher at the hospital. The return envelope was marked *"Private and confidential"* to avoid the envelopes being opened by other staff members. The researcher had no involvement with follow-up of forms. Absolute anonymity of the participants could not be guaranteed due to the smallness of the sample population and the researcher's previous involvement as Unit Leader. Rights of participation followed the Massey University Human Ethics Guidelines. Participants were advised of this in the information sheet *(Appendix 6)* given out with the questionnaires.

All other data collection was from secondary sources. Documents used for patient management were examined to determine nurses' involvement in policy and protocol development. These documents had no patient data on them. The supervisor for this study maintained objectivity. The hospital's General Manager gave full approval for the study from the beginning, in spite of the closeness of the researcher to the study.

Analysis of data

The analysis of the data took different forms for each section. Descriptive statistical analysis was used for the questionnaire whilst content was analysed in the open-ended questions and documents. Thematic analysis was also used throughout. Each section is discussed separately.

The Questionnaire

Descriptive statistical analysis was used to analyse results from the questionnaire. The questionnaire results were collated into tables on an excel spreadsheet using the rating scale of the questionnaire as the frequency count. Graphs showing frequency distribution of responses were created from the results using the rating scale as the parameters and the totals were recorded in percentages of responses in each section.

Results were also divided into categories of clinical nurse specialists, senior nurses and junior nurses. The groupings were chosen based on Benner's (1984) premise that the more expert nurses become, the more involved they become in actively leading clinical management. These divisions between the different categories of registered nurses were also used, because reference was made in the 1997 ICU Review's findings that indicated that few nurses working at the bedside were involved in clinical leadership activities. Comparisons were made where results were noted to be variable in outcome between these three identified groups.

Content analysis was used for the "Comments" section of the questionnaires. This was achieved in two ways. The first was to create a table using the themes that emerged from the findings, counting the frequency with which the identified themes had been referred to. There was some overlap of themes in the comments and where this occurred; the strongest thematic reference was used as the salient theme. In some cases, the same question was split into each theme being referred to and this is acknowledged in the results section of the thesis. Comments were also included in the analysis of the relevant sections of the questionnaire where they were appropriate. Analysis was then achieved by referencing the results using the framework and explanations arising from the work of Benner (1984) and Porter-O'Grady (1992) as the foundation and support for the findings.

Analysis of the documents

One of the most frequent uses of integrated approaches in nursing research involves the validation of formal and structured instruments designed for use in clinical application. It is an economical source of data collection (Polit & Hungler, 1995) and allows documentation analysis which supports the involvement of nurses in the clinical decision making process. For example documents can provide evidence of nurses' involvement in the total quality cycle of care delivery. Documentation forms part of the clinical governance assessment process in which professional performance, involvement and outcome quality can be assessed (Swage, 2000).

A quasi-statistical analysis style was used in examining the documents. To analyse

the data a word table was created from the results as follows: Name of document; changes that were made; nurse initiation; nursing input into the changes and advantages that the changes have provided to patient management processes were identified. From the collation of the data, information was quantified into an excel spreadsheet. Specific aspects that were explored were the quality of results, which support clinical involvement and the provision of autonomy of practice for the nurses. The information in the documents were put into a table to show nurses' involvement in the initiation of changes and whether nurses drove the documentation development. Time frames indicated the time spent on developing the documents. Differences that the document changes had made to the quality of patient care were indicated in table form. These were then presented to the senior team for cross validation.

Conclusion

This process evaluation has studied the shared leadership model to examine whether the model introduced during a change process has allowed nurses to become actively involved in patient management. It can also provide information to maintain and develop quality. Assessment during the implementation process allows for further refinement and improvement of a project (Posavac & Carey, 1997).

Although triangulation of data was difficult due to the subjective nature of the study, open-ended questions were analysed both separately using a frequency table

of thematic analysis and also with the questions using comparisons with the frameworks of Benner (1984) and Porter-O'Grady (1992). Document analysis focused on seeking evidence of active involvement by nurses in the development and research of new clinical processes that support active patient management.

Chapter 4 will provide the results of the data collection and an analysis of those results in the context of the research question.

Chapter Four

Results and Analysis

The questionnaire and analysis of documents were aimed at providing evidence that nurses were more actively involved both in direct and indirect patient management. This chapter will present the findings from the questionnaire and the documents that were examined for the evaluation. The presentation of the summary of findings follows the questionnaire format and the discussion of results includes the responses to the closed questions with the related open-ended comments that nurses have added. Graphs and tables have been used to present the data and to correlate relationships between the data in an attempt to provide further depth to the responses and to allow for a more comprehensive analysis. Percentages have been calculated to the next whole number using Microsoft Excel calculations. The analysis that has been included this chapter has used Porter-O'Grady's (1992) committees based shared leadership model and Benner's (1984) model of skill acquisition as the reference.

The questionnaire

As mentioned above the questionnaire was comprised of questions that were closed and open-ended. The questionnaire format provided the respondents with an opportunity to expand further on their responses to the Likert scales with comments. The questionnaire was divided into sections. The first section looked at the demographics of the target population. The second section dealt with nurses' involvement in direct patient management and the third section looked at nurses' involvement in indirect patient management such as involvement in

quality processes and development of policies and procedures. Comments from the open-ended questions by nurses have been included throughout the analysis and also separately in a spreadsheet. In the collating of results, these comments were listed separately according to their relation to the topics, the sections of the questionnaire, and according to the nurses' level of practice. There were 104 questionnaires sent out with a return rate of 56%. No follow up took place after the return of the questionnaires to the researcher.

Overview

Responses to the questions were counted and summarised using Microsoft Excel spreadsheets. Sufficient questionnaires were left in ICU for all registered nurses to respond to. From the total target population (n = 104), 56% completed the questionnaire and returned them. The results were collated into categories according to levels of nursing practice. This was done because it was noted that there were variations in the responses to questions between nurses from the different levels of practice. In order to standardise these responses into the levels of practice, Benner's (1984) concept was used as follows:

- CNS – Designated positions according to the hospital's identified senior nurses' salary scale. In the study ICU, the CNS group includes Clinical Nurse Specialists and Clinical Care Co-ordinators.
- Junior nurses – levels 1 and 2 of the PDP [1]
- Seniors nurses - levels 3 and 4 of the PDP

One response was excluded, as the respondent was not involved in active patient management. Table 3 shows the overview of responses.

[1] *Professional Development Programme as discussed in Chapter One*

Table 3. **Overview of total results from the questionnaire**

Overview of total results	**Target**	**Number Returned**	***% of Returns***
Number of questionnaires distributed	**104**	**58**	***56***
Division of nurses			
Designated positions (CNS)	10	9	*90*
Seniors (Levels 3 and 4)	51	33	*65*
Juniors (Levels 1 and 2)	42	15	*36*
Unit Leader	1	1	*100*

The low number of respondents from the junior nurses is possibly due to the fact that very few of them would have been in the unit when the shared leadership model was introduced. These responses may also provide support for Benner's (1984) concept of "novice to expert" where nurses become more involved in clinical leadership and practice development as they become expert in their practice. However, the results may simply mean that for levels 1 and 2 nurses, completing a questionnaire was not seen to be important at that point in time.

Response data: Section 1 - General

The data from this section of the questionnaire relates to the development of the nurses in relation to the PDP. When relating levels of practice to skill acquisition, the differences between responses may vary according to experience as nurses' involvement with clinical practice issues becomes more evident (Benner, 1984). Results from this survey could support Benner's

assumption nurses become more involved in clinical leadership as they gain more experience in the chosen field of practice.

Length of employment in ICU

Table 4 gives the total response to this question, which shows that 60% of the respondents have worked in the ICU for less than 5 years. A portion of these respondents would have been working in the ICU at the time of the introduction of the new model. This means that 40% of the respondents who have worked in the ICU for longer than 5 years would definitely have been working in the unit during the traditional management model prior to the 1997 ICU Review. These nurses could be regarded as the threads linking the present with the past of traditional practice, institutional history and knowledge of the hospital.

Table 4. **Length of time registered nurses have worked in the ICU**

Time in this ICU (Total responses)	**0 - 5 yrs**	**6 - 10 yrs**	**11 - 15 yrs**	**16 - 20 yrs**	**21 yrs & over**
Number of nurses	34	14	8	1	0
% of respondents	*60*	*25*	*14*	*2*	*0*

Before the 1977 ICU Review there was a turnover of 54% per annum of registered nurses in the unit. One of the issues identified in the 1997 ICU Review was that because of the high turn over of nurses in the unit, there was an identified lack of continuity and quality in the nursing practice. This was attributed at the time to the limited number of nurses who had remained long enough to develop the knowledge and skills to mentor and coach new employees. An increase in the number of nurses remaining in the unit for longer

than a year should contribute towards more stability in the quality of nursing practice delivery and more active involvement in patient management.

Experience in ICU

Table 5 shows that more than half of the nurses who responded to the question on total critical care experience had less than 10 years experience in a previous critical care environment with a total of 46% of the respondents having less than 5 years total critical care experience.

Table 5. **Total critical care experience**

Critical Care experience * (Total responses)	**0 - 5 yrs**	**6 - 10 yrs**	**11 - 15 yrs**	**16 - 20 yrs**	**21 yrs & over**
Number of nurses	26	15	10	4	2
% of respondents	*46*	*26*	*18*	*7*	*4*

** Critical care includes "ICU" experience*

Previous experience in the study ICU has not been an essential selection criterion for employment in the unit but it is an advantage for the nurses to have had previous experience in other areas of critical care, such as trauma, general ICU or high dependency. Benner (1984) indicates that nurses with previous experience are able to adapt and utilise skills gained from this experience when moving to a new area of practice. It provides them with the experiential background from which to draw when adapting to the skilled requirements of clinical decision making and assessment skills in the rapidly changing and dynamic environment of ICU. Expansion of nursing roles in ICU have meant

that nurses need to become more responsive to the rapid and dynamic changes that occur in ICU patients (Endacott, 1996).

According to Benner (1984) previous experience in critical care units allows nurses to adapt quickly and therefore become effective members of a team in a relatively short period of time. Although this unit accepts new graduate nurses, numbers are limited and they are carefully selected based on evidence of life skills and attributes which indicate adaptability and quick learning abilities. When the results were divided into junior and senior respondents, 80% of the junior respondents had less than 5 years experience in critical care. Figure 1 shows the distribution of responses comparing the critical care experience with length of stay of the respondents in this ICU.

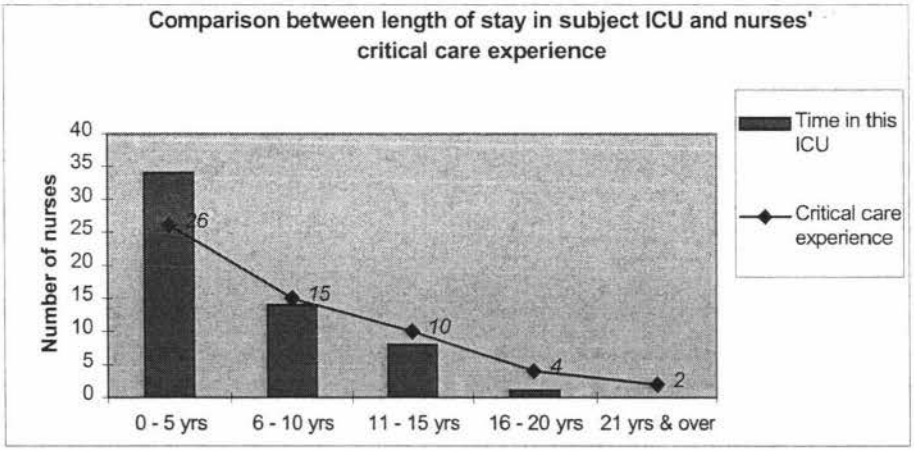


Figure 1. **Comparison between nurses' length of stay in ICU and critical care experience**

It is noted that much of the nurses' critical care experience has been gained in the study ICU.

Figure 2 indicates the responses to the same question from the senior nurses. When examining the senior nurses' responses, 54% of this group had spent less than 5 years working in this ICU. From this same group, 39% of the respondents had less than 5 years previous critical care experience.

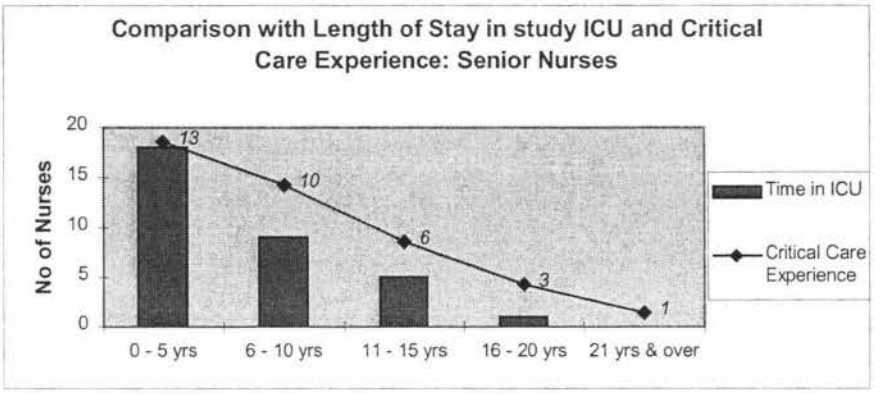


Figure 2. **Length of stay and total critical care experience for the senior nurses**

At the commencement of the new structure in March 1998, 33% of the nurses were of senior skill mix. Table 6 shows the breakdown of respondents' nursing experience gained in their career. Nurses in this question did not differentiate between critical care experience and other experience such as general wards. Using Benner's (1984) model, nurses who have had experience in other speciality areas should have a broader knowledge base on which to draw when practising in new environments. Using this assumption, the broader general experience would complement critical care experience indicated by respondents in the previous question.

Table 6. **Experience of nurses from other speciality areas**

Other specialities	CTSU **	Cardio-logy	Medical	Surg-ical	Paed-iatrics	Neuro-logy	Other *
Number of nurses	52	18	33	42	26	13	13
% of respondents	91	32	58	74	46	23	23

* *"Other" included orthopaedics and emergency medicine*
** *Cardiothoracic*

Secondment since working in the unit

Table 7 indicates the responses from nurses for this section. This question sought to find out whether opportunities had been provided for nurses to stand in or work in place of nurses in other positions within the unit.

Table 7. **Secondment to other positions**

Promotion / Secondment	Yes	No
Number of nurses	22	35
% of respondents	*39*	*61*

Secondment/promotion figures indicate the extent to which encouragement has been given to the nurses to allow them to extend their professional practice by giving them opportunities to work in more senior positions. An example of this would be allowing a level 4 nurse to work in the position of a CNS while that person is away on annual or sick leave, or for longer periods such as parental leave. In this question, secondments applied from one week to the duration of parental leave (up to one year). Of the total responses, 42% senior nurses'

responses indicated that they had been seconded to designated positions at some point during their stay in the unit.

The 1997 ICU Review identified that there had been a stifled approach to professional development and advancement in the unit. When nurses are not given the opportunity to develop professionally and to utilise and foster their skills, they do not contribute as effectively to the development of clinical practice or to effective team cohesion (Porter-O'Grady, 1992).

Figure 3 shows the results from this question according to levels of practice in the unit. All the designated positions except the Unit Leader and one Clinical Nurse Specialist were secondments into permanent designated positions from within the unit at the commencement of the shared leadership model, following normal selection and recruitment processes.

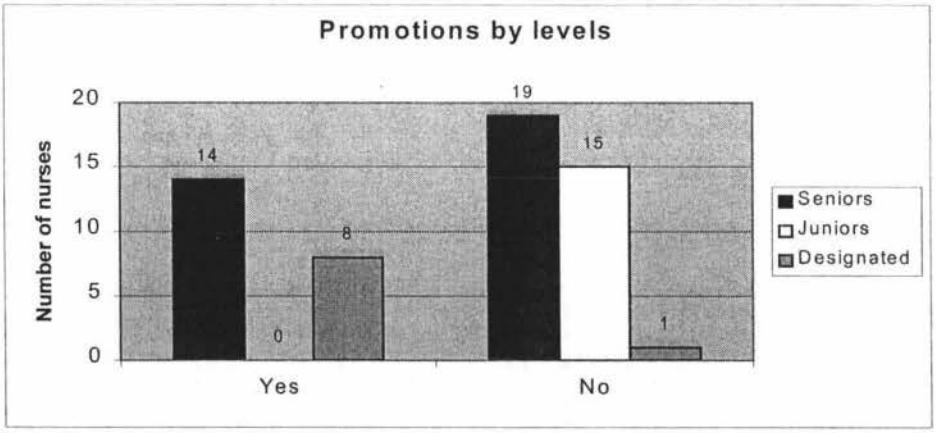


Figure 3. **Secondment by levels**

These results indicate that there is a succession planning approach in the unit. It would have been helpful if this result could have been compared with the 1997

ICU Review. The only comparison that could be used is that at the time of the Review there were 33% identified in the senior nurse category whereas this result indicates an increase in that skill mix. Porter-O'Grady (1992) suggests that one of the most difficult undertakings in a shared leadership approach is the development of leadership skills in staff. The results in this study suggest an active approach to leadership development. Porter-O'Grady (1992) notes that active support in clinical and leadership advancement of nurses acknowledges nurses whilst reinforcing accountability and autonomy, and therefore supporting active involvement of nurses in all aspects of clinical management. Secondment figures show that nurses have had some opportunity to advance their leadership skills and their involvement in the unit activities.

Response data: Section 2 - Direct involvement in patient management

This section relates to the nurses' direct involvement in decision making within the multidisciplinary team. All questions were rated on a Likert-scale rating system as follows: Always; Often; Sometimes; Seldom; Never.

All graphs and diagrams in this section indicate the levels of responses with numbers on a scale of 1 to 5.

Ward Rounds and Multidisciplinary Team Meetings

Ward rounds in the unit are carried out daily at 0800hrs. The rounds are aimed at being multidisciplinary. Included on the rounds is the nurse caring for the patient, the nurse co-ordinating the shift, allied health professionals (dietician, physiotherapist and social worker), surgeons and their registrars, and the

intensivist and registrars currently working in the ICU team. The aim of the ward round is to discuss the patient's condition within the multidisciplinary context and plan for the care of the patient for the next 24-hour period. Table 8 shows the results from the questions regarding ward rounds.

Table 8. **Ward Rounds**

	1	2	3	4	5
	Always	**Often**	**Some times**	**Seldom**	**Never**
Ward Rounds					
Ward Rounds are informative for patient management	7	28	19	3	0
I am able to actively contribute to discussion of patient management	12	29	15	1	0
I am able to ask questions with regard to patient management	26	22	7	2	0
The ward rounds are multidisciplinary	12	25	12	6	2

When looking at the divisions between the levels of practice, 89% of senior nurses found the ward rounds positive and rated them between 1 and 3 on the Likert scale whilst the juniors and CNSs' responded between 1 and 3 on the scale. (Figures 5, 6 and 7 further on in the chapter show these results graphically).

Ward rounds are regarded as teaching sessions for the registrars and house officers working in the hospital and so there are generally more doctors than is

perceived necessary for the management of the patient. In the 1997 Review it was identified that these rounds were not multidisciplinary and that the doctors dominated the round, seldom asking for the opinion and report back from other members of the multidisciplinary team. This was identified as being a major source of dissatisfaction amongst the nurses. It was also perceived as affecting the multidisciplinary approach to patient management.

Comments in the open-ended section of the questionnaire were not as positive as the Likert scale responses. There were negative comments regarding ward rounds. One nurse said that the ward rounds had too many people on them and the multidisciplinary approach needed further development. Because the rounds were large, comments indicated that it is often *"difficult to hear what is being said"*. One respondent indicated that personalities and interpersonal relationships played a part in the ultimate productivity of ward rounds. Some nurses claimed that there were *"too many ward rounds with a lot of doctors who never arrived at any real conclusion regarding patient management"*. The same respondent commented that it took *"three to four rounds by the registrar before any formal plan for the patient was written up"*. Another nurse indicated that more planning was resolved after the rounds by the registrar.

Figure 9 shows the total results from the question regarding the nurses' involvement in the Multidisciplinary Team (MDT) meetings. Multidisciplinary team meetings are aimed at those patients who to require long term care in the unit. The meetings involve the discussion of the management of individual patients with the goal of providing holistic and co-ordinated care. Results in the

table when divided into the different levels of nurses showed that 83% of senior nurses rated their involvement in MDT meetings between 1 and 3 on the Likert scale. Junior nurses' results showed that 78% indicated the same ratings whilst CNSs showed 85% of responses in the same rating.

Table 9. **Responses regarding Multidisciplinary Team Meetings**

Multidisciplinary Team meetings (MDT)	**1** **Always**	**2** **Often**	**3** **Some times**	**4** **Seldom**	**5** **Never**
I find that MDT meetings assist in planning patient care	18	23	9	2	5
I am able to contribute to the discussion surrounding my patient and the care required	25	16	5	1	10
I feel included in the discussion involving care planning at these meetings	27	13	4	2	11

Comments in the open-ended section were favourable. One nurse said that the meetings have become more multidisciplinary in focus. There were 5 nurses who indicated that they had never been involved in MDT meetings and therefore could not comment. Reasons given by these nurses ranged from the fact that they work permanent night duty and therefore do not have the opportunity to attend, and 2 said that they had never been involved even when on day duty. One nurse suggested that these meetings *"duplicated ward*

rounds" but that they should *"continue with perhaps some changes, which should be made to the structure of the meeting".*

The 1977 ICU review identified these meetings as being poorly representative of any of the multidisciplinary team members. Nurses when responding to this questionnaire indicated that the meetings were not involving the health care professionals fully and that the care of the patient was not being addressed in a co-ordinated manner. Nurses said that the meetings were medically focused and the nurses perceived that their opinions and contributions were undervalued and claimed they were not made to feel a part of these meetings.

Since the introduction of the shared leadership model in March 1998, the Clinical Care Co-ordinators have managed the MDT meetings. They co-ordinate the planned care of those patients considered to require an individualised approach. The meetings are held once a week on a Tuesday morning after the ward round. All those patients who have remained longer than 72 hours in the unit are discussed at these meetings and a weekly plan of care is established. The MDT meetings do not include the patients who remain on the surgical pathway that do not vary from the expected progress. The surgical pathway involves the care that is routinely given to all patients following surgery and covers a plan for 10 days of "uneventful recovery" post operatively. Any patient who cannot be routinely cared for using the guidelines provided on the pathway is seen as a "variance" and is then individually case managed so that care is addressed according to the particular needs of the individual patient.

Figure 4 shows the comparisons between responses to ward rounds and MDT meetings. CNSs scored ward rounds less favourably than senior nurses, whilst junior nurses rated ward rounds more in the "sometimes" score. MDT meetings scored better with juniors and designated positions than the seniors. It is not clear from the results why there is this variation in favourability towards these meetings in this way nor does it fit with Benner's concept of increasing independence as nurses become more expert in their specialty practice. Nurses indicated that involvement of allied health disciplines such as the dietician and the pharmacist was a positive step in the ward round structure.

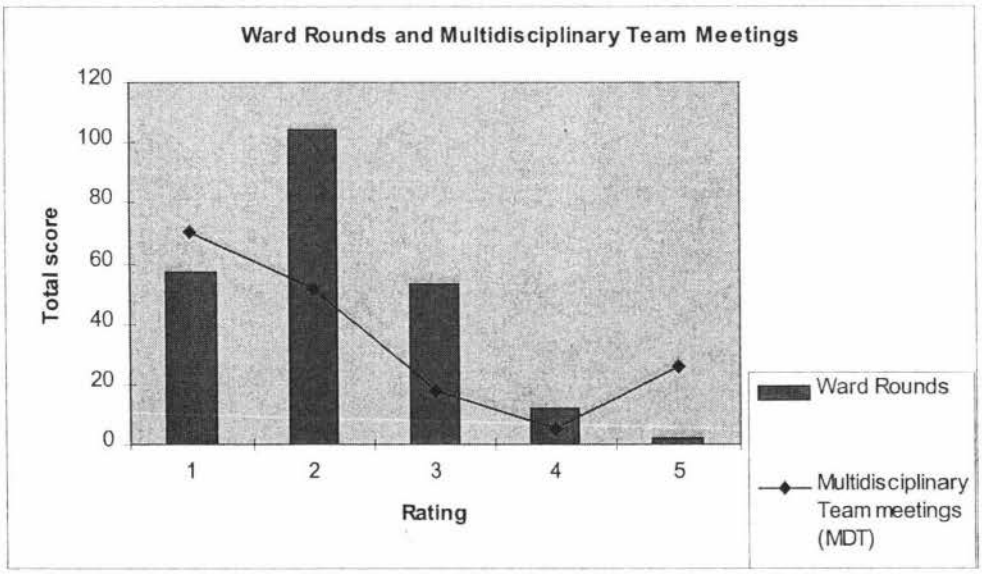


Figure 4. **Comparison of ward rounds and MDT meetings**

Some nurses in their comments for this section indicated concern that the MDT meetings and ward rounds duplicated some of the information and activities surrounding patient management and planning and that it would be helpful if both were more streamlined. One nurse's comment stated that ward rounds were still *"pretty hopeless"* and *"nothing much was concluded"*. One comment

suggested that it was difficult to attend the MDT meetings, as there was never anyone to relieve the nurse at the bedside.

The next three tables (Figures 5, 6 and 7) show the comparison of responses between the CNS, senior nurses and junior nurses.

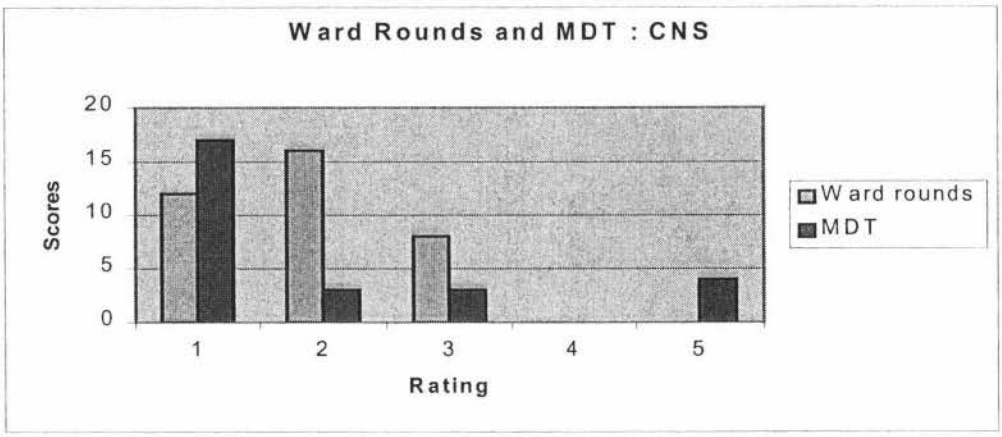


Figure 5. **CNS responses to ward rounds and MDT meetings**

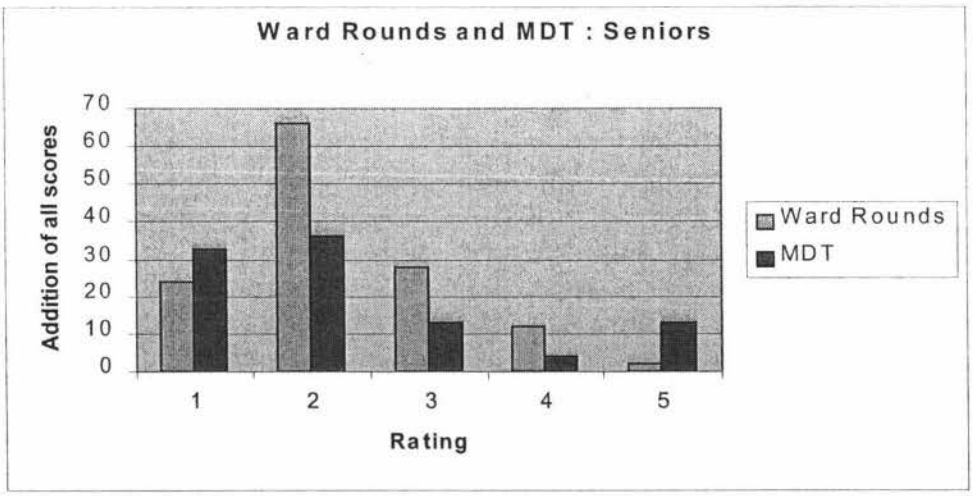


Figure 6. **Senior responses to ward rounds and MDT meetings**

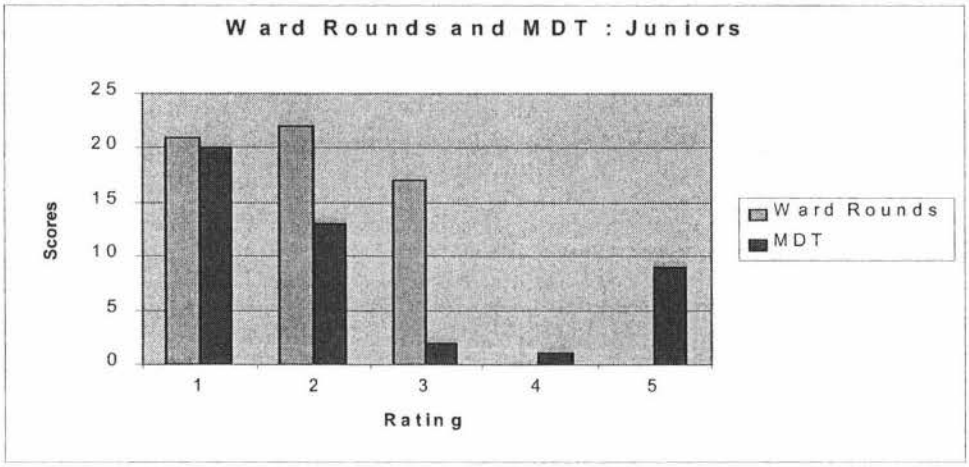


Figure 7. **Junior responses to ward rounds and MDT meetings**

Relationships with other healthcare disciplines

This section was divided into relationships with medical, nursing and allied staff, as there is a wide variation in response to each group. Table 10 shows the total results from this section.

Table 10 **Total results from the section on relationships with other healthcare disciplines**

"I am able to approach other members of the healthcare team in order to discuss the patient's condition"

Relationships with other health care disciplines	**1** **Always**	**2** **Often**	**3** **Some times**	**4** **Seldom**	**5** **Never**
Surgeon	10	8	21	17	1
Intensivist	36	17	4	0	0
Registrars	44	13	0	0	0
Pharmacist	39	13	4	0	1

Relationships with other health care disciplines	1 Always	2 Often	3 Some times	4 Seldom	5 Never
Physiotherapist	41	11	1	2	2
Social worker	33	11	8	3	2
Clinical Charge Nurse	48	8	0	1	0
Clinical Care Co-ordinator	36	11	7	1	2
Other	5	1	0	0	0

"My opinion and suggestions with regard to patient management is valued by the:"

Relationships with other health care disciplines	1 Always	2 Often	3 Some times	4 Seldom	5 Never
Surgeon	3	6	23	13	12
Intensivist	7	24	19	5	2
Registrars	14	27	11	5	0
Pharmacist	15	26	9	5	2
Physiotherapist	19	28	5	2	3
Social worker	15	21	11	4	6
Clinical Charge Nurse	25	28	4	0	0
Clinical Care Co-ordinator	20	22	12	0	3
Other	0	3	0	0	0

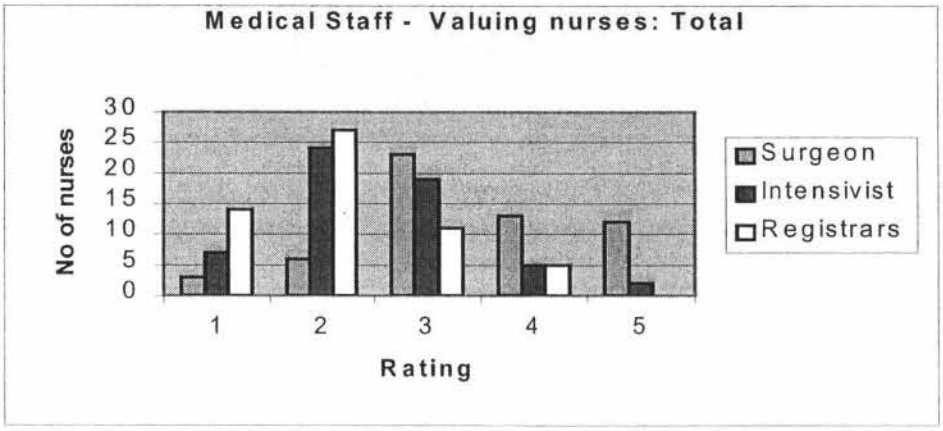
Total results show that 86% of the respondents indicated that they were able to approach other healthcare members of the team with ratings between "Always" and "Sometimes". The Review had discussed the perceived lack of multidisciplinary teamwork in ICU and the nurses contended that the patient management was medically focused to the exclusion of other health care team members. Porter-O'Grady & Wilson (1998) suggested that team members

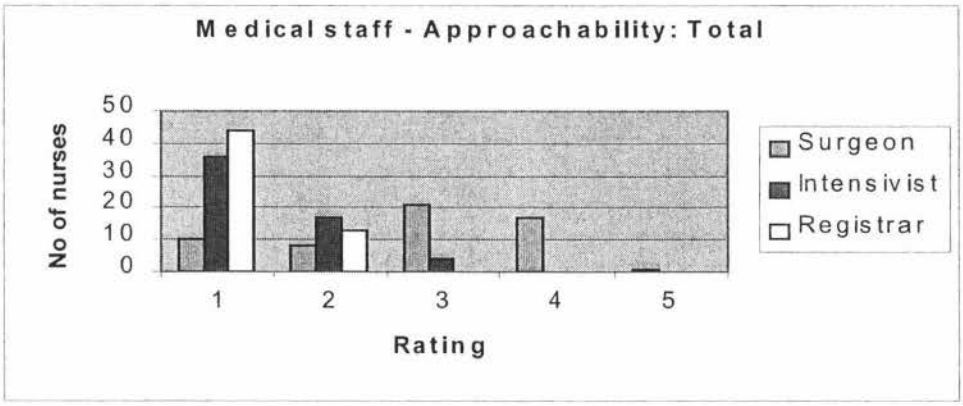
cannot function independently of each other. In a continuum of services the interaction between teams is critical to the patient flow through the hospital system. The team connects the system to the patient and it is through the team that problems are identified and solved.

Medical staff

In this question, nurses were asked to rate the approachability of medical staff and whether nurses believed that medical staff valued their opinions. Nurses were asked about the differences that occur regarding their relationships with surgeons, intensivists and registrars working in the unit. The next two tables (Figures 8 and 9) show the differences nurses perceived regarding approachability of the doctors and whether they thought the doctors valued their opinions.

There was a wide variation between the approachability of medical staff and their valuing of the nurses' opinions with regard to patient management. Nurses ranked the registrars in the unit as the most approachable with all scores being ranked between "Always" and "Sometimes". However the valuing of their opinions by registrars scored considerably lower. Intensivists were rated between 1 and 3 for approachability but scored less favourably with their valuing of nurses' opinions. Nurses scored the surgeons scored lowest in both sections.





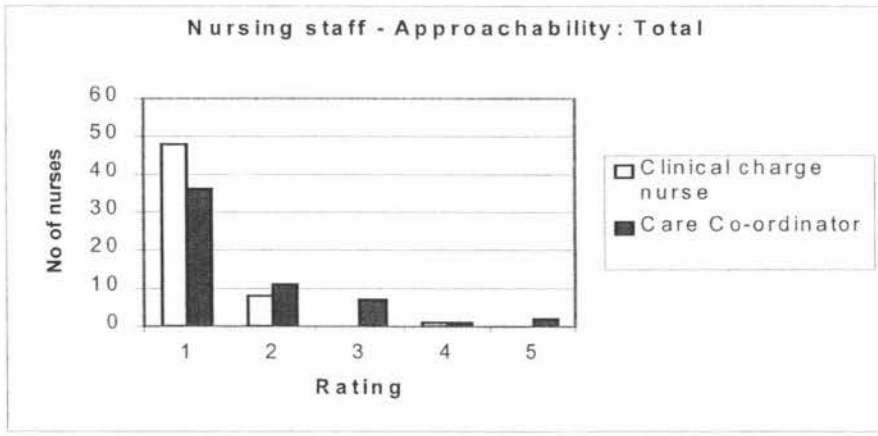
Figures 8 & 9. **Responses to approachability and opinion by medical staff**

The comments made in relation to these questions supported the questionnaire results. Surgeons were viewed as valuing nurses' opinions least, but some nurses did comment that the relationship between nurses and surgeons had improved over time. Some nurses said that they did not often see the surgeons and one had to be quick to speak with them regarding patient management issues. One nurse stated that the intensivists "*were great but the surgeons did not value nurses' input*". Another statement also indicated that surgeons undervalued nurses. One nurse stated " *I often feel that my suggestions regarding patients are totally disregarded by the doctors on the rounds but they become good ideas when there is not a large group of them, especially one to one*". One nurse indicated that "*.... the level of response and activity*

depended on the doctor's mood for the day". Other nurses indicated very short comments such as *"surgeons do not value nurses at all"*.

Nursing and Allied health staff

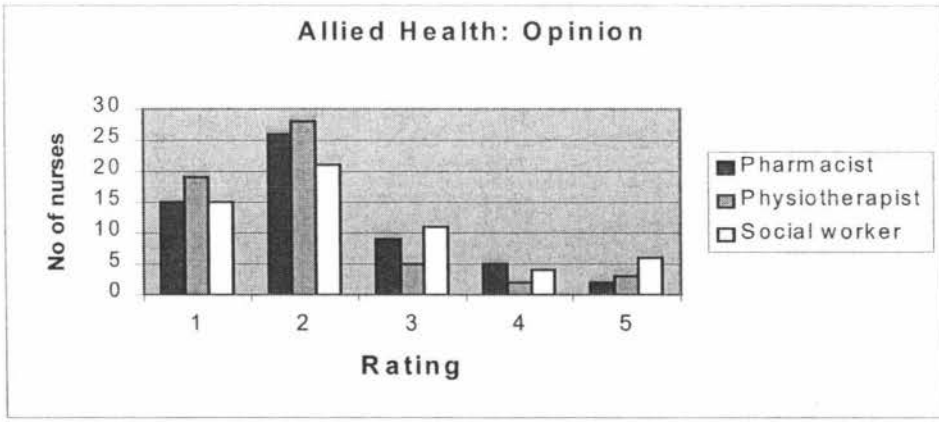
The results to the questions in this section indicate that nurses have built up a good rapport with nursing colleagues and allied health staff. Designated nursing positions such as Clinical Nurse Specialists and Clinical Care Co-ordinators received favourable ratings. Figures 10 and 11 show the graphs of approachability and the valuing of nurses' opinions by other nursing staff.

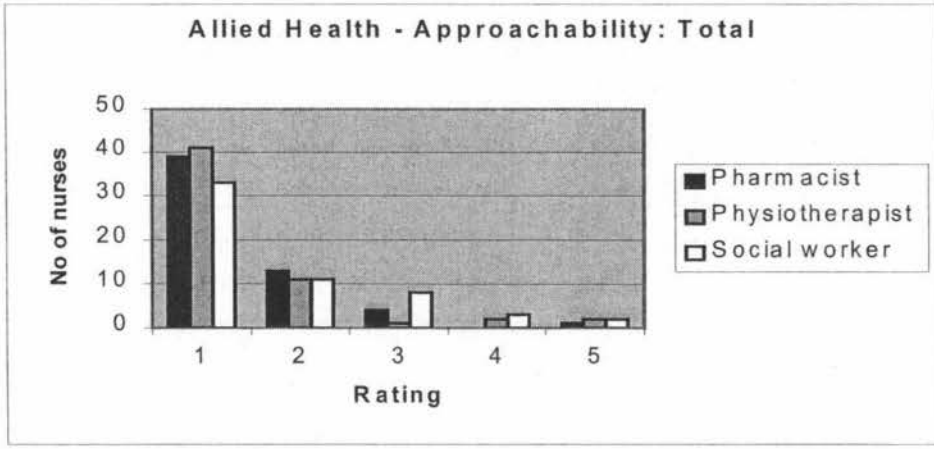


Figures 10 & 11. **Nursing staff opinion and approachability**

Comments in the open-ended section of the questionnaire included the need to have CNSs work alongside new team members especially during orientation. They believed that this would support development and team spirit. Some respondents gave specifically favourable ratings to other senior nurses who did not hold a designated position and also the dietician who supported junior nurses. Two out of the 57 responses found the Clinical Care Co-ordinators were never approachable and 3 found that nurses' opinions were never valued by the co-ordinators. This could be attributed to the fact that those nurses who seldom care for long term patients on a shift rarely work with the Clinical Care Co-ordinators. There are no written individual comments from nurses regarding this section.

Figures 12 and 13 indicate the responses regarding the pharmacists, physiotherapists and social workers.





Figures 12 and 13. **Allied Health staff opinions and approachability**

Approachability in all categories was rated favourably with valuing of opinions as being generally positive. Specific mention was made about the social worker and the dietician who were perceived to be very supportive and willing to work with the nurses.

Indirect patient management

Questions in this section related to the identification of the extent to which nurses were becoming involved in the indirect care of patients. Indirect care includes quality improvement initiatives, changes to procedures and nursing policies which impact on the way nurses manage the care of their patients. According to Porter-O'Grady (1992) shared leadership is clinically driven and thus means that nurses become involved in all aspects of patient management, including audits, maintenance of quality, and reviewing policies and procedures in the unit.

Involvement in development of policies and quality of nursing practice

This section dealt with aspects of nursing practice essential to maintaining quality, professional and evidence based practice standards in the unit.

Of the responses 100% of the CNSs said that they were involved in quality related initiatives, 55% of senior nurses and 33% of the juniors ranked their responses between "Always" and "Sometimes". When analysing the results from this question, all the CNSs are involved in quality improvement

initiatives and more than half of the senior nurses in the unit indicated their involvement in these processes. Figure 14 shows the total responses to this section. Nursing management in the traditional model performs the function of policy development and process quality improvement initiatives. Benner (1984) suggests that as nurses become more experienced in their speciality, so too do they become involved in processes relating to patient care, given the opportunity to do so.

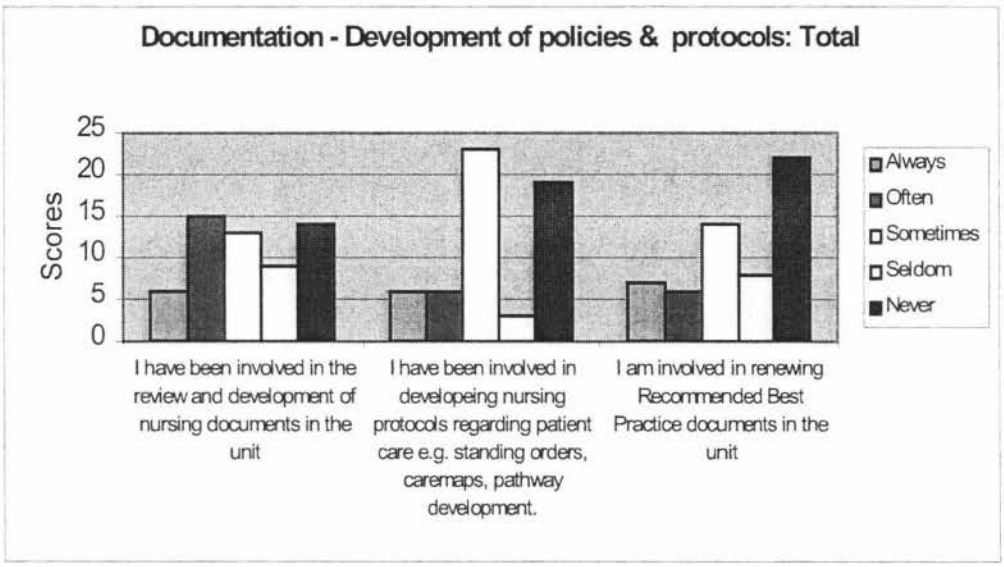


Figure 14. **Responses of nurses to their involvement in documentation processes**

Comments in the open-ended section were mixed. One senior nurse said that "*juniors are not given time to follow up on projects as much as seniors are*". Another said "*doing project work meant doing a lot of work in your own time*". One said that nurses are "*.....actively encouraged to become involved in change and that the challenge has been to have faith in personal contribution*

and the worth of it and then being committed to following the project through". One nurse stated that *" the [shared leadership] model is empowering but not all staff use this to greatest advantage".* Another statement mentioned that *"being involved in groups of change meant doing a lot of work in your own time"* and that *"level 2 staff need to have more time to complete projects and not just the seniors".*

Porter-O'Grady (1992) notes that a unit programme in a shared leadership model requires integration and representation with nurses in the unit as well as the organisation's quality assurance programmes. By doing this, it is assumed that nurses involving themselves in practice development will be also become involved in direct patient management. Porter-O'Grady contends that all shared leadership models should reflect a clinical base of organisation rather than an administrative structure. Ownership of the clinical processes is vested in those who are involved in them and not those in management roles (Porter-O'Grady, 1992). Porter-O'Grady notes that in the centre of the circle is the registered nurse, who by both role and location connects the organisation to the service it provides.

There were few comments relating to this question but all were of a positive nature highlighting the opportunity afforded nurses to become involved in quality processes and encouraged to participate in change.

Figure 15 shows the responses divided between CNS, seniors and juniors in the unit. The trends that are indicated in these responses provide support for Benner's (1984) model of skill acquisition.

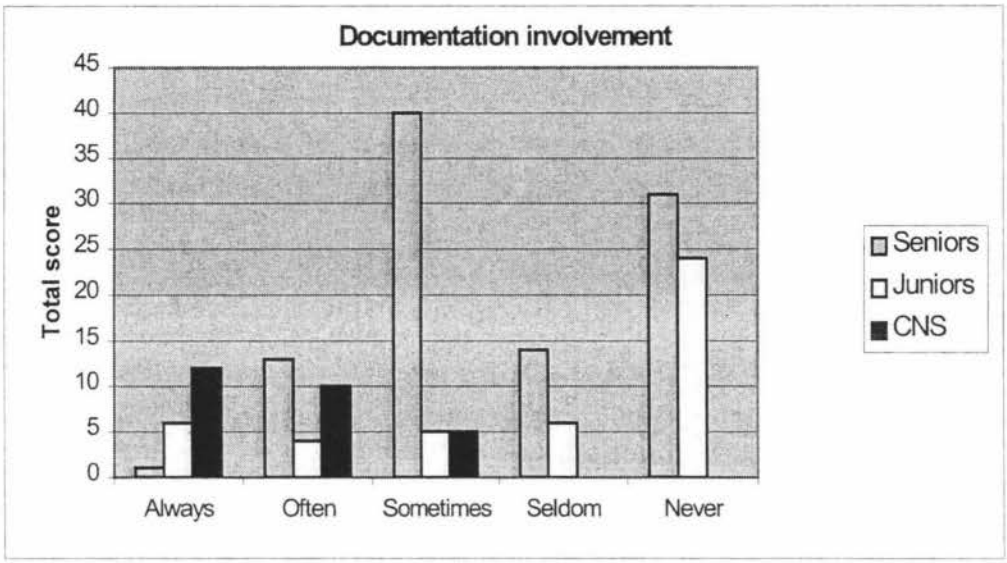


Figure 15 **Division of responses between nurses' level of practice regarding the question on nurses' involvement in documentation development**

These results suggest that all CNSs are involved in some way with the development of documentation with all responses falling between "always" and "sometimes". A large proportion of seniors indicated their involvement with 55% stating that they were involved in some way with documentation development. Of those who stated that they were involved, 40% indicated their involvement "sometimes" with 1% stating that they were 'always" involved. Of the junior responses, 33% said that they were involved between "always" and "sometimes" and 67% said that they were seldom or never involved. Of this group, 53% indicated that they were never involved in documentation development.

This distribution indicates that all CNSs are actively involved in the change processes of patient care within the unit. More than half of the senior nurses have indicated their involvement in documentation development. It is expected that all level 4 nurses become involved in documentation development as they are considered clinical experts in the unit and are therefore able to best represent the clinical needs of the unit. Measurement of level 4 only was not possible in this study.

The results of the juniors to this question are in keeping with accepted levels of experience and involvement in the unit according to the PDP. Junior nurses who indicated their involvement in documentation development had worked in the unit for more than 18 months. Benner (1984) contends that the more experienced a nurse becomes, the more involved in the total care of a patient that nurse becomes. Expert nurses no longer rely on the analytical rules and guidelines to connect understanding of the situation to an appropriate action. A shared leadership principle suggests that nurses are the experts in care delivery as they work at the point of service (Porter-O'Grady, 1992). The study ICU uses this as the foundation, embracing the PDP to encourage nurses to become involved in all aspects of patient management that gives nurses authority to expand and develop clinical practice.

This question is closely linked with the next question, which addresses involvement with quality of nursing practice. Figure 16 shows the total score with regard to involvement in quality of practice processes. In this section,

94% of CNSs answered between "Always" and "Sometimes", and 59% of seniors and 45% of juniors were within the same categories.

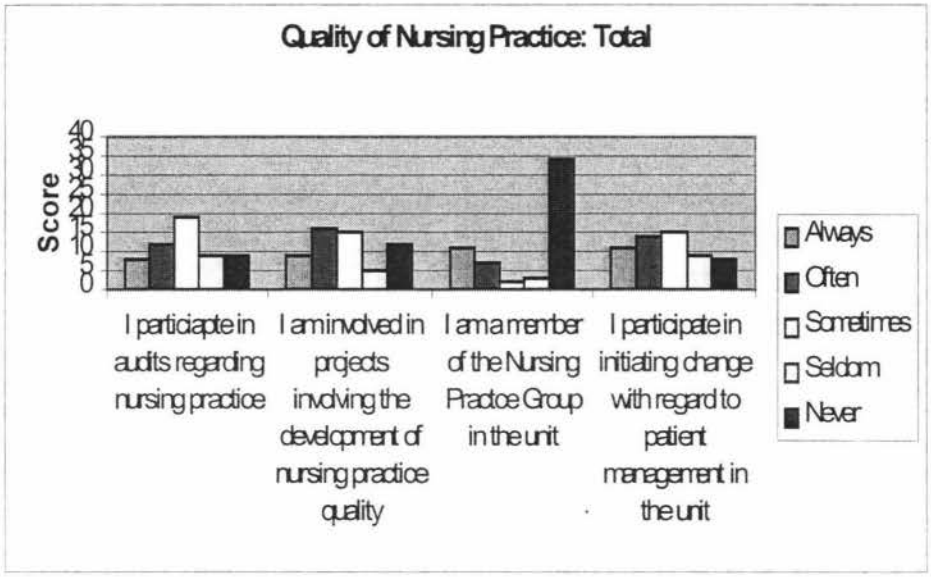


Figure 16 **Nurses' responses to involvement in the quality of nursing practice**

Comments in the open-ended section of the questionnaire included issues involving time spent doing project work for changes to clinical practice. One nurse felt that "*far too much of one's own time was used and not enough time was given to nurses at work to carry out quality initiatives*" and that there was an "*... expectation to do a lot of work in one's off duty time*". Others said that it was *"really great"* to have the opportunity to be involved in quality changes. Another nurse indicated that "*being in teams allowed for active involvement in the unit activities from all levels of nurses*". A nurse who had worked in similar units in other countries said that "*the unit allowed direct and clear authority for nurses to change practice and opportunity was there for nurses to do so if they wished*".

The variation in responses to the involvement of nurses with the Nursing Practice Group is in keeping with the unit structure's committees. The Nursing Practice Group is a committee that was formed at the beginning of the implementation of the shared leadership model and provides direction for quality issues pertaining to the unit. It replaced the previous Unit Review Group. The group links in with the hospital wide Quality Group. Nurses volunteer to be involved in the group. Figure 17 shows the categories of the responses to nurses' involvement with quality processes by levels of practice.

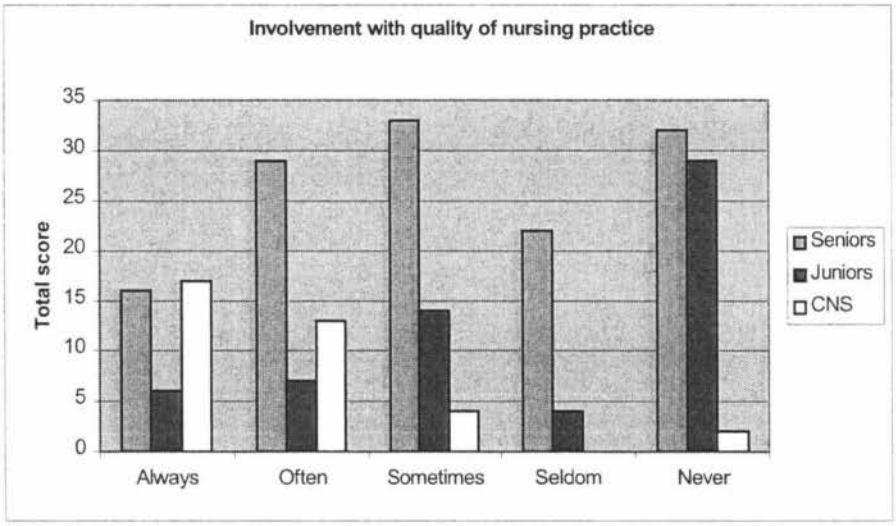


Figure 17. **Nurses involvement in quality of nursing practice by levels.**

The distribution of responses indicates that CNSs are most involved with quality in clinical practice, with 96% indicating that they "always", "often" or "sometimes" were involved in this aspect of unit work. One CNS indicated no involvement with quality processes at all. It is not clear why this is the case from this study. Senior responses indicated that 50% were involved with quality in some way and 45% of the juniors indicated their involvement.

The variation in results between the levels of practice supports Benner's (1984) concept where nurses who are more advanced in their practice become more involved in managing changes in clinical practice. With 66% of the total responses indicating their involvement, it supports the notion in which Porter-O'Grady (1992) suggests that for shared leadership to be truly operational, nurses must take ownership of all clinical support processes relating to direct clinical practice.

General clinical practices

This question was included to find out how confident nurses were in their own practice. The findings in this section indicate that nearly all nurses in the unit perceive that confidence in their own clinical practice is good. When comparing the levels of practice according to the PDP, 98% of the seniors answered in the scale between "Always" and "Sometimes", 98% of the juniors answered the same and 100% of the CNSs rated their scales within this range. Figure 18 indicates that most nurses are comfortable with their own clinical practice.

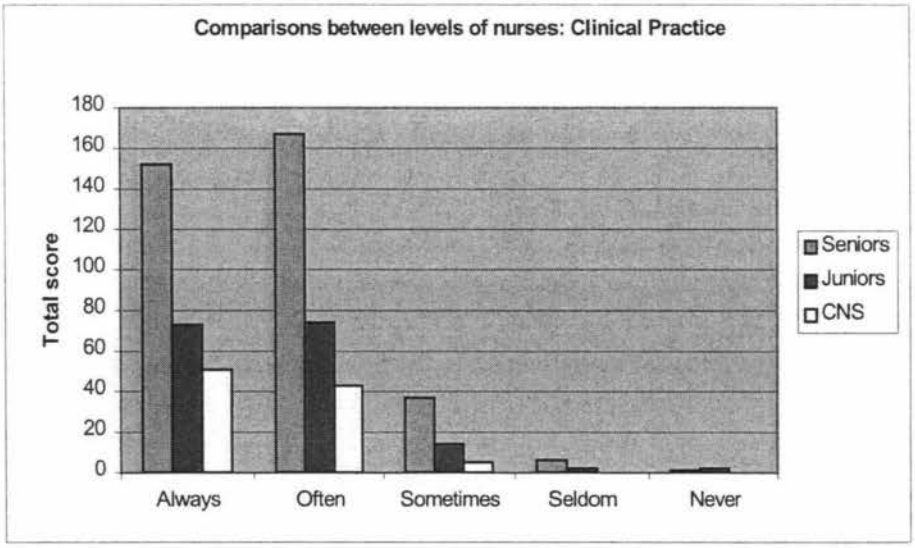


Figure 18 **Confidence in own clinical practice by levels of professional development**

Comments in this section were positive. One nurse said "*having had experience in other units, working in this model is empowering but that not all staff use this to greatest advantage*". Another stated "*I have worked in many specialist units and feel the structure of the unit creates an atmosphere that supports team work and also autonomous thought and practice*". Another statement said "*Teams allow and promote more actual involvement in the unit activities from a lower level and give support and confidence to all the team members, however, if CNSs worked alongside new unit/team members especially during orientation it would promote learning and understanding, whilst developing team spirit*". Another nurse stated "*having come to the unit with no experience, the opportunities to grow and develop as a nurse have been very beneficial*". Another was "*... not enough credit was given to nurses with previous experience and that the education framework was a little too rigid, causing frustration*".

Comments indicated that orientation in the unit was good and that general support and education networks were well structured and in place. One nurse said that "*education of new staff has improved 100%, you used to be chucked in at the deep end so to speak.*" Nurses commented that they felt fully supported with learning opportunities being excellent. One comment suggested that learning opportunities were weighted towards seniors more but that overall, education and support had *"vastly improved"*.

Professional development opportunities was regarded as positive " *Implementation of the shared leadership model has made a difference to the way education has been able to be delivered. There is now a more extensive and creative education framework offered to staff. This has a direct impact on the quality of care delivered to the patients."* Another commented " *I feel sure that should I pursue further career opportunities in ICU that I would be fully supported by my colleagues*", "*shared leadership seems to involve active participation by all*" and "*for me personally the challenge has been having faith in myself that my contribution is worth something and then being committed to seeing things through.*"

Confidence in individual clinical practice assumes that all nurses are full participants in the profession's work (Porter-O'Grady, 1992). Shared leadership has a principle which when applied to clinical practice, indicates that accountability only truly exists where the authority for it does. If there is no authority there is also no accountability. Porter-O'Grady (1992) suggests that participatory efforts are not characteristic of real shared leadership. For shared leadership to be working, nurses must become the stakeholders in the work of healthcare and want to do all that is possible for them to render a good delivery of care. Before the introduction of the shared leadership model, nurses indicated in the 1997 ICU Review that they were not happy, did not feel confident and were not supported or acknowledged in their efforts. Learning and support to settle into the workplace was inconsistent.

Analysis of comments

While the comments have been included throughout the above sections to provide further explanation for the responses to the quantitative aspects of the questionnaire, this section examines the comments quantitatively. Table 11 indicates the number of comments, and shows the breakdown between CNS, senior nurses, junior nurses and categorises them according to the sections in the questionnaire.

Table11. **Comments categorised into sections corresponding closest to questions**

	General		**Ward rounds**		**MDT**		**Relationships**						**General practice**						**Quality**		
							Medical		**Nursing**		**Allied**		**1.Confidence 2.Teamwork 3.Education**								
	pos	**neg**	**pos**	**neg**	**pos**	**neg**	**pos**	**neg**	**pos**	**neg**	**pos**	**neg**	**pos**	**neg**	**pos**	**neg**	**pos**	**neg**	**pos**	**neg**	
Juniors								1	1							1	2	1			6
Seniors	4			4	1	1	1	3			1		5		4	2	6	2			34
CNS	1		1	1	1						1						2		2		9
																					0
Totals	**5**	**0**	**1**	**5**	**2**	**1**	**1**	**4**	**1**	**0**	**2**	**0**	**5**	**0**	**4**	**3**	**10**	**3**	**2**	**0**	**49**
Pos	**33**	**67%**																			
Neg	**16**	**33%**																			

Some comments overlapped themes and so they were categorised into the section they related to most.

The distribution of positive and negative responses between the nurses' level of practice indicates that the senior nurses were the most responsive. Many of the comments were constructive whether negative or positive. Of the total responses, 23 of the 58 respondents added comments to their questionnaire. Of

these, 2 nurses held designated positions, 16 were senior nurses and 5 were junior nurses. CNSs provided more positive comments than other levels, the juniors' comments were more evenly distributed. Of the seniors, 20 responses of a total of 34 responses were positive. Some respondents added more than one comment and so the total number of comments added to questionnaires was 49.

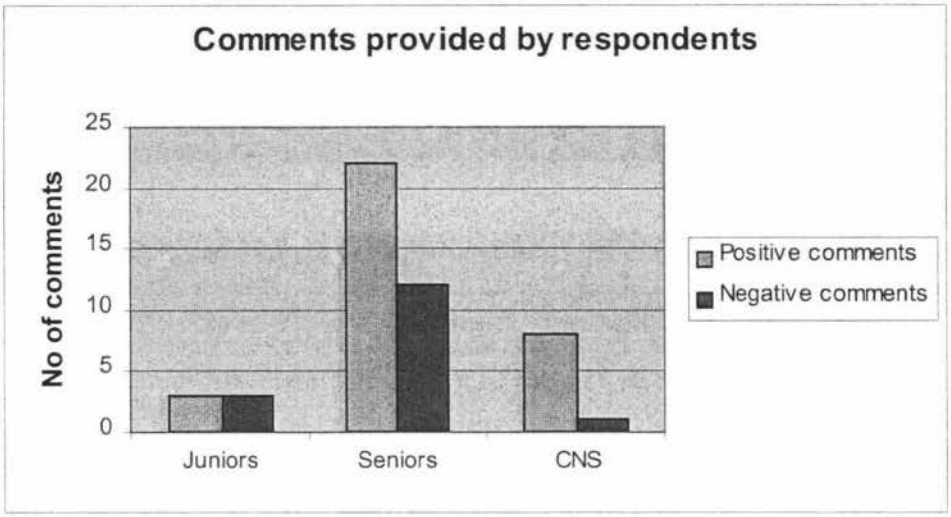


Figure 19. **Comments from nurses divided into level of practice**

In summing up all the comments using Microsoft Excel, 67% of the comments were positive. Of the 33% negative comments, suggestions were constructive in nature and generally indicated willingness by the nurses to support and contribute to improvement within the unit.

Examination of documents

The purpose of this section of the study was to look at one of the areas where nurses have been able to demonstrate their increasing involvement in patient management through indirect care. It aimed to establish how much of the documentation changes relating to clinical practice were initiated and driven by

nurses and to what extent nurses have been able to become involved in changes to clinical processes.

This section of the study examined documentation, nursing protocols, guidelines, and charts that have been adapted, created or changed over the period of time that the shared leadership model had been implemented. The documents were numbered (coded) and categorised according to nurses' involvement. Indicators, which provided evidence of clinical leadership and nurses' active involvement in patient management, included nurses' actual involvement in the process improvement activity, the improvement the documents have made to support patient management process, ability to audit practice, provision of autonomy, and whether training support was provided.

Table 12. **Categorisation of documents which were examined**

Code Number	Nurse initiated	Nurse Driven	Time period for changes – initiate to imple-ment	Improve-patient managem ent process	Ability to audit practice	Support for clinical autonomy	Training support
1	1	1	3	1	1	1	1
2	1	1	2	1	1	1	1
3	1	1	3	1	1	1	1
4	1	1	3	1	1	1	1
5	1	1	2	1	1	1	1
6	1	1	1	1	1	1	1
7	0	1	1	1	1	1	1
8	1	1	1	1	1	1	1
9	1	1	2	1	0	0	0
10	1	1	1	1	1	1	1
11	0	1	2	1	1	1	1
12	1	1	3	1	1	1	1
13	1	1	1	1	1	1	1

Code Number	Nurse initiated	Nurse Driven	Time period for changes – initiate to imple-ment	Improve-patient managem ent process	Ability to audit practice	Support for clinical autonomy	Training support
14	1	1	3	1	1	1	1
Total	**12**	**14**	**28**	**14**	**13**	**13**	**13**
Average %	**86**	**100**		**100**	**93**	**93**	**93**
			2				

Part of the ICU restructuring was the promotion of nurses' involvement in project work pertaining to portfolios of specialty and other identified areas of clinical practice in the unit. As a result, there were many changes made to documents, recommended best practice and education approaches, varying from slight modifications to total remodelling of procedures in the first 18 months of the new leadership structure.

The final tabulation of documents in this section was confirmed by e-mail by the Senior Nursing Team in the unit to confirm that the recording in this study had captured all the documentation development. The changes made to the documents occurred over extended times, with some changes being initiated early on in the restructuring of the unit, but only being implemented further into the development of the shared leadership model. Reasons for this were varied, but large proportions of the delays were attributed to the need for multidisciplinary input and consultation, which took a considerable amount of time to complete. The average timeframe for the processing of changes to documents was 2 years. All documents were noted by the nurses as being supportive of a more streamlined approach to patient care and they also

supported the cycle of quality improvement as nurses found it easy to retrospectively audit patient care from the documentation.

Nurses found the documentation supported independent practice at the bedside within standing orders and guidelines so that nurses did not have to wait for medical agreement before continuing with identified aspects of care in 13 of the 14 documents examined. Educational support in the use of the documents to support clinical practice was identified in 13 documents.

Porter-O'Grady (1992) comments that the individual nurse needs to establish professional accountability coupled with professional responsibility for all issues relating to practice. Given this premise, it would be anticipated that nurses, who are actively involved in patient management, would become involved in changing processes and guidelines, supportive of their practice at the bedside.

Documentation examined has thus shown that efforts have been made to support active clinical leadership and accountability by providing room for individual nursing practice within identified boundaries. Figure 20 clarifies these findings.

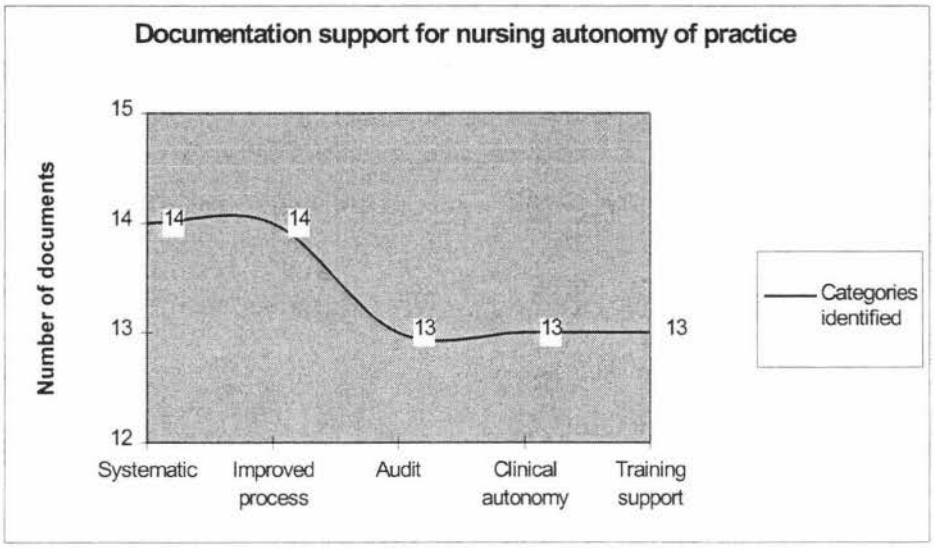


Figure 20. **Changes supporting nurses autonomy of practice in documentation development**

Table 13 gives the list of documents that were examined. Headings indicate the type of document that was examined, the changes that were made to the process, whether nurses initiated the changes and whether nurses drove these changes. Time frames indicate the time taken from initiation to implementation in the process. Results were shown as "quality of results" which were indicated by the senior team who edited the table and the changes that nurses perceived as providing support to practice.

Table 13. **Table showing summary of documents examined**

CODE	NAME OF DOCUMENT	CHANGES MADE	NURSE INITIATED	NURSE DRIVEN	TIME FRAMES	QUALITY OF RESULTS (as identified by senior nursing team)
1	ICU 24 hour observation chart	Patient assessment Daily plan Nursing assessment MDT planning Alignment of observations with fluid balance to view direct correlation at a glance IV fluid prescription Improvement of shift safety check Neurological observations added	√	√	1996 to 1999	Systematic approach to patient assessment with a standardised guide for nurses to follow. Formal communication plan between interdisciplinary team. Reduction of verbal orders and more access to written communication regarding patient management. Reduction in the margin of error resulting from verbal communication.
2	Sedation scoring	Previously no sedation scoring assessment Modifications carried out as required	√	√	1996 1998	Improvement of sedation monitoring. Flexibility allowed meeting patient requirements. Allows for retrospective auditing of sedation usage. Provision for ability to perform economic costing evaluation as was done on Midazolam versus Propofol use.

CODE	NAME OF DOCUMENT	CHANGES MADE	NURSE INITIATED	NURSE DRIVEN	TIME FRAMES	QUALITY OF RESULTS (as identified by senior nursing team)
3	Intra-aortic balloon pump (IABP) checklists Recommended Best Practice (RBP) Documents supporting practice	Initially a new chart, which was, required with the increase of IABP usage and the development of nurses' need to become proficient in monitoring IABP in the absence of perfusionists. The document has been modified according to changing approaches to practice. Structured study days, competency standards and certificate of competency developed. Courses in IABP training offered regionally. Information package completed. IABP CD ROM access provided for ongoing training. Timing guide and procedure for nurses to follow. Audit tool currently	√	√	1996 1998 1999	The combination of the checklists, regular training days and the further development of RBPs have allowed nurses to confidently maintain expert monitoring of a patient requiring IABP. Timeliness of detection of deviations from the given parameters has allowed early intervention of treatment. Retrospective audits can be facilitated

CODE	NAME OF DOCUMENT	CHANGES MADE	NURSE INITIATED	NURSE DRIVEN	TIME FRAMES	QUALITY OF RESULTS (as identified by senior nursing team)
		being developed.				
4	Wound care assessment Recommend-ed Best Practice (RBP) Documents supporting practice	New chart	√	√	1997 1998	Allows for standardised and evidence based approach to wound management Provides nurses with a guideline to wound management especially when they are new to the unit.
5	Enteral feeding Recommend-ed Best Practice (RBP) Documents supporting practice	Initiated and researched commenced in 1996 First phase of enteral feeding completed 1998 Bowel care completed 2000 Medical and pharmaceutical input	√	√	1998 2000	Systematic approach to enteral feeding. Timely and appropriate nutrition. Use of standard equipment and formulae.
6	Haemo-filtration Recommend-ed Best Practice (RBP) Documents supporting practice	Changes were required to this practice with the addition of machinery into the unit in 1997. Education and implementation driven by the senior nurses.	√	√	1997 1998	Systematic approach to monitoring and use of the practice. Provision of guidelines for competency assessment and training
7	Early extubation guidelines	The intensivist wrote guidelines in 1997		√	1997 1998	Fast tracking of routine patients through the unit in

CODE	NAME OF DOCUMENT	CHANGES MADE	NURSE INITIATED	NURSE DRIVEN	TIME FRAMES	QUALITY OF RESULTS (as identified by senior nursing team)
		During 1998, nurses completed the production of the documentation. Nurses drove the education of staff during the year of 1998.				keeping with international standards of practice. Cost effective approach to care in the unit. Standardised approach to the respiratory weaning of patients post cardiac surgery. Ability of nurses to progress through weaning procedure without the necessity of calling for doctor support in the absence of uneventful respiratory weaning.
8	Microbiology sampling guidelines	1. New document 2. Initiated because of the randomness of sampling that was occurring in the unit.	√	√	1998	Standardised and systematic approach to microbiology sampling. Reduction in nosocomial infections Standardised approach to treatment.
9	Multidisciplinary team meetings (MDT) minutes and structure	These meetings have been in existence for a while. When the new structure was implemented, the care co-ordinators restructured these	√	√	1996 1998	The restructuring of the meetings has meant that nurses have the opportunity to play a more active role in patient management. Minutes of the meeting are recorded

CODE	NAME OF DOCUMENT	CHANGES MADE	NURSE INITIATED	NURSE DRIVEN	TIME FRAMES	QUALITY OF RESULTS (as identified by senior nursing team)
		meetings and drove the process Meetings are constantly under modification				in patient files.
10	1. Care co-ordinator patient summary 2. Respirat-ory weaning plans 3. Weekly plans for long term patients	At the commencement of this new role in the restructuring, these 2 nurses created documentation, which would support a systematic approach to patient management with interdisciplinary team communication and collaboration including the nurse at the bedside.	√	√	1998	Systematic approach to care of long term patients in the unit. Interdisciplinary team communication and collaboration. Continuity of the patient care process. Formal process for information continuity between shifts. Progress tracking and monitoring of long term patients
11	Infusion orders	There became a need to ensure that a systematic approach to mixing and administering of infusions was carried out. Standing orders were medically driven but the education was driven by the nurses		√	1998 1999	Systematic approach and standardisation of infusions administered to patients in the unit. Provision of retrospective audit on administration. Reduction in medicine administration errors.

CODE	NAME OF DOCUMENT	CHANGES MADE	NURSE INITIATED	NURSE DRIVEN	TIME FRAMES	QUALITY OF RESULTS (as identified by senior nursing team)
12	Extra Corporeal Membrane Oxygenation (ECMO) Recommended Best Practice (RBP) Documents supporting practice	Development of 3-day training programme. Standards for examination set to international standards. Registration with ELSO database. (International database registry for ECMO), concurrent with Hospital database development. ECMO safe staffing guidelines developed. Development of ECMO record sheet based on Royal Children's Hospital, Melbourne. Currently development of information packages for parents and relatives of patients receiving ECMO. Development of information package for staff. Implementation of log book for staff	√	√	1997 1998 1999	ECMO is a specialised procedure that was controlled by the perfusionists in the hospital. As nurses became more specialised and perfusionists' workload increased, the work of monitoring patients requiring ECMO fell onto the nurses. The development of this competency for nurses has enabled ECMO procedures in the unit to be benchmarked internationally in terms of quality of delivery and maintenance of practice standards.

CODE	NAME OF DOCUMENT	CHANGES MADE	NURSE INITIATED	NURSE DRIVEN	TIME FRAMES	QUALITY OF RESULTS (as identified by senior nursing team)
		clinical hours. Maintenance of regular updates for staff proficient in ECMO with perfusion department.				
13	Pacing guidelines		√	√		Systematic and standardised approach to care Allows for audit of practice Provides guidelines for nurses to deal with changes within set parameters
14	Cardiac surgical pathway development	Due to the expansion of the unit, it became necessary to create a pathway on which standardised care for the routine patients could be facilitated. This was almost entirely nurse driven initially, becoming very rapidly an interdisciplinary team approach.	√	√	1997 1998 1999	Systematic and standardised approach to care of the routine patient. Ability to track variances which indicate the necessity of changes to current practice. An audit tool for assessing the effectiveness of care. Provision of a guideline nurses and other health disciplines to follow.

Conclusion

The results from the questionnaire and the examination of documentation show that since the introduction of the shared leadership model, the majority of respondents believe that they have been able to become more actively involved in the management of their patients in the ICU. There is evidence of this in all aspects of care both to direct patient management as well as in indirect ways such as changes to protocols and clinical processes.

Relationships between doctors and nurses are still an issue that needs further resolution. Comments from nurses in this study indicate that there is still a lack of valuing by surgeons of nurses' contribution to patient management. Overall nurses indicated that relationships have improved between nursing and medical staff in the unit since the introduction of shared leadership.

The introduction of the nurse led MDT meetings has initiated varied responses from nurses, which indicate that this meeting provides a venue for allowing multidisciplinary discussion of patient management. However there may need to be further dialogue and discussion around the format of the meetings. Nurses feel more able to actively contribute to discussion in the ward rounds and indicate that although there are problems associated with relationships between multidisciplinary team members, they are able to discuss patient management in a more open forum.

Ward rounds and relationships between nurses and surgeons are noted to require additional work and exploration in order to bridge the gap that is currently perceived by nurses. Results from the study show that relationships with allied

health and other nursing colleagues are positive. Comments from nurses who have worked in the unit both before and after the introduction of the shared leadership model also indicate this improvement in the team approach to patient management. Nurses who have worked in other hospitals indicate the ease at which the shared leadership model has allowed them to become involved in both direct and indirect patient management processes.

Professional development and the process of supporting nurses to take an active part in clinical leadership addresses one of the shared leadership principles. Most nurses' comments from the questionnaire indicate that there is improvement with regard to individual nurses' preparation to becoming involved in unit processes associated with patient care. These include involvement in the changing of nursing procedures and policies, quality improvement processes and unit management relating to clinical care activities. Results indicate that nurses perceive the professional development process underpinning their preparation to take on a more autonomous role in the unit as satisfactory. Those nurses who have worked under both the previous leadership model and the new model have indicated an improvement in the support, orientation and education framework in the unit. Nurses indicate that education in the unit and the support that has been provided has assisted and allowed nurses' active involvement in patient management.

There is evidence of nurses' involvement in quality initiatives relating to clinical practice processes being changed in order to provide a more streamlined approach to patient management. Evidence of this is seen in nurses'

involvement in the initiation of changes to, and the development of, clinical care processes. All but one of the documents examined showed that nurses initiated changes. It should be noted that there is a perceived division between what senior nurses are granted in terms of project time and that of junior nurses.

Porter-O'Grady (1992) contends that shared leadership recognises 5 professional accountability areas, these being practice, quality assurance, competence, research and management of resources. The models of leadership need to be clinically based rather than administrative as the culture and circumstances of each patient drive the clinical decision making process and the related work of any unit or ward. This means that for nurses to be actively involved in patient management, indirect patient activities such as quality improvement and development of procedures, supported by structured education and professional development, need to work in tandem with actual clinical practice.

The themes, which have been identified from the results in this chapter, will be examined in the discussion in chapter five, in the light of literature on shared leadership. Chapter six will conclude the thesis with recommendations for further study.

Chapter Five

Discussion

This chapter will discuss the research findings in relation to the research questionnaire and the literature that was introduced in Chapter 2. As stated earlier, this study evaluated the process of implementing a shared leadership model in an intensive care unit of a specialist hospital in New Zealand. The research question was: *" Has the introduction of a shared leadership model in an intensive care unit enabled nurses to take an active role in patient management?"* The study aims were to explore nurses' perceptions of their involvement in the management of their patients whilst identifying potential organisational and professional factors influencing nurses' involvement. The study also aimed to describe the management of change in enhancing clinical decision-making and nursing input into the management of patients in ICU.

The findings from this study suggest that the majority of respondents believe that they have been more actively involved in patient management since the introduction of the shared leadership model in the unit. The responses in the questionnaire indicate that nurses perceive themselves as having increased input into the unit activities in all clinical processes, both directly and indirectly.

As outlined in earlier chapters shared leadership is team-based and encourages clinical input into unit management. As noted in Chapter 2 little systematic research was found about shared leadership models or the leadership outcomes achieved (Gavin, Wakefield & Wroe, 1999; Hess, 1998), with most literature

focused on staff satisfaction, staff retention and social relationships. There were limited numbers of studies about the ability of nurses to become more actively involved in clinical practice through enhanced teamwork and relationships.

Planned approach to the change process

When evaluating the progress being made in the development of the shared leadership model, it became clear to the researcher that evaluating the model in its totality would be a very large undertaking, too large for a Masters thesis. The decision was made therefore to evaluate one aspect of the model, that being the nurses' ability to become actively involved in patient management.

Although the study focused on issues that were highlighted in the 1997 ICU Review, the researcher found it difficult to fully analyse the results of the study without a baseline comparison of the areas being surveyed. The 1997 ICU Management Review was not comprehensive enough to provide this baseline nor did the literature provide many examples of similar situations. A 'before and after' study may not have allowed evaluation of the effectiveness of the shared leadership approach even with two different measurements six months apart (Ludemann & Brown, 1989). The validity of using recall of nurses' perceptions between two surveys has also been questioned. It has been suggested that it is not possible in the 'real world' of rapid change to accurately measure the effectiveness of change through recall and that frequent time series studies may be the only way to achieve this (Ludemann & Brown, 1989). This would suggest that even if this study had used two time series evaluations, one at the beginning of the new development, the findings might not have been any more

conclusive than the existing ones. Analysis may have been easier had the evaluation process been an integral part of the initial development and planning, with clear criteria for evaluation established over time in a planned and structured way.

Relationships, decision making and teamwork

The results indicate that although nurses believe their relationships with doctors have improved, there are still issues relating to communication, valuing and unresolved conflict between the nurses and doctors, particularly the surgeons. Comments by nurses in the questionnaire indicate that doctors still dominate ward rounds and do not contribute to a collaborative and team approach. Comments indicate that more communication and collaboration regarding patient management is still done after the ward rounds on a one-to-one basis between the nurse and the ICU registrar at the patient's bedside. Nurses noted that it is difficult to engage the surgeons in discussion regarding patient management and that nurses still felt undervalued by the surgeons.

In a study conducted by Spooner, Keenen & Card (1997) results indicated that participants practised with a high degree of empowerment but often assumed less accountability for situations. It also found that partnership in decision-making was the concept that had the lowest percentage of criteria being met. In the analysis, Spooner et al (1997) suggested that critical care nurses not being allowed to participate fully in decision making was a potential area of tension given their specialised knowledge and skill. Their study suggested that these nurses practise with a higher degree of empowerment, accountability and

personal reliance, with less sharing and partnership with other professionals. The results from this research study indicate an improvement in the perceptions of nurses when comparing the comments documented in the ICU Review of 1997. It is evident however, that nurses are able to work better with doctors such as the registrars and the intensivists, who worked more closely with them in the unit, than the surgeons and anaesthetists who work mainly outside the unit, but have associations with it.

Endacott (1996) notes that medical and nursing power bases in an intensive care can hinder nurses' ability to become fully active in patient management within an ICU team, regardless of leadership structure. In a highly specialised field such as ICU, the doctors have traditionally had ultimate responsibility for the patient outcomes and final decision-making power for patient care. They have been shown to acknowledge nursing expertise and responsibility while retaining their overall power. The process of information sharing and mutual respect for each role has evolved in many settings but requires work to achieve acceptance of clinical contribution by all team members (Endacott, 1996). In most Western countries medicine holds the legally sanctioned monopoly over central tasks and therapeutic measures, which further illuminates the imbalance of power between nurses and doctors working in ICU (Bucknall & Thomas, 1997). This means that nurses may not be able to increase their decision-making abilities in ICU. Medical staff rely on the information given them by nurses and acknowledge that without this information they cannot make the final decisions in the management of their patients. Bucknall & Thomas (1997)

suggest that nursing continues to be an adjunct of the doctor's role rather than a partner in the care.

Partnership requires mutual clarification, valuing and respect. Patient management in critical care needs to be team based because decision-making in these areas is often dynamic and unpredictable. The traditional nurse-doctor relationship creates a mismatch between the high level of training required of nurses working in an intensive care setting and the low level of responsibility afforded to nurses working in these units (Bucknall & Thomas, 1997). This lack of recognition impacts on nurses' ability to actively engage in the patient management process.

The findings of this research study, indicate that the combination of the professional development programme (PDP) and the shared leadership model has given nurses the authority to actively participate in the activities associated with patient management. The study indicates that the nurses' autonomy in their clinical practice relating directly to nursing aspects, is high with more than half of the respondents indicating active involvement with changes to nursing practice, involvement in documentation and protocol improvement and development. Nurses indicate an increase in confidence levels relating to direct patient management, which is only hampered by the tension in relationships between doctors and nurses, where nurses believe that their contribution to patient management is still not valued by doctors.

It is the rift in the relationships between doctors and nurses that needs to be addressed for nurses to feel fully integrated into the clinical team. Clarity of roles and role boundaries regarding clinical decision-making will need to be addressed and discussed openly so that a consensus can be reached particularly between the doctors and nurses. The partnership needs to shift more towards acknowledgement of nurses' contribution to patient management and their ability in clinical decision-making and the partnership between team members who individually are specialists within their own fields but collectively form a comprehensive team where no-one is an adjunct to another. Porter-O'Grady & Wilson (1998) support this notion by suggesting that a team-based organisation must actively work to ensure acceptance and support in the workplace. Nurses will not achieve equality within multidisciplinary teams until their specialist roles within the team are clarified (Porter-O'Grady, 1992). The advancement and increasingly specialist nature of ICU nursing and the academic preparation being expected of ICU nurses, means that these nurses are able to more actively contribute to patient management. The literature suggests that failure to acknowledge this change has caused tension between nurses and doctors in the study.

On reflection, it would have been helpful to have formally compared the relationships between the doctors and the nurses before and after the implementation of the shared leadership structure. The information from the 1997 ICU Review did not provide a sufficient basis for comparison for this to occur, and information about relationships has consequently relied on comments arising from the open-ended questions.

The use of Benner's skill acquisition model

Although there are issues relating to the teamwork between doctors and nurses, this research study has shown that nurses have been able to develop their nursing skills and they have become more actively involved in all unit processes that impact on their work with patients. The results also show that the PDP is compatible as a nursing development framework and enhances the impact of a shared leadership approach. Through the PDP approach, nurses have become more actively involved in unit management, quality improvement processes and changes made to clinical practice. The use of the skill acquisition model (Benner, 1984) has provided the boundaries and steps for nurses to progress along a continuum of professional practice.

The 1997 ICU Review indicated that nurses felt stifled and unable to actively contribute to any of the unit's clinical management processes. They argued that although they were achieving senior status according to the PDP levels, they were not able to use this experience and knowledge in the unit. The PDP on its own was not providing the opportunity for development and participation. The alignment of a shared leadership model with the PDP has been shown to have created a context and culture to enhance the motivation and participation of nurses. The results from this research study show that empowerment and accountability for practice are of importance to the nurses and that this was achieved through use of a shared leadership model. Porter-O'Grady (1992) indicates that accountability for practice and authority to become actively involved in unit management practices are central to the success of any shared leadership model. The processes outlined in the PDP encourage nurses in the

study to become more actively involved in the unit functioning. Nurses are supported and encouraged to participate in clinical nursing practice as they develop their practice and confidence.

Empowerment of nurses in a shared leadership model is documented in the literature. In the study carried out by Ludermann & Brown (1989), it was noted that overall job satisfaction increased as well as intrinsic satisfaction such as self-respect and prestige. The perception of opportunities for personal growth and promotions also significantly increased. The concept of nurses' empowerment in clinical practice may have further illuminated the relationship issues regarding the nurses' role in ICU and their ability to become an active member of the team in the context of doctors' traditional perception of what nurses do. Endacott (1996) suggests that nurses who are better prepared academically and technically and who are able to be more actively involved in the decision making processes in the unit appear to have the confidence to confront issues relating to relationships within the context of the management of patients. The combination of these factors correlate with the study shared leadership model and may explain the development of tension between doctors and nurses in the unit.

One of the aspects that has commonly been referenced in this study and which is intricately linked to the overall success of the shared leadership process, is the education and preparation of staff and the quality of the outcomes and processes relating to clinical practice. This is also directly related to the PDP process in the unit. Throughout the comments in the survey, reference is made to the

importance of individual support, the ability to access information and the opportunities afforded nurses to progress in their work, and access to education relating to their work. Although comments indicate that the time given to projects encroaches on off-duty time, the commitment to these projects is good, given that 66% of the responses indicate activity in clinical process improvement activities. Indicative of this success was in the retention of staff. The impact of the shared leadership model and the education provided for nurses in the unit, resulted in the outcome that in November 2000 there was a 59% senior skill mix in the unit compared with 33% at the beginning of the new structure's implementation in March 1998. The responses from the study indicate that the education framework has provided the support and security within which nurses are motivated and encouraged to advance and participate in activities relating to patient management. Porter-O'Grady & Wilson (1998) contend that when a persons interests are involved and they are given influence and opportunity, they become committed to solving problems. A further study evaluating the education framework would support further refinement of the shared leadership model in this unit.

The skill acquisition model was not helpful to the analysis of the data. The model assisted in identifying levels of practice as a form of measurement and grading. It did not, however, allow for anticipation of confidence or readiness to participate more effectively. The model did not easily acknowledge the impact of change or the complexity of that change. Ludermann & Brown (1989) contend however that shared leadership provides a system in which nursing staff

perceive themselves as working in an environment that gives them greater autonomy and freedom to innovate and develop professionally.

Levels of autonomy also determine levels of job satisfaction (Relf, 1995). In the study carried out by Spooner et al (1997) evaluating a shared leadership model in a critical care unit, 64% of the staff were found to participate in decision-making processes. This compares favourably to the results in this research study where 62% of the respondents indicated their involvement in the quality and development of clinical practice. In the Spooner et al. (1997) research, 88% of the participants displayed the behaviour characterised by empowerment and confidence in own ability. In this research study the results were higher, with 98% of nurses expressing confidence in their own clinical practice abilities.

The confidence displayed by the nurses in this ICU study may also be an indication of the type of nurse employed in the unit in the first place. Duffy & Lemieux (1995) suggest that by virtue of who they are, critical care nurses often have an internal drive to achieve, which is why many high achievers move to specialised units in the first instance. This internal motivation is significant in retention and job satisfaction especially as other employment factors such as salaries and conditions of service were not changed in this time. Staff retention was enhanced and willingness to participate increased. This is supportive of the ideas proposed by Porter-O'Grady (1992) who suggests that nurses are more satisfied and confident when they have autonomy in nursing practice.

It is noted in the results that 66% of the responses indicated active involvement in clinical and quality improvement processes in the unit. This would indicate a high commitment by nurses to the unit and the clinical processes. Nurses indicated however that a lot of this work was done in their own time. Porter-O'Grady (1992) contends that part of the commitment to teamwork and shared leadership does require extra work and that organisations have not yet factored into the budget these extra requirements that are essential to the maintenance of a high standard of care to the patients. The active involvement in clinical improvement activities in the unit supports the shift that has occurred in the management of the unit and it reflects the clinical base of the shared leadership structure that Porter-O'Grady (1992) suggests is the foundation of any shared leadership model. The results also support the use of Benner's (1984) skill acquisition model with a shared leadership model as it supports nurses in their desire to progress and develop within a secure and defined structure.

More than half the nurses in this study have less than 10 years ICU experience, the average is 5 years. In the Bucknall & Thomas (1997) study the average experience of nurses in their study ICU was 6 years. Progression through the levels of practice from competent professional to expert is not dependent on years of experience as much as motivation and willingness to participate is an internal factor. Benner (1984) contends that if nurses have previous experience in other areas, they will bring with them skills that they will adapt to the current situation. Ludermann & Brown (1989) suggest that certain staff characteristics may enhance the acceptance of any change; namely greater age, higher position, greater number of years in the organisation and more years of education. If the

results of the study ICU are compared with this notion then shared leadership and the PDP structure have allowed nurses to progress through the levels more rapidly than is expected. It has allowed them to embrace 'expert' nursing practice more readily, given their years of experience and years of employment in the unit.

Management of change

The structure that was used for the shared leadership model in the unit was a committee-based structure. This meant that there was an invitation and opportunity for nurses to involve themselves with one or more of these committees. Part of the PDP structure supports those nurses working towards level 4 to be actively involved in projects and clinical and quality initiatives occurring in the unit. Changes in the team leadership and team structure also meant that nurses had more individualised support and coaching. With the introduction of smaller teams and the changes that were made to the education framework, nurses were given more opportunities to progress in their education and their professional development thus supporting a more active involvement in clinical leadership and patient management activities.

Shared leadership in this context is also a clinically focused model. The manager became the facilitator and supporter whilst those members of the team who were involved in the clinical work, became the drivers of the clinical quality and clinical management of the unit (Porter-O'Grady, 1992). By changing the structure in ICU and using the PDP as an integral part of that structure, nurses were given the authority and the responsibility to actively

change clinical practice where this was required in order to support and enhance the delivery of care to the patients. In so doing they become accountable for the clinical processes in the unit. Responses in the evaluation have indicated that there has been a shift in the approach to patient management with more than half the nurses indicating active involvement in patient management processes either directly or indirectly. There are indications in the results that nurses are experiencing enhanced job satisfaction as a result of their increased participation in unit activities. Teamwork is perceived as having improved particularly with other nurses and allied health workers. As already noted, relationships between doctors and nurses have altered as a result of nurses' increased involvement in patient management, which appears to be causing role tension.

Comparisons and reflections on the study

As mentioned above, it has been difficult to use the 1997 ICU Review as a baseline for this research study as the document was brief with dissimilar measures for success. Despite being a participant observer, the researcher had not been part of the original review and so was not able to compare the before and after status very easily. Information from the start of the change process was sufficient to show the impact on staff retention, skill acquisition and participation. Other studies, noted by Gavin et al (1999), have similarly been unable to quantify the benefit to staff satisfaction and turnover without reliance on complex quantitative analysis.

Analysis of the results has taken considerable time to work through, because the researcher was anxious about the potential for researcher bias. A genuine

attempt was made to comply with the restrictions of the Ethics Committee who were concerned about the role the researcher currently had in the organisation when the study began and her close association with the ICU.

Conclusion

Analysis of the results of this study show that a shared leadership structure can enhance nurse involvement in all aspects of patient management and can provide nurses with a sense of satisfaction in their work. Despite increased confidence and expertise, nurses continue to experience tension in relationships with medical staff who still work from a hierarchical perspective. Tension between these two groups becomes more noticeable where nurses are encouraged to extend their involvement, to offer ideas and advance their practice.

This study has demonstrated that it is possible to move from a traditional management model to one of shared decision-making and to achieve significant benefits in relation to retention. With the combination and support of the PDP structure and the shared leadership nurses indicate willingness to become actively involved in patient management and take advantage of expanded practice opportunities.

The final chapter will provide a summary of the findings and will also address the strengths and limitations of the study. Recommendations for further research and development in this unit will also be made.

Chapter Six

Conclusions and Recommendations

This research study has evaluated the process of implementing a shared leadership model in an intensive care unit. The research question focused on whether the implementation of a shared leadership model had allowed nurses to become more actively involved in patient management. The study explored the nurses' perceptions of their involvement with patient management after the introduction of the shared leadership model. Potential organisational and professional factors were identified as influencing the nurses' involvement. The study sought to describe the management of change in enhancing clinical decision-making and increasing nursing input into managing patients. This chapter will present the summary of findings and consider the strengths and limitations of the research. It will also make recommendations for further research and will discuss approaches to enhance the shared leadership model in the ICU that was studied.

Involvement with patient management

The findings from this evaluation suggest that nurses believe they are more actively involved with the daily decision-making processes and the management of their patients as a result of the implementation of the shared leadership model. There is evidence of this both in direct patient management activities and in activities involving clinical processes of an indirect nature such as development of procedures, protocols and best practice manuals that support and enhance the direct care given to the patients. Nurses have indicated that they are confident in

their clinical practice, are supported in the development of their practice and believe that they are capable of actively contributing to the management of their patients.

Ward rounds

Further discussion needs to be initiated regarding the impact of team relationships during ward rounds. The full inclusion of all allied health, medical and nursing team members should be addressed with a multidisciplinary consensus regarding the objectives of these rounds and the place of nursing in influencing decision-making.

Multidisciplinary Team Meetings (MDT)

The focus, aims and objectives of ward rounds and the MDT meetings needs to be discussed further. Feedback suggests that there is duplication of information, especially for care of long term patients.

Indirect patient management

The active involvement of nurses into the development of multidisciplinary policies and best practice guidelines needs to be encouraged. A more multidisciplinary approach to the development of these documents may reduce the tension that is evident between doctors and nurses regarding the boundaries of their individual roles. Formatting of procedures with the consent of all members of the team may support further autonomy in nursing practice, provide clarity of the nurses' ability to manage patient care and result in a reduction of the tension seen between team members.

Team relationships

Further work needs to be done to develop the multidisciplinary team. Involvement of surgeons and anaesthetists in the senior team meetings in the unit may help to reduce tension between team members.

Nursing education and professional development

Encouragement of more nurses to undertake masters level tertiary education would support further their clinical involvement in patient management and would enhance the development of clinical nursing research that has developed from the project work currently being undertaken in the unit.

Time allocated for project work should be addressed and discussed as a team. Consensus should be reached regarding the philosophy and rationale behind time allocation and this balanced with an understanding of the unit clinical enhancement needs and the budget allocation for professional development hours.

In raising these issues, the success of shared leadership should not be lost sight of. Instead attention to these details will enhance the interdisciplinary relationships and staff satisfaction.

Strengths and limitations of the study

In concluding this thesis there are a number of strengths and limitations of this study that require further discussion.

Strengths

Although the sample used in this study is considerably smaller than is recommended for convenience sampling, it has still proven to be more appropriate to use a questionnaire sent to all the registered nurses in the study ICU rather than conducting individual interviews.

The use of Benner (1984) in the analysis of the results provided clear guidelines and scientifically accepted criteria for measurement of nursing input in relation to levels of practice used by the PDP to enhance the involvement of nurses in the clinical processes in the unit. This framework also helped to identify differences in the responses between the levels of practice and the clinical participation of nurses at various levels of speciality nursing development.

Use of the process evaluation method has facilitated feedback on the progress of the shared leadership model and its implementation. It has provided nurses with an opportunity to reflect on their practice and perceptions. It has allowed the multidisciplinary team to look at ways to improve their relationships with nurses which has influenced further development of the model.

The direct involvement of the researcher in the development of the shared leadership model has been both a strength and a limitation. The strength has been that the researcher has a comprehensive understanding of and insight into, the development of the model and this has provided an in-depth understanding of the results in the analysis stage of the study.

Limitations

This study was an evaluation of the process of implementation of a change process over time. The lack of available base line data meant that the findings from this study could not be adequately compared with data collected in the 1997 ICU Review prior to the introduction of the shared leadership model.

It would have been helpful if the process for evaluation had been integrated into the planning of the shared leadership model at its introduction in March 1998. This would have provided the support for a time series evaluation, which would have helped to provide clear feedback regarding the progress being made during the development and the implementation of the shared leadership model.

The use of clinical audit material in the data collection phase of the study had to be abandoned because the hospital was redesigning the clinical audit processes, and as a result the annual audit was cancelled soon after the commencement of the study. The use of this audit would have validated the findings regarding nurses' clinical involvement in patient management. Extra care had to be taken, therefore in analysing the documents and the questionnaire findings to compensate for the loss of this validation tool.

Using the Benner framework (1984) did limit the analysis of the results, as it did not explain the social influences of the change process that was taking place in the unit over this time. It did not encourage analysis of the organisation's cultural changes taking place during the shared leadership development and the

changing roles that were occurring between the doctors and the nurses. The tension that has occurred between the two groups of professionals, which was evident in the findings could not be fully explored in this study.

The researcher being directly involved with the implementation of the shared leadership model has meant that the researcher and her supervisor had to be particularly vigilant and objective in the analysis of the results in this study. It has been difficult for the researcher to interpret just the findings without incorporating 'inside knowledge' of the model, its team dynamics, and issues known to her relating to the study findings, and the supervisor had to constantly check and question the interpretation as a result.

Recommendations

To refine and improve the shared leadership model in the study ICU the following recommendations are made:

- Further evaluation of the shared leadership model be undertaken in ICU because this was the first evaluation and to fully appreciate the benefit of the model on staff recruitment and retention and the quality of patient care delivery, it needs to be repeated further into the implementation of the model.
- In future a comprehensive plan and managed change process should be used for all new managed projects and that evaluation factors and outcomes be built in from the beginning. Ongoing evaluation at predetermined intervals may also provide an ongoing assessment of progress, which has been made in the shared leadership model throughout a 5-year period. An overall

evaluation after 5 years would also help to assess the impact and effectiveness that the shared leadership model has made to patient management.

- A further evaluation of the benefit of nurses' active involvement in patient management could be done using population samples involving the multidisciplinary team. A multidisciplinary sample would help to provide nurses with feedback from the perspective of all members of the team and would therefore be helpful in addressing role tension that is occurring and will support the clarification of role boundaries for nurses working in the unit.
- Because the shared leadership model is complex, future evaluation may be supported by a comparison with other hospitals developing similar models and may support further development in the unit by providing a different perspective on shared leadership. This would provide a network of support and discussion for the development of shared leadership in health care.
- An evaluation of the impact of the nursing education framework and the promotion of nursing research activities should also be the focus of further evaluation and may further develop the shared leadership model.

This evaluation process has indicated that significant change has been made in the transition to a shared leadership model in the unit. What the team is developing in the unit is only the start of a journey towards achieving an excellent and strong model of care for the future. "Change is constant; it never stops, nor does it ever go away. To manage change you have to first embrace it" (Porter-O'Grady & Wilson, 1998). Working with change is essential. No

team in an organisation can expect to remain unchanged and they must be prepared to work with change whilst maintaining the advantages that have been gained along the journey.

The researcher has found this study challenging and constructive. It is hoped that this thesis will provide the motivation for further study and research on shared leadership to be carried out in the unit.

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THERAPEUTIC INTERVENTION SCORING SYSTEM (TISS)

The Therapeutic Intervention Scoring System (TISS) was introduced in 1974 and updated in 1983. It has become a widely accepted method of classifying critically ill patients, including paediatric patients.

Its uses include:
a) determining severity of illness
b) establishing nurse - patient ratios in ICU
c) assessing utilisation of ICU beds

The system was developed to quantify severity of illness and nursing dependency according to the therapeutic interventions received by the patient. Each intervention has a value of 1 - 4 points based on the complexity and invasiveness of the intervention.

An experienced observer summates the therapeutic interventions for the previous 24 hours (or from the time of admission if less than 24 hours) and tallies up the points. This is carried out daily for the patients' stay and is referred to as 'TISS points per day'.

Our uses for this scoring system will be to:
- assess severity of patients as a trend
- establish a baseline for the adjustment of staffing levels

General guidelines

1. Data should be collected at the same time each day. This will be within 6 hours of admission and thereafter, daily at 1800 hours.

2 When several related interventions are applied within 24 hours only award one set of points for the maximum intervention (e.g. if patient was on controlled ventilation - > IMV - > CPAP - > extubation all within 24 hours, ONLY assign points for controlled ventilation.)

3 Also be aware that if a patient is making NO respiratory effort they should be considered as being on controlled ventilation despite a setting of SIMV/PS (relates more often to those just back from OT).

4 The pre-discharge TISS is to be a score of the patient's status at the time of discharge. IT IS THE ONLY TIME THE DATA IS NOT RETROSPECTIVE i.e. their A-lines, introducers etc will no longer be present.

5 If you have ticked "rapid blood transfusion" i.e. you have had to stand there and manually squeeze the blood through, you may also have "Frequent infusions of blood products (>5units/24hrs)" as an intervention.

THERAPEUTIC INTERVENTION SCORING SYSTEM (TISS)

Assess patient within the first 6 hours of admission and daily at 1800 hours for the previous 24 hour period. Add up score and record on ICU observation chart.

DATE:

PATIENT LABEL

4 POINTS:

- Cardiac arrest ☐
- Controlled ventilation ☐
- Swan Ganz catheter ☐
- Active Pacing ☐
- Haemodialysis ☐
- Peritoneal dialysis ☐
- CVVH/CVVP ☐
- Hypothermia ☐
- Rapid blood transfusion ☐
- Platelet transfusion ☐
- Intra-aortic balloon pump ☐
- Emergency operative procedures in unit
  - ☐ Include PD / Trachy insertions
- Emergency operative procedures in operating theatre
  - ☐ Including return to OT for bleeding
- Emergency endoscopy or bronchoscopy ☐
- Vasoactive drug infusion (>1 drug) ☐
- Transport out of unit for diagnostic test ☐
- TOTAL: _____

3 POINTS:

- Central TPN ☐
- Pacing wires in situ but not being used ☐
- Chest drains ☐
- SIMV and/or pressure support ☐
- CPAP ☐
- Active treatment for severe electrolyte imbalance ☐
- Intubation (in the unit) ☐
- ½ - hourly suctioning ☐
- Complex metabolic balance (frequent intake and output)
  - ☐ i.e. most patient straight from OT
- Multiple ABG's, clotting studies, and/or STAT blood test (>4/shift) ☐
- Frequent infusions of blood products (>5 units/24 hrs) ☐
- Bolus IV medication (non scheduled) ☐
- Vasoactive drug infusion (1 drug) ☐
- Continuous anti-arrhythmia infusions ☐
- Cardioversion for arrhythmia (not defibrillation) ☐
- Cooling / warming blanket ☐
- Arterial line ☐
- Acute digitalisation
  - ☐ not if it is charted as a regular IV dose
- Measurement of cardiac output ☐

Active diuresis for fluid overload

☐

Emergency thora-, para- and peri cardio-centeses

☐

Active anticoagulation. Include if part of CVVH

☐

More than two IV antibiotics ☐

Treatment for seizures ☐

TOTAL: _____

2 POINTS:

Central venous pressure measurement/central venous line in situ ☐

Two peripheral IV catheters ☐

Haemodialysis - stable patient ☐

Tracheostomy ☐

Spontaneous respirations via ETT or tracheostomy ☐

(T-piece, Swedish nose, Mask) ☐

GI feeding/medication ☐

IV replacement of excess fluid loss (over and above maintenance fluids)

☐ Includes colloid if no other TISS applies

Regular IV drugs (not antibiotics, e.g. insulin, steroids) ☐

Multiple dressing changes ☐

Epidural infusion ☐

PCA pump ☐

Morphine infusion ☐

Nebuliser (hourly or more) ☐

TOTAL: _____

1 POINT:

ECG monitoring ☐

SaO_2 monitoring ☐

Hourly vital signs ☐

1 peripheral IV catheter ☐

Chronic anticoagulation ☐

Standard fluid balance chart ☐

STAT blood tests ☐

PRN IV drugs (e.g. Maxalon, opiates, diazepam, midazolam) ☐

Routine dressing changes ☐

Standard orthopaedic traction ☐

Tracheostomy care ☐

Decubitus ulcer ☐

Urinary catheter

☐

Supplemental oxygen (nasal or mask) ☐

Two or less IV antibiotics ☐

Chest physiotherapy ☐

Extensive irrigations, packings, debridement of wound or fistula ☐

Peripheral TPN ☐

Chest X-Ray ☐

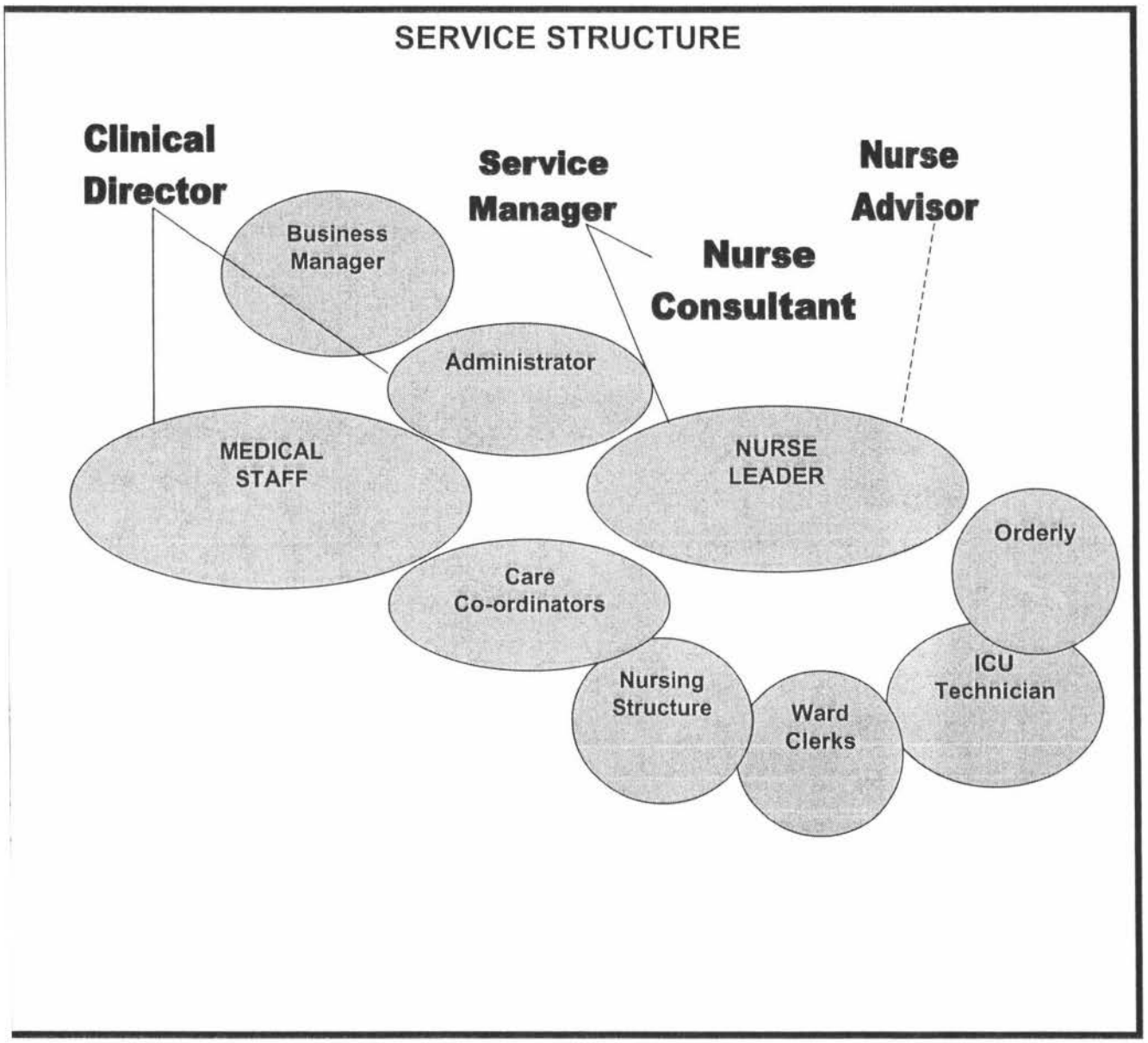
Colostomy ☐

Nebuliser (less than hourly) ☐

TOTAL: _____

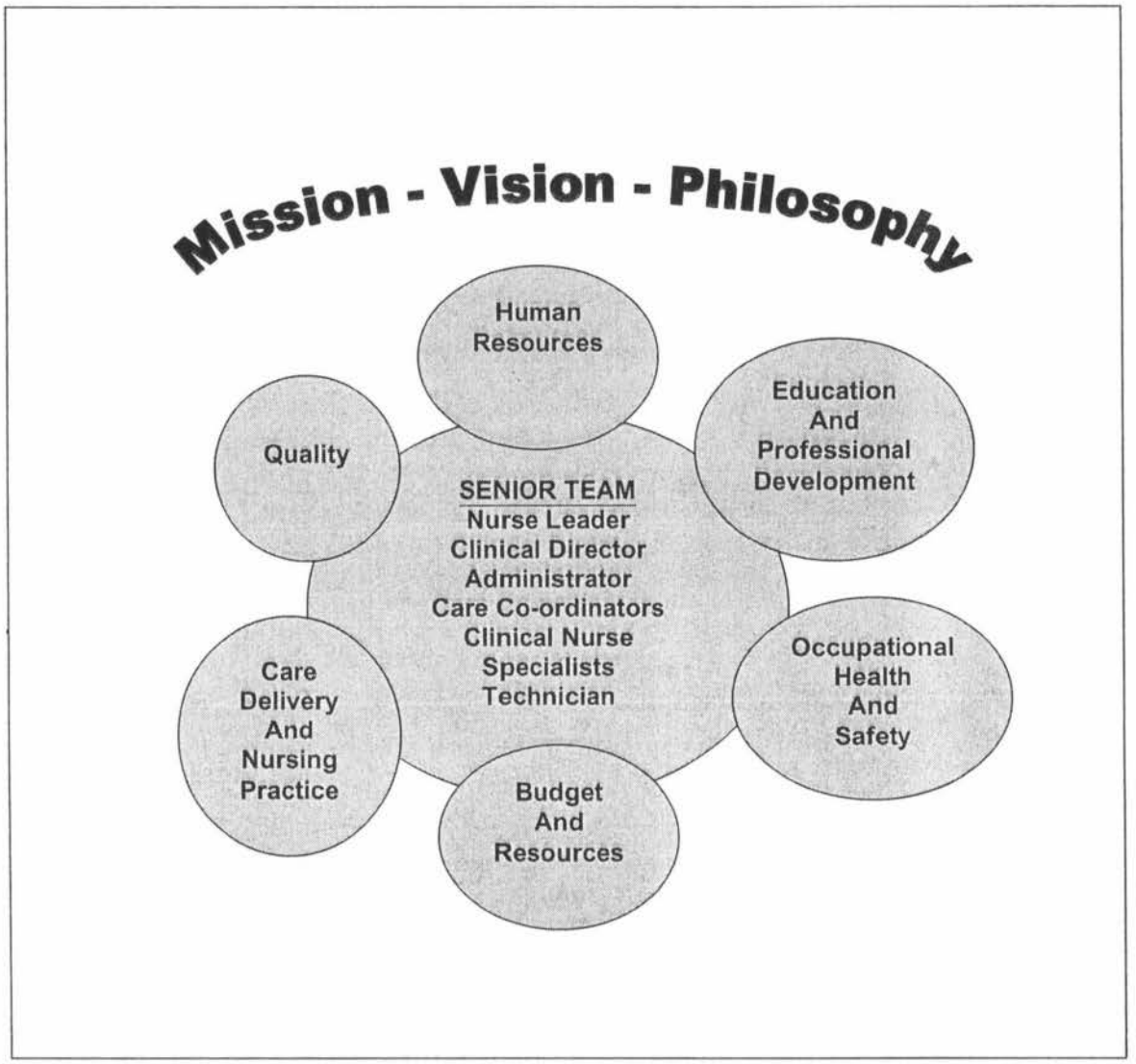
TOTAL SCORE _____

SERVICE STRUCTURE (ICU Review, 1997)

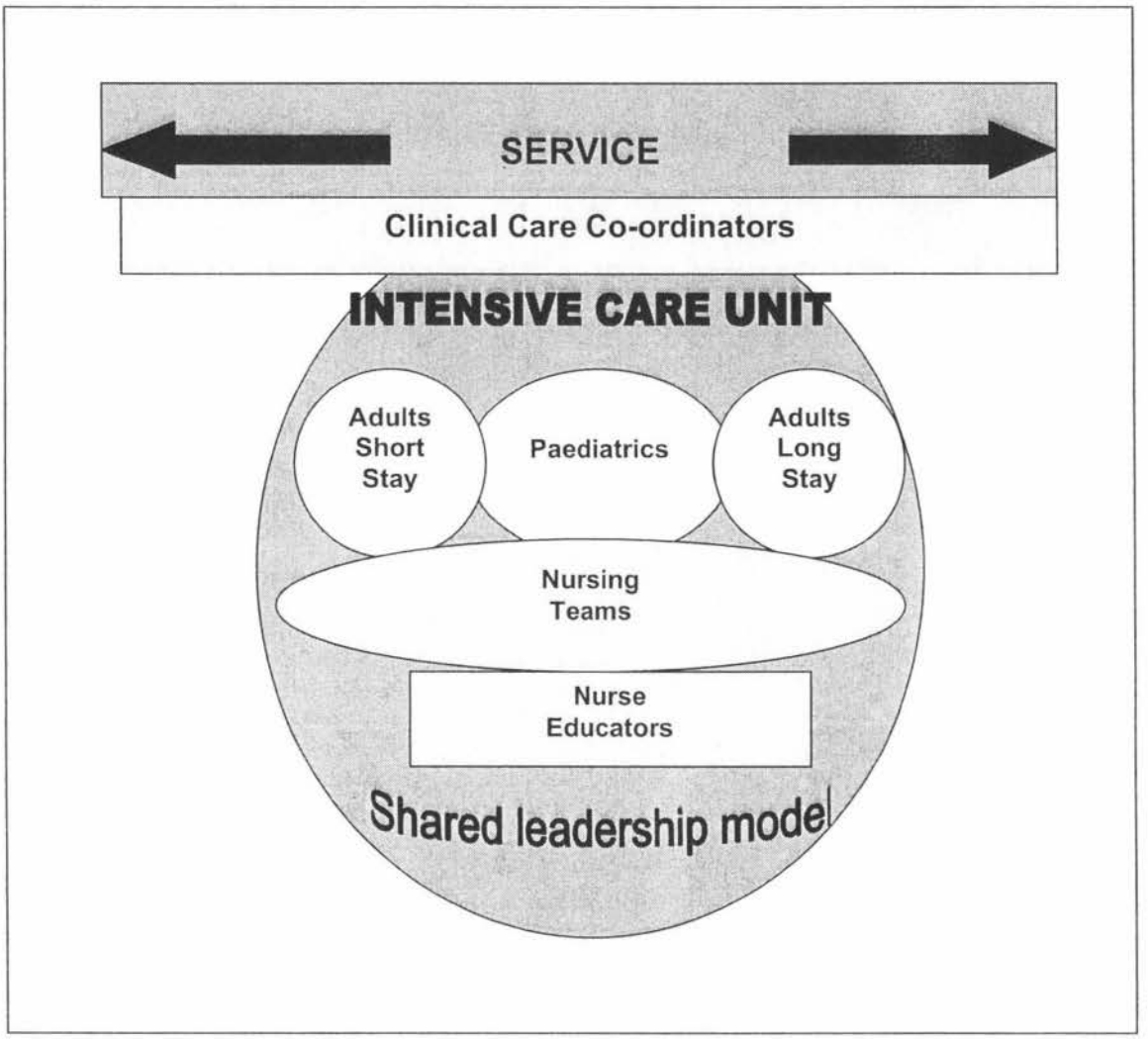


APPENDIX 3

Intensive Care Shared Leadership Model (March, 1998)



Shared leadership model in relation to Service (March 1998)



APPENDIX 5

SURVEY OF NURSES IN THE CARDIOTHORACIC INTENSIVE CARE UNIT TO ASSESS LEVEL OF ACTIVE INVOLEVMENT IN PATIENT MANAGEMENT
(October / November 2000)

Section 1. General

This part of the survey involves

- *finding out how much experience you have*
- *what professional development you have achieved*

1. I hold the position of _____ in this unit.

   I have been in this position for _____ years _____ months.

2. I am
   Junior (level 1 or 2) _____

   Senior (level 3 or 4)_____

3. I have been working in this Intensive Care for _____ years _____months.

4. I have worked in Intensive Care Units for _____ years _____ months in total.

5. I have worked in the following disciplines:

Cardiothoracic	_____
Cardiology	_____
Medical	_____
Surgical	_____
Paediatric	_____
Neurology	_____
Other	_____

6. I have been seconded into other positions since I have worked in this unit.

   Yes _____ No _____

   Position _____

7. I have been promoted into another position since I have worked in this unit.

   Yes _____ No _____

   Position _____

   I have been in this position for _____ years _____ months.

I have been promoted more than once since working in the unit.

Yes_____ No _____

Section 2. Direct involvement in patient management

Answer the following questions by ticking the response that is most appropriate for you. The back page has been provided for you to add comments.

1. Ward Rounds	**1 Always**	**2 Often**	**3 Some-times**	**4 Seldom**	**5 Never**
1.1. I find that the ward rounds are informative with regard to patient management					
1.2. On the ward rounds I am able to actively contribute to the discussion regarding patient management					
1.3. I am able to ask questions with regard to patient management on the ward rounds					
1.4. The ward rounds are multidisciplinary					

2. Multidisciplinary Team (MDT) Meetings	**1 Always**	**2 Often**	**3 Some-times**	**4 Seldom**	**5 Never**
2.1. I find that the MDT assists in planning patient care.					
2.2. I am able to contribute to the discussion surrounding my patient and the care required in the MDT meetings.					
2.3. I feel included in the discussion involving care planning for my patient in these meetings.					
	1	2	3	4	5

3. Relationships with other healthcare disciplines	Always	Often	Some-times	Seldom	Never
3.1. I am able to approach other members of the healthcare team in order to discuss the patient's condition • Surgeon • Intensivist • Registrars • Pharmacist • Physiotherapist • Social worker • Clinical Charge Nurse • Clinical Care Co-ordinator • Other (state)					
3.2. My opinion and suggestions with regard to patient management is valued by the: • Surgeon • Intensivist • Registrar • Pharmacist • Physiotherapist • Social worker • Clinical Charge Nurse • Clinical Care Co-ordinator • Other (state)					

Section 4. Indirect patient management

The following questions involve answering questions about your involvement with policy development in the unit. Please mark the most appropriate response for you.

4. Documentation: Development of policies and protocols	**1 Always**	**2 Often**	**3 Some-times**	**4 Seldom**	**5 Never**
4.1. I have been involved in the review and development of nursing documents in the unit.					
4.2. I have been involved in developing nursing protocols regarding patient care (e.g. standing orders, care maps, pathway development)					
4.3. I am involved in renewing Recommended Best Practice documents in the unit					

5. Quality of nursing practice	**1 Always**	**2 Often**	**3 Some-times**	**4 Seldom**	**5 Never**
5.1. I participate in audits regarding nursing practice					
5.2. I am involved in projects involving the development of nursing practice quality improvement for the unit.					
5.3. I am a member of the Nursing Practice Group in the unit.					
5.4. I participate in initiating change with regard to patient management in the unit.					

Please add any further comments that you feel are of value, here.

6. General clinical practice	1 Always	2 Often	3 Some-times	4 Seldom	5 Never
6.1. I feel confident in writing events and episodes in the patients' clinical records.					
6.2. I am able to confidently follow up on documentation that doctors require signing and entering in the notes.					
6.3. If I am unhappy with a decision made by a registrar, I feel confident in seeking out advice from other members of the healthcare team.					
6.4. I feel confident about the use of standing orders in patient management.					
6.5. The structure of the unit allows me to utilize my experience in patient management.					
6.6. I feel confident in my ability to contribute to patient management					
6.7. I feel satisfied in my work					
6.8. I am fully utilizing my nursing skills.					
6.9. I believe that my opinion and input into patient care is valued.					
6.10. I feel totally supported in the unit.					
6.11. I feel that the education and preparation for nurses in the unit is good.					

Clare Turner
Massey University

APPENDIX 6

SURVEY TO BE CONDUCTED FOR THESIS FOR COMPLETION OF MASTER OF ARTS (NURSING)

INFORMATION SHEET

HAS THE INTRODUCTION OF A SHARED LEADERSHIP MODEL IN AN INTENSIVE CARE UNIT, ENABLED NURSES TO TAKE AN ACTIVE ROLE IN PATIENT MANAGEMENT?

You are invited to take part in a survey of nurses in the Cardiothoracic Intensive Care Unit at [redacted] Hospital.

In March 1998, the leadership of this unit was restructured based on the principles of shared leadership. At the same time, the unit was rebuilt and enlarged, creating a totally new environment and patient population. An important aim of the model was to encourage nurses to take a more active role in patient management. The objective of this research is to evaluate whether the structure has allowed nurses to become more actively involved in the management of their patients.

Purpose of the study

- Discover how nurses perceive their involvement in the management of their patients.
- Identify issues that are currently hindering this development
- Provide data from which to base recommendations for further development of the model.

This questionnaire is being distributed to all the nurses currently working in the Intensive Care Unit at [redacted] Hospital. It will take approximately 5 to 10 minutes to complete.

Confidentiality

- Your responses will be entirely confidential and will be viewed by the researcher and her supervisor.
- No material that could personally identify you will be used in any reports on this study.
- The researcher in her current role as Nurse Advisor will not use any information gained from this survey to directly influence practice of an individual.
- Anonymity cannot be absolutely guaranteed due to the smallness of the sample and the researcher's previous involvement in the unit.
- Raw data will be kept in a locked cabinet and will not be accessible to anyone other than the researcher and her supervisor.

Rights of participation

- Your participation will not jeopardize your employment in any way.
- Your participation is entirely voluntary.
- You do not have to answer all the questions.
- Submission of the questionnaire will be accepted as your consent to participate in the survey.

- You have the right to withdraw from the survey up until you submit your questionnaire.

Procedure for completion of questionnaire

- Please complete the attached questionnaire.
- Return it to the researcher in the self-addressed envelope provided.
- Last day for submission of the questionnaire is xxxxxxx
- Results of the survey will be collated and analyzed as part of the thesis.

Contacts for queries

This study has ethical approval from Human Ethics Committee at Massey University and the General Manager of Green Lane Hospital.

Approval includes access to specific documents from the unit. These documents include:
- Examples of the Cardiac Surgical Pathway
- Examples of various nursing charts e.g.
  - ICU 24 hour observation chart
  - Wound care assessment
  - Long term care plans
  - Nursing summary sheets
  - Haemofiltration charts
  - Fast track extubation charts
- Clinical care co-ordination summary formats
- Recommended Best Practices
- Caremaps and care plans
- Clinical audit summaries

This will not breach any patient confidentiality, as only summaries of audits will be used.

For any comment you may contact the General Manager, [redacted], Tel. [redacted] or the Unit Manager of Intensive Care, [redacted].

If you have any questions, please do not hesitate to contact my supervisor or me.

Clare Turner (Student)
[redacted]
Tel: (W) [redacted]
Email:

Dr Mary Finlayson (Supervisor)
School of Health Sciences
Albany Campus, Massey University
P/Bag 102904 North Shore City
Tel: (W) 4439634
Email: M.P.Finlayson@massey.ac.nz

Massey University

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ext 9516
Facsimile: 64 9 414 0814

4 October 2000

Clare Turner
C/O Dr. Mary Finlayson
Health Sciences
Massey University
Albany

Dear Clare

HUMAN ETHICS APPROVAL APPLICATION – MUAHEC 00/069
HAS THE INTRODUCTION OF A SHARED LEADERSHIP MODEL IN AN INTENSIVE CARE UNIT, ENABLED NURSES TO TAKE AN ACTIVE ROLE IN PATIENT MANAGEMENT

Thank you for your amended application details, which we recently received and have been placed on our files.

The amendments you have made now meet the requirements of the Massey University, Albany Campus, Human Ethics Committee and the ethics of your application, therefore, are approved.

Yours sincerely

Dr Mike O'Brien
CHAIRPERSON,
MASSEY UNIVERSITY, ALBANY CAMPUS
HUMAN ETHICS COMMITTEE

cc. Dr. Mary Finlayson - Health Sciences, Albany Campus

Massey University

Office of the Principal
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Principal: 64 9 443 9799 ext 951
Campus Registrar: 64 9 443 979
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Facsimile: 64 9 414 0814

29 August 2000

Clare Turner
C/O Dr. Mary Finlayson
Health Sciences
Massey University
Albany

Dear Clare

HUMAN ETHICS APPROVAL APPLICATION – MUAHEC 00/069
HAS THE INTRODUCTION OF A SHARED LEADERSHIP MODEL IN AN INTENSIVE CARE UNIT, ENABLED NURSES TO TAKE AN ACTIVE ROLE IN PATIENT MANAGEMENT?

Thank you for the above application, which was received and considered by the Massey University, Albany Campus, Human Ethics Committee at their meeting held on 24th August 2000. The Committee raised the following points regarding your application:

- Anonymity and Confidentiality - Mechanisms need to be investigated to maximize anonymity, bearing in mind that the population of those being researched is not large and will be known to you and others in your field. If anonymity cannot be guaranteed, this needs to be stated. You are asked to review the questions on Page 7 to protect anonymity where possible. Please question the need for the information for research purposes and, if essential, the best way you can obtain the information whilst maximizing the protection of the identity of the participants. For example, as discussed, change the question about Level of the Professional Development Program to indicate junior or senior rather than 1, 2, 3 or 4.
- The Information Sheet needs to show clearly that, whilst you will take every possible step to protect anonymity, the smallness of the sample may mean that anonymity cannot be guaranteed.
- 1.2 Objectives - With regard to documentation it is recognized that you probably have automatic access to certain data as an employee of the Hospital, but you are asked to identify the documents to which you want access and obtain formal permission from the appropriate person for access as a researcher. Please forward a copy of that consent to Secretary, Albany Ethics Committee, Albany Campus. The Information Sheet needs to then reflect that you have consent from (and name that person's position) to obtain access to (and state the documents) and that if the participants have any questions about this they can contact the person from whom you have obtained consent.
- 2.9 Conflict of Interest/Conflict of Roles - The Information Sheet needs to indicate your role as Nurse Adviser and make it clear that any information gathered in the course of the research will not be used in your role as Nurse Adviser until the thesis is published, and only then in a general sense.
- 4.0 Cultural Concerns - re. "The appropriateness of care will be taken into consideration when analyzing the data". It is suggested that you consider an

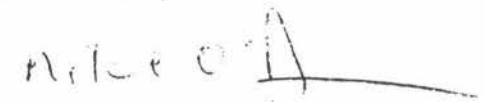
appropriate person or group that you could discuss this issue with. As discussed, the Maori Adviser at the Hospital would be an appropriate person to assist in this but the Pacific Island population also needs to be considered. Please state that you will be in contact with Pacific Island and Maori advisers and name those people.

- Referring again to 2.9 Conflict of Interest/Conflict of Roles - a statement to acknowledge your previous role as leader of ICU and that you will try to stand back and objectively view the research needs to be made or there could be a suspicion of bias. It is acknowledged, from our discussion, that you have actively aimed at removing yourself from ICU and the steps you have taken to do this should be stated.
- 2.1 Access to Participants - Bullet Point 7 - "Follow up of questionnaire will be done through the Unit Manager" - We discussed the need to protect anonymity when returning questionnaires and, as agreed, you are requested to provide self addressed envelopes (with the return address being somewhere other than your home address - please discuss with Dr. Finlayson - possibly c/o Dr. Finlayson at Massey University) rather than have a collection box in or near ICU.
- Please indicate on the Information Sheet how long you anticipate it will take participants to complete questionnaires.
- Please refer to the University Code of Ethics and rework the Information Sheet. Further information is required re access to documents, about the project and about the rights of the participants. It is suggested that you state that participants may withdraw up to the point of submission of the questionnaire.
- 3.1 Legislation - It is noted that you confirmed that there are no Health and Safety or Employment Contract issues to be considered.
- Two typographical errors need to be corrected. The first is in the title of Addendum - "Inteniyve" needs to be "Intensive" and on the Information Sheet "Inroduction" in the title needs to be "Introduction".

Subject to the above amendments and inclusions being received by the Committee Secretary, and accepted by the Chairperson, the ethics of the application will be approved in writing.

Any departure from the approved application will require the researcher to return this project to the Human Ethics Committee, Albany Campus, for further consideration and approval.

Yours sincerely



Dr Mike O'Brien
CHAIRPERSON,
MASSEY UNIVERSITY, ALBANY CAMPUS
HUMAN ETHICS COMMITTEE

cc. Dr. Mary Finlayson, Health Sciences, Albany Campus

[redacted]

Service: Research Development Office

Phone:
Ext:
Fax:
E-mail:

7 November 2000

Ms Clare Turner
Nurse Advisor

Dear Ms Turner

2062 Has the Shared Leadership Model in Intensive Care Unit Enabled the Nurses to Take an Active Role in Patient Management?

General Manager, Hospital, has given approval for the above research project.

Please send to the Research Development Office a copy of the final report on completion of the project.

Good wishes to your study.

Yours sincerely

Research Co-ordinator
RESEARCH DEVELOPMENT OFFICE

THIRD PARTY ACCESS TO PATIENT INFORMATION

To be completed when records are required for purposes other than continuing patient care and treatment. (Refer Company Policy Manual).

PLEASE PRINT CLEARLY IN BLOCK LETTERS DATE: 12, 9, 00

RECORDS TO BE PROVIDED TO

Name: CLARE TURNER Position: NURSE ADVISOR

Hospital /Service: [redacted] Unit/Area: [redacted]

REASON FOR ACCESS

(Massey University [illegible] MA degree)

☐ AUDIT ☐ QA/EDUCATIONAL ☑ RESEARCH: MUST PROVIDE PROJECT NAME & NO.

~~OTHER~~: HUMAN ETHICS APPROVAL APPLICATION – MUAHEC 00/069
~~PLEASE SPECIFY~~

"HAS THE INTRODUCTION OF A SHARED LEADERSHIP MODEL IN AN INTENSIVE CARE UNIT ENABLED NURSES TO TAKE AN ACTIVE ROLE IN PATIENT MANAGEMENT?"

AUTHORISATION BY RC MANAGER

Hospital /Service: [redacted] Unit/Area: [redacted]

RC Manager: [redacted] Signature: [redacted]

CONTACT PERSON

Name: ______ Position: ______

Hospital /Service: ______ Unit/Area: ______

Telephone No.'s: ______ Locator (if applicable): ______

Records to be sent to: ______

RECORD(S) REQUIRED

List to be attached.

Minimum information includes: surname
given name(s)
date of birth
NHI hospital number.

NOTE: Omission of any patient identification items will delay your request.

APPENDIX 9

PO Box 90362
Auckland

10th September 2000

[redacted], General Manager
Management Suite
[redacted]

Dear [redacted]

RE: Massey University Ethics requirements for access to documents for research purposes.

As you are aware, I am conducting research in the hospital for completion of my Master of Arts degree. Part of my research will require me to be examining protocols and various nursing documents that have been developed since the implementation of the shared leadership model.

Massey University Ethics Committee requires that I have specific written approval for access to documents that I require in my research. The committee is asking that I list the documents I require access to and that you indicate your approval in writing.

The following documents will be required in my analysis and evaluation:

- Examples of the Cardiac Surgical Pathway documents
- Examples of various nursing charts e.g.
  - ICU 24 hour observation chart
  - Wound care assessment charts
  - Long term care plans
  - Nursing summary sheets
  - Haemofiltration charts
  - Fast track extubation charts
- Examples of Clinical care co-ordination summary sheets and weekly plan sheets
- Recommended Best Practices
- Standing orders
- Protocols and procedures, instructions,
- Caremaps and care plans
- Access to clinical audit summaries. This will not breach any patient confidentiality as only the summary resulting form the audits will be accessed.

I would appreciate it if you could reply to this letter in writing, indicating your approval for me to proceed with regard to the documentation access.

Sincerely

Clare Turner
Nurse Advisor