A DECADE OF CHANGE:

THE DEVELOPMENT OF FAMILY CENTERED CARE IN A NEONATAL INTENSIVE CARE UNIT

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CERTIFICATE OF AUTHORSHIP/ORIGINALITY

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

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ABSTRACT

This thesis is about change in nursing practice in a neonatal nursery. It examines the process of change as the development of a family centered care (FCC) philosophy and practices are integrated into the nursing care within the Neonatal Intensive Care Unit (NICU) over a ten-year period.

This is a qualitative study that uses case study methodology to examine and analyse the context and processes involved in achieving change in neonatal nurseries. The data used for the case study included, reports and publications from previous research projects relating to the development of a FCC philosophy in the NICU, interviews and focus groups held in 2001-2002 and in 2004-2005. A staged thematic analysis and confirmation process was used for the analysis.

The data analysis and themes developed from the data indicate there has been change in practice over time in the involvement of parents in the care of their infant in the NICU. There is evidence that many of the nurses have moved from an expert framework to a framework in which a two-sided conversation between nurses and parents should and often does occur. The change is not complete as it an ongoing and dynamic process and the nurses recognised further ongoing issues relating to control, 'ownership' and resistance to change.

The diffusion of innovation theory provided an appropriate framework to think about a change in nursing practice over time. It provides a structured approach to describing change in practice with emphasis on communication networks. The roles of opinion leaders and change agents are integral to the diffusion process.

The neonatal nurses who participated in the study identified other useful strategies that assist in the change process. They specifically identified the importance of ongoing education, including, less didactic methods of teaching and learning, such as role modelling, mentoring, feedback, reflection and discussion of relevant experiences; policies and procedures to support the change, engagement and participation of staff through group development processes and summaries of written research evidence.

The change to a FCC philosophy and practices in the NICU is an ongoing journey that has taken considerable time. The rate of acceptance of FCC as an innovation in practice has been effected by a number of factors. These include, the readiness of the nursing staff to change, the attitudes and role perceptions of nurses and parents about their boundaries of care and responsibilities for the wellbeing of the infant, the lack of consistency and shared understandings in the clinical judgment and decision making process, and the nurses skills to engage and enable parents in parenting their child in a relatively foreign and 'hostile' environment such as the nursery.

The implications for clinical practice include the recognition of the necessity for maintenance strategies to be developed in the NICU to ensure practice remains at the same level and does not slip back, a possible strategy could include clinical supervision or reflective practice groups. In addition, it is apparent that there is a need to continue to work towards integration of FCC philosophy and practices into the clinical practice of all nursing staff. The establishment of a working group of interested staff to continue the development of FCC philosophy and practices and to develop strategies to overcome any remaining barriers may be appropriate. Finally, education needs to continue covering topics such as Kangaroo Care (KC), FCC philosophy and practices, and communication skills.

INTRODUCTION

This thesis is about change in nursing practice in a neonatal nursery. It examines the process of change as the development of a family centered care (FCC) philosophy and practices are integrated into the nursing care within the Neonatal Intensive Care Unit (NICU) over a ten year period.

Parents of infants in NICU report feelings of fear, frustration, guilt, disappointment, helplessness, shock, grief, and a lack of control over the situation in which they find themselves (Blackburn & Lowen, 1985: Affonso, Hurst, Mayberry, Haller, Yost, & Lynch, 1992; Hurst, 2001). These emotional reactions to preterm birth are experienced more intensely by the mother (Blackburn & Lowen, 1985). Mothers find particularly distressing the appearance of their small, sick preterm infant (Holditch-Davis & Miles, 2000). The appearance of the infant may result in delayed attachment by the parents (Bialoskurski, Cox & Hayes, 1999). In addition, the loss of the parental role has been described as a major stressor for mothers of infants in the NICU (Holditch-Davis & Miles, 2000).

In 1992, at a meeting in the USA, a group of parents and neonatal health care professionals met to discuss how they could collaborate together more effectively in the care of their sick infants (Harrison, 1993; Moore, Coker, DuBuisson, Swett, & Edwards, 2003). Following the meeting 'The principles for family centered neonatal care' were published in 1993 (Harrison, 1993). FCC is a philosophy of care that promotes the parents and family as central to the infant's life, with the family strengths and capabilities recognised and valued in the planning and provision of care (Ahmann, 1998). In Chapter One the literature on FCC is described in more detail. Although progress has been made in the development of the FCC philosophy in neonatal units since this time, there has been much written in the literature to suggest nurses maintain control and continue to provide the majority of the non technical care for these infants. It continues to remain a major challenge for nursing staff to change their fundamental beliefs

and philosophy of care, and provide care that supports and facilitates the needs of the infant within the family unit.

The past decade has seen the NICU at John Hunter Children's Hospital (JHCH) make considerable progress towards the development of a family centered care (FCC) philosophy of care with a commitment to involving families in the care of their infants. Changing the culture of care in a Neonatal Intensive Care Unit (NICU) is not an easy task. This research examines the extent to which the philosophy is incorporated into the culture and clinical practice of the unit, and the factors that have facilitated or hindered change over that time. It used a case study approach that is described in more detail in Chapter Two.

Seven projects have been undertaken in the unit or JHCH to improve the level of parent involvement in the care of their infant. The type of initiatives has varied from policy implementation, to research exploring the experience of mothers in the unit, and to participatory action research projects. These initiatives and projects are described in more detail in Chapter Three.

As a Clinical Nurse Specialist (CNS)[1], and more recently a Clinical Nurse Consultant Grade 3 (CNC)[2] in the nursery, I observed when each of these projects were undertaken there was an acknowledgement by the staff of the importance of involving families in the care of their infants. However, when each of the projects was completed and there were no longer staff or researchers driving the strategy, the enthusiasm for FCC seemed to wane. In effect the

[1] A Clinical Nurse Specialist (CNS) is a position created by the Public Hospital Nurses (State) Award in 1986. A CNS is a registered nurse with relevant post-basic qualifications and twelve months experience working in the clinical area of his / her post-basic qualification, or a minimum of four years post-basic registration experience, including three years experience in the relevant specialist field and who satisfies the local criteria (Public Health Nurses (State) Award, 2004).

[2] A Clinical Nurse Consultant Grade 3 (CNC) is a registered nurse appointed to a position approved by the Area Health Service, who has at least seven years full-time equivalent post registration experience, with at least five years full-time experience in the specialty field. In addition, the nurse must have approved postgraduate nursing qualifications relevant to the field in which he/she is appointed or such other qualifications or experience deemed appropriate by the Area Health Service (Public Health Nurses (State) Award, 2004).

changes implemented through each of these strategies or initiatives were rarely fully integrated into clinical practice by the end of the project. The implementation of evidence based practices such as FCC within the nursery depends on the ability to achieve significant and sustained change. During the 'Mother Baby Care' (MBC) pilot study it became apparent to me that achieving sustainable change was complex. Change is a dynamic and ongoing process, and as nurses, we need to develop an understanding of change and the skills necessary to facilitate change.

The impetus for this research project has come from my involvement with the MBC pilot study in the Level 2[3] Neonatal Nursery at JHCH. The Centre for Family Health and Midwifery at the University of Technology, Sydney, in conjunction with the staff of the NICU undertook a pilot study that sought to enhance women's and family's feelings of connection and confidence with their infant by changing the way care was provided in the Level II Neonatal Nursery. The study built on the previous work undertaken by the Centre for Family Health and Midwifery. The pilot study was undertaken from September 2001 till June 2002. I was seconded from my position within the NICU to act as a part-time Research Assistant for this study.

My experiences with parents in neonatal units tend to mirror that of the literature. I first began working in a Special Care Baby Unit (SCBU) in 1978 in the United Kingdom. I had travelled to the UK on a working holiday after completing my midwifery training in Sydney. I began working in the SCBU at a metropolitan

[3] The Levels of care – describes the classification of the functional capabilities of facilities that provide care for newborn infants which is commonly used in the literature.
Level 1 nursery – provides care for normal healthy newborn infants;
Level 2 nursery – provides a special care to infants who are moderately ill with problems expected to resolve rapidly and are not anticipated to need subspecialty services on an urgent basis; or infants who are convalescing from intensive care.
Level 3 nursery – which provides continuously available personnel and equipment to provide life support and comprehensive care for extremely high risk newborn infants and those with complex and critical illness (Committee on Fetus & Newborn, 2004).
In NSW Levels of care for newborn infants are classified from Level 1 (lowest level of care) to Level 6 (highest level of care) and the criteria for each level is described in the NSW role delineation document (2003).

hospital while waiting to undertake additional midwifery training. At this time parents were able to visit their infants, however they did not participate in the care of their infant, and nursing staff donned gowns and gloves to provide care to the infants. Mothers who wished to breastfeed expressed their breast milk which was given to the infant by tube or bottle feed and they did not commence breastfeeding until the infant was being prepared for discharge.

When I returned to Australia in 1981, I commenced working in a small regional Special Care Nursery that provided both Level 2 and Level 3 care for infants. Parents were able to visit their infant, and other family members were able to view infants through a viewing window when the curtains were drawn. The parents were able to touch their infant and to sit at the infant's bedside. There was very little participation by parents in care of their infant. Parents were generally only able to hold their infant once their condition had stabilised and they no longer needed oxygen therapy or ventilation. Parents were asked to leave the nursery and not permitted to enter during medical and nursing ward rounds and during procedures.

During the mid 1980s, I gained experience in three different nurseries, a metropolitan tertiary referral centre, a regional tertiary centre and the regional nursery. In all the nurseries parents were able to visit and participate in the care of their infant in a limited way. Parents were still asked to leave the nursery during medical and nursing ward rounds and during procedures. As infants were preparing for home parents were 'allowed' to begin to provide the basic care required by a newborn. During this period attempts at improving the nursery environment began with the addition of bright curtains; children's prints on the walls and with the infants being dressed in colourful nighties and hand knitted clothes. Support for parents with infants in the nurseries improved with the availability of social workers and with the formation of parents groups to assist and advocate for parents.

The 1990s saw a series of initiatives aimed at improving the experiences of parents in the nursery. Parents were becoming more involved in their infant's care; they were able to bring family and friends into the nursery, though only two people were allowed to visit at any one time. During each project there was a general acceptance by staff that the evidence available supported a family centered care philosophy, and staff participated in the process with varying degrees of enthusiasm. It was apparent to me during this time that while there were staff or researchers driving the projects there was an acceptance of FCC, however, when the projects were completed enthusiasm waned, although did not return to previous level. In effect the changes implemented through each of these projects were rarely fully integrated into clinical practice in the nursery.

This study is focused on the development of FCC philosophy and practices in the NICU at John Hunter Children's Hospital. Factors external to the NICU that may have impacted on the change process have not been discussed as they are beyond the scope of the study. The impact of factors such as, funding, workforce issues, training and skills issues, demographics and staff changes on the change process is recognised. In addition, over the ten year period there has been an increasing number of conference presentations and literature supporting a FCC philosophy and practices and the impact of these on the change process in the NICU is not evaluated.

This thesis uses a case study to explore and analyse the phenomenon of change in a Neonatal Intensive Care Unit as a family centered care philosophy and practices are implemented. Case study methodology is used with the aim of providing an in-depth description of change in the NICU as it relates to the implementation of FCC philosophy and practices. Bryar (1999) suggests that case study research plays an important role as a means for examining the complex process by which innovation, change and research evidence are adopted by organisations.

DEFINITION OF TERMS USED IN THESIS

Shared Care refers to the formalisation of parents' involvement in the care of their child while in hospital (Keatinge & Gilmore, 1996). It is a model of nursing care in which parents and nurses both contribute to the care of the child. Shared care was the first project in the NICU that attempted to formalise parents' participation in care.

Family centered care (FCC) is a philosophy of care that is based on the belief that the family has the greatest influence in the health and well being of infants, and an important role for health professionals is to develop parents confidence and competence in care giving and decision making roles (Gordin & Johnson, 1999). The definition for FCC is discussed in more detail in Chapter One.

Kangaroo care (KC) is defined as skin-to-skin contact, the holding of a preterm infant clothed only in a diaper on the parent's chest (Engler, Ludington-Hoe, Cusson, Adams, Bahnsen, Brumbaugh, Coates, Grieb, McHargue, Ryan, Settle, & Willaims, 2002). The evidence for KC suggests that it is safe, and there are positive effects on thermoregulation, oxygenation, weight gain, and behavioural state in infants of 28 weeks gestational age and above (Byers, 2003). Feldman (2004) also demonstrated the positive effect of KC on an infant's cognitive development across infancy.

Mother Baby Care (MBC) was designed to reorientate nursing practice in the neonatal nursery from the infant to the mother-infant dyad by shifting 'authority' for mother-baby contact from the individual clinicians to the standard of care required by the nursery. MBC incorporated the principles of FCC and included strategies designed to encourage mothers / parents to participate in Kangaroo Care (KC) to promote a close physical contact between the mother and her infant.

The expert model of care can be defined as an authoritarian style of clinical practice in which the nurse maintains a position of control over the infant and care routines to protect and safeguard the infant (Fenwick, Barclay & Schmied, 2001a). While mothers see the nurse as the expert by virtue of their professional status and experience and their specialist knowledge about the care of the infant (Lupton & Fenwick, 2001).

Infant centered care or infant focused care relates to clinical practice that is focused sorely on the infant, safeguarding and protecting the infant while not considering parental needs (Griffin, 1990; Fenwick et al, 2001a).

STRUCTURE OF THE THESIS

Chapter One begins by briefly outlining the history of the development of FCC and parent participation in the care of their hospitalised child. The chapter goes on to review the literature relating to change and to discuss strategies for implementing change from the literature.

Chapter Two provides a description of research design and the case study methodology used for the study.

Chapter Three gives a description of the seven projects undertaken in NICU and / or JHCH to improve parent participation in the care of their infant / child while in hospital. This chapter provides a timeline and establishes the chronological order for the data analysis. An overview of each of the projects is provided and the drivers of change for each of the projects are analysed. The varying strategies used to achieve a change in practice are identified in each of the projects, and are summarized at the end of the discussion of each project.

Chapter Four presents the main themes that have come from the thematic analysis of the change process from field notes, interviews and focus groups undertaken for MBC in 2001-2002 and interviews and focus groups undertaken

for this research in 2004-2005. The purpose of this analysis is to explore the factors that impact on neonatal nurses involving parents in the care of their infant. The chapter also examines how these themes may or may not have changed over time by examining the reports of the projects described in Chapter Three.

Chapter Five in this chapter the neonatal nurses perceptions of factors that impact on the participation of parents in the care of their infant will be identified.

Chapter Six in this chapter the change process will be discussed, and in particular, the factors that impact on change and influence sustainability. The implications for nursing in the SCN and recommendations for future improvements identified.

CHAPTER ONE

LITERATURE REVIEW

This chapter begins by briefly outlining the history of the development of parent participation in the care of their hospitalised child. The history and definition of FCC are discussed, as is the evolution of parental involvement in the care of their infant in the NICU. The barriers reported in the literature to FCC in the NICU are also discussed. The importance of the relationship between nurses and parents and the implications for clinical practice are highlighted. The literature for these issues is reviewed within the context of the development of a FCC philosophy of care with the involvement of parents in the care of their infant within the NICU.

The chapter goes on to review the literature relating to change and to discuss strategies for implementing successful change from the literature.

PARENT PARTICIPATION IN CARE

History of parent participation in care

The first studies on parent participation in nursery care date back to the early 1940s (Saunders, 1994; Coyne, 1996). Parental participation in the care of their hospitalised child developed in the 1950s from the recognition of the detrimental effects of separation on children (Bridgeman, 1999). The work of both Bowlby and Robertson was influential in articulating the needs of the hospitalised child (Connell & Bradley, 2000; Darbyshire, 1993). Bowlby (1969) described the effects of separation and loss of a mother figure on young children. In 1959 the Platt Report released in the United Kingdom recommended unrestricted visiting for parents and had international significance to nursing practice as it heralded a gradual increase in parents' involvement with their hospitalised children (Rowe, 1996; Kristensson-Hallstrom, 2000). Despite being widely published the recommendations of the Platt Report were slow to be implemented (Kristensson-Hallstrom, 2000).

The impetus for change continued with the research which began to study the needs of family members of critically ill patients (Damboise & Cardin, 2003). Researchers found the basic needs of families of critically ill patients included information, reassurance, support and the ability to be near the patient (Gavaghan & Carroll, 2002; Ward, 2001). FCC continued its development in the late 1970s in an attempt to fulfil the basic needs identified by these findings (Damboise & Cardin, 2003).

The consumer movements of the 1960s and 1970s were also integral to the continued evolution of FCC (Zwelling & Phillips, 2001; Gordin & Johnson, 1999). The consumer movement focused on changes such as bringing fathers into the delivery room, changes in maternity care, and passing legislation to give children with special needs the right to be educated in the least restrictive environment and with family involvement (Zwelling & Phillips, 2001; Gordin & Johnson, 1999). Despite these developments the momentum for change in maternity care has slowed (Ahmann & Johnson, 2000).

Ahmann & Johnson (2000) discuss the importance of health care professionals communicating with child bearing women and their families and supporting their choices in prenatal care and birthing. Gordin and Johnson (1999) also suggest that health care professionals need to recognise and respect the knowledge the mother has and a couple's desire to participate in care and decision making. Health professionals, such as midwives, who support women during this critical period help create positive, reinforcing memories for women (Ahmann & Johnson, 2000).

Advances in technology in the late 1970s and early 1980s led to the survival of increasing numbers of infants and children with complex health needs (Gordin & Johnson, 1999). Increasingly, the families of these infants and children sought to have a more active role in the care of their children (Gordin & Johnson, 1999). In 1974, change was facilitated in Australia by the Australian Welfare for Children in

Hospital (AWCH) policy that provided concrete guidelines for parental involvement in care (Rowe, 1996).

In the 1990s support for a FCC approach to health care was spreading (Gordin & Johnson, 1999). A growing number of organisations were recommending the principles and practices of FCC (Gordin & Johnson, 1999). It is now widely recognised that parent participation is a pivotal aspect in the delivery of high quality nursing care for children and their families (Coyne, 1996). While the progress of FCC continues more in the care of children and infants, the principles of FCC are also now being applied more broadly into health care for patients of all ages (Ahmann & Johnson, 2000).

Defining Family Centered Care (FCC)

Despite the agreement in the literature on the value and necessity for FCC there is no simple definition or consensus for what constitutes parental participation in care of the hospitalised child (Coyne, 1996; Kristensson-Hallstrom, 2000). In the evolution of parental participation in care, a number of terms have been used to describe the concept, including shared care, parental participation, parental involvement, partnership in care, parent - staff partnership, family centered care (FCC), child and family centered care, family participation and care by parents (Coyne, 1996: Kristensson-Hallstrom, 2000; Keatinge & Gilmore, 1996). Coyne (1996) suggests that there is confusion over the definitions of the concepts involved as they are often used interchangeably and indiscriminately. It has also been suggested by several authors that the lack of agreement in paediatric nursing practice regarding parental participation was due to a lack of a clear definition of what the concept involved (Coyne, 1996).

FCC can be described as a philosophy of care (Ahmann, 1994). FCC is based on the belief that the family has the greatest influence in the health and well being of infants and children and an important role of health care professionals is to develop the parent's confidence and competence in their care giving and

decision making roles (Gordin & Johnson, 1999). Hutchfield (1999) suggests that the relationship between the family and the nurse is central to FCC, and it is based on respect, and honest and open communication. FCC has been defined as:

> *'.. an approach to care that is based on mutually beneficial partnerships among childbearing women, infants, family members, and health care providers. Family centered care is grounded in the belief that the family has the greatest influence in the health and well-being of infants and children and the most important role of health care professionals is to foster parents' confidence and competence in care giving and decision making roles '* (Gordin & Johnson, 1999, p.401).

The implementation of FCC requires a change in philosophy, attitude and practice (Ahmann, 1998). It remains a challenge for health care professionals to change their attitude and approach, by establishing relationships with patients and to plan care collaboratively with their families (Ahmann & Johnson, 2000).

In addition to the research on FCC, is the concept of developmental care for the preterm infant in which the involvement of family is identified as an essential component (Aita & Snider, 2003). Developmental care is a philosophy of care that includes activities that manage the environment and individualise the care of the preterm infant based on behavioural observations, to promote a stable, well-organised and competent infant (Byers, 2003). The advances in developmental care in the 1980s and 1990s also highlighted the importance of the parental role in providing supportive care for infants in the NICU (Gale & Franck, 1998). Although the concept of FCC is seen as integral to the developmental care philosophy in some studies care remains almost entirely focused on the infant (Heermann & Wilson, 2000).

Family centered care in the neonatal unit

The impact on parents and parenting of having an infant in the NICU has been reported since the early 1900s (Gale & Franck, 1998). In his book 'The Nursling' Budin noted that mothers who were not allowed to participate in the care of their hospitalised infants lost interest and abandoned the infants (Gale & Franck, 1998). In an attempt to overcome this Budin recommended that mothers be encouraged to visit frequently and to breastfeed to counteract the impact of maternal separation and loss of physical contact with the infant (Gale & Franck, 1998). In 1976, the work of neonatologists, Marshall Klaus and John Kennell led to the change to more liberal visitation policies and the development of support groups for parents in some NICU (Gale & Franck, 1998).

It has been well established in the literature that prematurity has a significant social and emotional impact on parents (Fenwick, Barclay, & Schmied, 1999). Hurst (2001) reported mothers experienced a wide range of emotions consistent with those previously documented in the literature, including anger, anxiety, denial, grief, guilt, helplessness, hopelessness, isolation, loss, self-blame, amazement, happiness, love and joy. Separation from their infant has been described a cause of emotional stress for mothers (Nystrom & Axelsson, 2002; Affonso et al, 1992). Loss of control has also been reported as having an impact on the experience of mothers and parents in the NICU (Cescutti-Butler & Galvin, 2003; Nystrom & Axelsson, 2002). Research that focused on mothers' experiences of their nursery care has also highlighted that they want to be involved in the care of their infants (Raines, 1998; Holditch-Davis & Miles, 2000).

Since the mid 1980s, FCC has provided an approach to health care that offers a new way of thinking about the relationship between families and health care workers (Gale & Franck, 1998). FCC recognises the vital role that families play in the health and well being of infants, children and adolescents (Ahmann, 1994). It promotes a close collaboration between families and health care professionals in the planning, delivery, and evaluation of care for the infant (Gale & Franck,

1998). There is now a large body of literature that recommends that nursery practice should be based on the philosophy of FCC (Gordin & Johnson, 1999).

Much of the impetus for change in the NICU to a FCC philosophy and practices has comes from parents and health professionals. In 1992, at a meeting in the USA, a group of parents and neonatal health care professionals met to discuss how they could collaborate together more effectively in the care of their sick infants (Harrison, 1993; Moore, Coker, DuBuisson, Swett, & Edwards, 2003). Following the meeting 'The principles for family centered neonatal care' were published in 1993 (Harrison, 1993).

The goal of FCC is to involve parents as partners in their infant's care (Hanson, Johnson, Jeppson, Thomas & Hall, 1994). Nurses who work within a FCC framework seek to understand parent's priorities and needs from the family's perspective and to incorporate this perspective into the care plan for the infant (Hanson et al, 1994; Ahmann & Johnson, 2000). The Table 1.1 (p.14) identifies the guiding principles for FCC. The principles provide a framework for health professionals and parents to promote change in policy and care giving in the NICU (Gale & Franck, 1998).

Despite the increasing amount of research that details the importance of the parent's experience and literature recommending a FCC approach to care, routine care within Level II neonatal nurseries has continued to focus primarily on infant physical health and development (Fenwick et al, 1999; Fenwick, Barclay, & Schmied, 2000).

Respect: Parents and families deserve respect. Their values, beliefs, and cultural background should also be respected. *Information sharing*: Parents and families need complete, accurate information in order to make decisions and participate in their child's care. Parents have a variety of learning styles and differing needs for how they receive information. *Collaboration*: Parents and families as well as health professionals have expertise and resources that affect a child's care. A family knows their own infant, and the family's strengths, needs, and context. Health professionals offer medical and other technical expertise. Together they can provide the best care for infants when they work closely together to care for individual children and to develop and plan hospital policies and programs. *Family to family support:* Families whose children have similar needs support each other, find strength, comfort, friendship, and strategies for coping with difficult situations. *Confidence building*: FCC builds confidence and augments the skills of parents so that they become more effective caregivers for their child, managing their care and participating in care at whatever level they choose.

Table 1.1 Guiding Principles of Family Centered Care (Hanson, Johnson, Jeppson, Thomas & Hall, 1994, p.9-10).

Barriers to family centered care in the neonatal unit

Parents of infants in Neonatal Intensive Care, advocates for the care of hospitalised children, and experts from the field of nursing, neonatology, infant development, and psychology have all described barriers to parenting in the NICU (Hurst, 2001; Gale & Franck, 1998). Griffin (1990) identified barriers that include physical, mechanical, emotional and nurse related. Possible physical barriers

include distance between the mother and the infant because the infant has been transferred to another unit or hospital, lack of facilities and accommodation for parents (Griffin, 1990). The technology and equipment needed to ensure the infants survival has been described as a mechanical barrier for parents in the neonatal nursery (Griffin, 1990). Many studies have identified the emotional barriers to having an infant in the neonatal nursery, these can include, feelings of helplessness, guilt, anger, stress and isolation (O'Shea & Timmins, 2002).

The literature does not give an encouraging picture of nurse and parent interactions in the neonatal nursery (Bialoskurski, Cox & Wiggins, 2002). Griffin (1990) identified the nurse in the role of gatekeeper of the infant as one of the major barriers to parenting in the neonatal unit, with nurses focusing on infant care and not parental needs. Later research also indicates that activities and interactions between mothers and nursing staff reflect control by staff rather than a partnership with parents (Fenwick, Barclay & Schmied, 1999). Griffin (1990) goes on to suggest that the struggle for control is frustrating for both families and nursing staff. The parent's feelings of inadequacy are exacerbated by the control staff have over the infant's care (Gale & Franck, 1998). The issue of control may partly explain the slow acceptance of FCC in the NICU, with some nurses reluctant to change their attitude and approach to care by collaborating with their families (Ahmann & Johnson, 2000).

Fenwick, Barclay & Schmied (2000) found that a mother's relationship with the nurse is the most important influence in a women's experience of parenting in a Level 2 nursery. The numbers of nursing staff involved in an infant's care, the nursing staff to infant ratio and the inconsistent approaches to a mother's care-giving activities have also been identified as issues for mothers with infants in the neonatal nursery (Hurst, 2001). In addition, inconsistent implementation of FCC practices by nursing staff has been identified as a barrier (Van Riper, 2001). Walker (1997) in a small study of nurse's views on the barriers to parenting in the neonatal nursery suggested nurses believed that equipment presents a physical

barrier, and parents contributed through their emotional barriers such as anxiety, fear, guilt and anger. In addition, nurses in the study did not acknowledge that nursing practices, policies or procedures contributed to the barriers to parenting confronting parents in the neonatal nursery (Walker, 1997).

Parents communicate with many staff over the course of their infants' hospitalization, and at times may be given conflicting information (Griffin, 2003). O'Shea and Timmins (2002) also identified communication with staff as a major issue for parents. Conflicting or inconsistent information can be confusing and stressful for parents and families (Griffin, 2003). Bialoskurski, Cox & Wiggins (2002) identified communication as a potent weapon in breaking down barriers, and as a key to developing a shared meaning between mothers and nurses.

Negative communication patterns such as the use of jargon or technical terms, and an authoritarian or didactic style of imparting information can cause emotional distress to mothers making it a barrier to the establishment of a relationship between mothers and nursing staff (Fenwick et al, 2000). Fenwick, Barclay and Schmied (2000, 2001a, 2001b) suggest that language is a distinct nursing strategy and clinical tool as it appears that the nurse's ability to establish a supportive relationship with parents is largely dependent on the use of language. Interactions that were supportive, friendly and open and involved both participants in the exchange had a positive impact on mothers in the nursery.

The next section examines some of the factors that influence change in practice.

ACHIEVING CHANGE IN PRACTICE

Change is a constant in health care; it is a dynamic process, which creates opportunities and challenges for nursing staff (Carney, 2000). Cutcliffe & Bassett (1997) suggest change is an essential part of growth and for an organisation to evolve and develop change must occur. To be active participants in change

nursing staff require knowledge of change as a phenomenon, the emotions it may provoke, and the key factors influencing success or failure of the change process (McPhail, 1997). The remainder of this chapter reviews change theory and research to provide a foundation and framework for the analysis of the changes that have occurred in the NICU.

Culture and Change

Dixon (2002) describes culture as a *'combination of shared assumptions, attitudes, values, feelings, and beliefs that are learned over time about how work gets accomplished'.* Put more simply Manley (2000a) accepts the definition of culture *'as the way things are done around here'* and suggests that it is the culture of the individual, team and organisation that creates the context for practice. An understanding of the culture of the practice context is necessary if lasting change is to be achieved (McCormack, Kitson, Harvey, Rycroft-Malone, Titchen & Seers, 2002). Organisational culture can only be understood as a product of a process that changes and evolves over time (Manley, 2000b). The culture of an organisation plays a significant role in the nature of clinical practice and its outcome for the staff and recipients of care (Wesorick, 2002).

Breckenridge Sproat (2001) identified that changing an organisation's culture is more difficult than developing a new one. Cultural change occurs when there is a change in underlying values and assumptions. The subculture of the nursing unit plays a critical role in influencing the type of care that is delivered (Gennaro, Hodnett, & Kearney, 2001). The prevailing beliefs and values exert strong pressures, particularly on more junior members of the nursing staff (Gennaro et al, 2001). While cultural change at unit level is difficult to achieve, any lasting change in practice is likely to have an accompanying change in culture (Cutcliffe & Bassett, 1997). Participants in a focus group discussing their experiences of implementing change agreed that a change in culture was often required if change was to be successful (Rycroft-Malone, Harvey, Kitson, McCormack, Seers, & Titchen, 2002). It is also suggested that any change in culture or

behavior within a culture is slow to occur (Cutcliffe & Bassett, 1997). An understanding of the organisations culture is necessary if successful change is to be implemented (Seago, 1996).

Binnie and Tichen (1999) warn that any change in nursing practice in a unit is not possible without the support of the organization and management for change. Cutcliffe & Bassett (1997) suggest that the culture of an organisation is important and will influence the way that change happens within the organisation, and consider that even the most well planned change can go wrong if the culture of the organisation is not taken into consideration. There are several factors that influence the implementation of a successful change process in organizations. These include staff attitude and behaviour, leadership and the role of change agents.

Staff attitude and behaviour

McPhail (1997) describes how individuals all develop comfort zones within their practice, and become increasingly attached to a familiar practice over time, and change can cause a disruption to traditional practices with some staff resisting change that takes them from their comfort zone.

McPhail (1997) discusses the need for attitude and patterns of behaviour or interactions to be taken into account when facilitating change. The resistance to change is caused by many factors, which can include anxiety, uncertainty, and feelings of loss of control in relation to the direction and pace of the change (McPhail, 1997). McCluskey & Cusick (2002) also suggest that staff often feel threatened by change. Some staff are enthusiastic, and ready to learn more, while others are more resistant to change. Overcoming peer group resistance to change is also identified by Balfour & Clarke (2001) as an important issue to address when changing practice.

It is suggested that the involvement of staff in any planned change will give a sense of ownership and a sense of control in the process and may decrease

resistance (McPhail, 1997). Only with empowerment of staff and ownership of the change will staff become innovators rather than respecting the past (Balfour & Clarke, 2001). To achieve sustained behaviour change among staff interventions that are locally driven, perceived as relevant, personalized by local opinion leaders, supported by evidence, and delivered by appropriate interactive education strategies are necessary (Greenhalgh, Hughes, Humphrey, Rogers, Swinglehurst & Martin, 2002). A team of staff, for example nurses, working on the project can provide a variety of views on the practice setting and help assist with problem solving the obstacles to change (Gennaro et al, 2001). A carefully planned practice change for which there is broad based support will have more impact (Gennaro et al, 2001).

Leadership / The role of change agent

Leaders play a key role in transforming cultures and are influential in shaping a context that is ready for change (Rycroft-Malone et al, 2002). Leaders work to transform practice cultures so that the essence, uniqueness and outcomes of practice are realized (Wesorick, 2002). An effective manager needs an insight into change theory, to predict implications and reactions to change prior to attempting to implement organisational change (McPhail, 1997). Manley (2000b) also identified the role of leadership as a key to bringing about cultural change. A good team leader is essential when effecting successful change, with groups of staff working together with a co-ordinated approach toward a mutual goal (Balfour & Clarke, 2001).

The nature and identity of change agents may not be always obvious; they may be overt and visibly recognized as a change agent or be more subtle (Cutcliffe & Bassett, 1997). The overt change agent participates with energy and enthusiasm in new projects and is keen to challenge ritualistic practice (Cutcliffe & Bassett, 1997). The more subtle change agent may be less easy to identify, however their actions steadily adapt resistors to change, support the more overt change agents and quickly proceed to whatever change in practice is advocated

(Cutcliffe & Bassett, 1997). A change agent cannot work in isolation, and to succeed require support from at least some of their colleagues and from supervisors (Gennaro et al, 2001).

Implementing change

There is a growing body of information in both the nursing and business literature on the management of change, and there has been much written on change and factors that contribute to successful change, however there are differing views on how this can best be achieved (Carney, 2000). Iles & Sutherland (2001) identified that organisational level change is not fixed or linear in nature but may also progress in an apparently spontaneous and unplanned way. Planned change is a product of conscious reasoning and actions, while emergent change unfolds in a spontaneous and unplanned way (Iles & Sutherland, 2001).

Three approaches for implementing change by nurses in clinical practice settings have been outlined (McPhail, 1997; Cutcliffe & Bassett, 1997). These are:

- Empirical-rational approach where it is assumed that most people are guided by reason and self-interest, and will adopt a change if it can be demonstrated as justified (McPhail, 1997; Cutcliffe & Bassett, 1997).
- Normative-re-educative approach takes into account social and cultural implications of change. Change originates from the bottom and moves upward, and is based on the belief that people need to be involved, have ownership, and to participate in all aspects of change that affects them (McPhail, 1997; Cutcliffe & Bassett, 1997).
- Power-coercive approach uses a political and economic power to support change. This is a top-down method with people in authority instructing others to change, assuming people obey the orders of a higher authority (McPhail, 1997; Cutcliffe & Bassett, 1997).

Change strategies

No single change model, strategy or tool will fit all problems or situations, and managers of change need to be skilled at choosing those tools that are best suited to the circumstances that confront them (Iles & Sutherland, 2001). If implementation is separated from the planning and design of a change strategy it is likely to fail (Cameron, Cranfield, Iles, & Stone, 2001). In successful change strategies, the thinking informs the doing and doing informs the thinking throughout the process in an iterative approach (Cameron et al, 2001).

There are many approaches or models of change management available. Due to the extensive amount of literature available only those approaches that assist in achieving change in clinicians' behaviour will be discussed. There is a growing body of knowledge about achieving individual behaviour change (Iles & Sutherland, 2001). Iles and Sutherland (2001) in a review of organisational change undertaken for the National Health Service (NHS) suggest innovation research and a range of specific interventions can be used to secure individual clinician's behaviour. These will be now discussed in more detail.

Diffusion of innovation theory

The dynamics that govern the adoption of a new practice in health care are complex (Cain & Mittman, 2002). Innovation diffusion theory describes the process by which an innovation is communicated through social networks to members of a social system over time (Rogers, 1995). An innovation is an idea, practice or object that is perceived as new by an individual or other unit of adoption (Rogers, 1995). It can explain individual clinician behaviour change or an organisational change. Rogers' theory of diffusion supports the concept of change with new ideas or practices diffusing through the work environment (Pearcy & Draper, 1996).

Diffusion of innovations is a social process that relies on new ideas or practices being communicated from an individual who knows about the innovation to an

individual who does not (Rogers, 1995; Cain & Mittman, 2002). The communication is more effective when the source of information and receiver of information share common values, beliefs, and a mutual understanding (Cain & Mittman, 2002). Communication can vary from mass media, a rapid way to increase awareness and knowledge, to the more effective interpersonal channels with face-to-face exchanges (Rogers, 1995). Emphasis is placed on the role of the change agent, who attempts to influence decisions about the adoption of an innovation (Moulding, Silagy & Weller, 1999).

Three clusters of influence have been described that correlate with the rate of spread of a change:

1. Properties or perceptions of the innovation;
2. Characteristics of the people who adopt the innovation or fail to adopt; and,
3. Contextual factors, involving communication, incentives, leadership, and management (Berwick, 2003).

1. Properties or perceptions of the innovation

The properties or perceptions of the innovation identify five characteristics to help explain the different rates of spread for an innovation:

- *Relative advantage* is the degree to which the idea, practice or technology is perceived to be better than existing practices;
- *Compatibility* is the perceived 'fit' of the innovation with existing values, beliefs, experiences and current needs of the individual;
- *Complexity* is the degree of difficulty involved in learning about and implementing the innovation;
- *Trialability* is the extent to which an innovation can be tried by individuals without major investment of time or resources; and,
- *Observability* is the degree to which the outcomes resulting from the adoption of the innovation are visible (Rogers, 1995; Iles & Sutherland, 2001; Berwick, 2003).

2. Characteristics of the people who adopt the innovation or fail to adopt

The second factor, characteristics of people who adopt or fail to adopt an innovation, helps to explain how the rate of spread of an innovation is associated with the differing attitudes of individuals to change. The research categorises people according to their propensity to change (Rogers, 1995; Iles & Sutherland, 2001; Berwick, 2003; Cain & Mittman, 2002). The following table identifies the differing individual attitudes to innovation explained by Rogers (1995).

Innovators are venturesome; their interest in new ideas takes them outside their social network. Innovators make up 2.5% of adopters.
Early adopters are well-respected opinion leaders who are well integrated into their social system. Early adopters can serve as role models for other members of the social system. Early adopters make up 13.5% of adopters.
Early majority adopt new ideas just before the average member of the social network. They are well integrated into the social network, and deliberate for sometime before completely adopting the innovation. Early majority make up 34% of adopters.
Late majority they adopt new ideas just after the average member of the social system. Adoption may relate to economic necessity, and be responsive to peer pressure. Uncertainty about a new idea must be removed before the late majority feel safe to adopt. The late majority make up 34% of adopters.
Laggards are the last in the social system to adopt the innovation, they are traditionalist with the past their point of reference. They are relatively isolated and are suspicious of new ideas and change agents. Laggards make up 16% of adopters.

Table 1.2 Hierarchy of Adopters (Rogers, 1995, p. 263-266; Cain & Mittman, 2002, p.12).

The bell curve that describes the dissemination of an innovation has a tipping point, after which it becomes difficult to stop a change from spreading further (Berwick, 2003). When innovators and early adopters have changed, the early majority will follow their lead if they are able to interact with them, then the late majority will discover the majority has changed and will feel comfortable too (Berwick, 2003).

The decision to adopt an innovation takes time. Rogers (1995) calls this the Innovation-decision process, which he maps into five steps. This process through which an individual or organisation passes, includes the following stages:

1. *Knowledge* occurs when the individual is exposed to the innovation and learns about it.
2. *Persuasion* occurs when an individual forms a favourable or unfavourable opinion of the innovation.
3. *Decision* occurs when the individual accepts or rejects the innovation.
4. *Implementation* occurs when the individual puts the innovation into practice.
5. *Confirmation* occurs when an individual seeks reinforcement of an innovation decision already made, or reverses a previous decision if exposed to conflicting information (Rogers, 1995; Cain & Mittman, 2002).

3. Contextual factors, involving communication, incentives, leadership, and management

The third cluster of influence on the rate of spread of an innovation relate to the contextual and managerial factors within the social system or organisation that encourage and support, or discourage the spread of the innovation (Berwick, 2003). The organisational context plays an important role in the adoption of innovations (Iles & Sutherland, 2001).

Securing individual behaviour change

In health care settings a range of specific interventions have been used to change the behaviour of clinicians. These include:

- Educational outreach;
- Audit and feedback;
- Conferences;
- Local consensus process;
- Access to local opinion leaders;
- Patient specific reminders;
- Marketing;
- Continuing medical education; and,
- Dissemination of guidelines (Iles & Sutherland, 2001; Grimshaw, Shirran, Thomas, Mowatt, Fraser, Bero, Grilli, Harvey, Oxman, & O'Brien, 2002).

There have been many systematic reviews published that describe methods and approaches that have been used to secure a change in behaviour in health professionals (Iles & Sutherland, 2001; Grimshaw et al, 2002).

Grimshaw and colleagues (2002) undertook an overview of systematic reviews of interventions to promote implementation of research findings by health care professionals, and their key findings were:

- Passive dissemination approaches are generally ineffective and unlikely to result in behaviour change when used alone;
- Most other interventions are effective under some circumstances, none is effective under all circumstances;
- Strategies that are generally effective include educational outreach to change prescribing behaviour and reminders; and,
- Multifaceted interventions based on an assessment of potential barriers to change are more likely to be effective than single interventions.

In addition, the authors suggest that active intervention strategies are more likely to be effective but are also likely to be more expensive (Grimshaw et al, 2002).

CONCLUSION

The review of the literature identifies the development of parent participation in the care of their hospitalised child has occurred over many years with a number of drivers for change. While in the NICU, Budin in the early 1900s identified the importance of allowing women to visit and feed their preterm infants, and in the 1970s the work of Klaus and Kennell also encouraged more liberal visiting practices and the commencement of parent support groups in neonatal nurseries.

Despite the general agreement in the literature on the value and necessity of FCC philosophy and practices in the care of the hospitalised child / infant there is no simple definition or consensus for what constitutes parental participation. In the evolution of parental participation in care, a number of terms have been used to describe the concept, including shared care, parental participation, parental involvement, partnership in care, parent – staff partnership, family centered care (FCC), child and family centered care, family participation and care by parents. The variety of terms used to describe FCC has added to the confusion for nurses attempting to institute a FCC philosophy and practices.

The impact on parents of having an infant in NICU has been documented, and despite the recommendations for parent participation in care and FCC philosophy and practices in neonatal nurseries it appears that care is still focused on the infant. Much of the impetus for change to FCC philosophy has come from parents and health professionals, and over the past ten years a number of projects have occurred in the NICU at JHCH to increase parent involvement in the care of their infant.

Achieving a sustainable change in practice is a difficult process, and there is an increasing body of information in the nursing and medical literature on the management of change. There has also been much written on change and factors that contribute to successful change, however there are differing views on

how this can best be achieved. The diffusion of innovation theory provides a framework to describe how an idea or practice is communicated through a social system over time.

The projects to implement FFC philosophy and practices in the NICU have had varying degrees of success, with a range of strategies used to achieve change. The aim of this research study is to examine the change process in a NICU as a FCC philosophy and practices are integrated into nursing practice over a ten year period.

CHAPTER TWO
METHODOLOGY

INTRODUCTION

This is a qualitative study that uses case study methodology to examine and analyse the context and processes involved in achieving change in neonatal nurseries. In this chapter I describe the methodology in more detail.

As a research strategy, case study has been use in many situations to contribute to knowledge of individual, group, organisational, social, political and related phenomena (Yin, 2003a). The need for the case study method rises from the desire to understand complex social phenomena (Yin, 2003a). Case study is used to study contemporary events, when the relevant behaviours cannot be manipulated (Yin, 2003a). A case study is an inquiry that investigates a contemporary phenomenon within its real life context, especially when the boundaries between the phenomenon and context are not clearly evident (Yin, 2003a).

Case study design has been used for research in law, education, history, medicine, psychology and business (Gray, 1998). Bergen (2000) suggests the use of case study design in nursing has been elusive as it is given only minimal attention in general research textbooks and when used in research appearing in nursing journals fails to either define the writer's interpretation or offer a rationale for use. Bryar (1999) suggests that case study research in nursing has received little attention due to the potential confusion between case study as a research approach and the use of individual case studies as an educational tool in nurse education.

Case Study Methodology

Case study research aims to provide an in-depth description of a case or cases (Bryar, 1999; Pegram, 1999; Vallis & Tierney, 1999). Bryar (1999) continues by

suggesting that case study research plays an important role as a means for examining the complex process by which innovation, change and research evidence are adopted by organisations. The case study approach enables the researcher to explore the 'how' and 'why' questions about a series of events that occur in a particular case (Meyer, 2001).

Grey (1998) describes a variety of uses for case study designed research. These include:

- In-depth study of a phenomenon in its context;
- Understanding phenomenon about which little is known or understood;
- T o investigate person-centered clinical problems;
- To illustrate specific elements of a project;
- To demonstrate the effectiveness of specific treatments; and,
- As a pilot for a larger study.

In this thesis, case study research will be used to gain an in-depth understanding of the change process. The case study will provide the structure to describe and anaylse the projects undertaken in the NICU to develop a FCC philosophy and practices over the past ten years.

In keeping with the variety and complexity of research that can be considered to be case study research, Yin (2003a; 2003b); Gray (1998) and Pegram (1999) suggest that case study research can be described as exploratory, descriptive or explanatory. A descriptive study describes the phenomenon being studied (Yin, 2003b; Gray, 1998; Pegram, 1999). An exploratory study is used to define the research questions or hypotheses of a future study or to test the feasibility of a desired research procedure (Yin, 2003b; Gray, 1998; Pegram, 1999). An explanatory case study presents data relating to the cause and effect relationships, explaining how events happened (Yin, 2003b; Gray, 1998). Pegram (1999) suggests that an explanatory study can explain various aspects and causal arguments highlighted by a descriptive study.

This current case study has elements of all three designs, as it describes what has happened over the past ten years, attempts to examine cause and effect and find strategies that could be used in the future to continue to improve the implementation of FCC in the NICU at John Hunter Children's Hospital.

A common criticism of case study research is the volume of data produced (Vallis & Tierney, 1999; Gray, 1998). Gray (1998) suggests that the use of a chronological structure when writing up a case study assists in organising the large amount of material generated by the study. This also allows the author to demonstrate a clear decision or audit trail and provides a developing account of change over time so an insight into the story of the phenomenon being studied and its context can be gained (Gray, 1998).

Case study methodology makes use of multiple methods of data collection, and can make use of both qualitative and quantitative methods (Bryer, 1999). The choice of data collection methods is guided by the research question and the choice of design (Meyer, 2001). In nursing research case study has often been combined with action research (Gray, 1998). Data collection methods in a case study can include archival records, interviews, participant observation, and / or physical artefacts (Gray, 1998). The use of multiple data collection methods provides a rich picture for analysis (Pegram, 1999). The use of multiple methods of data collection and sources of evidence can also assist in establishing validity (Keen & Packwood, 1996).

Pegram (1999) suggests the flexibility of case study research allows for an in-depth study of nursing and nurses. The case study method also allows the researcher to focus on an in-depth and detailed study of the organisation, and a great deal of information can be discovered which may not be revealed by other research strategies (Gray, 1998). Using a case study design will allow a study of the development of FCC philosophy and practices in the NICU with a view to providing an analysis of the context and processes involved in achieving

sustainable change (Meyer, 2001). The unique strength of the case study is to ability to combine a full variety of evidence, documents, artefacts, interviews and direct observations (Yin, 2003a). For example, this case study uses retrospective documents, reports and participant recall to look at what has happened in the past, in conjunction with prospective data collection from interviews and observation.

Aim of the research

This research uses a case study to explore and analyse the change process in a Neonatal Intensive Care Unit as a family centered care philosophy and practices are implemented.

Objectives

The objectives of the research project were to:

1. Identify the factors that facilitate and hinder the implementation of FCC practices at both the individual and organisational level;
2. Explore neonatal nurses' perceptions of their role in the nursery and consider how these have changed over the past decade; and,
3. Examine the impact of research projects and quality endeavours in stimulating change or as strategies for change.

Setting and background

The setting for the study is a regional tertiary referral NICU located in Newcastle, Australia. The NICU is part of John Hunter Children's Hospital that is located within the major adult facility. The hospital provides antenatal, perinatal and neonatal intensive care for high-risk pregnancies and deliveries. The unit receives referrals from all over northern NSW, and in addition, as part of the NSW Perinatal Services Network may receive admissions from anywhere in the state when necessary. The nursery has a total of thirty beds, fourteen Level 3 beds and sixteen Level 2 beds, the nurseries are adjacent and share the main

entry foyer and corridor, and have a connecting doorway. Over the past ten years the unit has had approximately 750 to 850 admissions each year.

The nursery has an allocation of 75 full-time equivalent nursing staff that are made up of a mixture of full-time, part-time and casual staff. The nursing workforce of the unit includes a nurse unit manager grade 3, two clinical nurse unit managers grade 2, a nurse educator, a clinical nurse educator position, two advance practice nurses, a parent liaison nurse, one audit/research nurse, one student midwife position, and two new graduates undertaking a graduate year program. The unit also accepts four undergraduate third year students for clinical placements each year. In addition each year there are approximately three to four nursing staff completing the Graduate Certificate in Neonatal Intensive Care Nursing through the College of Nursing.

The nursing staff vary from new graduates undertaking their graduate year, student midwives, to new staff and experienced neonatal nurses with many years working within the NICU. The nursery has a low staff turnover and positions are actively recruited when vacancies occur.

Over the past ten years the nursery has been the site for a number of projects and studies relating to FCC in which NICU nursing staff including this researcher has have participated. The first part of this case study will describe and analyse these projects. The projects have utilised a range of qualitative and quantitative research methods that describe the impact of care in the NICU on families, especially mothers, and the development of a FCC philosophy. A list of the projects is provided below

1. 1993 Pilot project in paediatric ward to develop shared care
2. 1994 Implementation of state policy to introduce shared care
3. 1995-1998 Internal evaluation of policy implementation

4. 1996-1998 External research project by researchers from UTS exploring the experience of parents in NICU
5. 1998-1999 Action research project to increase parental participation in infant care
6. 2001-2002 Action research project to increase connection between mothers and infants in SCN (called the Mother-baby care project (MBC). As a researcher working on this project, raw data was available and ethics approval was obtained to use this data in the case study
7. 2004-2005 Collection of additional current data for case study of change related to FCC

Data Collection

Data for the case study includes a variety of evidence, documents and records, interviews, focus groups, and field notes documenting observations. For case studies the most important use of documents is to corroborate and build on evidence from other sources (Yin, 2003a). Several sources of data were used in this case study and included:

- Documentary analysis of policy documents, reports and publications from earlier studies
- Interview transcripts
- Focus group transcripts
- Field notes

Reports and publications from previous research projects

Yin (2003a) states that documentary evidence is usually relevant for all case studies. It is suggested that documents are used carefully and not taken as literal recordings of events (Yin, 2003a). Documents in case study research are used to corroborate and augment evidence from other sources (Yin, 2003a). There has been criticism of the potential over-reliance on documents in case study (Yin,

2003a). It is necessary to have an awareness that documents were produced for specific purpose and for an audience other than those undertaking the case study (Yin, 2003a). Documentary evidence reflects communication between parties attempting to achieve some other objective (Yin, 2003a).

The NICU has been the site for numerous research endeavours relating to FCC over the past ten years. The reports and publications from these studies were reviewed and analysed to provide a developing account of change over time that identifies factors that have facilitated or inhibited change, and to gain insight into the development of a FCC philosophy in NICU. The documents reviewed and the project from which they were derived are listed below.

Pilot project Shared Care in paediatric medical ward

Keating, D., & Gilmore, V. (1996). Shared care: a partnership between parents and nurses. *Australian Journal of Advanced Nursing,* 14(1), 28-36.

Implementation of Shared Care in NICU

Cagney, J., Gorshenin, A., & Winskill, R. (1996). Shared care project: Investigation of parents understanding and perceptions – Report. *Unpublished report John Hunter Children's Hospital.*

Brazil, S. (1997). Investigation of nursing staff attitudes towards parents participating in the care of their child in hospital – Report. *Unpublished report John Hunter Children's Hospital.*

NICU site for research

Fenwick, J., Barclay, L., & Schmied, V. (1999). Activities and Interactions in Level 2 Nurseries: A report of an ethnographic study. *Journal of Perinatal Neonatal Nursing,* 13 (1), 53-65.

Fenwick, J., Barclay, L., & Schmied, V. (2000). Interactions in neonatal nurseries: Women's perceptions of nurses and nursing. *Journal of Neonatal Nursing,* 6(6), 197-203.

Fenwick, J., Barclay, L., & Schmied, V. (2001a). Struggling to mother: A consequence of inhibitive nursing interactions in the neonatal nursery. *Journal of Perinatal Neonatal Nursing,* 15(2), 49-64.

Fenwick, J., Barclay, L., & Schmied, V. (2001b). 'Chatting': An important clinical tool in facilitating mothering in neonatal nurseries. *Journal of Advanced Nursing,* 33(5), 583-593.

Fenwick, J., Barclay, L., & Schmied, V. (2003). The role of nurses in the special care nursery: What they consider their pprime responsibility to be. *Journal of Neonatal Nursing,* 9(6), 6-11.

Action research project

Brazil, S. (2003). Improving the practice of family centered care in the neonatal nursery: Implementing change in nursing practice. *Unpublished Master in Nursing Thesis University of Technology, Sydney.*

Action Research Group Meeting Minutes

Partnership in Care form and parent information sheet.

Mother Baby Care pilot project

Schmied, V. (2005). Mother baby care: Changing culture in special care nurseries to improve women's experience of mothering. Conference presentation at International Midwives Conference Brisbane July 2005.

Kinross, D. (2004). Enhancing parents connection and confidence: changing nursery practice. Conference presentation at 5th International Neonatal Nurses Conference Ottawa Canada May 2005.

Action Research Group Meeting Minutes

Information sheets for parents

Kangaroo Care Unit Policy

Kangaroo Care Unit Procedure

Interviews

Interviewing is a well established qualitative research technique, and can be structured, semi structured or in-depth (Britten, 1996; Liamputtong & Ezzy, 2005). Structured interviews consist of the administration of a structured questionnaire by researchers trained to ask questions in a standardised manner (Britten, 1996). Semi-structured interviews are conducted with a number of open ended questions that relate to the topic being explored, and from which the interviewer may diverge to pursue an idea in more detail (Britten, 1996; Polit & Hungler, 1999). In-depth interviews are less structured and may cover only one

or two topics in greater detail (Britten, 1996; Polit & Hungler, 1999). The interviews were semi-structured and key questions developed to ensure that areas of interest are fully explored. A semi-structured interview approach allowed the exploration of a wide number of ideas but also allowed the research to check and explore particular themes that had been identified in the literature and in early data analysis whilst still obtaining an in-depth perspective. This would not have been achievable using either a fully structured or unstructured approach. See Appendix 1 for a copy of the interview questions.

The choice of venue and timing for the interview was at a place and time convenient to the participant as recommended by Britten (1996). The setting can affect the content and it may be preferable to interview the participants in which they feel comfortable (Britten, 1996). In this case most of the participants were interviewed in a place separate from the nursery but still part of the work setting.

It has been recommended that tape recording of interviews maintains a level of accuracy and richness to the data (Meyer, 2001). The interviews were recorded and transcribed. The participants were able to request to listen to the tapes or have a copy of the transcript. Prior to the interview it was explained to the participant that they could rewind, stop or erase any part of the taped interview. None of the participants chose to do this.

Both purposive and a self selecting convenience sampling process was used to obtain participants for the interviews as this allowed a deliberate choice in the staff to be interviewed. Specific members of staff who possess relevant characteristics were interviewed for example the NUM, experienced staff who had worked in the NICU for a long time, less experienced staff, staff who were known to be enthusiastic about FCC and those who were not (Mays & Pope, 1996). This sampling approach enabled nursing staff with a wide range of characteristics to be included to ensure a diversity of views. It also enabled the

researcher to select key staff with access to important sources of knowledge (Mays & Pope, 1996).

The nurses were recruited for the interviews and focus groups by a flyer placed in the NICU tearoom and in the communication book or in the case of senior management staff by personal invitation. A copy of the flyer is available in Appendix 2. The nursing staff that responded were provided with information and given a copy of the information sheet (see Appendix 3).

Interview sample

Interviews were carried out on two occasions. In 2001-2002 as part of the MBC project and in 2005 to test, confirm and expand earlier thematic analysis conducted in this case study.

Mother Baby Care Pilot Project interviews

The Centre for Family Health and Midwifery at the University of Technology, Sydney, in conjunction with the staff of the NICU undertook a pilot study that sought to enhance women's and families feelings of connection and confidence with their infant by changing the way care was provided in the Level II Neonatal Nursery. The study built on the previous work undertaken by the Centre for Family Health and Midwifery.

Ten staff members were interviewed to document their experience with change and understanding of the philosophy of FCC and partnership in care in the nursery. The length of interviews varied between 20 minutes and one hour. Three of the nurses interviewed were experienced managers, one was interviewed at the beginning of the study and again at the completion, four were CNS, and two were nurses with less than five years experience in NICU.

Case study interviews

The interviews conducted as part of the case study were carried out to further explore and examine themes that had been identified in the earlier MBC interviews and documentary analysis of past projects. They were also conducted to examine the key strategies that facilitated the implementation of FCC over time. The interview questions are provided in Appendix 1.

Key informants were interviewed and defined as 'staff who have either actively managed or participated in the previous working groups related to implementation of family centred care in the NICU'. Those nurses interviewed were able to provide a variety of perspectives on the NICU environment and changes that have occurred over time. These participants represented a variety of roles and responsibilities in the nursery, eg. managers, clinical nurse specialists, educators, midwives and registered nurses. This ensured nursing staff of a variety of ages, experiences, and positions in the nursery were interviewed.

In 2004-2005 11 nursing staff participated in the interviews. Their nursing experience ranges from eighteen months to thirty-five years with eight currently being clinical nurse specialists in the NICU. The nurse's neonatal experience ranged from 12 months to 26 years, with seven having been at JHCH since the unit opened fourteen years ago. Eight of the nurses were hospital trained and three have completed university training to gain their nurses' registration. Eight have completed midwifery training (one as a post graduate diploma), and five have completed a hospital based neonatal intensive care course, Three have recently completed the Graduate Certificate in Neonatal Intensive Care Nursing from the NSW College of Nursing, one has completed a graduate diploma with a neonatal focus, one a Child and Family Health certificate, while one has completed Health Visitor training in the UK.

Focus groups

Balfour and Clarke (2001) describe focus groups as a discussion in which six to ten people with the guidance of a facilitator talk about the topic selected for investigation. Kitzinger (1995) has suggested focus groups are *'... a form of group interview that capitalises on communication between research participants in order to generate data'.* Robinson (1999) defined focus groups as *'an indepth, open ended group discussion ... that explores a specific set of issues on a predefined and limited topics'.* Focus groups are a qualitative research technique used to obtain data about the feelings of the group of participants (Jones, 2003; Liamputtong & Ezzy, 2005). They utilise the group interaction as part of the method (Kitzinger, 1995; Liamputtong & Ezzy, 2005). The interactive nature of the group interview encourages participants to think about and make clear their views through discussion with others in the group (Jones, 2003). They are particularly useful in exploring people's knowledge and experiences and can be used to examine what people think, and how and why they think that way (Kitzinger, 1995).

Focus groups employ a specific group interviewing technique, with the main objective to obtain accurate data on specific issues and within a social context where those participating consider their own views in relation to others (Robinson, 1999). The focus groups were semi-structured and a guide was developed to ensure that the discussions had some focus and direction (Jones, 2003). Key questions were developed to ensure wide ranging discussions (Robinson, 1999). See Appendix 4 for a copy of the focus group questions. The questions were open-ended, and followed up to gain further elaboration. The discussions were focused around the participants' experiences of implementing change and their role in the development of a FCC philosophy of care in the NICU.

It is understood that anonymity cannot be maintained in a focus group environment; clearly participants will know who the other participants are.

Confidentiality was given a high priority in this study. Focus group participants were advised in both the information form and at the beginning of the focus group sessions that any information discussed in the focus groups was confidential and should not be discussed outside the groups unless agreed to by the group.

A protocol was developed which included information on the purpose, duration, confidentiality, location and setting. It also included the key questions developed to facilitate group discussion (Robinson, 1999). The venue for the focus group was easily accessible, and enabled the participants to sit in a circle to establish the right atmosphere (Robinson, 1999). The focus groups were held in a tutorial room that is familiar, easily accessible and regularly used by all staff in the nursery. The focus groups ranged in time from forty minutes to eighty minutes duration to allow enough time for the group discussion to be complete. The focus groups were recorded and transcribed.

Four focus groups were conducted as part of the MBC project and one was conducted as part of the case study. The groups consisted of between five and eleven nurses. Eleven nurses participated in the focus group undertaken for the study. The group reflected the population of nurses working in the nursery in terms of their characteristics. For example, the focus group for this study contained nurses with a range of experience in neonatal nursing, one 3rd year student on an 8 week placement, one new staff member with 4 months experience (new graduate training program), one with six months experience, and the remainder with experience of up to 24 years in a NICU. Two were clinical nurse specialist in the NICU. Their educational qualifications varied, and included one CNS who has completed a coursework masters with a neonatal focus, three had completed graduate certificates in neonatal intensive care nursing, with one CNS currently enrolled in a master of nursing education program.

The focus groups held at the commencement and at the completion of the MBC study were to document the experiences and feelings of the staff to the philosophy of FCC and the change strategy and to check findings and themes as analysed from the interviews. The groups were designed to establish the significance of the themes identified in interviews that provided more individual perspectives. The focus groups were also recorded and transcribed.

Field notes

Field notes are a record of the researcher's conversations, observations, reflections, and interpretations of the data collected during the field work (Liamputtong & Ezzy, 2005). The field notes were written regularly during the MBC project, following interviews, focus groups, and working group meetings. Observations and conversations with nurses relating to parent participation in the NICU were also documented. The field notes document staff responses at the FCC working group meetings and education sessions, and regular documentation of the change process during the study.

During this study, field notes were also kept. The field notes were written following the interviews and focus group to document the nurse's response and my reflections on the interaction.

Ethical Considerations

Ethics approval for the study was received from Hunter Area Research Ethics Committee (Reference No: 04/10/13/3.23) and ratified by University of Technology, Sydney (Reference: UTS HREC REF NO 2005-0027).

The information that is obtained in connection with the study and that can identify the participants is confidential. With the consent of the participants the interviews and discussion groups were tape recorded and transcribed. All identifying material was removed. Data was coded so no individual can be identified. Participants have been given an alias that only I know and no names of

participants appear in any of the analysis that is reported. All participants were provided with information about the research prior to providing signed consent. See Information Sheet and Consent in Appendix 3.

Data Analysis

Case study research has no specific method of data analysis, the data is analysed in a manner that suits the data collection methods (Gray, 1998). Data collection and analysis occur simultaneously as an iterative process with the researcher moving between the literature and field data and back to the literature (Zucker, 2001). Qualitative research results in large amounts of data that must be reduced to represent themes or categories that describe the phenomenon being studied (Byrne, 2001). Polit and Hungler (1999) suggest the purpose of data analysis is to impose some order on the large amount of information collected, so that data can be synthesized, interpreted, and communicated.

The first step in analysing qualitative data is to organise the material according to some sort of plan, so data can be readily retrieved (Polit & Hungler, 1999). Initially the data was sorted into documents for each of the seven projects and by time period. A three step thematic analysis was then used to analyse the data:

1. Multiple readings of the data - reading and rereading the data, and listening to audio tapes to become immersed in the data (Liamputtong & Ezzy, 2005);
2. Development of preliminary categories from the data – identification of issues and views presented, capturing them in phrases and using the language of the participants; and,
3. Further coding of the data in each categories – identification of recurring themes within the case study (Bruns & McCollum, 2002).

During the data analysis the documents from the early projects were reread many times to identify initial themes. For example, issues related to communication were identified during the initial shared care project. The

importance of communication was further developed as theme in the research undertaken to describe women's experience in the Level 2 nursery when it was identified as a major contributor to the developing relationship with parents and families. During the interviews for MBC and the interviews in 2005 the importance of communication was again identified as a recurring sub theme as a necessary skill for nurses.

Thematic analysis resulted in reduction of the data and facilitates communication of findings (Byrne, 2001). Key issues from the change literature guided the analysis. The themes developed from the documents, MBC interviews and focus groups, were used to prepare the questions for the interviews to be carried out as part of the data collection (for interview schedule see Appendix 1). These questions were further refined for the focus group (for focus group questions see Appendix 4).

All documents were analysed to identify the purpose and drivers of each of the projects, the methods used to facilitate change, methods used to evaluate the changes in practice, identify the outcomes described, interpretation of the recommendations and implications for practice. Any barriers or facilitators of change were noted.

Analysis of the interview and focus group data from MBC revealed information regarding the nurse's role, comments about what had changed, how things had changed, and the factors that were barriers or influenced change during the project. The analysis led to the development of a preliminary model to explain the change to FCC care in the neonatal nursery.

Analysis of case study interviews and the focus group conducted in the final phase of the study tested, modified and developed the model. Finally I reviewed all the data and literature to confirm or modify the analysis and the proposed model.

CONCLUSION

This chapter describes case study methodology.

In summary, data for the case study included:

1. Eleven reports and publications from previous research projects relating to the development of a FCC philosophy in the NICU;
2. Ten nursing staff interviews and data from four focus groups from the MBC project;
3. An additional eleven nursing staff interviews and eleven nurses participated in focus groups conducted with staff to examine their perceptions of FCC and partnership in care, their role as a neonatal nurse and their perceptions of changes in the nursery over the past decade.

A staged thematic analysis and confirmation process was used for the analysis. The results of this analysis are provided in the next three chapters.

Chapter Three
The Development of Family Centered Care (FCC) philosophy and practices in NICU

INTRODUCTION

Over the past decade in the NICU at John Hunter Children's Hospital (JHCH) Newcastle, there have been a number of initiatives, such as, policy change and research projects to develop, implement, improve and evaluate the adoption of FCC philosophy and practices in the NICU. These projects provide the framework for this case study. Each of the seven projects initiated provide data, documents, reports or papers that are reviewed and analysed in this study. Together, these projects describe the context of change over time. The earlier projects conducted in the early to mid 90s were related to policy implementation and have limited documentation. The latter two projects have considerably more documentation, as they were action research projects in which I was involved as a participant and researcher.

This chapter provides the opportunity to develop a timeline and establish a chronological order for the data analysis. The projects that form part of this framework are listed in Table 1. The drivers of change for each of the projects undertaken are described and an overview of each of the projects is provided. The varying strategies used to achieve a change in practice are identified in each of the projects, and are summarized at the end of the discussion of each project. Through the chapter the change strategies used in the project are identified in bolded type. Prior to commencement of these projects although there was rhetoric regarding the beneficial effects of involving parents in care of their children while in hospital no planned or evaluated programs were in place within the NICU or paediatric wards in JHCH. A list and brief description and year of the projects reviewed in this case study is provided next.

YEAR	PROJECT DESCRIPTION
1993	Implementation of a pilot project in the paediatric medical ward with the aim to develop Shared Care.
1994	The NSW Chief Nursing Officer recommends that Shared Care be instituted in all paediatric wards.
1994	Shared Care is implemented in the Level 2 nursery in NICU.
1995-98	The NICU is a site for a research programme to explore activities and interactions in the Level 2 nursery between clinical staff and parents and the experience of becoming a mother when the infant is in the nursery. These studies were undertaken by the Centre for Family Health and Midwifery, University of Technology, Sydney.
1996	A study is undertaken in the JHCH to investigate parents understanding and perceptions of Shared Care.
1997	A study is undertaken in JHCH to identify the attitude of nursing staff towards parents caring for their children in hospital.
1998	Feedback from research activities provided to staff in the NICU by researchers from the Centre for Family Health and Midwifery, University of Technology, Sydney.
1998-1999	An action research project undertaken in the NICU to improve the practice of Family Centered Care (FCC) in the Level 2 nursery, this study focused primarily on clinical tasks, the development of the partnership in care form, and parent participation in such activities as taking temperatures and the administration of vitamin.
2001-2002	Mother Baby Care an action research project to change the way care is provided in the NICU Level 2 nursery undertaken by the staff of NICU in conjunction with the Centre of Family Health and Midwifery, University of Technology, Sydney. The aim of the study was to facilitate a connection and physical closeness between the infant and mother, and to acknowledge the interdependent relationship between them.

These projects can also be grouped according to their design and objectives. The first projects undertaken relate to policy implementation and evaluation of the introduction of Shared Care.

1993 Implementation of a pilot project in the paediatric medical ward with the aim to develop Shared Care.

1994 The NSW Chief Nursing Officer recommends that Shared Care be instituted in all paediatric wards.

1994 Shared Care is implemented in the Level 2 nursery in NICU.

1996 A study is undertaken in the JHCH to investigate parents understanding and perceptions of Shared Care.

1997 A study is undertaken in JHCH to identify the attitude of nursing staff towards parents caring for their children in hospital.

The second group relates to parallel in-depth research undertaken in the NICU exploring the experience of mothers.

1995-1998 The NICU is a site for two studies within a research programme. The first study explored the activities and interactions in the Level 2 nursery between clinical staff and parents. The second study theorised the experience of becoming a mother when the infant is in the nursery. These studies were undertaken by the Centre for Family Health and Midwifery, University of Technology, Sydney.

While the third group relates to the later projects which utilised an action research framework and approach to change to improve practice and relationships between mothers and nurses in the nursery.

1998-2000 A project to improve the practice of Family Centered Care (FCC) in the Level 2 nursery.

2001-2003 Mother Baby Care pilot project to change the way care is provided in the NICU Level 2 nursery.

DETAILED DESCRIPTION OF PROJECTS

1. Pilot Program in Paediatric Ward to implement 'Shared Care'

In April 1993, the paediatric department was invited by NSW Health to participate in a customer focus initiative. This required staff to identify and pilot new ways of providing customer focused care for the children and families using their service. A review of parent satisfaction surveys by a multidisciplinary group of staff identified a number of projects that would assist children and their families. One of the projects identified was the implementation of shared care, and this project was later funded as a pilot program by NSW Health (Keatinge & Gilmore, 1996). Additional impetus for this project also came from the enthusiasm of the nursing staff following a presentation seen at an international paediatric nursing conference.

Shared care refers to the formalisation of parents' involvement in the care of their child while in hospital (Keatinge & Gilmore, 1996 p.28). It is a model of nursing care in which parents and nurses both contribute to the care of the child. Shared care includes the elements of:

- Planning;
- Negotiation;
- Communication;
- Sharing of responsibility between parents and nurses; and,
- Providing education and nursing care of children and parents (Keatinge & Gilmore, 1996).

The formalisation of parent's involvement in the care of their child involved a written and agreed care plan that was reviewed and updated each shift by the parents and the nurse caring for the child (Keatinge & Gilmore, 1996). This project provided the first opportunity for parent's formalised participation in the care in their child while in the paediatric medical ward of John Hunter Hospital.

A working group including the nurse educator, nurse manager and several interested clinical nurse specialists, met regularly over a period of two months to plan the implementation of shared care in the paediatric medical ward (Keatinge & Gilmore, 1996). This group facilitated the project by addressing the issues raised by staff, providing support and assisting with staff education. Prior to the implementation, the unit's nurses were surveyed to identify their attitudes to shared care and their learning needs; this survey was also repeated three months after the implementation commenced.

To assist in the implementation process, a semi-structured education program was developed based on the pre-implementation survey results, with the entire unit's nursing staff participating in the education program (Keatinge & Gilmore, 1996). These sessions were held weekly for eight weeks. The education program provided time for informal discussion of the shared care model, and in addition staff were encouraged to read resource packages containing journal articles documenting other hospitals experiences of parent participation in their child's care (Keatinge & Gilmore, 1996). In addition, policies and procedures relating to Shared Care were written as a guide for nursing staff, a care plan developed, and an information sheet for parents was also written and distributed to all parents on admission of their child to the ward.

The results of the survey undertaken by nurses prior to implementation of Shared Care, and repeated three months later indicated that nurses in the study had a good understanding of Shared Care. However, the survey found that nursing staff were not confident about their ability to communicate with, or educate, parents in shared care (Keatinge & Gilmore, 1996). The recognition, by nursing staff, of the need to improve their communication and teaching skills during the pilot led to the provision of three additional education sessions to address these skills (Keatinge & Gilmore, 1996). In addition, nursing staff identified that Shared Care was a problem for some nurses who had difficulties in assessing a parent's capabilities and in dealing with parents inability to carry out tasks that they had

elected to undertake, with some staff reporting that they remained undecided about the parents' ability to undertake some activities (Keatinge & Gilmore, 1996).

One of the major challenges identified during the pilot was to change nursing staff perceptions about the roles played by both nurses and parents in the care of children in hospital (Keatinge & Gilmore, 1996). The significant changes in practice required by nursing staff during the pilot caused discomfort for some, while the comments of most other nurses suggested that shared care would provide them with a method of clarifying what they were already doing (Keatinge & Gilmore, 1996).

The outcomes of the pilot project were considered positive by the researchers, identifying that nursing staff indicated that their ability to include families in an appropriate level of care giving had increased, and that Shared Care increased parents' confidence in their ability to care for their children following discharge (Keatinge & Gilmore, 1996). During the project the involvement of parents in their child's care varied, from parents visiting but not participating in care activities, to undertaking hygiene and feeding activities, documenting on fluid balance charts, and less frequently taking and recording temperature, pulse and respirations, with the handling of medications limited to measuring doses and administration under supervision of the nursing staff (Keatinge & Gilmore, 1996). Despite the increased involvement of parents in the care of their hospitalised child during the study their participation appears to have remained task focused, for example general care such as hygiene and feeding, making entries on fluid balance charts, giving prescribed nebulisers and less frequently, taking and recording temperature, pulse and respirations.

Following the report of the pilot project to NSW Health Shared Care was recommended as the model for nursing practice in all paediatric units throughout NSW (Keatinge & Gilmore, 1996).

In summary, strategies used to bring about change during the project reflected a top- down approach with limited involvement of bedside nurses in the planning of the project. Strategies included:

- A working group, the membership of the group a nurse manager, nurse educator and several interested CNS;
- An eight session education program, providing face to face education and information;
- Resource packages;
- Development of policies and procedures, care plan & information sheet for parents;
- Evaluation survey and feedback; and,
- Introduction of change via a trial pilot project

2. Shared Care implemented in the Level 2 NICU

In 1994, following the outcomes of the pilot project on Shared Care, there was a directive from the NSW Minister of Health that Shared Care be introduced in all paediatric wards as the model of nursing care. This directive was conveyed to the Nursing Unit Managers of the paediatric wards and NICU and discussed at the regular Senior Nurse Managers Meeting within the JHCH. The directive and the positive outcome from the initial pilot project in the paediatric ward provided the impetus for the implementation of Shared Care in the Level 2 nursery. At this time, however, there was no planned implementation or evaluation process developed that would assist in achieving a change in nursing practice in the nursery (Brazil, 2003). The resources developed for the initial project formed the basis for the implementation of Shared Care throughout the children's hospital. Each ward commenced using the care plan and information sheet developed for the pilot project above with some additional education for nursing staff. The education consisted of a series of in-service sessions over a period of several weeks. The care plan developed for Shared Care was modified slightly by senior nursing staff in NICU to meet the needs of the nursery.

By late 1995, following a review of inpatient charts and Shared Care plans, it was apparent that Shared Care was not being consistently practised throughout JHCH (Cagney, Gorshenin & Winskill, 1996). A Clinical Nurse Specialist (CNS) involved with the initial pilot project was seconded from ward duties to monitor and audit the Shared Care care plans and to co-ordinate an educational program for nursing staff throughout the hospital. The CNS presented in-service sessions in each ward area, including NICU on Shared Care and provided resource material of journal articles documenting other hospital's experiences of parent participation in their infant /child's care to each ward area. Following the introduction of the additional strategies an audit of Shared Care documentation showed that not all parents were being introduced to Shared Care, and if they were introduced to Shared Care their participation in their infant /child's care was not being regularly renegotiated (Cagney, Gorshenin & Winskill, 1996).

Initial strategies used to bring about change during the implementation of Shared Care included:

- Several education sessions based on those developed for the pilot project and adapted for NICU; and
- Information sheet for parents and Shared Care plan.

Additional strategies following unsuccessful implementation of Shared Care:

- Clinical Nurse Specialist as a change agent;
- Monitor and audit of Shared Care plans;
- In-service sessions; and
- Resource material of journal articles.

3. Shared Care Project; Investigation of Parents Understanding and Perceptions

In 1996 it was still apparent that the collaborative partnership between parents and nurses was not being achieved, and parents were not actively involved in the

planning, development and the implementation of care while their infant /child was in hospital (Cagney et al, 1996). To identify why parents were not actively involved in the care of their child a study was undertaken by the NICU & Paediatric Nurse Educators. The study objectives were:

- To determine parents understanding of Shared Care as practiced in JHCH; and,
- To identify the aspects of care in which parents would like to have involvement (Cagney et al, 1996).

The sample for this small study were parents of hospitalized infants and children in two paediatric wards and the Level 2 nursery in NICU. The study utilized three methods of data collection. Review of the Shared Care care plans was undertaken to determine to what extent Shared Care was being introduced and negotiated with parents, and how parents were involved in the care of their infant / child with a total of 57 care plans reviewed. A questionnaire specifically designed to elicit the attitudes, understanding and experiences of parents participating in Shared Care was developed. The aim was to identify their needs and was completed by 19 parents (Cagney et al, 1996). The final method of data collection involved interviews with fifteen parents, five parents from each ward area to determine what aspects of care parents desired to be involved with when participating in Shared Care.

The majority of parents interviewed indicated they knew about Shared Care, felt that it was a good idea, believed it was important to be involved in all aspects of their child's care, and suggested that Shared Care could improve the communications and relationships between parents and nursing staff (Cagney et al, 1996). Despite the introduction of Shared Care within the JHCH in late 1993 the study by Cagney and colleagues (1996) highlighted a number of concerning issues, these were:

- Parents were not routinely introduced to Shared Care or being invited to participate;

- Parents were not receiving a comprehensive explanation of Shared Care;
- A collaborative relationship was not being achieved between parents and nursing staff; and,
- Parents desired involvement in all aspects of their infant / child's care - to do this they required appropriate education, training and supervision, however, their education needs were not being met.

The authors made a number of recommendations in their final report including highlighting the need for a further study to determine why nurses were not introducing parents to Shared Care, and identifying the need for further staff development programs to enhance the skills of nursing staff in developing a collaborative relationship with parents (Cagney et al, 1996).

Although not published till 1999, Fenwick and colleagues (1999) were also carrying out research exploring the experience of mothers in the Level 2 nursery during this period (1995-1998). The key findings of this research project are reported later.

4. Survey of nursing staff's attitudes towards parent's participation in the care of their child while in hospital

The recommendations from the previous 1996 review were the impetus for this project undertaken in 1997. The aims of this study were:

- To determine why nurses were reluctant to participate in the Shared Care model of practice; and,
- To make recommendations to improve nursing staff attitude to Shared Care (Brazil, 1997).

Data collection involved the development of a questionnaire by a steering committee that was then distributed to nursing staff in two paediatric wards and Level 2 NICU. The questionnaire was designed to gain an understanding of the attitudes of nurses working in the JHCH and their thoughts on the advantages

and disadvantages of the Shared Care model (Brazil, 1997). A total of 120 questionnaires were distributed with 70 being returned, giving a return rate of 58%, with 62% (43) of the respondents being experienced clinical nurses either of CNS or 8th year thereafter grade.

Responses to the question 'what care do you feel parents should not participate in?' included the following:

> *'Nursing staff are responsible for health care, they should perform these duties'.*
>
> *'Nurses now spend three years at university to gain a broad knowledge base to perform nursing duties, why should we let people who do not have this concrete knowledge of health parameters perform these duties'.*
>
> *'The majority of these people will have absolutely no medical background, and it sometimes takes a health professional years to perfect'.*
>
> (Brazil, 1997, p.15-16)

In total 67% of the respondents to the questionnaire suggested that parents should not undertake any technical aspects of nursing care, for example, taking temperature or pulses, giving medications or caring for intravenous therapy. Some nurses raised concerns on their legal standing 'should something go wrong' and had boundary concerns about what parents should or should not be allowed to do (Brazil, 1997, p.15). Brazil stated:

> *'there is a strong reluctance among nurses to allow parents to participate in any care they consider to be technical or to involve skills other than those associated with activities of daily living'* (Brazil, 1997, p.15).

It was apparent from the results of the questionnaire that the majority of nurses within JHCH were not practising Shared Care. This was supported by the study findings:

- Shared Care was not routinely introduced to parents on admission and they had no opportunity to decide on the level of their participation in the care of their child;
- Nurses found the education of parents and documentation of Shared Care to be time consuming;
- Nurses were reluctant for parents to undertake any task they considered a nursing task or that required any additional education of parents;
- Nurses were happy to allow parents to participate in meeting their infant/ child's basic needs of feeding and hygiene. When the parents were not available to perform this basic type of care they were perceived by the nurses as being non-compliant and unreliable;
- The majority of nurses felt they were using the Shared Care model of practice but were not formalising the process; and,
- Nurses felt at times the wards were too busy to practice Shared Care, and that casual and junior nursing staff did not have the necessary skills or competence in their clinical practice to effectively introduce Shared Care to parents (Brazil, 1997).

Although Shared Care was introduced into the JHCH in 1993 and despite the subsequent education sessions it seemed that nursing staff were still not confident of their role in Shared Care, as Brazil (1997, p.19) suggested:

> *'Many of the comments made by the nursing staff throughout the survey would indicate that they are unsure of their role in relation to participation in the care of children by their parents and families. The role of the "doer" was considered more important than a role focusing on the educational aspects of the Shared Care model'.*

The nurses identified similar concerns to those that were raised by nursing staff during the pilot project implementation of Shared Care in the paediatric medical ward in 1993. Brazil (1997) as well as Keatinge and Gilmore (1996) identified that nursing staff were not confident about their ability to communicate with or educate parents in Shared Care. In addition, nursing staff in both studies identified that Shared Care was a problem for some nurses who had difficulties in assessing a parent's capabilities and in dealing with parent's inability to carry out tasks that they had elected to undertake, with some staff remaining undecided about the parents' ability to undertake some activities (Keatinge & Gilmore, 1996; Brazil, 1997).

Beginning in late 1993 with the pilot project, there have been several attempts to implement Shared Care within the Level 2 nursery and the JHCH. A number of different strategies to change practice were attempted during this period, these included:

- A working group;
- Education programs, providing face to face education and information on Shared Care;
- Resource packages, consisting of journal articles and reports;
- Evaluation, audit and feedback;
- Development of policies and procedures, care plan and information sheet for parents; and,
- A change agent – a CNS position whose focus was to improve Shared Care.

Several evidence based strategies for change were used in this project such as increasing awareness through education and information provision, audit and feedback, policy change and the use of a change agent. On reflection, it may be that each of these attempts to introduce shared care was driven from 'the top

down', involving senior nursing staff with little apparent input from the bedside nurse, and this may have impacted on the success of the initiatives. Though there was an attempt during these projects to gain understanding of the bedside nurses' perspective. It would seem that nursing staff were in the precontemplation/ contemplation phase in the stages of readiness to change, while strategies were focused on action (Rogers, 1995).

5. NICU Level 2 nursery site for research

In 1995-1998 the NICU was one of two sites for a research programme which investigated the impact of neonatal nursery care on parents transition to parenthood. The research was carried out over several years, and related the experience of parents and the activities and interactions between nursing staff and parents in the Level 2 nursery.

Although the research was documenting the current practice in the nursery and was not designed to change nursing practice, the presence of recording devices next to infants' beds and the presence of nurse/midwife researchers in the unit may have had an impact on nursing practice. To minimise this impact when in the Level 2 nursery the researchers:

> *'aimed to position themselves in areas of the nursery where they could unobtrusively observe the environment. Both researchers commented, in their field notes, that after the staff were used to their presence, they could wander around the nursery feeling quite comfortably "part of the furniture" (Fenwick et al, 199, p.56-57).*

Extensive data was collected at the two Level 2 nurseries involved in the research programme including interviews with 28 mothers, interviews with 20 nurses, observations of activity and interactions, informal conversations with parents and nursing staff, detailed field notes, and 333 hours of cot-side tape recorded interactions between parents and nurses (Fenwick, Barclay & Schmied,

2001a). Summaries of this data have been presented in numerous journal articles, and these articles will form part of the data for this study.

The research, which explored the experience of becoming a mother in the nursery, suggests that the relationship between the mother and the nurse is the most important influence on the mother's experience of mothering in the nursery (Fenwick et al, 2000). In addition, the research identified two opposing nursing behaviours, facilitative or inhibitive, to describe nursing actions associated with relationship development.

Nurses who work from a facilitative nursing behaviour were seen by the mothers to listen, discuss choices and options and would talk through issues relating to infant care providing an opportunity for shared decision making (Fenwick et al, 2000). Nurses working from this framework recognised the unique, interdependent nature of the mother-infant relationship and provided mothers with opportunities to be with their infants assisting with their development of 'connection' and attachment to their infants (Fenwick et al, 2000; Fenwick et al, 2001a; Fenwick, Barclay & Schmied, 2001b). Language was identified as an important indicator of the nurse's ability to establish a supportive relationship with the mother and provide facilitative nursing care (Fenwick et al, 2000; Fenwick et al, 2001b). The researchers suggest that language is a powerful clinical tool that some nurses use to assist parents in gaining confidence caring for their infant, and in becoming 'connected' to their infant while in the nursery (Fenwick et al, 2001b). Nurses who work within this facilitative framework provide an understanding of how FCC can work in clinical practice (Fenwick et al 2000).

Alternatively, nurses working with inhibitory behaviours reflected an authoritarian style of practice that was primarily based on protecting the infant, with the nurses maintaining control, directing and teaching the mother (Fenwick et al, 2001a). These nurses placed major significance in being an 'advocate for the baby' and 'teacher of parents', working with an expert model of care framework (Fenwick et

al, 2001a). They often use medical or technical jargon to ensure mothers complied with the rules and regulations of the nursery (Fenwick et al, 2000). The researchers suggest that nurses who provided this infant focused care reinforced the feelings of disconnectedness, detachment, and guilt felt by the mothers (Fenwick et al, 2001a).

Through the research programme the researchers identified that much nursing practice in the Level 2 nursery remained task focused (Fenwick et al, 1999; Fenwick et al, 2003). While there was a select group of nurses who identified the importance of developing a relationship with mothers, there was limited acknowledgement of the importance of the relationship as the context and method of providing nursing care to families (Fenwick et al, 1999; Fenwick et al, 2003). The authors suggest that achieving a FCC philosophy and practices in the nursery is difficult when nurses conceive the infant as the patient, and see infant care and advocacy as their priority (Fenwick et al, 2003). They conclude that to achieve FCC within a neonatal unit, the mother and infant should be conceptualised as a mother-infant dyad (Fenwick et al, 2000).

At various stages in their research programme the researchers returned to the NICU to provide feedback in the form of in-service for staff, also copies of journal articles relating to the various aspects of the study were provided to the nursery when they were published. The research provides a description of nursing practice and nurses interaction with parents at that time.

Although the research was not designed to change nursing practice within the unit, several strategies for change were present:

- Observation and evaluation;
- Face to face feedback with examples; and,
- Written summaries of the research findings.

Several of the nurses in the later projects described how influential it was hearing the stories and comments of parents and in particular mothers who had infants in the nursery. They had an increased understanding of how their actions may influence the experience of parents in the nursery.

6. Action Research project to improve the practice of Family Centered Care (FCC) in the Level 2 nursery

Following the results of the previous policy implementation and research undertaken in the nursery, it was apparent that Shared Care was not being fully implemented or practiced in the NICU and as a result, in 1998, the CNC Ms Susan Brazil undertook a study to improve the practice of FCC in the Level 2 nursery. This study brought a different approach to change, involving the staff in the process in a participatory action research (AR) framework.

The researcher (Brazil, 2003, p.55) identified the formation of the working group as an essential part of the change process:

> *'I would reiterate again at this point the importance that I placed on the formation of the AR working group, and the assumption that it would be through this group and the participatory nature of AR that I had the best possible chance of success in improving the practice of FCC in the Level 2 nursery'.*

This differed from previous groups with the inclusion of 'bedside' nurses. An expression of interest was circulated within the NICU, and although circulated to all staff and with an extension to the closing date only nine nursing staff responded. The nine staff were all experienced neonatal nurses including two Nursing Unit Managers, Parent Liaison Nurse with the remainder Clinical Nurse Specialists (CNS) within the NICU. The researcher actively solicited less experienced members of staff for the working group, however these attempts were unsuccessful (Brazil, 2003).

Using a nominal group technique, the working group identified the barriers to the implementation of FCC in the Level 2 nursery and developed a list of priorities and strategies for dealing with these issues. The five most important influences on the implementation of FCC identified were:

- Space, privacy and facilities;
- Staff unsure of the boundaries of FCC;
- Parents fear of the NICU environment;
- No FCC philosophy; and,
- Parent education issues (Brazil, 2003).

The initial identification of problems enabled the working group to identify issues where they felt they could make changes in practice, these were:

- Review of NICU visiting policy and practices;
- Change the position and layout of the breastfeeding area;
- Development of a more appropriate Shared Care form to reflect a FCC approach to care in the nursery and develop an information sheet for parents that reflects the FCC philosophy; and
- Implement changes in nursing practice that did not inhibit the participation of parents in the care of their infant (Brazil, 2003). This resulted in parents being supported to take their infant's temperature and to administer vitamins and minerals.

The working group used the AR cycle of reflection, plan and act to develop strategies to bring about the desired outcomes.

When writing up the project in her thesis the researcher suggested:

> *'My AR working group colleagues and I have clearly identified that we achieved what we set out to do and did improve the practice of FCC in the neonatal unit. The Partnership in Care Model has been adopted by the nursing staff as a model for implementing the philosophy of FCC. The introduction of parents*

giving vitamins and minerals and taking their infants' temperatures has gone a long way to change nurses' practice, and hopefully attitudes towards parents providing other cares for their infant that were previously outside the boundaries that nurses considered acceptable for parents to undertake' (Brazil, 2003, p.144).

This project was successful in changing nursing practice, as nurses were more likely to encourage parents to participate in the less technical clinical care of their infant rather than only hygiene and feeding. Despite the changes implemented in this project being integrated into the nurses' practice, the activities incorporated into nursery practice were task focused rather than focusing on cultural change. Nevertheless these changes invariably had some impact on the culture in the NICU. The changes implemented by the working party provide a starting point for future work to improve parental involvement in the care of their infant.

Strategies used to change nursing practice in this project included:

- Working group of staff, an attempt to include bedside nurses but still largely 'top down';
- Nominal group technique;
- Change agents;
- Resource folder, which was more focused on NICU and included, minutes of working group and related journal articles;
- Education sessions, face to face in-service sessions were provided ;
- Development of policies and procedures, information sheet for parents, Partnership in Care form; and,
- Redesign of breastfeeding area.

This project provided some evidence that nurses were beginning to change their attitude to parent's participation in care. The project outcomes were considered

successful in improving the family participation in the Level 2 nursery in terms of the participation of parents in tasks related to the care of the infant.

7. Mother Baby Care Pilot project

Building on the previous work undertaken, the staff of the NICU in conjunction with the Centre for Family Health and Midwifery at the University of Technology, Sydney, undertook a pilot study to enhance women's and families' feelings of connection and confidence with their infant by refocusing the objective of nursing practice from the infant to the infant-mother dyad in the Level 2 Nursery. Ethical approval for the project was received from Hunter Area Research Ethics Committee in December 2000. By the time this study was commenced parents involvement in simple clinical care was routine practice. Early focus groups and interviews prior to MBC indicated that boundaries had shifted for at least some of the nurses, for example *'Well, I think in this unit, when we first started talking about formalising family involvement in the care of their children, and that was some years ago now, there certainly has been a change in the way the nursing staff approach the family'*. However, nurses still saw their role as the advocate of the child.

Mother Baby Care (MBC) was designed to reorientate nursing practice in the neonatal nursery from the infant to the mother-infant dyad by shifting 'authority' for mother-baby contact from the individual clinicians to the standard of care required by the nursery. That is, in level 2 nursery, parents did not require 'permission' to nurse their babies. Although fathers were also included in this process the focus of the study was on mothers as the primary early caregiver for infants. MBC incorporated the principles of FCC and included strategies designed to encourage mothers / parents to participate in Kangaroo Care (KC)[4] to promote a close physical contact between the mother and her infant. An

[4] Kangaroo Care (KC) is defined as skin-to-skin contact, the holding of a preterm infant clothed only in a diaper on the parent's chest (Engler, Ludington-Hoe, Cusson, Adams, Bahnsen, Brumbaugh, Coates, Grieb, McHargue, Ryan, Settle, & Willaims, 2002 p.146).

action research methodology was used to plan, monitor, review and modify aspects of FCC and develop MBC.

Expressions of interest were sought from staff within the NICU who wished to participate in the project. Within two weeks twenty staff expressed an interest and a FCC Working Group was convened and commenced meeting in September 2001. The working group was somewhat larger than was initially anticipated, however all staff who expressed an interest were invited to attend. The working group actively participated in the development and implementation of MBC.

The working group consisted of a Clinical Nurse Consultant (myself), Clinical Nurse Unit Manager, Clinical Nurse Specialists, Registered Nurses and a Neonatologist. As the majority of the members were clinically based and worked shift work it was not always possible for all members of the group to attend all meetings. This caused some discontinuity in the action research process, and to overcome this, the first part of each meeting was spent providing an update to those who had missed the previous meeting. However, this was seen as a positive benefit as the members of the group who worked shift work had greater access to the unit staff and could more readily influence the implementation through their own practice and role modelling.

The process of introducing and potentially producing change in nursery practice was studied using qualitative research techniques. Interviews and focus groups with staff were undertaken prior to implementation and at various stages across process of implementation. Observational data and field notes and analysis of records were used to evaluate the impact of MBC on nursing practice.

The working group commenced the process by identifying Issues relating to the characteristics of the nursery and nursing practice that could be improved by changing practice in the Level 2 nursery. The second meeting of the FCC

Working Group became a 'brainstorming' session with all members of the group identifying potential areas for practice development. During this meeting issues were identified, refined and grouped into four main areas for further investigation. These were:

- Nursing staff attitude and education
- Ongoing parental education.
- Cuddling and kangaroo care
- Environment of the nursery

Despite the work of the previous action research group in 1998-1999, three of these issues were similar to those identified, that is the environment of the nursery, parent educational issues, and nursing staff unsure of the boundaries and attitude to working with families. The early work on Shared Care also identified some similar issues related to the confidence of nursing staff about their ability to communicate with or educate parents in Shared Care (Keatinge & Gilmore, 1996; Brazil, 1997).

The working group explored each of these issues more fully and developed strategies that were designed to lead to changes in practice. The first area was associated with nursing attitude and education. The working group recognized that change was not always appreciated or well accepted by staff, nor were all staff interested in participating in education programs, and in a busy unit it was also difficult to reach all staff. The group identified that for change to be successful it was essential that as many staff as possible had some ownership in changing practice.

Several different strategies were developed to involve as many staff as possible in the change process. These included:

- Focus groups to identify any additional concerns that may be identified by staff – the issues discussed by staff at these focus groups were similar to those raised by the working group.

- A resource folder was placed in the Level 2 unit with copies of journal articles relating to FCC, kangaroo care and from the research undertaken in the nursery by Fenwick and colleagues, and meeting minutes to give all staff an opportunity to access and read.
- Updates on the progress of the working group were given at each ward meeting.
- Prior to implementation of Mother Baby Care a newsletter was produced and distributed within the nursery to all staff identifying the aims of the working group and strategies that had been developed to overcome the barriers to change identified by the focus groups and working group.
- An in-service about the need to change nursing practice, the changes in practice recommended by the working group, such as encouraging kangaroo care and parent's involvement with their infant was repeated daily at handover for two weeks to ensure as many staff as possible had attended. This was felt to be necessary as the nursery has approximately 60% part-time staff and to ensure as many staff as possible were reached.
- To facilitate staff awareness to the introduction of the changes to practice we arranged an afternoon tea to launch MBC within the unit.
- Research staff worked in the unit recruiting mothers to the study and providing assistance as needed to nurses wanting to help mothers with KC.
- Ongoing in-service, for example on kangaroo care and face-to-face support provided to nurses during the implementation phase.

Providing parents with the opportunity to cuddle their baby or to participate in KC was the next area addressed by the working group, as this was a strategy central to MBC. The literature reviewed suggested that providing parents with the opportunity to have close physical contact with their infant may assist in them 'connecting' with their infant. The group identified issues within the nursery that potentially limited parent's opportunity for cuddling or kangaroo care. These included:

- No procedure or policy was available in the unit, and staff often acted as gatekeepers to this happening resulting in inconsistency in practice;
- There was a lack of information for parents; and,
- Although some staff in the unit explained KC to parents not all staff were aware of the benefits to parents and baby.

To encourage the practice of KC in the nursery a unit policy and procedure were written, an information sheet for parents developed, and in-service sessions for staff were scheduled.

The next issue addressed by the working group was parent education / learning. The working group identified some aspects of parent education / learning which could be strengthened within the unit. These included:

- Partnership in care had been practised in the nursery since 1998 and was not always well explained to parents, and staff and parents did not always use the partnership in care plan as designed.
- Parents were not always aware of the Information leaflets and education classes available in the nursery, and
- Not all staff felt confident in providing learning opportunities for parents.

To assist in overcoming these issues the working group developed several strategies. These included:

- The development of a user friendly Information Folder for parents which provided information on nursery practice, education sessions that were available, a diary for parents and information about the nursery.
- They also provided staff with information on parent learning opportunities and the Information folder.
- Opportunities for institution of mentoring by staff through the action research group, who could be considered opinion leaders in the process of change.

A questionnaire was developed and given to parents on discharge from Level 2, and all the parents who received the information folder and diary commented that they found it very useful, examples of comments included:

'Most commonly asked (and forgotten) questions are answered in clear and concise leaflets. Can easily refer back to it if needed'.

'Provided an idea on some of the workings of the NICU Unit and the idea that co-ed care of the child was encouraged' (Kinross, 2004).

Parents who completed the questionnaire also suggested additional topics that could be developed and placed in the folder in the future.

The environment in the Level 2 nursery was also identified as an area that required improvement. There is a lack of privacy, comfortable chairs and facilities for parents. These issues remained a challenge for the working group. Comfortable chairs and furnishing for the sitting area for breastfeeding mothers were purchased. The Ronald McDonald room that was under construction at that time in John Hunter Children's Hospital was seen as a place that in the future could provide parents with a quiet space to rest, relax and have a coffee when spending the day in the unit.

The changes in nursery practice were introduced in the Level 2 nursery on the 4th February 2002. During the period of implementation members of the working group spent considerable time in the Level 2 nursery assisting staff and providing one on one education for staff who may have missed the in-service program.

The working group saw evaluation of the change process as an important part of the process. Several strategies were developed to identify if change had occurred. These included:

- Audits of partnership in care forms
- Nursery Observations

- Usage of Information Folders
- Staff interviews
- In addition, parents who consented to participate were asked to complete a questionnaire at the time of discharge and again at six weeks post discharge.

Although designed and implemented for the Level 2 nursery members of the working group identified that greater change appeared to occur in the Level 3 nursery, with more infants and parents participating in KC, more infants being bathed during the day by parents (rather than at night as traditionally occurred), and partnership in care forms being completed in Level 3. Reasons suggested by the working group as why change was more visible in Level 3 included:

- More experienced staff in Level 3, with a greater turnover in staff in Level 2, including the use of less experienced students and casual staff;
- A lower nurse patient ratio in the Level 2 nursery; and,
- More contact with parents in Level 3 and a greater ability to provide continuity of care (Kinross, 2004).

In summary, strategies used to change nursing practice in the MBC project included:

- Working group of staff;
- Focus groups;
- Change agents and opinion leaders;
- Mentors;
- Resource folder;
- Interactive education sessions which allowed for discussion about the changes;
- Updates at ward meetings;
- Newsletter for staff;
- Information folder for parents;

- Development of policy and procedure for Kangaroo care;
- Audit of Partnership in Care forms; and,
- Afternoon tea to launch the changes in practice.

CONCLUSION

The seven projects outlined in this chapter used a range of strategies to achieve a change in nursing practice and develop parent involvement in the care of their infant in the NICU. The earlier projects described appear to be from a 'top down' approach to change, with the impetus for change coming from senior nursing staff and policy implementation. While, in the mid 1990's the NICU was the site for research to describe the interaction between nursing staff and parents. This project although not designed to stimulate change provided several change strategies, that is, feedback and journal articles for resource folder. The later projects used an action research methodology, involving bedside nursing staff in the change process with a 'bottom up' approach to change. Many change strategies have been used in the projects to improve parent participation in care, with each strategy designed to meet the individual needs of the project. All projects used multiple strategies with varying degrees of success to achieve a change in nursing practice.

Chapter 4
Thematic analysis of the process of change

INTRODUCTION

This chapter presents the analysis of the field notes, interviews and focus groups undertaken prior to and during the implementing MBC in 2001-2002 and interviews and focus groups undertaken specifically for the case study research in 2004-2005. Thematic analysis was carried out on this data and these were compared to the issues and themes identified as important in earlier projects described in Chapter Three. More detail on the method is described in Chapter Two. The purpose of this analysis is to determine the type and level of change that has occurred over time and to explore the factors which impact on neonatal nurses involving parents in the care of their infant.

The first major theme is 'the Journey' which describes what has changed, the degree and process of change, the readiness for change and the project strategies which staff believed facilitated the process.

The second group of themes related to factors that facilitated or hindered the implementation of FCC. These can be categorized into:

- Nurse's perceptions of their role and attitude
- Skills required by nurses to facilitate parent involvement in the care of their infant
- Nurse's clinical judgment skills
- Environment of the nursery

Each of the main themes is composed of a number of associated sub-themes that are described.

'THE JOURNEY' - ACHIEVING CHANGE IN PRACTICE

The development of a FCC philosophy and practices in the NICU can best be described as a journey that has occurred over time. While the nurses identified that change had occurred they did not mention the individual stages of the journey. Though the journey to achieving change in practice was a major theme identified from the data. The nurses identified several key sub-themes that need to be considered when undertaking a change in practice.

'now it's a two sided conversation' – what has changed over the past ten years

Initially, when participants were asked to describe any changes over the past ten years during the interviews and focus groups they all described how nursing practice related to parents' involvement in care had changed. For example, Wendy said:

> *'Well, ten years ago the parents were not overly involved in the care of their infants in the nursery. They were welcomed into the nursery by all means, but there was a definite parameter for the things the parents did as against the things that the nurses did. ... Parents came and after they had a reasonable amount of time in the nursery and got to know us they started to do nappies and things like that, but that was about as far as it gets, even down taking the temperature was seen as being a nursing duty, and moving an infant's monitor, positioning the babies, the babies were handed to the parents to cuddle rather than parents actually taking their baby out and sitting nursing them'.*

While Deidre said:

> *'Its really hard to remember because we seem to have been doing it forever, but I think now it's a two sided conversation with when things can happen to a baby rather than what exactly will happen to the*

baby; not be in the nursery at such and such a time as that is when we will be doing such and such as that suits me. Now, its more today is bath and weigh day and when will it suit you or we need a breastfeed sometime today when does it suit you. Who would you like to come and visit your baby, not no-one can come and visit your baby'.

Rhonda a Clinical Nurse Specialist (CNS) when interviewed during this study also identified that change had occurred, however also suggested that there is still room for improvement:

'I've noticed a difference as far as we used to shut the nursery for doing the line changes and we are a lot more open to parent's ideas and involvement, but yeah we've come along way in the time I've been here but I think there's a lot more we can do'.

What has changed is more obvious if one recalls the type of comments from nurses during the initial shared care projects in the mid 1990s. For example

'Nurses now spend three years at university to gain a broad knowledge base to perform nursing duties, why should we let people who do not have this concrete knowledge of health parameters perform these duties'. Written comment from a nurse when surveyed in 1997 (Brazil, 1997).

'changing the whole culture' – the process of change over time

By 2004 staff were able to recognize the level of change required, and that the change has involved not only modifying nursing tasks but also wider cultural change. When discussing the challenges to implementing FCC in the nursery Kate suggested:

'trying to talk the staff into it, making them realize, recognize it was a good thing, its just changing the whole culture, and this is such a big nursery with such a big staff number, staff that I think that would have

been one of the biggest things trying to get them to see the reason behind it, especially if there was a culture of the nurse being in charge'.

The nurse acknowledged the challenge of reaching all nursing staff in the nursery where the majority of staff are part-time.

When interviewed for MBC Ingrid identified how change has occurred, however she identified how easy it is to slip back:

'Well, I think in this unit, when we first started talking about formalising family involvement in the care of their children, and that was some years ago now, there certainly has been a change in the way the nursing staff approach the family. Not 100%. It is either very easy to slip back into the old ways, like we will let you look after your child when we feel you can. It's very easy to slip back into those old ways, also still some of the staff don't want to give up that power, I suppose. But I think overall there certainly has been improvement, but I couldn't quantify it for you but there has been improvement and I think during this research project again in this unit is helping to reinforce it.'

Ingrid went on to add *'I think your first project that you did here started the building blocks and now you're building on that and I think that that can only be good.'*

Brenda, a member of the action research group in 1998-1999 when interviewed during the MBC project identified similar issues, the importance of achieving a positive outcome to maintain enthusiasm of staff and to maintain progress when the project is finished.

'Again, the enthusiasm is there at the moment but again something from the old group to keep it going is very hard. So twelve months down the track to keep that momentum going might be the hard thing that you've hit your head against a brick wall that you've achieved

this much, you've achieved 10% can I go for the 90% would be realistic, you're not going to achieve 100% but I've only got to 10 how do we push it to the next 20 and 40 and 50 so that with all of the things you want to do and you end up with cost factor of changing things, environmental factor that we can't change a lot of so you do feel well are we going nowhere. And I think that's what happened to the previous group that we had all these suggestions but we hadn't been able to implement virtually many of them and a couple that we did implement have gone backwards again.'

Ingrid also suggested the low staff turnover could also be an issue:

'For our group is because we have very little movement of staff here, the staff that are here, had worked, the majority of staff had worked in this environment for a very long time and you get very entrenched in the way you deal with people and I think that if it had just been left, eventually it would slide back but because we're doing this project, and keep building on it, it is reinforcing again and that's only good, that's a good thing.'

The comments of the nurses interviewed identified the change to a FCC philosophy and practice with the involvement of parents in the care of their infant has been like climbing a mountain range. Each project has achieved a change in practice, however when the project is complete and with the change agent's no longer driving the process there is some slippage backwards. This process is depicted in Figure 4.1.

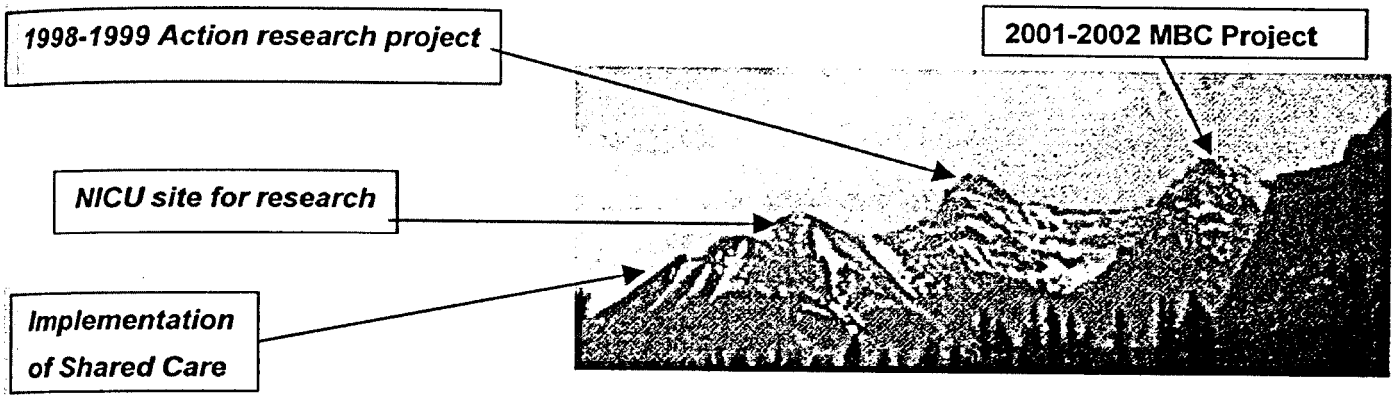


Figure 4.1 The journey to FCC philosophy and practices in the NICU

Emily when interviewed in 2002 discussed the resistance of staff to change, and suggested while some will change when they see some positive effect, others will continue to resist.

> *'A lot of people will be initially quite frightened of the change and very sort of, I don't know, that's not such a good idea and very negative about it initially and then I think eventually they sort of come round to it. They're looking at it all being done and they see the good side of it but others will still be complaining about it. I know myself, sometimes, I'm just a little bit, maybe I've been here too long, thinking, I don't think I like that very much eventually you get used to it and then you realize the benefits and you can see it all happening around you'.*

During the MBC project I was in the tea room one day when several nursing staff were discussing the project, and why they thought change might occur:

> *I entered the tea room for afternoon tea and several nursing staff were discussing the MBC project. Their discussion was about the nursery's acceptance of change, and how well accepted the project seemed to be in the unit. When I asked 'why they thought that was so', Anna replied 'because everyone agrees it is the right way to go', the staff*

present suggested that change will occur if nursing staff see it as important and relevant to their practice (Field Notes 19th March 2002).

This discussion highlights a major challenge of change, achieving the support and acceptance of the nursing staff to the proposed change. The neonatal nurses present believed that achieving change starts with the development of a common goal or vision, and with the involvement of nursing staff to achieve that goal or vision. The apparent acceptance of the MBC project within the nursery may be demonstrated by the number of nursing staff who responded to the Expression of Interest (EOI) to participate in the project. In the earlier project 'to improve FCC in the Level 2 nursery' undertaken in 1998-1999 nine senior nursing staff responded to the EOI. An extension of time to the EOI did not achieve any additional responses (Brazil, 2003). In the MBC project twenty staff responded within the two week EOI period. Possible explanation for this, may be, that nursing staff responded to the project as they believed that it was an appropriate direction for nursing care in the unit or perhaps because they had seen the outcomes of the previous project in 1998 and wished to be involved in the planning of any changes in practice that were to occur.

Change strategies – what works

A range of change strategies have been used in the unit to improve the involvement of parents in the care of their infant. During the interviews for the MBC project in 2002 and during interviews and focus groups for this study, the neonatal nurses were asked to identify any strategies they had participated in, or thought were necessary, to achieve a change in nursing practice in this area.

Most participants could not identify specific projects or strategies that influenced or changed their practice. When prompted, the nurses remembered the introduction of the Partnership in Care form, and the MBC project with the development of information sheets for parents and a procedure for kangaroo care (KC) and the accompanying education program. The Partnership in Care

form, the information sheets and KC procedure are still in use in the nursery. It seems that although each of the projects has had some impact on nursing practice within the nursery the individual projects were not recognized by the nurses as being responsible for the changes in practice that have occurred.

Brenda suggested during MBC that education of staff was an important change strategy *'There has to be a lot of education. If you don't have the whole staff being educated it's not going to work. You only need one not to feel they're educated and they won't do it, which I know is a really big thing cause there is a big staff level and we change all the time in Level 2 which is where it is going to be mainly. Yes, so I'm not sure how you overcome that.'* Emily identified ongoing education as essential *'I suppose there is always education. It's just educating the non-believers I suppose. Continuous education, up to date statistics, data and maybe feedback from questionnaires, an ongoing thing, so people can actually see what the results are.'*

While Julia suggested that written policies and guidelines are important:

> *'I think having policy or guidelines for the staff to read that we are including everybody really, everybody in the nursery that they do really good in-servicing and that means that the change over shared and make sure the night duty people get it and just being there as resource people if you have any worries and I think us being around all the time when a mum, when maybe a little young nurse or a older person, we see that the mum's not having a kangaroo cuddle we can just say, being there and supporting and I think really that the people in the group need to be there as a very supporting role.'*

Julia also discussed further the role of a resource person or mentor as important providing an opportunity to discuss any problems when they occur *'And if you find someone that you are not all that happy with what we're doing is actually sit down and talk to them about like what part are you unhappy about or just, so you*

don't let is fester.' Julia suggested a resource person could assist staff and parents while not taking over the role of the nurse caring for the baby:

> *'I could see that perhaps, if this was a long term thing, if the mother comes in she's not feeling confident enough to get the baby out, and that the nurse is too busy unless there is going to be somebody to say that look I can help you do that. And that's often where I am in Level 2 and I think this is where Denise and Christine maybe they will be able to that.... Do you mind if this mother wants a nurse do you mind if I help her I think they will have to be very careful that they just don't come in and take over they are going to have to ask permission of the nurse before they do that.'*

In addition Julia followed on to discuss the importance of involving staff to achieve any change in practice *'you must engage the nurse at the bedside.'* Julia suggested that *'Like ownership if you just come in with one or two people it won't work, because people don't own it they have to be proud of what their doing, it's their unit.'*

Pamela discussed the impact of an enthusiastic working group acting as role models and providing positive feedback to staff:

> *'I think if the steering group stays enthusiastic, keeps motivated and some sort of peer pressure, its not peer pressure but if you're colleagues are all doing it, encouragement, positive reinforcement. Somebody told me that was very important and they really appreciated it when I said that were doing something really well the other day.'*

Hilary when interviewed for MBC suggested providing relevant literature and feedback from previous studies was an effective strategy in moving staff forward.

> *'I think that the pre-reading is good, literature that you've got from the previous experience that's great and if you can filter that in at least*

make people aware of it even in a half day seminar this is the current research that is available. I think that people that you might find that might be a bit obstructable and we've come to this point and we don't want to go any further. A little bit of pre-reading about what the current practices are would be an idea because depending on where you want to do it they mightn't have access to the latest and the greatest with kangaroo care and cuddling and snuggling and what's happening and I think some of the work that Jenny Fenwick presented to us about that some her stuff would be very good to put in about the language.'

During a focus group for this study it was also identified that the feedback from the study by Fenwick and colleagues undertaken in the nursery, which identified that parents felt their access to their infants was restricted was a strategy that stimulated change in practice *'I think the patient survey we did many years ago, it showed that parents were saying they were not getting enough access to their babies and we were treating the babies as ours not theirs and I think that was a development in that we allowed them more access and did something like stopped blocking them coming in like when the TPN's were done'.* The feedback from this study was identified by several nursing staff as a driver for change in their practice.

At an in-service presented to nursing staff in the unit on the progress of the MBC project providing feedback to staff was identified by those present as an essential part of the change process. Jenny said she *'appreciated the fact that the improvement in PIC forms and mother's cuddling was recognized and mentioned in the communication book'.* Jenny went on to say that the *'frogs'* bought to thank the staff for their participation were also an important recognition of the work of the nursing staff. Jenny suggested that the recognition of the efforts of staff was an important part of the change process and would help to keep staff motivated.

Jenny went on to say *'it is very helpful when positive feedback is given rather than always receiving negative feedback" (Field Notes 12th April 2002).*

Set in their ways – readiness for change

Another issue that seemed to influence the change process over time was the staff readiness for change. Some of the participants had particular beliefs about staff readiness to change and willingness to adopt innovation

Rachel believed older nurses had difficulty changing:

> *'changing the way the older staff, set in their ways see the parents part in the nursery... the staff seem set in their ways and its against the grain to a have a parent doing these things because they've been nursing for twenty years and parents were never involved before and it's a big step for them'.*

Others believed that new staff had the potential to bring new ideas and enthusiasm in comparison to long-term staff who are sometimes resistant to change. When interviewed for MBC Emily identified the impact having new staff can bring to the unit:

> *'I think it's the enthusiasm and energy that a lot of new people will bring into the nursery. Like people who haven't been working here for a long time. You still have some other people that are very much into that, there's a lot of girls here who are very much career orientated, they don't have young families and they go to a lot of the up and coming lectures and seminars, and they're always finding out new information and new ways of looking after the babies and they bring that knowledge into the rest of the nursery. And there is some new blood that are coming in, the young girls who are very energetic and enthusiastic and they haven't been in the nursery for a long time like some people get a little bit set in their ways. Just come to work, go through the motions and then go home.'*

The staff's readiness for change and the factors for facilitating and hindering the adoption and implementation of FCC are explored in more detail in the next section.

FACTORS ASSOCIATED WITH THE ADOPTION OF FCC

Four broad factors or themes related to FCC were identified from the analysis of the data. These were:

- The interrelated nurse attitudes about infant centred care, ownership of the baby, partnerships with parents, nurse/parent boundaries and control;
- Clinical judgment skills and decision making;
- Skills to facilitate parental connection and involvement in the care of their infant including relationship building, communication, and to be an advocate for the parent; and,
- The environment of the nursery, such as, the lay out and functionality of the spaces available, and workload and staffing issues.

NURSES PERCEPTIONS OF THEIR ROLE AND ATTITUDE

The perception of neonatal nurses to their role in the NICU and their attitude to the participation of parents in the care of their infant is a major theme which developed following analysis of the interview and focus group data. A number of sub-themes were associated with the nurses' attitude to parental participation. These sub-themes cross the spectrum from the philosophy of care and beliefs about how care is delivered, to changing attitudes to 'ownership' of the infant and control, and to the safe boundaries in the delivery of care as perceived by the neonatal nurses. These are described in more detail below.

'the baby comes first' - infant centered care

When describing the main components of their role as a neonatal nurse during

the most recent interviews, seven out of eleven neonatal nurses replied, *'to care for the baby'*. Wendy described the role of the nurse as *'the care of a neonate when I'm on shift involves the full management of that baby's care from the most basic hygiene management and positioning, through to administration of required ventilatory support or medications'. She* did not mention the interaction or involvement of parents as a component of the role. Five of the nurses did go on to add comments related to involving parents in the care of their baby. When describing the role of the neonatal nurse Rhonda stated *'to me the baby comes first, in its total care, then involvement of the parents to the best of their ability really, in as much as possible'.* Rachel described a broader role 'my *main role is a clinical carer of the baby, but I also work In-charge, provide education to nurses coming through the nursery and support for them, and I try and involve parents as much as I can'*. While Brenda described *'obviously to look after the baby, but to help the parents learn and care for their baby, make it well and go home'.*

These responses are similar to those given by nurses when interviewed by Fenwick, Barclay & Schmied (2003) in the mid 90s when the majority of nurses stated that 'they were first and foremost the advocate for the baby', where nurses considered their role was to protect the infant and ensure the infant's health during the shift. As in the most recent interviews, the nurses in that study also followed that comment by describing 'educating parents' as the next task for nurses (Fenwick, Barclay & Schmied, 2003). What is important to note here, however is that while the majority of the participants in Fenwick et al (2003) study expressed this view, the majority of participants in the current study were more likely to modify their discussion of their role as infant advocate by also considering the parent's involvement.

This shift in emphasis is important as in an earlier publication, Fenwick et al suggested that nurses who provide infant-centered care[5] in an attempt to safeguard the infant, reinforced in mothers feelings of being disaffected and constrained their ability to develop as mothers in the nursery (Fenwick et al, 2001a). Providing infant-centered care limits the opportunity for mothers to participate in the care of their infant in a collaborative partnership and leaves the mothers feeling confused, anxious and tense (Fenwick et al, 2001a).

'Who owns the baby' – moving to a shared role

This sub-theme 'who owns the baby' highlights the real skill in facilitating FCC for neonatal nurses is a changed focus from working with the infant in an infant-centered approach to a more family focused approach involving the parents and family, and one of the ways neonatal nurses can do this, is to consider 'who owns the baby'.

Megan a neonatal nurse for nineteen years described the role of the neonatal nurse in a way that also identified the importance of working with the family:

> *'the main thing is to be the advocate for the baby, to care for the baby and their family, to care for them as a unit. And to make sure I think, the big thing you hear when parents go home and we used to hear it a lot that they didn't feel that the baby was theirs till they went home, and I think you'd like for them to feel that it is their baby right from the moment they are pregnant and right through the NICU. If they have to be with us for 100 days they should feel that it's their baby and I think we should promote that'.*

Although Megan responded with being an advocate for the baby she also identified the importance of working with the whole family as a unit, and recognized that the parents do not always feel as if it is their baby. This quote

[5] *Infant centered care or infant focused care* relates to clinical practice that is focused sorely on the infant, safeguarding and protecting the infant while not considering parental needs (Griffin, 1990, p.60: Fenwick et al, 2001a, p54).

infers an understanding of the critical importance to the child and the family of enabling the development of the mother infant attachment relationship.

Ownership of the baby was also suggested as an issue for parents by Megan when discussing FCC when interviewed in 2002 during the MBC project:

> *'I think we're pretty good at and I think we could probably be better at it because I think from surveys from reading surveys in the past the big thing is the parent always says or the mother in particular always says that they felt their baby wasn't their's until they got them home that they had to ask permission to hold their own baby, when would I do the nappy, am I allowed, it was almost like they were like a school child again. And I have two friends that have prems and they both said the same thing. Even though they thought the care was fantastic, they loved the units etc and that all the nurses were lovely they still felt that separation of bond and it that it took them a lot time to actually recover it to even get it.'*

When discussing involving parents in the care of their baby when interviewed during the MBC project Emily also identified the parents feeling of ownership of the baby as important:

> *'We try and encourage lots of cuddles. I try and encourage involvement by the parents for their cares and lots of cuddles so that it makes them feel like ownership of the baby is theirs and it's not like they have to ask for permission for everything and feel like we own the baby and their not allowed to do anything. They don't have much control over the environment that they are coming into.'*

It appears that for nurses who recognize the parents' role in caring for and being with their infant and are able to critically reflect upon 'who owns the baby', the move to partnership in care is much easier.

'it should be equal' – moving to a partnership with parents

Some of the nurses interviewed or participating in focus groups recognized the importance of working in a collaborative partnership with parents. In a focus group held in 2005 as part of the current study the nurses present identified the important benefit of reducing the stress families experience by involving them in the care of their infant *'It can be a pretty stressful experience having a baby in NICU and being involved helps to alleviate some of the stress.'* The nurses recognized the impact having a baby in the NICU can have on families.

Candy when discussing working with families during an interview for MBC identified working with parents as equals as important:

> *'Yes, that's right. It's like we're the boss and I think it should be equal. Look if they said I'm going to be running late, ok, well I'll feed, I won't do the nappy or anything, I'll just feed them and then you can do everything else, not straight after but about ½ hour later and that way I think the parents would probably feel more in control too. And they wouldn't get stressed out about running late, it's the same thing they need to be able to communicate that to you so you know if they ring up and said they're running late, ok, so we will do this.'*

In this case Candy is explaining how she replied to a concerned mother who phoned to explain she would be late and asked Candy to feed the infant, Candy agrees to feed the infant, tells the mother not to worry to reduce her concern and negotiates with the mother to leave the infant's care till she arrives.

During the MBC project several mothers were interviewed, with one mother also recognizing the development of a partnership with nursing staff *'So it is really a partnership up there where it's not you're told not what to do it's explained the benefits of him staying there mainly for the time being but certainly not stopping you from having a cuddle'* (Schmied, 2005).

The analysis of the interview and focus group data indicates that for nurses to work in partnership with parents', they need to also 'let go' of or reshape their role as advocate for the baby and to reconsider the boundaries of nursing practice in a Level II nursery.

'Letting go' – issues of control

If the nurses are to move from a sense of being the advocate for the baby to a shared role or partnership with parents then there was an identified need to be able to *'let go'* of the control they have over the care of the infant. When talking about the role of nurses during the MBC project Julia suggested *'We like to be in control. We do, we love being in control.'* When asked during an interview in 2005 the challenges to the introduction of FCC practices in the nursery Deidre identified letting go of that control as an issue:

> *'Letting go, I think we all took a while to let go, being nurses we are supposed to be in-charge and I think it took a while to realize if you let go, then its much easier in the long run. Letting go your control and it certainly makes the family unit a lot better'.*

Letting go was also identified in a focus group during the MBC project when discussing the changing role *'I agree I think it was hard initially for the nurses to let go off taking the temperature and doing observations and things'.*

While Rachel saw this as a problem mainly for older nurses:

> *'Changing the way the older staff, set in their ways see the parents part in the nursery... the staff seem set in their ways and its against the grain to a have a parent doing these things because they've been nursing for twenty years and parents were never involved before and it's a big step for them'.*

In a focus group held during the MBC project there was discussion about the relinquishing of control in the Level 2 nursery, where the nurses suggested that

'you seem to step back more in Level 2. Seem to relinquish more control. You observe a lot, you support a lot. It's just a different', and *'I agree I think it was hard initially for the nurses to let go off taking the temperature and doing observations and things'*

'boundaries' – How can parents and families participate?

Some of the nurses revealed differing perspectives as to how parents and families should or can participate in the care of their infant in their discussions of boundaries. In a focus group in early 2005, staff discussed an incident where a father wished to insert a orogastric tube in his newborn infant *'I remember a while back an issue about parents doing tube feeds that was a huge thing, which I don't think was ever really resolved'.* There were very differing feelings among the group present to providing options to the father, such as cuddle the infant while the tube was inserted, holding the tube and feed while the feed was in progress or providing an explanation to the father. Some of the nurses present discussed how they had taught parents how to insert a nasogastric tube when infants were going home still needing them, however the majority of nurses did not consider that it was a skill that parents needed to develop and had safety concerns for the infant.

One of the neonatal nurses gave another example depicting issues of boundary during a recent interview. She described incidences in the Level 2 nursery when she observed parents *'turning off the alarms, because they see us turn off alarms without knowing what we look for when turning off alarms'.* The nurse was concerned that the parents did not understand that the nurses do not just turn off the alarm they also observe the infant. When discussing these incidents during a focus group, other nurses indicated that they had asked parents to turn off alarms when they were with the infant and parents. Bialoskurski, Cox and Wiggins (2002) identified the need for mothers to be informed about what she can and cannot do, so she has an awareness of the boundaries in the strange and unfamiliar setting of the NICU.

Wendy suggested a possible explanation for the boundaries in practice:

> *'boundaries are a traditional thing in nursing, and I think that's were we are evolving from, I don't think its just the older nurses I think its some of the younger nurses and I think its for two different reasons. The older more experienced nurses were educated that they were responsible, and I think that's the key word, for the management and delivering of care to their patients, and the coming of parents into their area or role is threatening to them in that they don't see that they are fulfilling the job they should be doing... and for the younger ones it's a comfort zone they're not experienced enough to feel comfortable themselves let alone having some-one else to do it, so I think they see it as a safety parameter to limit what the parents do because that way they can maintain control of what they are doing because of their level of knowledge'.*

The participants identified that nursing staff had different boundaries. It wasn't as simple an explanation as older staff being less innovative that younger staff. This also suggests that different nurses may have different reasons for not adopting a practice and require different strategies to motivate implementation.

NURSE'S CLINICAL JUDGEMENT SKILLS

During the interviews and focus groups the neonatal nurses described how they made decisions about the degree of parent participation in the care of their infant. I have labelled this theme 'nurses clinical judgement skills'. Higgs, Burn and Jones (2001, p.483) defined clinical judgement:

> *'Clinical judgement means weighing evidence arising in the clinical situation against appropriate contextual and domain-relevant knowledge'.*

The nurses identified a number of issues that they weighed up and which influence their clinical judgement when making decisions regarding parents' participation in care.

The majority of nurses interviewed during the study identified the location of the infant in the nursery as impacting on the type of parent involvement, depending on their location in either the Level 2 or Level 3 nursery. Locations of the baby in level three or level 2 nursery, is of course, highly correlated to the condition, health and stability of the infant. This difference influenced the role of the nurses and is described by Deidre who works predominantly in the Level 2 nursery:

> *'I think there is a few different components depending on what side of the nursery you are on, I think on the Level 3 side its more intensive, mechanically wise with ventilators, the parents are not as involved and I think its more technical, while the Level 2 side of the nursery is more family centered encouraging parents to take control of what is happening with their babies rather than to their babies and making sure they are confident to take their baby home'.*

While in a post implementation MBC focus group it was suggested that:

> *'I think Level 3 is all about introducing them to the things that happen in Level 3 and the cares that the baby requires and the things that they can do for the baby. Level 2 seems to be more about getting them actively participating and gain confidence. It's just different. You spend as much time in Level 3 with a set of parents as you would in Level 2 but then the content is different'.*

In addition, one staff member present in the focus group described the role of the nurse in Level 3 as one of nurturing the parents *'I think in Level 3 there is more of a nurturing role as well of the parents'*, with more emphasis on the teaching role *'In Level 3 it is actually guiding and teaching them how to do it so by the time they get to Level 2 they are fairly confident'.*

Amy also identifies the impact the infant's condition has on parent's involvement in the care of their baby *'in Level 2 it's more what the parents can do, but in Level 3 I think sometimes it's what the babies can tolerate, if the baby's very sick it just can't tolerate that, sometimes they can't even tolerate coming out for a cuddle'.* It is apparent from the interviews that the nurses see a differing role in the Level 2 and Level 3 nurseries which is also dependent on the infant's health status.

In addition, the nurses identified a number of issues related to the characteristics of the nurse as influencing their clinical judgement. For example, the beliefs about boundaries and safety discussed earlier and their level of knowledge influences their decision making.

Confidence and competence of nurses

In a focus group held during this study nurses also suggested that confidence and competence as well as experience and knowledge play a role;

> *'the more confident you are as a nurse the more confident and competent in your workload you are more happy to let parents do a bit more like cuddles and stuff like that, were as this is just a general observation nothing else, but the younger staff members they are not as sure about how to a handle things, it just comes with experience and practice.'*

One nurse present in the group suggested that *'when you're not confident yourself it's hard to involve families and it's hard to impart confidence to them as well.'*

During focus group discussions it was also suggested that *'inexperienced staff can sometimes become overconfident, but I think that again is the role of the senior staff who are around to monitor that confidence and if its good and their competent in what they are doing that's OK.'* These nurses believe that 'overconfidence' can result in nurses 'allowing' parents participation in the care of

their infant in an unsafe fashion at times when it is inappropriate and may harm the infant.

The clinical judgement of nursing staff when planning care with parents is sometimes questioned when other nursing staff change the plans for parental involvement for no apparent reason and with no explanation to the parents or the nurse. An example of this is given from the field notes.

> *I had discussions with several nursing staff today who raised some issues related to cuddling and kangaroo care. One staff member described how she spoke with a mother in Level 3 and arranged with her to come at a mutually agreed time on the next shift for a kangaroo cuddle, and when the mother arrived the next staff member just said 'no' and would not get the baby out.*
>
> *Another staff member also described how she had arranged for a mother to come in to do an infant's bath and weigh, and said if the babe is awake and alert after the bath the mother could breastfeed and have a cuddle. The staff member on the next shift said 'no cuddle the babe will get tired and cold'. The mother reported that the baby was awake and alert and looking around after the bath and weigh.*
>
> *Another incident was reported to me during the same discussion. A nurse got a 14 day old preterm infant in Level 3 out for a kangaroo cuddle with their mother with no problems. A nurse on the next shift aggressively told the nurse 'babe was in humidity and should not come out for a cuddle'. This was done in front of the parents and the nurse was concerned that this may impact on the parent's confidence in the nurse (Field Notes 12th April 2002).*

In the discussion with staff it was reiterated that while MBC was originally designed for the Level 2 nursery, we do also have Level 2 infants being cared for in the level 3 nursery and if the nurse caring for an infant was uncertain about the degree of parental involvement in care they could discuss with the In-Charge nurse and / or a Neonatologist. At a MBC working group meeting two weeks later similar issues of inconsistency and differences in clinical judgment were identified.

> *'Change happens if everyone believes in it'. Some staff still resistant, peer pressure may change this, not all staff will change. Suggested that further inservice may be necessary for some staff.*
> *Discussion of why staff don't change:*
> • *is it the philosophy they object to; or*
> • *is it the person selling the concept.*
> *Suggested that depends on the selling of the concept. We need to support one and another with encouragement. If there is a problem planning care staff can plan infant's care for the day with another staff member, for example a CNS or an In-Charge CNS so that staff feel supported and protected in planning care (Meeting Minutes 2nd May 2002).*

In the earlier work of Fenwick and colleagues in the mid 1990s mothers disclosed how they felt distressed when nurses 'broke' the prearranged negotiated care for their infant, such as is discussed in the field notes above (Fenwick et al, 2001a).

SKILLS REQUIRED BY NURSES TO FACILITATE PARENT INVOLVEMENT IN THE CARE OF THEIR INFANT

During analysis of the interview and focus group data the neonatal nurses identified a number of skills they thought were necessary for nurses to facilitate parent involvement in the care of their infant.

'Building a relationship'

Building a relationship with parents was identified as an important step in developing confidence in parents. Deidre discussed how she goes about building a relationship with parents:

> *'Be welcoming, have general conversation as well as not specifically about the baby and nothing else. I think if you tend to offer a little bit about you and your background they tend to relax a little bit more and will associate with you, especially if they know you have children and have had a premature baby'.*

One of the mothers interviewed during MBC agreed, and suggested that 'chatting' was an important method the nurses used to develop a relationship:

> *'They tend to talk about pretty much everything with you. They like to talk to you about the family and how your doing but they still ask they still care about health wise and that kind of thing and even as far as socialize they'll talk about that they've done this and they've done that then we'll talk about separately.....It doesn't make you feel like you're in a hospital. It makes you feel like you're in a work place or something'* (Schmied, 2005).

'Chatting' was also identified by Fenwick et al (2001) as a way nursing staff engaged with mothers and developed a relationship during the time they spent in the nursery.

While Rachel identified *'continuity of care, if you're spending a few days caring for a baby, well, you're discussing things with the parents each day even if its phone calls. You know when they come in to visit I'm sure they feel confident seeing the same person day after day, they come in and build on their relationship with staff'.* Rachel also recognized the difficulties in developing a relationship with parents when they are not able to visit, *'I don't think you can develop that relationship with the parent over the phone'.*

Dianne when discussing the development of FCC identified an important barrier to building a relationship with parents *'you still get your judgments, unfortunately that's human nature, and I wish it didn't have to be, you still get people who are quite judgmental about things and I think that can often get in the way of the relationship with families'.* During the MBC project on several occasions nursing staff made comments regarding the 'type' of parents that are in the nursery. At an inservice for MBC it was suggested some *'staff members felt that it would be difficult to interest or involve some parents as they are too immature to be parents'* (Field notes 25th January 2002). Again at a focus group similar comments were made *'we do everything we possibly can and sometimes that just isn't enough to get them in here'* (Field notes 27th April 2002). Despite the education and information supplied there remain a few nursing staff in the unit who have negative feelings about families and their ability to be involved in their infant's care.

Communication skills

During the interviews and focus groups a number of skills were identified as being necessary to enable the nurses to facilitate parent involvement. Hilary when interviewed in 2002 identified communication as an essential skill for neonatal nurses and as something that needs to be continually developed *'Communication is important and I think that's the thing that we continue to strive to improve basically.'* This was supported by a focus group held in 2005 were it was suggested that *'communication is a major part of our job, that's what we do,*

communicate'. The nurses use communication to build relationships with parents and families and also to explain and educate them. Ahmann & Lawrence (1999) agree and suggested that while, what we communicate to parents is important, how we communicate with them is also important. Fenwick et al (2000) also suggest that although the content of communication is important the style of communication is equally important.

'link to all the other services'

This sub-theme relates to the role of the nurse in negotiating relationships with other health care workers. Some of the nurses recognized that they had a role in supporting parents and advocating for them an 'equal role' in the nursery by facilitating and negotiating their links with other health care workers. For example, Dianne an experienced neonatal nurse who has both community and neonatal experience and has worked in the nursery for the past three years described a broad role for the neonatal nurse, which identifies some necessary skills:

> *'Huge link between the patients and all the other services, an advocate for the patient and their families, we have to work as part of a multidisciplinary team, and that's not just the multidisciplinary medical team that's involving the social side, physio's, all those people that are involved in the care of these children, you have to be a good communicator, you have to be able to continually update your knowledge otherwise you can't be an advocate as you should be'.*

When discussing the main aim of FCC in the nursery Dianne went on to suggest:

> *'Is to make sure they are a family, that they are a family from day 1 really, as much as they can be in this environment we are in and acknowledging even from that day that the parents have an enormous role, that were there to facilitate that role, obviously there are some things that the parents can't do and that's what we have to*

be there for, but there are lots that they can do and we need to help them become skilled'.

Here Dianne identifies some of the skills neonatal nurses need to facilitate parents and families to care for their infant.

ENVIRONMENT OF THE NURSERY

The environment of the NICU has been an issue identified repeatedly over the past ten years as having an impact on parents' involvement in the care of their infant. The environment in the NICU provided a long discussion during a focus group held in early 2005 issues such as *'no rooming in beds', 'no privacy', 'no toilets for parents'*, and *'proximity to the post-natal ward can sometimes play a big part, or lack off, the mums who have Caesars are struggling to get up to the nursery, cause they have to wait till their husbands come up'* were all raised by the group present. The nurses felt that parent involvement would improve if *'we could do better if we had a better layout of the nursery'.*

The following abstract from field notes following a focus group highlights the environmental issues the group felt have an impact on parents' involvement while their infants are in the NICU.

> *Discussion of environment which was seen as not being conducive to involving families in care. All staff talked about the lack of privacy and gave examples of mothers not having any privacy, breastfeeding in open areas with other visitors and parents. Also talked about the lack of parent facilities, no toilets, no quiet place to sit and spend time, no place for coffee and limited space around the baby's bed space. Some staff did mention the Ronald Room was at least an improvement although it is away from the unit and on another floor. There was also considerable discussion about the distance of post-natal ward from the unit and the difficulties post lower segment*

caesarean section (LSCS) mothers have in getting up to visit their baby in the first few days post-op 'they often have to wait for their husbands to bring them up' as the staff in the wards are busy and are not always able to bring them up. The group discussion indicated that the nurses felt that it was important that the mothers were able to come to the nursery whenever they wanted too and that it should be easy for them ie closer, have some-one who could bring them up whenever they wanted and not have to wait for the staff to have time to bring them up (Field Notes 2005)

The issues related to the environment are much the same as those identified in the projects described in Chapter Three. Indeed the issue of the breastfeeding area was addressed in the action research project in 1998-1999, with the moving of the breastfeeding area to a more private area although no structural alterations occurred. There is limited opportunity to overcome these environmental issues within the space currently occupied by the NICU, additional space would be required to meet the needs of the infants and their parents.

'workload'

The impact of workload on involving parents in the care of their infant was raised during a focus group following the implementation of MBC, when the staff present discussed the difficulties when you have many parents arriving at a similar time:

'when you know you have a lot of parents coming in that want to be in here and want to attend the baths and want to do it themselves you can have four babies and four organised times all at the same time. So you have to try and balance the parents and see which ones will be more receptive'.

At a focus group held in 2005 the nurses also discussed work practices that have an effect on care. For example, increasing workload was identified as now having an impact on the involvement of parents in the care of their infant:

'I remember a few years ago we usually plan with the parents what time they are coming to do the bath or whatever and we write down clearly and it was fairly firm, now days you can't make a decision because you never know how the shift and the staff are coping with the babies at the same time and so your way of educating parents is to say you'd better confirm with the afternoon shift what's the best possible time'.

There were several comments during the focus group which continued with this theme *'time, sometimes you just don't have time, there are things that miss out'* and when discussing the challenges to FCC in the nursery *'different workload, so we have more time.'* In fact several nurses suggested that it was easier to provide FCC in Level 3 even though the infant was sicker because of the one to one, or one to two ratio of nurse to infant.

The focus group went on to suggest that patient allocation also has an influence, continuity of care, caring for the same babies for a number of days rather than different babies each day can play a part in building a relationship with families:

'It's a lot better if you are on regularly, like you do three or four shifts in a row and if you're lucky you're looking after the same babies all the time you can get to know them, rather than if you are doing one shift a week or you look after different babies every day.'

CONCLUSION

The data analysis and themes described in this chapter demonstrate how there has been change over time in the involvement of parents in the care of their infant in the NICU. There is evidence that many of the nurses have moved from an expert framework in which the nurse has responsibility for the baby and authority over the parents due to their superior knowledge and technical skills to a framework in which a two-sided conversation between nurses and parents should and often does occur. The change is not complete as it an ongoing and

dynamic process and the nurses recognised further ongoing issues relating to control, 'ownership' and resistance to change.

The importance of the 'journey' is identified. From the nurses' perception, the 'journey', rather than the specific projects, has been important in the development of a FCC philosophy in the NICU and the involvement of parents in the care of their infant. While each project builds on the next, slips and relapses occurred.

The neonatal nurses identified useful strategies that assisted the change process. They specifically identified the importance of ongoing education, including, less didactic methods of teaching and learning, such as role modelling, mentoring, feedback, reflection and discussion of relevant experiences; policies and procedures to support the change, engagement and participation of staff through group development processes and summaries of written research evidence.

The change to a FCC philosophy and practices in the NICU is an ongoing journey that has taken considerable time. The rate of acceptance of FCC as an innovation in practice has been effected by a number of factors. These include, the readiness of the nursing staff to change, the attitudes and role perceptions of nurses and parents about their boundaries of care and responsibilities for the wellbeing of the infant, the lack of consistency and shared understandings in the clinical judgement and decision making process, and the nurse's skills to engage and enable parents in parenting their child in a relatively foreign and 'hostile' environment such as the nursery.

CHAPTER FIVE

NEONATAL NURSES PERCEPTION OF FACTORS THAT IMPACT ON INVOLVING PARENTS IN THEIR INFANTS CARE

INTRODUCTION

The analysis of the data from Chapter Four with the identification of the main themes, and the projects described in Chapter Three provide the basis for the development of a framework that describes the factors that impact on neonatal nurses involving parents in the care of their infant (See Figure 5.1). This framework and some of the literature that supports it will be presented in this chapter.

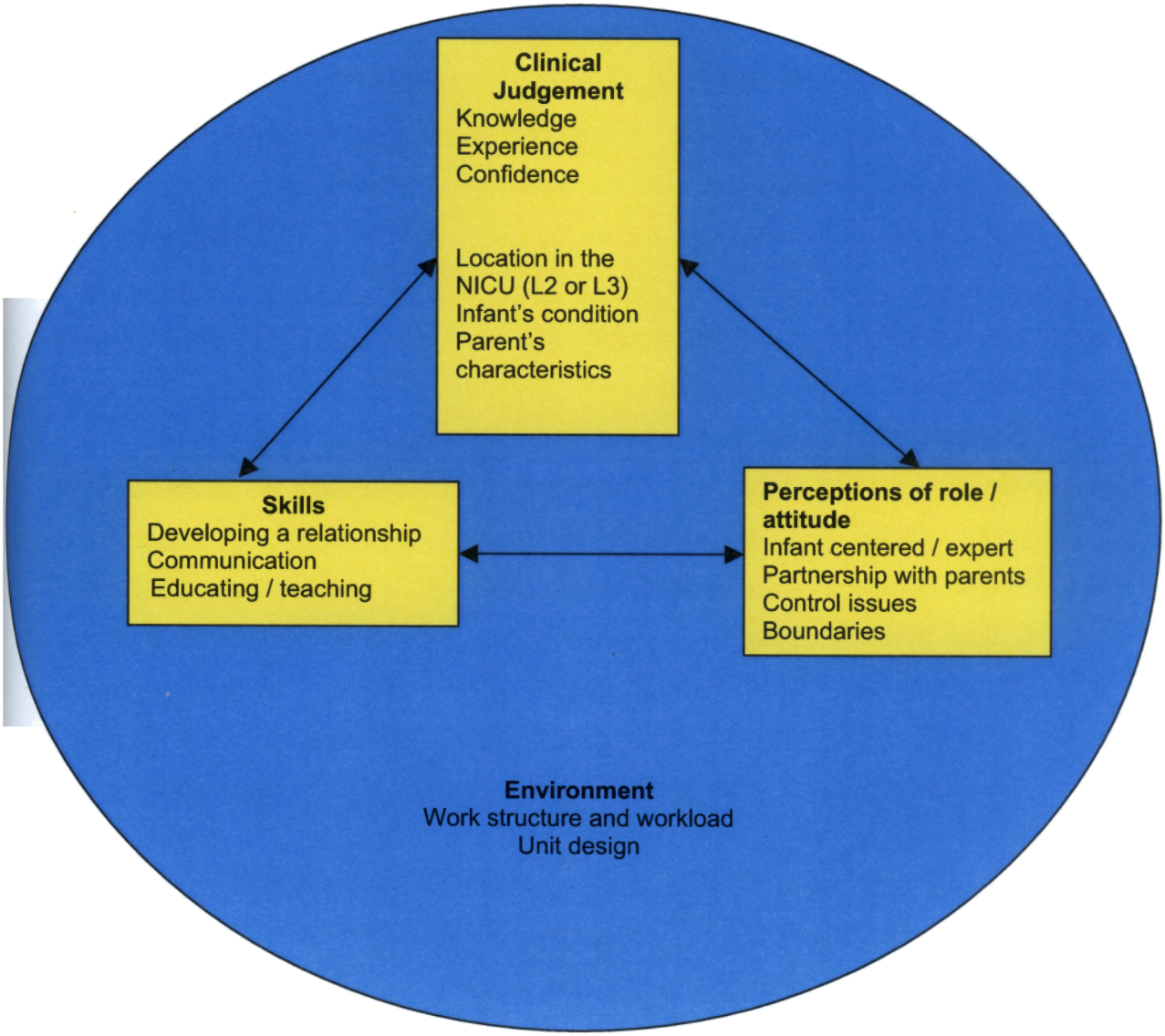
FACTORS THAT IMPACT ON NEONATAL NURSES INVOLVING PARENTS IN THEIR INFANT'S CARE

Four main factors were identified by the neonatal nurses as impacting on their involving parents in their infant's care. Three of the factors relate to the practice of the neonatal nurses the fourth relates to the environmental context of the nursery. The main factors identified were:

- Clinical judgement;
- Perceptions of role and attitude;
- Skills; and,
- The environment.

A simple diagram of the framework is illustrated in Figure 5.1 on the following page.

Figure 5.1:
Factors that impact on neonatal nurses involving parents in their infant's care



Clinical judgement (ie how nurses make a clinical assessment regarding involving parents in the care of their infant) is critical to the process and is influenced by factors such as the knowledge, experience and confidence of nurses in their assessment of the baby's condition and the characteristics of the parents. This can sometimes also be influenced by the location of the infant in

level 2 or level 3 nurseries. The clinical judgement of the nurse is also impacted on by their skills, and perception and attitude to their role, and the environment in which they work.

The nurses perceptions of, and attitude towards their role and the parent's role is also important, and influences the boundaries and the overlap of these roles as well as the flexibility of boundaries to change relating to the context. This role perception interacts with clinical judgement, being influenced by the nurses' knowledge and experience but also influencing their critical thinking and assessments.

The third important factor is the skills required by neonatal nurses to facilitate parent's involvement with their infant. These skills include building relationships with parents through communication, and facilitating the parental learning about their infant's condition, development and care. Again these skills such as relationship building and communication interact with clinical judgement influencing assessment of the parents and judgements about the interventions required to address parent needs. The type of interventions in turn can be influenced by the nurses' role perception and beliefs about boundaries, for example the early projects did not educate parents about taking temperatures or giving vitamins because these were not seen as part of the parenting role.

In addition, the environment was identified by the nurses as having a major impact on their ability to involve parents in the care of their infant. Workload and the unit design influenced judgements about priorities, the nurse's ability to develop relationships with parents and to provide the support the nurses believed necessary for parents.

The next section examines each of the factors in more detail.

Nurse's Clinical Judgement Skills

Analysis of the data indicated that clinical judgment is a factor that impacts on neonatal nurses involving parents in the care of their infant. There are a variety of definitions of clinical judgement in the literature, for example, Higgs, Burn and Jones (2001, p.483) define as:

> *'Clinical judgement means weighing evidence arising in the clinical situation against appropriate contextual and domain-relevant knowledge'.*

While Chase (1995, p.154) adds additional processes of communication between team members and decision making to the way critical care nurses make clinical judgements:

> *'Clinical judgement is the complex cognitive process by which a clinician interprets patient behaviours and builds a communicable description of the status of patients. Making a judgement involves making a decision about whether a patient needs the initiation or modification of treatment'.*

Clinical judgement and clinical decision-making are terms that are often used interchangeably in the literature. Clinical decision making has been defined as *'a systematic process of assessment of a repertoire of actions, evaluation and judgement making that will contribute to the achievement of a desired outcome'* (Simpson & Courtney, 2002, p.94). For the purpose of this thesis clinical judgement describes how the neonatal nurses interviewed or who participated in the focus groups make their assessment about the degree of a parent's involvement in the care of their infant.

The documents reviewed, interviews and focus groups identified a number of issues that influence the clinical judgement of the neonatal nurse when involving parents in the care of their baby. The issue of knowledge and experience identified by the nurses were also considered by Higgs et al (2001). When discussing the integration of clinical reasoning and evidence based practice,

Higgs et al (2001) suggest that professional judgement is required during the clinical reasoning process to evaluate the evidence, to make diagnostic and treatment decisions, and to meet the unique demands of each patient. They suggest that professional judgement and clinical reasoning are needed to blend knowledge and experience into decisions that meet the needs of the patient (Higgs et al, 2001, p. 488).

The role of knowledge and experience in clinical judgement has also been well documented in the literature relating to the development of students. Vito-Thomas (2005) suggested that critical thinking skills are necessary for nurses to develop their clinical judgement. In a study of nursing students to describe their thinking processes as they make clinical judgements, the students suggested that the critical thinking required to make clinical judgements would improve with practice in the clinical setting (Vito-Thomas, 2005, p.134). The students also suggested that clinical experience was the most important learning strategy in developing clinical judgement (Vito-Thomas, 2005). Vito-Thomas (2005) states that in the clinical environment other health care professionals can also influence clinical judgement, and watching others and seeing how they respond can contribute to the students knowing what to do in a given situation.

In a discussion of the development of critical thinking skills in students, Fowler (1998) also identifies the importance of clinical experience and knowledge. Both gaining knowledge and clinical experience is necessary to build critical thinking skills and to develop sound clinical nursing judgment (Fowler, 1998). The relationship between experience, knowledge, critical thinking, clinical reasoning and clinical judgment is demonstrated in Figure 5.2 in Fowler's model for clinical nursing judgment.

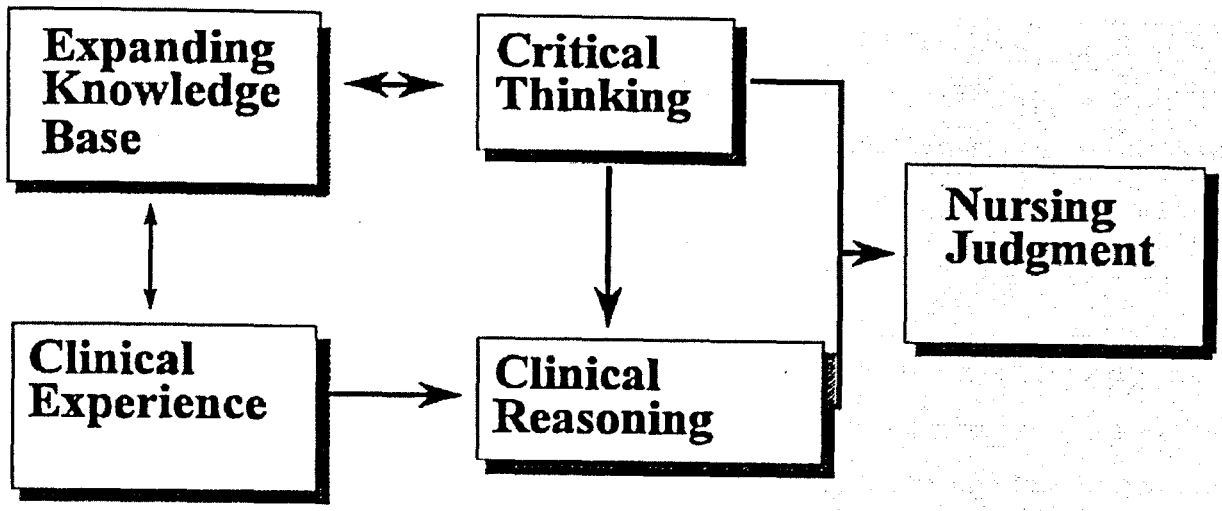


Figure 5.2 – Model for nursing judgement (Fowler, 1998, p.183-187).

In addition, effective clinical judgement also requires confidence in one's ability to use these cognitive skills (Seldomridge, 1997). As suggested in one of the focus groups *'the more confident you are as a nurse, the more confident and competent in your workload, you are more happy to let parents do a bit more like cuddles and stuff like that'.*

Knowledge and experience were identified in this study as important to clinical decision making. However the way knowledge and experience was used in terms of critical thinking and clinical reasoning needs further exploration.

The analysis of the interviews and focus group data indicated that nursing staff often confer with more experienced staff when making a clinical judgement in relation to the involvement of parents in the care of their infant. Clinical judgement can be enhanced by discussing observations and data with more experienced nursing staff (Benner, 1997). In a study of the social context of clinical judgement in a critical care unit, Chase (1995) suggests that multiple clinicians are involved in making decisions about patient care, and that communication among care providers is essential to ensure optimal care decisions. Chase (1995) considered clinical judgement to be concerned about the physiological stability of the patient, psychological stability, and the need for

invasive technology, medications or mechanical support. Chase (1995) goes on to suggest that nurses make independent clinical judgements, and these include, what and how to communicate with patients and their families, as well as patient comfort and activity issues.

Parent's characteristics

Integral to the provision of FCC practices in the unit are the parents and their involvement in the decisions on their infant's care. Parent's participation in the decision process does not necessarily mean they make the decision, however they have input and are given sufficient information to understand what is decided (Smith, 1999). Involving parents in the decision ensures that care is individualized (Smith, 1999).

During the interviews and focus groups it was identified that characteristics of the parents can play a role when nurses are negotiating their participation in the care of their infant. Bruns and McCollum (2002) found in a survey of neonatal nurses, neonatologists, and mothers of NICU graduates that some health professionals identified personality traits, such as stubbornness, or characteristics, such as young maternal age or low education level, as adversely effecting the relationship between the mother and health professional. As highlighted in Chapter Four in the theme *'building a relationship'* during the MBC project on several occasions nursing staff made comments regarding the 'type' of parents that are in the nursery, such as *'staff members felt that it would be difficult to interest or involve some parents as they are too immature to be parents'* (Field notes 25th January 2002), and again at a focus group similar comments were made *'we do everything we possibly can and sometimes that just isn't enough to get them in here'* (Field notes 27th April 2002). This perhaps indicates a frustration about not knowing what to do in this type of situation where the parents have a lot of needs, and where the nurses have difficulty forming an 'equal relationship' with the parent. During the interviews and focus group in 2005, there are fewer comments regarding parents' characteristics, although

several staff did comment on *'unreliable'* and *'not interested young mums'*. The amount of parent involvement in an infant's care also influences the nurse's view of the parents (Bruns & McCollum, 2002).

As discussed in the previous section the relationship between neonatal nurses and parents is important in mothers' experience of mothering in the nursery and their sense of confidence, competence and connection to their infant (Fenwick et al, 2000; Fenwick et al, 2001a). During an interview in early 2005 Dianne suggested *'you still get your judgements, unfortunately that's human nature, and I wish it didn't have to be, you still get people who are quite judgemental about things and I think that can often get in the way of the relationship with families'* when discussing the barriers to nurses developing a relationship with parents. Comments from neonatal nurses regarding parent characteristics were less apparent during the interviews and focus groups in 2005, with nursing staff such as Dianne, showing an awareness of the negative impact of such comments. It is apparent from this comment that not all nursing staff have adopted a collaborative partnership with parents at the same time. This changing view of parents may indicate an acceptance of FCC practices by an increasing number of nursing staff in the nursery. This would seem to follow the pattern of the diffusion of innovations theoretical framework, an explanation of the essentially social process of the adoption of an idea or practice seen as a new alternative over time that will be discussed in more detail in Chapter Six (Rogers, 1995).

Infant's condition

The impact of the infant's condition has on parents involvement in the care of their baby was identified by Amy *'in Level 2 its more what the parents can do, but in Level 3 I think sometimes its what the babies can tolerate, if the baby's very sick it just can't tolerate that, sometimes they can't even tolerate coming out for a cuddle'*. It is apparent from the interview data that the nurses see a differing role for parents in the Level 2 and Level 3 nurseries, and this role is also dependent on the infant's health status.

The nurse's perceptions of role and attitude

The literature does not give an encouraging picture of nurse and parent interactions in the neonatal nursery (Bialoskurski et al, 2002). Griffin (1990) identified the nurse in the role of gatekeeper of the infant as one of the major barriers to parenting in the neonatal unit, with nurses focusing on infant care and not parental needs. Review of the documents, interviews and reports identified similar themes, as some of the neonatal nurses maintained the perception of their role as 'advocate' for the infant and as an 'expert'. Fenwick et al (2000) identified nurses who practiced in a way that focused on the infant, and saw their role as 'protecting' the infant and maintaining their safety.

In the interviews and focus groups undertaken for MBC and more recently for this project some neonatal nurses continued to describe their role in this way. There were experienced nurses interviewed during 2004 – 2005 who remain focused on providing the technical aspects of care first, with the involvement of parents being placed in a secondary role. This can possibly be understood by the fact that the nursing staff in NICU rotate through both the Level 2 and Level 3 nursery, and eight of the nurses were CNS who spend the majority of their time either working In-charge of the shift or in the Level 3 nursery, and spend considerably less time in the Level 2 nursery. Focusing on technical aspects of care when the infant's condition is critical, is an appropriate priority. However few of these nurses stressed the importance of shifting priorities and focus of care. It may be, as suggested by Rachel *'changing the way the older staff, set in their ways see the parents part in the nursery ... the staff seem set in their ways and its against the grain to a have a parent doing these things because they've been nursing for twenty years and parents were never involved before and it's a big step for them'* it may be that these neonatal nurses use the past as a reference point, and having traditional values their acceptance of new ideas or practices is a lengthy process and lags behind. In the diffusion of innovation framework, to be discussed further in Chapter Six, these nurses could be considered "laggards" (Rogers, 1995).

In contrast, there were neonatal nurses who worked in partnership with parents, as identified by a mother when interviewed during the MBC project who said *'so it is really a partnership up there, where it's not you're told not what to do it's explained the benefits of him staying there mainly for the time being but certainly not stopping you from having a cuddle'* (Schmied, 2005). In their studies Fenwick et al (2000) described facilitative nursing actions where nurses respected the mother's role and acknowledged them as partners in care. These nurses recognized the unique interdependent nature of the mother-infant relationship and provided opportunities for mothers to be with their infants in meaningful ways (Fenwick et al, 2000). The nurses who worked within this framework during the mid 1990's when the interaction research was undertaken could be considered 'early adopters' of FCC practices in the diffusion of innovation framework. As 'early adopters' these nurses serve as role models in the involvement of parents in their infants care (Rogers, 1995).

The research carried out in the Level 2 nursery by Fenwick et al (1999) indicated that activities and interactions between mothers and nursing staff in the mid 1990's in the nursery reflected control by the majority of staff rather than a partnership with parents. In a study of parent's perception of staff competency in a NICU, control also emerged as a major theme, with parents reporting they lacked control and providing examples of how staff controlled their interactions with their infant (Cescutti-Butler & Galvin, 2003). The control of the parent's interaction began shortly after the birth of the infant and continued throughout the infant's stay (Cescutti-Butler & Galvin, 2003). In the interviews and focus groups undertaken during the MBC project in 2002 and for this project *'letting go'* of control was recognised as a major challenge in the establishment of FCC practices. For example, Deidre an experienced neonatal nurse suggested *'letting go, I think we all took a while to let go, being nurses we are supposed to be in-charge and I think it took a while to realize if you let go, then its much easier in the long run'.* The acknowledgement by these nurses of the need to *'let go'*

control is an important step in the development of collaborative partnership with parents in the nursery.

Nurse's Skills

The neonatal nurse is the key focus for parents in the NICU and this may be due to their constant presence in the unit (Cescutti-Butler & Galvin, 2003). The analysis of the available data indicated a number of necessary skills that impact on neonatal nurses involving parents in the care of their infant. The primary skill, that impacts on all other factors is *'developing a relationship'* with parents and families. Several other related skills were also identified; communication has been identified in each of the projects as an essential skill for nursing staff (Keatinge & Gilmore, 1996; Brazil, 2003; Fenwick et al, 2001b; Fenwick et al, 2000). Complementing communication is the ability to provide education /teaching for parents, this was also identified in a number of the projects as a skill needed by nurses (Gilmore & Keatinge, 1996).

The neonatal nurses interviewed or attending focus groups saw building a relationship with parents as an important step in developing confidence in parents. Fenwick et al (2000; 2001a) found that a mother's relationship with the nurse is the most important influence in a woman's experience of parenting in the Level 2 nursery and their development of a sense of confidence, competence and connection to their infant. The development of the relationship between mothers and health professionals was also a major theme in a study examining the perspectives of mothers, nurses, and neonatologists on the importance and implementation of FCC practices in an NICU (Bruns & Mc Collum, 2002).

In the interviews and focus groups undertaken for MBC and more recently for this project, the nurses identified a number of other issues that also influence the development of a relationship. These included the numbers of nursing staff involved in an infant's care and the nursing staff to infant ratio. These factors influenced workload and the consistency of approaches to care giving activities;

similar issues were identified by Hurst (2001) in a study of mothers and infants in a neonatal nursery.

Communication has been identified in each of the projects undertaken within the NICU as an essential skill needed by nursing staff to build a relationship and facilitate parent's involvement with their infant (Keatinge & Gilmore, 1996; Brazil, 2003; Fenwick et al, 2001b; Fenwick et al, 2000). In an interview undertaken during MBC Hilary an experienced neonatal nurse stated '*Communication is important and I think that's the thing that we continue to strive to improve basically.*' Communication has also been identified in a large number of studies as being an important issue for parents with infants in neonatal nurseries (Cescutti-Butler & Galvin, 2003; Bialoskurski, Cox & Wiggins, 2002; Bruns & McCollum, 2002; Holditch-Davis & Miles, 2000; Brazy, Anderson, Becker & Becker, 2001). In their study of the relationship between maternal needs and priorities in a NICU, Bialoskurski et al (2002) found two of their constructs focused on information and communication. Their data indicated mothers wanted accurate, reliable and topical information regarding their infant's condition and nursing care, regular communication and honest answers to questions (Bialoskurski et al, 2002). This supports the findings of an early study, which suggested that mothers found it stressful when, nurses provided incomplete and inconsistent information about their infant's care and condition (Affonso, Hurst, Mayberry, Haller, Yost, & Lynch, 1992). This suggests that effective communication is important in the development of a shared meaning between mothers and neonatal nurses (Bialoskurski et al, 2002).

Integral to the discussion of communication is the impact of language. In their study on activities and interactions undertaken in the Level 2 nursery, Fenwick et al (1999) identified the interactions documented negative communication patterns in just under half of all interactions documented. This included the manner of the interaction, for example poor, or no eye contact, the exclusion of the mother from the interaction, and providing information in a 'loud and

overbearing way' (Fenwick et al, 1999). The use of jargon and technical language was also identified as an issue (Fenwick et al, 1999). The way information is presented, and the language used has also identified as an important issue by other authors (Bruns & McCollum, 2002). Ahmann and Lawrence (1999) also suggest there are many important aspects to communication, including the setting and timing, the use of terminology or jargon, the family's own culture and language, nonverbal body language, the tone of voice and eye contact. Fenwick et al (2001b) conclude that the neonatal nurse's use of language is a powerful clinical tool. Being aware of language assists health professionals build open and respectful relationships with parents and families (Hanson et al, 1994).

The neonatal nurses interviewed emphasized the importance of language and interactions with parents and families in the nursery. The nurses discussed talking with families not only about their infant but more socially. For example, Deidre said *'be welcoming, have general conversation as well as not specifically about the baby and nothing else'*. This is supported by the work from Fenwick et al (2001b) which introduces the concept of 'chatting' as a strategy to engage parents. During the recent interviews and focus groups the recognition of the importance of communication with parents and families by the neonatal nurses was related to feedback provided in the nursery by Fenwick and colleagues from their research. There is some indication that there has been a change in communication over time, with a mother interviewed during the MBC project commenting *'They tend to talk about pretty much everything with you. They like to talk to you about the family, and how your doing, but they still ask, they still care about health wise and that kind of thing, and even as far as socialize they'll talk about that they've done this and they've done that'* (Schmied, 2005). While a nurse in a recent focus group described how she communicated with families by *'spend time with them, sitting talking to them not talking down. Its talking with them, answering questions, being with them and not keeping them in the dark'*.

Fenwick et al (2003) when reporting on data from interviews undertaken in the mid 1990s indicated that 'educating parents' was described as a secondary role by nurses after meeting the infant's health needs. The adoption of FCC practices requires parents to become educated about their infant and become active participants in their care (Brazy et al, 2001). The neonatal nurses interviewed during the MBC project and more recently for this project also identified educating parents as an important part of their role *'in Level 3 it is actually guiding and teaching them how to do it so by the time they get to Level 2 they are fairly confident'.* The focus appears to have changed with one nurse commenting there has been an *'increase in the parent's autonomy looking after their baby moving the emphasis off the nurses and to the parents'.*

The environment

The environment of the NICU has been an issue identified repeatedly by staff over the past ten years as having an impact on the implementation of FCC practices and the involvement of parents in the care of their infant. The birth of a sick or preterm infant and their admission into an NICU is usually an unexpected occurrence for parents. In a study in which mothers told their stories of their experiences in NICU, nearly all commented on their distress at seeing all the medical equipment and tubes when seeing their infant (Holditch-Davis & Miles, 2000). Other mothers commented that they found the appearance of the NICU, with all the equipment, infants and families as overwhelming (Holditch-Davis & Miles, 2000). The NICU environment was also found to be stressful in a study of stressors reported by mothers of hospitalized infants (Affonso et al, 1992).

There is lack of space in the NICU and this limits the facilities for parents. As discussed by the nurses in the interviews and focus groups there is also a lack of privacy for parents and families. Inadequate privacy was identified by Walker (1997) in a study of neonatal nurses' views as one of the barriers to parenting in the NICU. The management of the nursery are aware of the limitations and are

attempting to negotiate for additional space within the hospital which may help to improve facilities for the families in the future.

The workload in the nursery was identified in a recent focus group as having an impact on parent involvement in care, one nurse commented *'time, sometimes you just don't have time, there are things that miss out'* and another suggested *'workload different, so we have more time'.* In an ethnographic study including observations and interviews with mothers, Hurst (2001, p.73) described how mothers perceived that the nursing staff to patient ratio are often such that the nurses could barely keep up with the infants' basic care needs, limiting their ability to provide information to mothers and to guide their developing skills to care for their infant. The neonatal nurses at times felt *'time constraints'* limited their ability to involve parents in the care of their infant.

CONCLUSION

This chapter describes the factors the impact on neonatal nurses involving parents in the care of their infant in the NICU. The nurses identified these factors during the interviews and focus groups undertaken during the MBC pilot project and for this case study. They are also supported by other research literature in the area.

Factors that impact on nurse's implementation of a FCC philosophy and practices are: the environment within the nursery, clinical judgment skills, role perception and attitudes, and skills in developing relationships with and supporting parents in their learning. These factors can facilitate or act as barriers to parent's involvement with their infant.

Interventions to improve practice need to focus on all these factors as they are interrelated. Nurses need to develop skills in critical thinking and clinical reasoning. Development of the nurses' critical thinking and clinical reasoning

skills may result in a shared understanding and consistency of clinical judgments. Resource and environmental issues, such as workload, may also influence the development of clinical judgement. Communication skills are also essential for building a relationship with parents and families. These issues all need to be addressed.

CHAPTER SIX
ACHIEVING SUSTAINABLE CHANGE IN CLINICAL PRACTICE

The aim of this study was to explore and analyse the change process in a Neonatal Intensive Care Unit as a family centered care philosophy and practices were implemented. In this chapter the change process will be discussed, and in particular, the factors that impact on change and influence sustainability will be discussed.

CHANGE STRATEGIES

The seven projects appeared to use three approaches to change. The power-coercive approach uses a 'top down' method that assumes nurses will obey orders from a higher authority (Cutcliffe & Bassett, 1997). The initial implementation of Shared Care in the NICU that was a policy directive would fit the power-coercive strategy. With the unsuccessful introduction of FCC this approach was followed by a rational-empirical strategy, when audit and feedback were added as strategies to bring about change. The rational-empirical approach assumes that nurses will be guided by reason and will adopt a change if it can be demonstrated as justified and in their self-interest (McPhail, 1997). A normative re-educative approach was used with the two action research projects. The normative re-educative approach is based on the belief that individuals need to be involved in the change process, and change originates from the 'bottom up' (McPhail, 1997; Cutcliffe & Bassett, 1997).

In this case study the power-coercive approach was unsuccessful in bringing about change, with the evaluations indicating that there was little resultant change in practice. It is difficult to determine whether the rational-empirical approach by itself or the normative re-educative approach were more successful as they built on the effects of the previous projects. It may be that different strategies are required for the different stages of change, for example

knowledge, persuasion, decision, implementation, or even for different people depending on their propensity to change. Some research suggests that putting action oriented strategies prior to the development of the motivation to change will be unsuccessful (Rogers, 1995). Grol (1997) suggests that different strategies are needed at different phases of the change process and to target different groups of clinicians. It is suggested that multifaceted strategies based on the assessment of potential barriers to change are more effective (Grimshaw et al 2002; Grol, 1997).

ACHIEVING CHANGE IN CLINICAL PRACTICE

Change is a dynamic, complex and demanding process (Rycroft-Malone et al, 2002; Carney, 2000). It is a constant in health care, and there is a growing amount of health care literature on the management of change (Carney, 2000). Much of the literature is related to the implementation of evidence based practice and clinical practice guidelines. This case study explores the process of change as the NICU adopts a FCC philosophy and practices.

The projects analysed have been undertaken over the past ten years in the NICU at JHCH. Rogers (1995) diffusion of innovation is used as the conceptual framework to understand the change process in the NICU as it relates to the implementation of FCC philosophy and practices. Innovation diffusion theory explains the process by which an innovation is communicated through social channels in a group or organization over time (Rogers, 1995). An innovation can be a practice, such as FCC, which is perceived as new by the individual or group adopting the practice (Rogers, 1995).

Change takes time

The journey to a FCC philosophy and practices in the NICU has been an ongoing process for the past ten years. As suggested in the review of the literature the adoption of a new practice in health care is a complex process (Cain & Mittman,

2002). The change in practice to a FCC philosophy and practices was first adopted in the paediatric medical ward in the hospital and then transferred to the NICU. Innovation can be successfully implemented in one part of an organization and may, or may not, spread to other parts of the organization (Berwick, 2003). In this case the driver of change was the initial successful trial and a policy directive from the Chief Nurse. The uptake however was fairly slow in the initial years. Rogers (1995) would suggest the slow rate of adoption of FCC philosophy and practices in the NICU can be explained by variables, such as:

- The perceived attributes of the innovation as seen by members of NICU staff;
- The communication channels used by the members of the system;
- The extent of the change agent's promotion of the innovation; and,
- The nature of the social system, for example, the values and beliefs in the NICU (Rogers, 1995)

While Berwick (2003) suggests that in descriptive studies, the diffusion of an innovation focuses on three basic clusters that influence the rate of spread of a change. These are:

- Perceptions of the innovation by the members of the system;
- Characteristics of the staff adopting the innovation; and,
- Contextual issues, especially involving communication, leadership, management and incentives.

Both authors have identified similar issues that impact on the rate of spread of an innovation. Rogers (1995) suggests the evaluation of the innovation, for example FCC philosophy and practices, is derived from the nurses' experiences and perceptions and conveyed through interpersonal networks within the nursery and this drives the diffusion process. The variables that influence the diffusion of FCC philosophy and practices will be discussed here.

The perceived attributes of the innovation

The most powerful influence on adoption of an innovation is the perceived benefit of the change in practice (Berwick, 2003). Nurses are more likely to adopt a change in practice if they think that it can help them (Berwick, 2003). The diffusion of innovation model (Rogers, 1995) describes five attributes of innovations that influence adoption. These include: relative advantage, compatibility, complexity, trialability, and observability. These are defined as:

- *Relative advantage* is the degree to which the idea, practice or technology is perceived to be better than existing practices;
- *Compatibility* is the perceived 'fit' of the innovation with existing values, beliefs, experiences and current needs of the individual;
- *Complexity* is the degree of difficulty involved in learning about and implementing the innovation;
- *Trialability* is the extent to which an innovation can be tried by individuals without major investment of time or resources; and,
- *Observability* is the degree to which the outcomes resulting from the adoption of the innovation are visible (Rogers, 1995; Iles & Sutherland, 2001; Berwick, 2003).

'Relative advantage' is the potential value or benefit that is anticipated from adoption of the innovation relative to the current practice. Rogers (1995) suggests the degree of relative advantage can be economic, social or other benefits and this can be an important issue for adopters of the innovation. The greater the relative advantage the more rapidly it will diffuse (Cain & Mittman, 2002). Perceptions of relative advantage are related to the 'complexity' and 'compatibility' of the innovation. In this case study, FCC was not, at first, perceived to be compatible with the nurse's perceptions of their role. Lack of clarity and definition of shared care and FCC, in its initial conceptualization, also did not assist early adoption and increased the perceived 'complexity' of the innovation.

The 'trialability' of FCC philosophy and practices with use of research trials and pilot projects to introduce changes is likely to have assisted adoption of FCC by decreasing the risks of innovation failure. The increasing acceptance of FCC philosophy and practices may indicate that the 'relative advantage' of FCC has improved with each of the projects undertaken. This may be partly explained by the 'reinvention' or adaptations made within the NICU to FCC practices in the two action research projects when practices were adapted to suit the local environment (Berwick, 2003). 'Reinvention' of any innovation affects both the pace and style of diffusion (Cain & Mittman, 2002). Changes in role perception and compatibility and a clearer understanding of what was meant by FCC would have also facilitated the process.

The evaluations and research which were conducted at various times would also have increased the 'observability' of the changes to the nurses in the nursery and may also have assisted adoption. Evaluation and feedback were used for all the projects. Results of audits undertaken, Shared Care and the action research projects were placed in the communication book for all nurses to read. Audit and feedback have been found to have variable effectiveness in changing behaviours (Gimshaw et al, 2002). During both action research projects discussion of audit results were undertaken during the working group meetings. In addition, feedback from research undertaken in the unit was presented at in-service for nursing staff that were able to attend, and copies of the research results presented in journal articles were placed in resource folders in the NICU available for staff to read.

Communication

Communication is the key to successful implementation of change and related to the 'observability' of the innovation (Cutcliffe & Bassett, 1997). The communication channels used to diffuse an innovation influence the rate of adoption (Rogers, 1995). The diffusion of innovation is a social process that depends on the practice change being communicated from an individual who

knows about the practice change to another who does not (Cain & Mittman, 2002). The essence of communication is information sharing in which one individual passes shares information on the innovation with one or more others (Rogers, 1995).

Not all communication channels are equally effective (Cain & Mittman, 2002). Information can be shared by: mass media, such as, written materials, radio and television; or by interpersonal channels, such as in face-to-face exchange between individuals or groups (Roger, 1995). Mass media channels are used to create knowledge awareness, that is, to inform people about an innovation (Rogers, 1995; Cain & Mittman, 2002). Alternatively, to persuade an individual to accept and use a new practice interpersonal channels, involving face-to-face exchange are more effective (Rogers, 1995; Cain & Mittman, 2002). When the message is complex interpersonal communications are also more efficient (Cain & Mittman, 2002).

Written materials

In this case study written materials such as journal articles, feedback summaries, newsletters, and unit communication book were used to ensure all nurses had access to information about the changes. A comment from one nurse present at a focus group suggested that most nurses did not access the folder of journal articles. However, briefer communications in the unit communication book were more appreciated. The effectiveness of these strategies was not evaluated, and no record of the number of staff who accessed these documents and folders is available.

Written documents were also developed for parents to ensure they were aware of the changes and their 'parental rights' within the nursery. In the early stages of the change nurses acted as 'gatekeepers' and parents did not always receive this written information. Other written documents developed were policy documents.

Policies and procedures

A number of unit policies and procedures were written or reviewed during the projects as strategies to guide practice. Policies and procedures were developed to give 'authority' to the change process. Policies can assist with consistency of practice and can assist the introduction of new practices in organisations were risk management is seen to be a priority. This certainly was the situation in this case study where nurses had concerns about their responsibilities, legal repercussions and letting go of control. The rigid application of policies, however, may mean that individual needs of the infant and family may not be met. The thoughtful application of policies with the use of clinical judgment is required. This study indicated that there were differences in the clinical judgments of nurses. Ongoing discussion and reflection is required to assist with the application of policy in different contexts.

Face to face communication

Providing information alone is not sufficient to achieve a change in behaviour. Face to face communication was particularly critical to adoption and several methods were used including: informal discussions with staff, development of action research groups with regular meetings, focus groups, presentations, and reporting at staff changeovers.

Whilst it was difficult to reach all the staff through these methods early innovators in the action research group were asked to use their own informal networks in the unit to role model and spread the message. New innovators often rely on an evaluation of an innovation by other individuals who are like themselves and who have previously adopted the innovation (Rogers, 1995). Because of the impact of peers, Rogers (1995) suggest that role modelling is an effective change strategy. Nurses model their behaviour and understand unit values from their observations of respected opinion leaders who they trust (Breckenridge Sproat, 2001). The action research group for the final project was fairly large and varied (it consisted of educators, managers, experienced and less experienced nurses and medical

staff), making it more likely that nurses in the NICU could identify with at least some of it's members and perceive them as opinion leaders.

Face to face communication is more effective when the source and receiver share common meanings, beliefs, and mutual understanding (Cain & Mittman, 2002). For example, nurses find it easier to provide FCC to parents who have similar characteristics and come from a similar social class as themselves. In some instances, FCC implementation may have failed because of differences in understanding between the nurse and parent. Improving skills in communication with parents was one of the areas identified by nurses in this study as requiring improvement.

Engagement strategies

The later two action research projects were more participatory with bedside nurses actively engaged in the projects. It is suggested that only with empowerment and ownership of the change process will nurses become innovators (Balfour & Clarke, 2001). Action research is a 'bottom up' approach to change, it is a cyclical process with the implementation of a change, after which the effects are observed, evaluated and reflected upon. They included more networking and communication strategies, for example participatory groups, ward meeting updates, mentors and role models, newsletters and informal discussions. The diffusion of innovation is a social process that depends on the communication of new ideas or practices (Cain & Mittman, 2002). Personal contact remains a powerful communication channel (Rogers, 1995).

The change agent and opinion leaders

The Diffusion of Innovation theory places importance in the role of opinion leaders and change agents in the communication process (Cain & Mittman, 2002; Moulding et al, 1999). An opinion leader is an individual who is able to influence other individual's attitudes or behaviours informally in the desired way with relative frequency (Rogers, 1995). Opinion leaders are closely aligned with

the system, and are identified with the social system (Rogers, 1995). Opinion leaders are often used to encourage adoption of the innovation, as respected peers (Berwick, 2003). Opinion leaders reduce the uncertainty of others in their social system about adopting a new practice (Cain & Mittman, 2002). They hold a unique and influential place in the system's communication network (Rogers, 1995).

A change agent attempts to influence decisions about the adoption of an innovation (Moulding et al, 1999). The change agent leads or facilitates the change process (Rogers, 1995). A change agent can be external to the social system, and provides the link between the change agency and the client (Rogers, 1995) or internal to the system with wide external networks and therefore more likely to hear about innovations earlier.

Communication is essential to the role of the change agent (Rogers, 1995). Rycroft-Malone et al (2002) when discussing getting evidence into practice found the role of a facilitator was essential and played a key role in successful implementation. Change agents need skills of facilitation, communication and empathy (Rogers, 1995). In the article from Balfour and Clarke (2001) it is suggested that change agents need skills such as personal awareness and assertiveness, and knowledge of change. Rycroft-Malone et al (2002) identified a wide repertoire of skills and attributes required by a facilitator of change. These included, flexibility, commitment, persistence, and intensity of presence, negotiation skills, project management skills, facilitation skills, persuasion, credibility, sincerity, good leaders, clear vision and ability to speak a common language (Rycroft-Malone et al, 2002).

The change agents used during the seven projects include, a CNS who was a paediatric nurse external to the nursery, and both action research projects were facilitated by two different CNCs who were part of the NICU staff. The CNS who was the change agent for Shared Care was a paediatric nurse who spent the

majority of her time working with the staff in the paediatric wards to improve the practice of Shared Care. All change agents were committed to their role as a change agent. The role of the CNC is broad and involves clinical practice development, education, research, and a clinical resource for nurses within the NICU and more widely through Hunter New England Area Health. The CNC maintains an up to date knowledge by her own continuing education and by attendance at conferences, keeping up to date with evidence and transferring that information, through networks within Hunter New England Area Health and more broadly with external organisations, for example research groups, university groups, professional groups. During the projects CNCs were persistent in discussing issues and communicating with the staff in the NICU using every opportunity to keep all staff informed.

The maintenance of a visible presence by the CNC in these projects (particularly the pilot projects and action research) was considered important to provide ongoing information and leadership for the nursing staff (Oates, 1997; Breckenridge Sproat, 2001). During the MBC project the CNC provided feedback at ward meetings, distributed a newsletter, discussed with staff in the tearoom and at any possible opportunity any concerns they may have; the CNC had additional opportunity to be available to staff as she was seconded from her position on a part-time basis to undertake the study.

The culture and social system of NICU

The social system has an important influence on the diffusion of a new practice (Rogers, 1995). The innovation process in organizations is more complex, than individual adoption (Rogers, 1995). Individuals generally adopt an innovation more rapidly than do organizations (Rogers, 1995). Rogers (1995) claims that the more staff involved in making an innovation decision, the slower the rate of adoption, indicating that the NICU with approximately a hundred nursing staff may be slow to adopt a change to FCC philosophy and practices. Although nursing managers may make a decision whether an organization adopts a

practice or not, implementation of that decision requires that individual adoption by bedside nurses is required for the innovation to be adopted. Strategies are required which facilitate the engagement and ownership of the change individual nurses

Another factor that influenced the rate and success of adoption is the culture and context of the NICU. The context of the nursery can be described as the physical environment in which practice takes place with the boundaries and structures that shape the environment (McCormack, Kitson, Harvey, Rycroft-Malone, Tichen, & Seers, 2002). Contextual factors within the nursery can encourage and support, or discourage and resist the actual spread of the change in practice (Berwick, 2003; Iles & Sutherland, 2001). Contextual issues are often ignored when change is implemented (Pryjmachuk, 1996). To diffuse rapidly an innovation must be compatible with the values, beliefs, past history and current needs of the staff (Berwick, 2002). If an innovation is incompatible with the cultural values of the nursery it can block its adoption (Rogers, 1995). Therefore, an understanding of the values and beliefs of the unit is an essential prerequisite when introducing and sustaining change (Rycroft -Malone et al, 2000).

Manley (2000b) suggests the clarification of unit values can guide practice, future direction and the development of a common vision within the unit. The most recent evaluation of FCC suggests that FFC philosophy and practices are congruent with the perceived values of the unit. It is not clear whether nurses were accepting of shared care in the earlier projects, as this was not evaluated. Initial confirmation of unit values and beliefs and any conflicts that existed may have assisted in the speedier adoption of the changes in practice. Although the staff now generally accept FCC, it can sometimes conflict with other nursing values of being organized, in control and expert.

Behaviour and role expectations are ingrained in health care professionals such as nurses and can affect how new ideas and practices are adopted into practice

(Cain & Mittman, 2002). Lorenzi and Riley (2000) suggest resistance to change is an ongoing issue. The extent to which the nurses are resistant, indifferent or likely to support a change is affected by how they perceive the change as affecting them (Iles & Sutherland, 2001). In the analysis of the interview and focus group data some of the neonatal nurses indicated a number of reasons for resisting change. These included:

- Loss of control;
- Risk management, safety and responsibility issues;
- Uncertainty regarding boundary issues with parents; and
- The need to move out of their comfort zone with the fear of change.

Prior to implementing a change in practice the barriers or obstacles to change need to be identified (Grol, 1997). In both action research projects undertaken in the NICU identification of barriers to change were identified and were integral to the development of the strategies used to implement change. The earlier projects did not identify these issues and this may have impacted on the low acceptance of Shared Care in the nursery.

Changing culture and practice

A recent study using a reflective practice intervention changed paediatric critical nurse's attitudes about families, enhanced their communication skills and their ability to build trusting relationships with families, and brought about an understanding of the uniqueness of family stress (Peden- McAlpine, Tomlinson, Forneris, Genck, & Meiers, 2005). The study used three educational strategies narrative, role modelling, and reflective practice to provide information on family care to nurses (Peden-McAlpine et al, 2005). Reflection stimulated the nurses to become more sensitive to unique family system needs, and this resulted in changing attitudes about the family and its importance in caring for the child (Peden-McAlpine et al, 2005). Paget (2001) in a retrospective study of students and former students who had participated in an assessed reflective practice course identified that reflective practice was highly regarded, and most

participants could identify significant, long-term changes to clinical practice. Education in the nursery mainly takes the form of didactic in-service, the use of more experiential methods, such as reflection and discussion may achieve the common understandings and the behaviour change required for cultural change. Currently, formal opportunities for discussion and reflection at ward level are not common. The provision of opportunities for reflective practice in the NICU can increase understanding of families and their needs, and could assist in the improvement of FCC philosophy and practices in the unit.

An alternative to reflective practice could be clinical supervision that is a system of action learning that combines support and challenge with the aim of improving care (Cole, 2002). Commenting about their experiences of group clinical supervision the nurses suggested that the group provides a safe and secure environment providing support, and participants are also encouraged to confront and challenge their practice with a view to changing and improving it (Cole, 2002). The provision of clinical supervision would require trained facilitators, time and funding. Manley (2000b) identified the importance of highlighting contradictions between the espoused values and practice by using approaches such as action learning, clinical supervision, and learning organizations to enable the espoused culture to become the culture in practice.

Resources for change

Change often requires additional resources in terms of staffing, infrastructure or materials. Any resources were purchased from the normal operating budget of NICU. There was an attempt to modify the environment during the action research project in 1998-2000 by redesigning the breastfeeding area for mothers, and purchase of recliner chairs in both action research projects. The purchase of the two recliner chairs in 2002 was the result of a fundraising event organized by the nursing staff. Funding from University of Technology, Sydney during the MBC pilot project enabled the employment of two part-time research assistants to work on the project. Both nurses were seconded from their positions in the

nursery to participate in the study. The environment and space remain an issue in the nursery. Additional space and facilities for parents and families would significantly improve the participation of parents in the care of their infant. Although resources are often provided for trials and pilots or the initial adoption of projects resources for the ongoing maintenance and evaluation of projects are rarely available. For example, the initial pilot project for shared care in a paediatric ward provided for education sessions for eight weeks. Fewer education sessions were provided for the transfer of FCC to the rest of the hospital including the NICU resulting in initial failure of dissemination.

Maintenance Strategies

Maintenance is probably one of the most difficult stages of change to achieve (McCluskey & Cusick, 2002). It is easy for clinicians to slip back into old behaviors if there are no ongoing incentives to maintain and support new behaviors (McCluskey & Cusick, 2002). This appears to have occurred following each project, when each of the changes were not fully integrated into practice. As has been discussed earlier, strategies such as clinical supervision, action learning or reflective practice groups provide an opportunity to continue practice development and can increase understanding of families and their needs, and could assist in the improvement of FCC philosophy and practices in the unit. These would seem to be necessary strategies to maintain any changes in practice. The commencement of one of these activities should assist in the maintenance of current practice.

It will be necessary to maintain regular audit and feedback of the Partnership in Care form. Audit and feedback may assist in maintaining current practice and preventing the slip back that has occurred previously.

Education of all new staff in the philosophy of FCC and practices is necessary to assist in maintenance of FCC practices within the unit. New staff should be provided with mentors who have the necessary knowledge and skills to assist the

new staff member develop the skills to assist parents and families while their infant is in the nursery.

LIMITATIONS OF THE STUDY

This case study describes the experience of the NICU as it has developed FCC philosophy and practice over a period of ten years. The case study is a study of a particular NICU with its particular individuals and environment and does not claim to cover any broader population. In addition, other internal and external influences such as funding, workforce issues, and parental attitudes are beyond the scope of the research.

A common concern for case studies is that they provide little basis for scientific generalisation (Yin, 2003a). Yin (2003a) suggests that the case study is generalisable to theoretical propositions, and not to populations or universes. Whilst the findings may not be generalisable to other NICUs its findings are consistent with theories of change and other research in this area. It provides some idea of the effort required to change practice and identifies the need for ongoing and continuing evaluation and ongoing strategies for improvement.

Rogers (1995) suggests a case study approach, as an in-depth study is an appropriate method to study the diffusion of an innovation. Rogers (1995) goes on to suggest that the case history may yield idiosyncratic, descriptive data from which generalisation to other innovations and to other social systems is difficult. This is complicated by the fact that the diffusion of the innovation has usually generally occurred over an extended period of time (Rogers, 1995).

Case study research has been considered to have a lack of rigor as research (Yin, 2003a, p. 10). The researcher needs to ensure that all data is reported fairly to eliminate bias (Yin, 2003a). The case study uses documents from the past. Earlier projects have less documentation than later ones and interpretations

made from these documents are therefore less reliable. The study also uses the recall of staff of past events which may or may not be accurate. However the analysis is strengthened by the use of multiple sources of data to gain an understanding of the issues.

As both researcher and participant in the research I hold a unique position. While being a participant provided me with unique insights it also increases biases in interpretation. I have attempted to minimize this bias by cross checking analyses and interpretations with other staff members of the NICU through the interviews and focus groups.

IMPLICATIONS OF THE RESEARCH ON CLINICAL PRACTICE IN THE NICU

The implications of the research for the clinical practice in the NICU are an understanding of the importance of maintenance strategies to ensure practice remains at the same level and does not slip back. It is essential, if progress is to continue, that the nursery provide the opportunity for staff to attend either clinical supervision or reflective practice groups. A group of nursing staff from JHCH have recently completed clinical supervision training and have began a process to organize voluntary clinical supervision for those staff who wish to participate. In-service sessions are currently being presented in the NICU to engage the interest of nursing staff in participating in the small group clinical supervision.

It is apparent from the study that there is still considerable work to be undertaken to ensure that a FCC philosophy and practices are integrated into the clinical practice of all nursing staff within the unit. It may be appropriate to establish an ongoing working party with interested nursing staff to continue the development of FCC philosophy and practices and develop strategies to overcome the barriers. This group could also review the policies related to FCC and develop practice guidelines that allow some scope for staff to use their clinical judgment when incorporating parent's participation in their infant's care.

An additional strategy that may assist neonatal nurses in working with families would be to undertake the Family Partnership training (FPT) that is available in Hunter New England Area Health and through-out NSW for health professionals working with families. The programme is designed to assist health professionals develop the skills required to work with families. The programme was developed to meet parents' dissatisfaction with health professionals' communication skills and whose focus was mainly on the child's health care, without considering the parents and family. Davis, Day and Bidmead (2002) developed the Parent Advisor model in the United Kingdom, in NSW known as Family Partnership training (FPT). Initially FPT was mainly available to Child and Family Health Nurses, however, the programme is now available more broadly, including health care professionals in acute care settings. The programme is for small groups of 12 health care professionals who work together and involves many role-playing activities. I have completed the programme, found it very helpful, as it provided a framework for working with parents and building on their strengths. I will encourage nurses from the NICU to attend the programme when it is available in JHCH.

The integration of developmental care and FCC philosophy and practices could improve the experience of parents in the NICU. Nurses and parents need to be able to recognize the infant's cues and signals. Opportunities for parents to develop skills in recognizing their infant's cues and signals should be commenced. FCC practices are an essential part of the developmental care philosophy of individualized care. The literature suggests that this integration is not well recognised.

Additionally, ongoing in-service sessions need to continue covering topics such as Kangaroo Care, FCC philosophy and practices, and communication skills. Education sessions were found to be helpful by nurses who participated in the interviews. Alternate means of delivering education also need to be investigated as a large proportion of the nursing staff are now part-time and may not be able

to attend in-service that is generally held two afternoons a week. The presentation of in-service at other times, such as at night or in the morning needs to be considered.

CONCLUSION

This case study described the experience of the nursing staff in the NICU at JHCH as they developed FCC philosophy and practices and encourage parents and families involvement with their infant. The study has identified that there has been a change in the practice of the neonatal nurses in the nursery. However the progress has been slow and there are some nurses remaining who practice from an infant centered expert perspective.

Change is an on-going process in health care today. Achieving sustainable change in nursing practice is a complex process. Nurses need to have an understanding of the phenomenon of change, to be able to engage in the process of change, to ensure that our patients receive the best care available.

The diffusion of innovation provided an appropriate framework to think about a change in nursing practice over time. It provides a structured approach to describe change in practice with emphasis on communication networks. The roles of opinion leaders and change agents are integral to the diffusion process.

APPENDIX 1.

QUESTIONS FOR INTERVIEWS

Question 1
Demographic questions (to help feel comfortable before more in-depth questions): Nursing qualifications, including any postgraduate education;

Their length of experience and expertise in neonatal nursing;
Experience in other neonatal nurseries; and,
Length of time employed in the NICU John Hunter Children's Hospital.

Question 2
Describe the main components of your role as a neonatal nurse.

Question 3
I would like you to think back to the changes that have occurred in the last ten years related to parent's involvement with their baby and the care of their baby in the nursery. Can you recall any efforts over the past 10 years that have been used to encourage nurses to facilitate the involvement of parents in the care of their infant? (For example policies, in-service, specific projects or activities)

Question 4
Did they make a difference?
What is that difference?
Did the changes last?

Question 5
What do you think is the main aim of family centred care and what do you believe are the most important things we do in the nursery to achieve this?

Question 6

How does the way your work is organised and the physical environment in the NICU influence FCC?
Probe – Can you give me a positive example?

Can you give me a negative example?

Question 7
What do you do to build a relationship with parents / family?
When is this easy or difficult to do?

Question 8
How do you assist the parents to gain the skills and information they need to enable them to care for their baby?
What are the challenges in facilitating information / education for parents?

Question 9

When planning / discussing with parents their involvement in their infants care, what are the issues you consider?

Probe – How do you decide when and what level the parent's involvement in care should/ can be and how much control the parents should have in deciding their level of involvement? eg whether the mother can pick her baby up for a cuddle.

Question 10
Can you describe an example when this decision may have been difficult?
And there may have been conflict with parents or other staff about the level of parental involvement?

Question 11
Some things have come up in my review of the literature and I would like you to give me your understanding of if these factors influence decision making about parenting involvement, and how these might influence decision making (note only go through the things that haven't been commented on in the previous discussion).

The boundaries about what is acceptable or not acceptable for parents to do in the nursery and how much control they have is changing and not clear – is this a factor and how does it influence your decision making in this area?

There are legal issues related to responsibility for care of the infant vs broader family issues

Experience and Confidence in clinical skills and knowledge to assess that the infant will not be harmed by increased handling/ kangaroo care etc

Uncertainty about how other staff will react to a clinical decision

Question 12
What do you think have been the biggest challenges and benefits in developing FCC in the nursery?

Question 13
Given the challenges- what would we need to do to improve and maintain FCC as routine and accepted practice in the nursery in the future?

APPENDIX 2.

Neonatal nurses experience and perceptions of change in the NICU related to family centered care (FCC)

The past decade has seen the NICU make considerable change towards the development of a Family Centered Care (FCC) philosophy of care with a commitment to involving families in the care of their infants in the nursery. Over this time a number of projects have taken place to facilitate this progress. As part of my Masters studies at the University of Technology, Sydney I will be conducting a study to describe and understand how nursery care has changed over the past ten years with the increasing emphasis on family centered care.

All nursing staff who have worked in the Neonatal Intensive Care Unit (NICU) during this period are invited to participate. It does not matter if you have been here for one year or twenty years, I am interested in all your views and experiences.

I am asking those who would like to help with the research to participate in either an interview or a group discussion.

For further information please contact Denise Kinross
Ext 13597 or on Page 5966 or email
denise.kinross@hunter.health.nsw.gov.au

APPENDIX 3

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UNIVERSITY OF TECHNOLOGY SYDNEY

Neonatal nurses experience and perceptions of change related to family centered care (FCC)

Information for Nursing Staff

December 2004

You are invited to take part in the research project 'Neonatal nurses experience and perceptions of change related to family centered care (FCC). Denise Kinross is conducting the research as part of her Masters study under the supervision of Dr Virginia Schmied University of Technology, Sydney, and Dr Margaret Cooke .

Purpose of the study

The research aims to describe and understand how nursery care has changed over the past ten years with the increasing emphasis on family centred care. The past ten years has seen the nursery progress in the development of a Family Centered Care (FCC) philosophy with a commitment to involving families in the care of their infants. We are particularly interested to examine how effective the projects that have introduced Family Centered Care (FCC) into the Neonatal Intensive Care Unit (NICU) have been.

Who can participate?

Any member of the NICU nursing staff is invited to participate. We woulld like to have nursing staff with varying levels of experience, time in the nursery and differing roles participating in the study, In addition, some key nursing staff who have participated in the projects to introduce FCC into the nursery will be invited to participate in the interviews.

Participation in the research is entirely your choice. Only those nursing staff who give their informed consent will be included in the project. Your decision, whether or not to participate in the study, will not affect your working relationship within the nursery. If you do decide to participate you may withdraw from the project at any time without giving a reason.

What do I have to do?

Nursing staff will be invited to participate in either a tape-recorded informal interview or a focus group.

Interviews Fifteen nursing staff will be asked to participate in interviews The interviews will be approximately 30 to 60 minutes in length and will be informal. They will be held at a location and time which suits you, this can be either within the hospital or at any other

location such as your home which is acceptable to you.. We will use an open-ended format with key questions being asked to guide and stimulate reflection and description. The questions will focus on your experience and perceptions of the change to a family centered focus in care within the NICU.

Focus groups A further fifteen to twenty nurses will be invited to participate in focus groups. These 'group' discussions will be approximately 45 to 60 minutes in length. To assist in maintaining the confidentiality of your participation in the focus groups they will be held in a venue within the hospital away from the NICU. The questions will be open-ended, and may be followed-up to gain further information. The discussions will be focused around your experiences of change and your role in the development of a FCC philosophy of care in the NICU.

How will my privacy be protected?
Any information that is obtained in connection with this study and that can identify you will remain confidential. With your permission, interviews and discussion groups will be tape recorded and transcribed. All identifying material will be removed. Data will be coded so no individual can be identified. Data will be stored in a secure location for a period of five years with access restricted to the investigators. No names of participants will appear in any of the analysis that is reported. Consent forms will be kept separately so data cannot be identified. Tapes will be cleared and documents shredded before disposal. You may request to listen to the tapes or have a copy of the transcript. During the interview you have the right to rewind, stop or erase any part of the interview.

If you have any questions please do not hesitate to ring Denise Kinross John Hunter Children's Hospital (02) 4921 3597 or Virginia Schmied (02) 9514 2977 at UTS.

Thank you for considering this invitation.

Adjunct Professor Virigina Schmied
Centre for Midwifery and Family Health
Faculty of Nursing, Midwifery and Health

Denise Kinross
CNC Newborn Services
John Hunter Childrens Hospital

Complaints
This research has been approved by the Hunter Area Research Ethics Committee, Reference No: 04/10/13/3.23.

Should you have concerns about your rights as a participant in this research, or you have a complaint about the manner in which the research is conducted, it may be given to the researcher, or, if an independent person is preferred, to Dr Nicole Gerrand the Professional Officer, Hunter Area Research Ethics Committee, Hunter Health, Locked Bag No. 1, New Lambton, 2305, telephone (02) 4921 4950, email Nicole.Gerrand@hunter.health.nsw.gov.au.

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UNIVERSITY OF TECHNOLOGY SYDNEY

Neonatal nurses experience and perceptions of change related to family centered care (FCC)

Research Supervisor : Dr Virginia Schmied
Student Researcher: Denise Kinross
Co- supervisor: Dr Margaret Cooke

CONSENT FORM

I agree to participate in the study entitled '*Neonatal nurses experience and perceptions of change related to family centered care (FCC)*' and give my consent freely. I understand the study will be carried out as described in the information statement a copy of which I retain. I realise that whether or not I decide to participate my decision will not affect present or future employment or my relationship within the Hunter Area Health Service. I also realise that I can withdraw from the study at any time and do not have to give any reason for withdrawing. I have had all my questions answered to my satisfaction.

Print Name

Signature: Date:

Print Name

Witness: Date:

APPENDIX 4

Focus group questions

1. Demographic questions (to help feel comfortable before more in-depth questions): Nursing qualifications, including any postgraduate education;

   Their length of experience and expertise in neonatal nursing;
   Experience in other neonatal nurseries; and,
   Length of time employed in the NICU John Hunter Children's Hospital.

2. What do you think are the important things you do in your role?

3. What do you think is the main aim of family centred care and what do you believe are the most important things we do in the nursery to achieve this?

4. I would like you to think back to the changes that have occurred in the nursery related to parents' involvement with the care of their baby in the nursery. When did they start to happen? Can you recall any specific projects that have been developed to facilitate the involvement of parents in the care of their baby?

5. What do you do to build a relationship with parents / family?
   When is this easy or difficult to do?

6. Some things have come up in the research and I would like you to tell me if these factors influence decision making about parent involvement, and how these might influence your decision making (note only discuss the things that haven't been commented on in the previous discussion)

   - The boundaries about what are acceptable or not acceptable for parents to do in the nursery. How much control they have is changing and is not clear – is this a factor and how does it influence your decision making in this area?

   - A number of staff have told me that a nurse's knowledge and experience has an impact on how they involve parents in the care of their baby. Do you think your knowledge and experience has an impact on how and when you involve parents in the care of their baby? How does that impact on how you involve parents?

   - Do you think confidence also plays a role in your clinical decision-making?
     Is uncertainty about how other staff will react to a clinical decision an issue?

7. When planning / discussing with parents their involvement in their infants care, what are the things (issues) you consider?
Probe – How do you decide when and what level the parents involvement in care should/ can be and how much control the parents should have in deciding their level of involvement? eg whether the mother can pick her baby up for a cuddle.

Can you describe an example when this decision may have been uncertainty in this decision?
And there may have been conflict with parents or other staff about the level of parental involvement?

8. What do you think have been the biggest challenges and benefits in developing FCC in the nursery?

9. Given the challenges- what would we need to do to improve and maintain FCC as routine and accepted practice in the nursery in the future?

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