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**"Saving Lives and Changing Dirty Nappies"**

**Illuminating Nursing in the Neonatal Nurse Practitioner Role**

**The New Zealand Experience**

A thesis presented in partial  
fulfilment of the requirements  
for the degree  
of Master of Arts  
in Nursing at  
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**Abstract:**

In New Zealand Neonatal Nurse Practitioners (NNPs) have been practicing in an advanced nursing role since 1994. The nature of expert nursing makes it difficult for NNPs to articulate the nursing component of the NNP role. It is essential that the expert nursing component of the NNP role be documented to maintain the role within the culture of nursing.

**Aim:** The aim of this thesis was to explore and describe how expert nursing is incorporated in the NNP role, in the New Zealand context.

**Method:** An explorative design, using multiple data collection methods, was used. These methods included questionnaires, interviews, journal-keeping (journalling), and analysis of written data. All NNPs in current practice were sent questionnaires (n=18) and a purposive sample of 5 NNPs agreed to be interviewed and keep journals. Standing orders, job descriptions and other written data from each of the three neonatal services that employ NNPs was compared and analysed.

**Results:** Fifteen NNPs (83.3%) responded to the questionnaires. Results showed that NNPs tend toward a nursing identity, but see themselves as sitting between nursing and medicine. Professional issues were important to the NNPs. There was some ambivalence toward the NNPs leadership role in the questionnaire results, but interview and journal data showed the NNPs performing a multifaceted leadership role. Neonatal Nurse Practitioners are committed to post-graduate education, with a tendency toward preferring that to be in a nursing school with access to medical resources. The qualitative data revealed six themes derived from practice. They were 'a consciousness of baby', 'orientation to family', 'uniqueness of NNP care', 'leadership', 'culture of nursing' and 'NNP experience of advanced practice'. Expert nursing was embedded in the clinical themes and implicated in the professional themes of NNP practice.

**Conclusions:** Expert nursing is inherent in the practice of the NNP role in New Zealand. Neonatal Nurse Practitioners practice in a unique role in the care of sick babies, incorporating medical skills with nursing philosophy and expertise. Education needs to address some of the issues of nursing in this advanced practice role. There is a need for institutional support for the NNP role. The NNP group needs to develop as a support and educational network.

## Contents

<b>Chapter 1: Introduction .....</b>	<b>1</b>
1.1 Nursing.....	2
1.2 Culture.....	4
1.3 Introduction to the Neonatal Nurse Practitioner role in New Zealand.....	5
1.4 Expert Nursing.....	6
1.5 My Interest In the NNP role .....	6
1.6 Summary of Chapters .....	7
1.7 Summary .....	9
<b>Chapter 2: A Background to current debate over the question 'what is an advanced nurse practitioner' .....</b>	<b>11</b>
2.1 Issues in Historical Development of Nursing.....	11
2.2 Definitions.....	20
2.3 Advanced Nursing Practice Debates within Nursing .....	22
2.3.1 The New Zealand Context .....	22
2.3.2 The North American and British experience.....	27
2.4 The Neonatal Nurse Practitioner .....	31
2.6 Conclusion and Question.....	38
<b>Chapter 3: Research Literature .....</b>	<b>40</b>
3.1 The pivotal works .....	41
3.2 The Canadian Group .....	42
3.3 The Massachusetts Group.....	48
3.4 Comparative studies between NNP care and resident medical staff care in the United States of America.....	55
3.5 Studies of the NNP role issues relating to NNP care from the United States of America.....	60
3.6 Research relating to the NNP role in the United Kingdom .....	65
3.7 Conclusion .....	67
<b>Chapter 4: Theoretical framework.....</b>	<b>68</b>
<b>Chapter 5: Design and Methods.....</b>	<b>74</b>
5.1 Quantitative Method: Questionnaires .....	78
5.2 Qualitative Method: Interview, journal and supporting documentation .....	80
5.3 Ethical Considerations.....	87
5.4 Summary .....	89

<b>Chapter 6: Quantitative Results and Supporting Documents</b> .....	<b>90</b>
6.1 Questionnaires .....	90
6.1.1 Demographic data .....	91
6.1.2 Questions: Nursing Identity .....	92
6.1.3 Questions: Professional issues .....	97
6.1.4 Questions: Leadership and research .....	100
6.1.5 Questions: NNP education .....	102
6.2 Written data: Job descriptions and standing orders .....	107
6.2.1 Job Descriptions .....	108
6.2.2 Standing orders .....	110
6.3 Summary .....	112
<b>Chapter 7: Qualitative results</b> .....	<b>113</b>
7.1 Interview data .....	113
7.2 Themes from practice .....	113
7.2.1 Theme 1: Consciousness of baby .....	114
7.2.2 Theme 2: Orientation to family .....	124
7.2.3 Theme 3: Uniqueness of NNP care .....	127
7.2.4 Theme 4: Leadership .....	139
7.3 Professional themes .....	144
7.3.1 Theme 5: Culture of Nursing .....	144
7.3.2 Theme 6: NNP experience of advanced clinical practice .....	149
7.4 Journal data .....	159
7.4.1 Consciousness of baby .....	159
7.4.2 Theme 2: Orientation to family .....	162
7.4.3 Theme 3: Uniqueness of NNP care .....	163
7.4.4 Theme 4: Leadership role .....	166
7.4.5 Theme 5: Culture of Nursing .....	168
7.4.6 Theme 6: The NNP experience of advanced clinical practice .....	168
7.5 The future of the role .....	172
<b>Chapter 8: Discussion</b> .....	<b>173</b>
8.1 Method .....	173
8.2 Questionnaires .....	176
8.2.1 Nursing Identity .....	177
8.2.2 Professional Issues .....	179
8.2.3 Leadership and research .....	180
8.2.4 NNP Education .....	181
8.3 Putting it together: Combining questionnaires, written data, interviews and journals .....	182

8.4	Practice themes.....	183
8.4.1	Consciousness of baby.....	183
8.4.2	Orientation to family.....	188
8.4.3	Uniqueness of NNP care.....	189
8.4.4	Leadership.....	192
8.5	Professional themes.....	193
8.5.1	Culture of nursing.....	193
8.5.2	NNPs experience of advanced clinical practice.....	197
8.6	Development of the model of how NNP practice fits into nursing culture.....	199
8.7	Summary.....	201
<b>Chapter 9: Conclusion.....</b>		<b>203</b>
9.1	The NNP role as an advanced nursing role.....	203
9.2	Neonatal nurse practitioners as expert nurses.....	204
9.3	Implications for the future.....	205
9.4	Summary.....	208
<b>Glossary.....</b>		<b>210</b>
<b>References.....</b>		<b>213</b>
<b>Appendices.....</b>		<b>222</b>
Appendix A: Questionnaire.....		222
Appendix B: Interview outline.....		225
Appendix C: Qualitative codes, concepts and themes.....		227
Appendix D: Consent form.....		231
Appendix E: Information Sheet for Questionnaire.....		232
Appendix F: Information Sheet for Interviews and Journalling.....		234

## Table of Figures

Figure 2.1: Model of Professionalisation (Based on Bernhard and Walsh, 1995, Occupation-Profession continuum Model applied to nursing).....	16
Figure 4.1: Jones Model of the NNP role changing the cultural of neonatal nursing .....	71
Figure 6.1: Importance of nursing background .....	93
Figure 6.2: Importance of primarily identifying with nursing.....	93
Figure 6.3: Importance of primarily identifying with medicine .....	94
Figure 6.4: Importance of performing nursing activities in the NNP role .....	94
Figure 6.5: Importance of performing medical activities in the NNP role.....	95
Figure 6.6: Importance of identifying the NNP role as an advanced practice nursing role. ....	96
Figure 6.7: Role function: medical or nursing.....	96
Figure 6.8: Importance of the title 'neonatal nurse practitioner' .....	97
Figure 6.9: Importance of NNPs having responsibility to nursing management.....	98
Figure 6.10: Importance of NNPs having responsibility to medical management.....	98
Figure 6.11: Importance of NNPs belonging to a professional body of nursing .....	99
Figure 6.12: Importance to respondent of belonging to a professional body of nursing.....	100
Figure 6.13: Importance of NNP acting in consultative role for bedside nurses .....	101
Figure 6.14: Importance of NNP role in helping the bedside nurse develop her or his nursing skills.....	101

Figure 6.15: Importance of undertaking nursing research.....	102
Figure 6.16: Importance of neonatal course to the performance of the NNP role.....	103
Figure 6.17: Importance of advanced nursing education in the NNP role .....	103
Figure 6.18: Importance of NNP education being at post-graduate level .....	104
Figure 6.19: Importance of NNP education being in a nursing school	104
Figure 6.20: Importance of NNP education being in a medical school	105
Figure 6.21: Importance to respondent of education being at a university .....	106
Figure 6.22: NNPs holding or studying toward a postgraduate degree .....	106
Figure 8.1: Developed Jones model of NNP role and the culture of neonatal nursing .....	200

## Chapter 1: Introduction

An overview of this thesis is contained in this chapter. A brief history of the development of the nurse practitioner (NP) is given. Definitions of nursing, culture and nursing as culture, and expert nursing are outlined. An introduction to the history of the neonatal nurse practitioner (NNP) role, in New Zealand, and my interest in the NNP role is given. A brief summary of the contents of the chapters housed within this thesis is given. Finally the topic of this thesis is introduced.

Nurse practitioners (NP) were initially developed in primary health care areas to provide services to people who may otherwise not have received adequate care. Nurse practitioners have practised, in some countries, in these primary care settings for approximately the past three decades. The historical routes of nurse practitioners predate the move from community to hospital based care according to Roberts (1983). Nurses carried out pre hospital care in family homes with medical personnel more acting in a consultancy role. These nurses practiced in roles similar to what is now considered an advanced nurse practitioner role.

The development of the nurse practitioner role in primary health care over the past three decades came about because of insufficient physicians in the primary health care service and nurse practitioners were seen as a cost-effective alternative (Brown & Grimes, 1995). This appears to have been particularly so in poorer areas of society. Since the 1970's in the United States and Canada nurse practitioners have also practiced in some

acute roles, such as the neonatal nurse practitioner (NNP) role.

## 1.1 Nursing

Nursing has a meaning shared by nurses that goes beyond dictionary definitions and public understanding. Nurses are socialised into nursing and develop a unique language; nurses can talk and laugh about human suffering and illness in a way that is not understood by those outside the culture. There are rituals, traditions and artefacts that are identified as being uniquely nursing, despite not being used in the present setting; examples of such artefacts are the nurses' uniforms and caps. Traditions include the nursing report and rituals such as the "putting on of the uniform" (Suominen, Kovasin & Ketola, 1997, p187). Rituals surrounding death, for example, working in pairs, and the bathing and wrapping of a body, are common examples of nursing culture (DeLuca, 1995; Suominen, Kovasin & Ketola, 1997). These examples have a specific meaning to those inside the profession that those outside would not or could not comprehend or understand.

The Penguin English dictionary (1985-86) defines nursing as:

*nurse...1. a woman employed to take care of a young child 2. skilled or trained in caring for the sick or infirm, esp under supervision of a physician,( p561).*

Most nurses in the current nursing culture would cringe at such a definition. This example exemplifies why and how nursing has become a political struggle. There are gender and historical issues that are important in this struggle. A more acceptable definition may be found in Microsoft (R) Encarta(R), (1996). This definition of nursing includes:

*the process of caring for, or nurturing, another individual. More specifically nursing refers to the functions and duties carried out by persons who have had formal education and training in the art and science of nursing*

While this definition is more palatable it is still not a complete definition of nursing and not without flaws. 'Nursing' has a distinct definition within the culture of nurses that is poorly understood and cannot be easily defined by those outside the profession.

Nursing has values that relate to a concept of care or caring (Chipman, 1991; Hein & Nicholson, 1994; Holland, 1993; Kozier, Erb & Blais, 1992; Watson, 1988). The concepts of *Caring* and *Nursing* are so closely related that nursing is often considered the caring profession (Chipman, 1991). A holistic approach to patient *care* is considered of some importance (Griffin, 1993). Context is valued as being of importance. Such value can be seen by the emphasis on ethics of caring (Hodge, 1993) and research methods that promote understanding of personal situations and care provided in the context of the family. Nursing is considered to be humanistic (Chipman, 1991; Kozier et al, 1992). Nursing has an oral tradition, whilst some information is written in the form of nursing notes, most information required to *care* for a patient or family is passed on during the tradition of the 'nursing hand over' (Walker, 1995).

Many of the traditional values of nursing are similar to cultural codes of gender offered by Davies (1995). These include concepts of responsibility to others, self-sacrifice, the importance of experience, knowledge and skill with a practical use, reflective practice, and accommodation to name a few. In a similar way that Davies (1995) considers a culture of gender, it is appropriate that nursing be considered as a culture.

## 1.2 Culture

Historically the discipline specialising in cultural understanding is anthropology. Keesing (1981, p.68) gives a definition of an 'ideational system' of culture. Cultures in the sense of an ideational system comprise shared ideas, systems of concepts and rules and meanings that underlie and are expressed in the ways that humans live (Keesing, 1981). Another definition of culture, in anthropology, includes the concept that culture has a political component. Cultures struggle to have the culture recognised as valid (Ridler, 1993). Culture is not a stagnant concept. Cultures continue to evolve and change as the environment around them changes. This is especially relevant to nursing. Thus a major question to consider is 'how does nursing fit into a definition of culture?'

There are a number of formal definitions of culture. Dictionary and encyclopaedia definitions of culture include concepts of something socially transmitted, which includes behaviour patterns, beliefs, institutions, language, artefacts, customs, traditions and ceremonies. Some define it as a way of life (Microsoft(R) Encarta(R), 1996; The American Heritage Dictionary of the English Language, 1992; The Penguin English Dictionary, 1985-86).

If a combination of these definitions is used then there is a basis for considering nursing as a culture. Nursing has shared values, beliefs, traditions, language, customs and rituals that are socially transmitted (socialisation). Nursing is also a site of political struggle as nurses endeavour to professionalise nursing and have its voice heard. This is an attempt to have the culture of nursing validated as an autonomous, interdependent culture within the health care culture. Holland (1993)

suggests that nursing can be considered as a complete culture and sub-cultures include different specialist groups with unique characteristics. Any change in the culture of nursing has implications for health care. In this thesis, a fundamental premise is that nursing forms an independent culture.

### **1.3 Introduction to the Neonatal Nurse Practitioner role in New Zealand**

In New Zealand the Neonatal Nurse Practitioner (NNP) role was developed in 1992 with graduates of the initial programme commencing independent practice in the beginning of 1994 at Waikato hospital (Jones, 1999; Harris, 1999; Hawke, 1997). Neonatal nurse practitioners undertake a similar function to the paediatric registrar or house officer in each of the three neonatal services that employ NNPs at present. The NNPs undertake delegated medical tasks, as described in standing orders, as part of the NNP role, and work on a combined NNP and registrar or house officer roster. Neonatal nurse practitioners have replaced some of the registrars and house officers on these rosters. Some of the criticisms of the NNP role by nurses outside the role are that the NNPs are "lost to nursing", or that "NNPs are 'mini' doctors". The NNPs that have published articles on the NNP role in New Zealand all expound a belief that NNPs practice in a role that maintains a nursing focus (Jones, 1999; Harris, 1999; Hawke, 1997). Prior to this thesis no research has been published on the nursing component of the NNP role.

There is an expectation that prior to commencing the NNP course of study students have to be expert neonatal nurses (Hawke, 1997). If nursing were

not an important component of the NNP role then there would be no need to be a nurse, let alone an expert neonatal nurse, to be eligible to perform the tasks that the role involves. Obviously the role would then not be a neonatal nurse practitioner role, but would need a different title. Physician assistants (PA) is one such title. This is a role that is practiced in the United States alongside the NNP role. The use of NNPs alongside PA implies that there is a difference between the roles they perform. This difference must be the nursing component to the role. The nursing component is an expert nursing component as NNPs must be expert nurses to commence the educational program.

## **1.4 Expert Nursing**

Benner (1984) defines expert nursing:

*The expert performer no longer relies on an analytic principle (rule, guideline, maxim) to connect her or his understanding of the situation to an appropriate action.*  
(p.31)

Experience and an intuitive understanding of situations are seen as essential to expert nursing practice. Unfortunately because expert nurses practice without using an analytical principle it is difficult for expert nurses to articulate their expert practice.

## **1.5 My Interest In the NNP role**

As a practicing NNP, that has practiced in two neonatal services and observed in the third neonatal service (during my own NNP education), it became clear to me that NNPs perceived babies' and families' needs differently than their medical colleagues. Combined with the apparent

differences in the way that NNPs understand and interpret the problems and needs of babies and their families was a difference in the way that NNPs dealt with the role itself. My own belief, as previously published (Jones, 1999), is that the NNPs base their practice on nursing philosophy and within a culture of nursing. When talking with NNPs prior to the commencement of this thesis most NNPs identified that their nursing background was important in the performance of their role. Some found it difficult to articulate how 'nursing' was incorporated into the role.

I hypothesised that because the NNPs were expert nurses the practice of nursing was so embedded in their practice that they were unable to articulate nursing practice. The medical tasks that the NNPs perform are not embedded in their practice therefore it is easier for NNPs to 'see' that part of their role. It is important to the maintenance of the NNP role in the culture of nursing, as an advanced clinical nursing role, that the expert nursing component of the role be described and documented.

The implications of illuminating expert nursing may have relevance to the development of other advanced nursing roles in similar acute and intensive care settings. Appropriate education is important, some of the issues in practising from an expert nursing background in this type of role give information to the unique educational requirements of advanced practice nurses. Illuminating the place that expert nursing has within the NNP role situates it within the culture of nursing.

## **1.6 Summary of Chapters**

Chapter 2 outlines the current debate about advanced nursing practice. In this chapter the historical issues of gender, professionalisation and

socialisation are considered in relation to the development of advanced practice roles. Definitions of the differences between expanded and extended practice, and advanced and expert practice are given. The debates around advanced nursing practice are raised and finally issues in the development of the NNP role are outlined.

Chapter 3 examines the current research literature available on the NNP role. The two pivotal research articles that 'set the scene', in 1978, for the development of the NNP role are considered. Then more recent research literature is considered.

Chapter 4 gives the theoretical framework that the thesis is based on. The assumptions applied when researching the culture of nursing and my model of change relating to the NNP role are given.

Chapter 5 describes the explorative design of the research. Multiple data collection methods were used, these include the use of questionnaires, interview, journal keeping (journalling) and assessment of written documentation. The use of multiple data collection methods enabled validity to be established by triangulation of data.

Chapter 6 gives the quantitative and written results. Questionnaire results are presented as demographic data, nursing identity, professional issues, leadership and research, and education. The written data is given as the settings NNP practice in, job descriptions and standing orders.

Chapter 7 gives the qualitative data from interviews and journalling. Six themes were uncovered these are:

1. Consciousness of baby

2. Orientation to family
3. Uniqueness of NNP care
4. Leadership
5. Culture of nursing
6. NNP experience of advanced clinical practice

Chapter 8 discusses the results. This chapter combines the data and debates from previous chapters. It incorporates literature that has relevance to the themes. Clinical themes are given more weight in the discussion because the NNP role is primarily a clinical role. My model of the NNP role in the culture of nursing is further developed.

Chapter 9 outlines some of the implications of this research. The place of the NNP role as an advanced nursing role is reiterated. The position of NNPs as expert nurses is given. Implications for the future include: the development of the role, education and support. Consideration of candidates for the NNP role is also given.

## **1.7 Summary**

This chapter gave a definition of nursing, culture, and combined both to consider a culture of nursing. An introduction to the NNP role in New Zealand was given; this is developed in subsequent chapters. A definition of expert nursing, that places NNPs as expert nurses, is introduced. My interest in the NNP role and the topic of this thesis was outlined.

Now that the basic NNP role has been established it is timely to develop the NNP role and in particular to identify, articulate and document the expert nursing component of the NNP role.

## **Chapter 2: A Background to current debate over the question 'what is an advanced nurse practitioner'**

The Neonatal Nurse Practitioner can be viewed as an advanced nursing practitioner. This chapter outlines some of the issues that provoke debate about what is advanced nursing practice. Issues involved in the historical development of nursing include a debate on gender, professionalisation and socialisation. Definitions of *expanded* and *extended* nursing roles are given, as are the differences between *expert* and *advanced* nursing practice. Following this is the debate around advanced nursing practice within New Zealand, and from the North American and British perspective. Finally the development of the neonatal nurse practitioner (NNP) role is examined from North American, British, Australian and New Zealand experiences.

### **2.1 Issues in Historical Development of Nursing**

To be able to understand some of the issues surrounding the development of advanced nursing practice roles it is important to consider the historical development of nursing. This is particularly relevant when examining those roles that incorporate elements of another profession, such as the role of the neonatal nurse practitioner with medicine. Many of the debates within nursing relating to advanced practice, are a consequence of the history of nursing.

Nursing is discussed and considered within a cultural framework, which

includes the influence of gender.

### Gender

Nursing is predominantly a female profession therefore it is pertinent to discuss how gender has affected the development of nursing as a culture. This is in contrast to the medical profession. Until the 1970's only approximately ten to fifteen percent of medical school entrants in New Zealand were women (Van Rooyen, 1978). Since this time the percentage of women in medicine has increased, however men continue to dominate senior medical positions, thus maintaining masculine attributes in the profession. Many of the values in nursing are found in feminine attributes, for example, those of conciliation, communication, responsibility to others and selflessness (Bush & Kjervik, 1979; Davis, 1995). These attributes are often considered to be inferior to masculine attributes such as a need to be 'right', responsibility to self, high self-esteem, decisiveness and assertiveness (Davis, 1995). From these concepts it becomes more obvious why nursing has fallen to a subordinate position to medicine. For example, if the feminine attribute of conciliation is pitted against the masculine attribute of 'the need to be right' the feminine attribute will always lose because it will work toward accommodating differences until the masculine attribute of needing to be right is met. Bush and Kjervik (1979) use the words women and nursing almost synonymously in relation to how each is valued in a male dominated society.

It has been suggested that the control over nursing began with the institutionalisation of the care of the sick (Roberts, 1983). Roberts (1983) suggests that up until the late 1800's to early 1900's nursing was

autonomous as it was generally carried out in the community or in patients' homes. Institutions and physicians benefited from the control over nursing practice and education by ensuring there was little questioning of medical care and nurses would carry out the care they ordered. Medicine became the dominant force in healthcare from this time. The medical professionals' domination of healthcare has been cemented in legislation (Street, 1992). At the turn of the century physicians made the hiring decisions and taught the nursing courses. In Deluca's (1995) opinion they selected or influenced the administrators to select women who had the virtues that would support the physician as superior. A number of nursing authors (Bush & Kjervik, 1979; Leddy & Pepper, 1989; Roberts, 1983) viewed nursing as an oppressed cultural group. Some of the characteristics of oppressed groups need consideration when considering how nursing develops especially in relation to expanding nursing roles which have elements that have previously been the domain of the dominant culture of medicine.

It needs to be acknowledged that gender or feminine values do not necessarily equate with female sex. Feminine or masculine 'codes of gender' (Davies, 1995,p27) may be present in either sex. This raises the issue of men in nursing and women in medicine. Men often suffer a great deal of stereotyping. This can include the assumption that they must be effeminate because they are in a feminine profession. Other stereotypes include the expectation that they will be leaders (Brooten, Hayman & Naylor, 1988). There is a perception that men 'get to the top' faster than women. There is also an assumption that men are more confident than women. Because men are more transparent in nursing they can be the recipients of resentment. If they aspire to advanced practice or

management roles there is the impression that *they* only got there because they are men. Thus nurses can be guilty of the same oppression that women in male dominated professions have been subjected to. These gender issues have implications for men in nursing who may be attracted to advanced practice roles as a clinical career pathway. This is particularly relevant if that pathway is one that has historically been carried out by a male dominated profession. The gender issues that have implications for women entering a male dominated role include issues of power, prestige, self esteem, decisiveness and assertiveness.

### Professionalisation

The view of the profession of nursing perceived by the public is one of personal qualities rather than skill and knowledge (Leddy & Pepper, 1989). Nurses have to take some responsibility for this view. Some nurses continue to oppose tertiary education both at under-graduate and post-graduate levels (Leddy & Pepper, 1989). This can be considered, in relation to gender issues, as the belief that women don't need education (Brooten et al., 1988) and the historical roots of nursing in 'training' rather than education.

The public perception of nursing as being a mix between "angel and whore" (Jolley & Brykczynska, 1995, p104) and of the public liking the perception that they have of nurses as passive, non-complaining individuals, who follow a calling to nursing, is a barrier to nursing's development and professionalisation. In New Zealand nursing is considered one of the most respected professions (Hunt, 1998). This compliment is a double-edged sword however, it reflects the public held belief that women (nurses) are

honest, reliable, subordinate and tend not to 'rock the boat'. It also reflects the angelic image of nurses as transcending 'normal' human nature. Nursing reflects the traditional womanly virtues as carers with altruistic virtues (Hein & Nicholson, 1994). Women in other professions, it would seem, have gone further to gain independence. Nursing, with its history of removing women from the public world (up until recently nurses in training were still required to live in nurses homes unless they had permission from their parents!) has reinforced these womanly virtues. There also remains the argument that nursing attracts women who fit into the public perception, that is, women with poor self-esteem and feminine gender codes and virtues.

There are a number of models regarding the professionalisation of occupations (Bernhard & Walsh, 1995; Leddy & Pepper, 1989). Leddy and Pepper (1989) consider a model of the professional self that completes developmental tasks based on Erikson's ages and stages of the life cycle. Erikson's ages of human developments outlines the social and emotional stages that shape human development (Kalat, 1990). Others highlight the importance of education, particularly in institutions of higher learning, to the professional development of nursing (Bernhard & Walsh, 1995; Brooten et al., 1988; Clare, 1993; Davies, 1995; Hein & Nicholson, 1994).

Unfortunately there remains a perception of what is termed the 'theory-practice gap', the gap between what is learned and what is practised. Bernhard and Walsh (1995) examine the process of professionalisation of nursing based on Pavalkos occupation-profession continuum model. It considers eight criteria important in professionalisation. These are outlined in Figure 2.1.

Criteria	Meaning to Nursing
Theory	body of theory and knowledge -nursing research
Relevance to Basic Social Values	identification with values with general societal consensus -nursing identifies with health ( of importance for society)
Training or Education	tertiary based education professional socialisation
Motivation	altruistic and nurturant service to society
Autonomy	self-regulation, internal controls Values, norms and roles unique to their culture peer control rather than supervisor control
Sense of Commitment	long-term commitment to nursing vs. 'white wear' nursing
Sense of Community	Common Identity Sense of culture
Code of ethics	professional organisations code of ethics

**Figure 2.1: Model of Professionalisation (Based on Bernhard and Walsh, 1995, Occupation-Profession continuum Model applied to nursing)**

From this model it can be seen there is an emerging professional culture of nursing. Areas to be further developed are autonomy, community, and commitment to the profession. Bernhard and Walsh (1995) argue that we do have autonomy over nursing practice and that the carrying out of medical orders is only a small part of nursing. Although nursing has made

inroads into making nursing more autonomous the political, legislative and administrative (hospital) systems have ensured that nursing is still controlled externally. Nursing has some way to go in the development of pride within a cultural identity of nursing. This is a legacy of our oppressive history, as many nurses still strive to gain acceptability in the dominant medical culture. We are some way along this path with the development of professional groups, for example special interest groups such as New Zealand Association of Neonatal Nurses (NZANN) and forums, for example national discussions on advanced practice. In New Zealand, political forces, such as the need to consider alternatives to the current health care system, are opening up opportunities for nurses and nursing to expand into more autonomous and professional roles. Consideration of the development of these roles is required, particularly in relation to the neonatal nurse practitioner role (NNP), specifically how these roles can relate to the culture of nursing, and what culture change is needed.

The culture of nursing and the process of socialisation has changed in nursing in the move away from occupation/vocation to profession. This change has paralleled the educational change from hospital *training* to tertiary *education* and has also been paralleled by the feminist and civil right movements.

### Socialisation

Nurses tend to be socialised as 'second-class' health professionals (Bush & Kjervik, 1979). This is highlighted in the skill at which experienced nurses can play the 'nurse-doctor game'. The feminine nature of nursing has meant that we don't distinguish between caring for patients and physicians (Bush

& Kjervik, 1979). Nurses therefore 'play the game' in order to make physicians feel good about themselves and to feel in control (a masculine value). Socialisation occurs at two stages. First there is primary socialisation that describes childhood socialisation in which values, norms, mores and language is learned. Secondly there is secondary, adult or professional socialisation. This includes anticipatory socialisation in which people prepare for a role and re-socialisation where people change to the reality of a new situation (Kozier et al., 1992). Anticipatory socialisation in nursing occurs through educational institutes and re-socialisation occurs in the clinical setting. Clare (1993) suggests that the reality of the workplace and the reality of the classroom can be very different. Socialisation in the work place reflects the values and practices of the dominant group. In the institution of the hospital the dominant group includes doctors and administrators (Clare, 1993; Kozier et al., 1992). Part of the socialisation of nurses includes the concept that practical skills are superior to theoretical knowledge (Clare, 1993). This attitude is perpetuated by many in nursing and follows the characteristics of oppressed group behaviour (Roberts, 1983). Professional socialisation follows a number of phases and there are a number of models of the socialisation process (Kozier et al., 1992).

Rituals also play an important role in the socialisation to a nursing culture. The usefulness and appropriateness of rituals in nursing may be debatable. Some important functions of rituals are:

- 1) a coping mechanism in hospital bureaucracies (Deluca, 1995)
- 2) a reaction to the type of intimate and emotional work of nursing

(Biley & Wright, 1997; Holland, 1993, Deluca, 1995)

- 3) a way of identifying with the cultural group (Holland, 1993).

Leddy and Pepper (1989) suggest that the personal self-system learned in primary socialisation impacts on the professional self. For nursing this means that we need to encourage people with a positive self-image. This includes nurses willing to take risks (Leddy & Pepper, 1989). As with other oppressed groups nurses need to view themselves in a positive way by valuing nursing research, knowledge and skills and promoting these to the public (Leddy & Pepper, 1989; Clare, 1993).

The issue of professional socialisation poses some unique problems for advanced nurse practitioners, particularly when advanced practice roles are developing. It is recognised that the development of one's professional identity is part of the socialisation process and that the reference group is an important part of this development. Reference groups provide the set of norms, values and standards of practice to function in a given role (Hickey, Ouimette & Venegoni, 1996). With a developing role that has functional similarities to another professional group, such as the neonatal nurse practitioner role, then the other professional group may become the reference group. This is also compounded by roles that are practised in isolation from others. When considering the historical, gender, professionalisation and socialisation issues outlined earlier the potential problems of using a medical group as a reference group becomes clear.

The transition to advanced nursing practice roles is made difficult by

feelings of insecurity, anxiety, fear of incompetent performance, fear of relationship changes, fear of delegating tasks and discomfort in performing care in a different way (Hickey et al., 1996). If nurses use a medical group as their reference group then they will not get the appropriate support and guidance because the medical group has a different socialisation process. Issues that are important and unique to the nurse will not be, and indeed cannot be, comprehended by another professional group. It is therefore essential that the neonatal nurse practitioner group is used as the reference group for the cultural and professional identity of the neonatal nurse practitioner to remain intact.

Before moving from historical issues to present debates surrounding advanced nursing roles it is important to define some terms that have caused confusion in nursing.

## **2.2 Definitions**

### Expanded versus Extended Roles

Some of the literature uses the terms expanded and extended nursing roles interchangeably. The dictionary definitions of both terms, expand and extend, are similar and depending on which dictionary is used a concept of increasing scope is given. However, there is a difference of definition between the two terms given in relation to roles, which warrants clarification, so that there is no confusion as to what is being talked about. Role extension relates to skills and tasks that may be practised by one's discipline but remain in the scope of practice and control of another discipline. Role expansion may include skills and tasks that are historically

within the scope of another discipline's practice but have been incorporated into one's own discipline. The difference between the two is that in role expansion the practitioner has responsibility and accountability for their entire practice (McAllister, 1992).

The differentiation between the two terms is important in an acute care setting in which the role incorporates skills and tasks that have previously been the domain of medicine. I would argue that it is role expansion that is advanced practice because the practitioner is responsible for their practice.

#### Expert and Advanced Practice

There are two other terms that cause confusion in nursing these are expert and advanced practice, The definition of expert nursing that is considered in this thesis is that given by Benner (1984). An expert nurse is one who "no longer relies on an analytic principle to connect her or his understanding of the situation to an appropriate action" (p31). The expert nurse has gained an intuitive grasp on situations by experience. While this is different from the advanced practitioner who is practising in a role that expands the boundaries of traditional expert nursing care and practices in a more autonomous way, the advanced practitioner develops expert practice in their advanced role through experience in that role.

## 2.3 Advanced Nursing Practice Debates within Nursing

### 2.3.1 *The New Zealand Context*

Despite debates in nursing within education, in nursing management and at the New Zealand Nursing Council up until recently there has been little published about advanced practice in New Zealand. At present there is no established criteria or recognition of advanced practice nursing roles by the Nursing Council of New Zealand.

#### Nurse Executives of New Zealand - Definition

Definitions of advanced practice are given by the Nurse Executives of New Zealand (NETS). These include situating neonatal nurse practitioners as nurses functioning in and as an advanced practice role. The NETS(1998) definition is:

*nurses work as nurse practitioners to undertake care management over a longer period of time with individuals and group or patients requiring care and services across the inpatient-community care continuum e.g. neonatal nurse practitioner, family health nurse practitioner. He/she may be the lead primary health care provider with authority over their own practice and works interdependently and collaboratively with other team members. (p. 2)*

This definition is contrasted with the Nurse Specialist who cares for a specific condition such as diabetes. Nurse Executives of New Zealand also acknowledged that the practitioner and specialist roles are separate and different from the bedside nurse.

The activities that the advanced nurse practitioner undertake include:

- 1) health and needs assessment
- 2) direct care and ongoing management
- 3) referral to appropriate support services
- 4) referral to appropriate specialist service providers
- 5) consults appropriately
- 6) works independently and collaboratively to provide primary health care.

The NNP meets all these requirements, however, they also provide tertiary care.

Nurse Executives of New Zealand have given considered definitions of advanced practice. However, they seem to have done this without carrying a mandate from nurses. Some input from neonatal management was considered in these definitions but no input from the NNP 'at the coal face' was sought. As NNPs are one of the few nurse practitioners that work in the tertiary health care setting their input would have been insightful at least. In a profession with issues of control over practice and a common belief, by many clinical nurses, that those in education and management are out of touch with reality, the omission of inviting submissions from those

carrying out the role does nothing to foster better relationships within the profession. The NETS' definition of advanced practice limits the development of advanced practice roles to '*primary health care*'. This is short sighted. Nurses should be innovative in all health care settings. This thesis may fill the gap between theoretical nursing and the practice of nursing and make the NNP role more transparent.

#### Debates within Nursing in New Zealand

There seems to be confusion between *expert* and *advanced* practice in New Zealand. This confusion is considered in an article by Christensen (1999), where an understanding of the difference between expert and advanced is given. Christensen (1999) and Litchfield (1998) both give a definition of *expert* practice as expertise within a specific nursing role. Christensen (1999) describes advanced practice as autonomous, is a scope of practice that is differentiated from first level nursing, but remains in a nursing philosophy of practice.

Gunn (1998) also grapples within this confusion when she talks about the *expert nurse practitioner*. She gives the competencies of the expert bedside nurse as the expert nurse practitioner and then considers the *nurse practitioner*, giving the United States definition, which includes a role developed outside the mainstream of nursing education and involving considerable overlap in functions with physicians. She does not perceive the *nurse practitioner* role as a role distinct and different from the bedside-nursing role. Cook, in a workshop on advanced practice in 1999, gave some understanding of the United States position on the difference between

expert and advanced nursing practice which was insightful to those not practising in or with advanced practice nurses. To many of us who do practice in an advanced practice role the difference between expert and advanced practice was already very clear.

This has led to debate over nursing titles. All nurses, at least in clinical practice, are practising nursing - therefore by definition are nurse practitioners. Culturally, however, the title *nurse practitioner* gives the connotation of some form of advanced practice generally with a clinical focus. However, this may be in the form of expanded practice such as the neonatal nurse practitioner, case-management such as the immunology nurse practitioner, or specialist advice such as the diabetes nurse practitioner. All of these roles are advanced nursing roles but with very different job attributes and responsibilities. This has led to confusion between role titles particularly between the *nurse specialist* and the *nurse practitioner*. The debate continues within nursing.

*Nurse practitioner* does seem to be the favoured title by those in advanced roles and there does seem to be a certain amount of protectionism of the title by those in advanced roles. While there must be some consistency of terms nationally does it really matter if all advanced clinical nursing roles carry the *nurse practitioner* title? This is particularly relevant if the United States experience is considered.

The *nurse specialist* and *nurse practitioner* roles have become increasingly blurred over time (Hawkins & Thibodeau, 1993). It is important, particularly in a country the size of New Zealand, that a neonatal nurse

practitioner role in Auckland is the same as a neonatal nurse practitioner role in Dunedin, and thus some consistency of terms is maintained. It may be more important to maintain title consistency within specialised areas. The term *nurse clinician* is another term that is finding its way into the debate to further add to the confusion.

Litchfield (1998) identifies the need for nursing to be innovative and responsive to the health needs of society. The importance of maintaining the foundations of nursing in an advanced practice role and need for nursing to be complementary rather than competitive to medical practice is outlined. Litchfield (1998) suggests advanced practice in New Zealand is heading toward the United States modelling of advanced practice with a credentialing process and that this may limit the ability of nursing to remain responsive to changing needs in the future. A system where scope of practice is not defined is recommended, reflecting the United Kingdom approach. Litchfield (1998) also discusses some of the issues of specialisation in nursing and suggests that this may not fit within the foundation of nursing. The need for advanced practice nurses to gain credibility from the public is not considered by Litchfield (1998). Nursing could consider regulation by credentialing or licensing as one way of gaining credibility in the public arena. Nursing can remain innovative and responsive and still maintain nursing foundations in specialist areas of practice and in advanced practice. The research contained in this thesis will aim to show how this is possible.

The Ministerial Taskforce on Nursing (1998) acknowledges the need for the innovative and responsive development of advanced practice nursing

roles. It recognises the need for the clarification of titles, educational preparation, and the development of recognised competencies that are linked to the governing body. The Nursing Council of New Zealand (2000) in a discussion document on nurse practitioners addressed many of the issues relating to the regulation of nurse practitioners. The limitation of this document is that it focuses on advanced nursing practice in primary health care settings.

It is my perception that discussions from within nursing seem quick to criticise the North American model and quick to advocate for the British model of advanced practice.

### *2.3.2 The North American and British experience*

#### The British position

The British literature seems to have difficulty in defining the difference between expert practice and advanced practice. It acknowledges that advanced practice is a *clinical* pathway for nursing, suggesting that in the past nurses wishing to further their career have been either directed into education or management and that there is a need for an alternative. When they describe what the advanced practitioner does they describe the advanced practitioner being a researcher, expert practitioner, consultant and educator (Manely, 1998; Doherty, 1996). The qualities that they ascribe to the advanced practitioner are those of the expert nurse and include autonomy, experience, knowledge, ability to conduct comprehensive health and nursing assessment and to be respected and recognised within their field of expertise, but within traditional nursing boundaries. The problem with the British concept of advanced practice is that it does not

give a *clinical* pathway for nurses who wish to develop new skills while maintaining a focus on direct (hands on) patient care. It does not encourage innovative and responsive nursing care instead it ensures that nursing remains within the traditional boundaries of nursing.

Doherty (1996) outlines one of the major objections to the consideration of advanced nursing roles that include medical skills. The argument is that the concept of care is essential to nursing and is indeed what defines nursing as separate from other health professionals. Nurses who take on roles that include medical skills have a different relationship to that of the bedside nurse therefore the advanced practitioner cannot be the carer for the family/infant and therefore is *not nursing* according to this argument. Doherty (1996) states "There is room and a need for both practitioners [bedside nurse and NNP], but only one can be the carer" (page 25). If these arguments are considered then nurses in management, education, research, or clinical speciality must also *not be nursing*, as they do not have the same relationship as the bedside nurse. In fact those in nursing education, administration or research have less of a relationship with the family than the NNP. If this argument is followed nursing educators, administrators and nurses therefore should not be considered as nurses. There is no reason given by Doherty (1998) as to why 'only one can be the carer'. Bedside nurses may have a different perspective of caring to the NNPs, but both these perspectives may still be caring in a nursing context. Advanced nursing roles, which include medical skills, can be a caring nursing role offering a unique nursing perspective.

Both Doherty (1996) and Manley (1998) argue that by incorporating skills that have been the domain of medicine nursing care may be devalued or

lost. Instead they argue that nursing care should be developed to specialised and advanced levels. However what they consider as specialist and advanced nursing care fits into the definition of expert nursing. For example, they consider the advanced nurse practitioner as a case-manager role.

#### The North American position

The North American terminology differs from the British terminology. The term 'nurse practitioner' refers to nurses acting in roles similar to the British term 'advanced nurse practitioner'. To remain consistent with the literature when referring to North American literature the term 'nurse practitioner' is used.

The North American position on nursing practitioners appears to be more defined. They are identified as registered nurses that have completed recognised educational programmes in speciality areas and have a certification to practice. The American conception of the nurse practitioner gives a functional definition of the nurse practitioner. Nurse Practitioners provide health care to children and adults during health and illness. They do this by:

- 1) Taking a health history, including a medical history and physical examination,
- 2) Diagnosing and treating acute health problems,
- 3) Diagnosing, treating and monitoring chronic diseases,
- 4) Ordering, performing and interpreting diagnostic studies,

- 5) Prescribing medications and treatments,
- 6) Providing prenatal care and family planning,
- 7) Providing well-child care,
- 8) Providing health maintenance care for adults,
- 9) Promoting positive health behaviours and self-care skills through education and counselling,
- 10) Collaborating with physicians and other health professionals as appropriate (American Academy of Nurse Practitioners, 1999).

Nurse practitioners in North America may be the regular health care provider for patients.

The American nurse practitioner programme appears further along in its development than either New Zealand or Britain. Nurse practitioners were first seen in the United States in 1965 with the development of the paediatric nurse practitioner. Currently, in the United States, they have developed specific accredited programmes at masters or post-masters degree level. Nurse practitioners are certified to practice both independently and interdependently (Romaine-Davis, 1997).

Nurse practitioners were developed for two main reasons. Firstly there was a lack of paediatric medical staff. Secondly they were seen as a way to provide care to areas that were poorly serviced by medical staff such as rural or inter-city areas. A sceptical interpretation of the reasons for the development of nurse practitioners may be that they are good enough for the poor and to replace medical staff when convenient. Nurses in the

United States have taken this opportunity, regardless of the reason, and by innovative and responsive practice have developed the role to ensure that they provide quality care to patients.

## **2.4 The Neonatal Nurse Practitioner**

### The development of the Neonatal Nurse Practitioner in America

The mid 1970's saw the emergence of the NNP in the United States. The NNP role was developed because of a shortage of paediatric residents and a shortage of neonatologists. This happened at a time when, due to technological developments, there was an increase in smaller, younger and sicker neonates requiring neonatal care. At the same time nurses were beginning to expand their role in the neonatal unit. This followed the development of the paediatric nurse practitioners in the 1960's who had developed an advanced nursing role in the care of 'well' children in ambulatory settings (Farah, Bieda & Shiao, 1996). The paediatric nurse practitioner in primary health care had laid the groundwork for the NNP to establish a role in the tertiary and acute health care arena.

The role that NNPs undertake in the United States and Canada is similar to the role as it is practised in New Zealand. It includes the provision of care for high-risk neonates under the supervision of a neonatologist (or paediatrician). This includes history taking, evaluation of relevant information, physical and developmental assessment of infants, diagnosis of problems, development and implementation of medical management, revision of plans as required and discharge planning with appropriate follow up (Farah, Bieda & Shio, 1996; Mitchell-DiCenso, Pinelli & Southwell, 1996).

The initial NNP programmes in the United States appear to have focused on the replacement of paediatric residents with little mention of the role as a nursing role. This is contrasted with the Canadian model that appears to have incorporated educational, research and administration in the role from its inception (Mitchel-DiCenso, Pinelli & Southwell, 1996). In the United States the NNP role has developed to become more nursing focused as educational programmes have been formalised in the 1980's. Bellig (1980) described the importance of maintaining a nursing philosophy. Combined with formalised education was a developing professional identity for neonatal nurses with the development of a professional journal and a professional association (Farah, Bieda & Shiao, 1996). The 1990's have seen further development of the NNP role in the United States with the development of a standardised title and definition of the *neonatal nurse practitioner*. Up until the early 1990's a variety of titles had been used for nurses performing the role that is now titled the NNP role. Education became almost exclusively at graduate level. The role developed to incorporate community based care in response to a changing health system (Lynch, 1995). Professional autonomy also increased in the 1990s with the development of graduate education, certification and clearer role definition (Farah, Bieda & Shiao, 1996). With this development NNPs have taken on a role in nursing leadership, research and education, however the focus of the role continues to be clinical. Currently there appears to be a developing move to merge the role of the NNP and clinical nurse specialist (Ditzenberger, Collins & Banta-Wright, 1995; Strodtbeck, Trotter & Lott, 1998).

While any role in nursing needs to be responsive to the changing health care environment it would be a shame to move too far away from the clinical focus of the role. Most NNPs, at least in New Zealand, have progressed into the role because it is career development with direct patient care. With this in mind the role is consistently acute with a high level of stress involved. If other aspects are incorporated into the role such as research, education and administration, in allocated non-clinical time, it will enhance nursing care and development within units and also save NNPs from 'burnout'. Thus the predominant role of the NNP should remain clinical with some time allocated to other aspects of the role.

#### The British Neonatal Nurse Practitioners

The development of the NNP role in the United Kingdom has been over the same years as the development in New Zealand. The first course reported in the literature commenced in 1992 in Wessex (Casselden, 1995). The literature from the United Kingdom highlights some of the confusion over titles, the terms neonatal nurse practitioner and advanced neonatal nurse practitioner are used interchangeably (Casselden, 1995; Dillion & George, 1997; Doherty, 1996; Oliver & Allan, 1998). There does appear to be a trend toward the term advanced neonatal nurse practitioner. The literature in the United Kingdom all comes from the Wessex course (Casselden, 1995; Dillion & George, 1997; Doherty, 1996; Hall, Smith, Jackson, Perks & Walton, 1992; Oliver & Allan, 1998).

The definition of the NNP is given by the Wessex regional health authority (cited in Casselden, 1995):

*A registered nurse with clinical expertise in neonatal nursing who has received formal education with supervised clinical experience in the management of sick newborns and their families. The NNP manages a caseload of neonatal patients in collaboration and general supervision from a physician. Utilising the extensive knowledge of pathophysiology, pharmacology and physiology acquired, the NNP exercises independent judgement in the assessment, diagnosis and initiation of certain delegated medical acts, processes and procedures. The NNP is also involved in education, consultation and research. (p.42).*

The development of the role, education and debates from nursing about the role has paralleled the development of the role in New Zealand in many ways. The role is performed in a similar way; the NNP carries out the same practical procedures, provides medical management of at risk infants, and includes examination, assessment and discharge planning. They are accountable to and supervised by a consultant paediatrician (Casselden, 1995; Hall, Smith, Jackson, Perks & Walton, 1992). The same debates from within nursing have been raised in the United Kingdom, which is whether development of the NNP role is advantageous to nursing (Doherty, 1996).

The main arguments against NNPs are that they will not be enhancing their nursing skills and that relationships with families will be different than that of a primary nurse (Doherty, 1996). The other criticism of the NNP role is the potential to become task-orientated technicians (Doherty, 1996). Ensuring that NNPs committed to the development of the role are employed can address these criticisms. Doherty (1996) acknowledges that caring is an intrinsic part of nursing but argues that 'caring' must be diminished in the NNP role. The educational programme is also similar to the New Zealand and North American programmes with the initial course being at certificate level that gave credit toward a master's degree (Dillion

& George, 1997). The issue of prescribing medications has also been problematic with NNPs allowed to administer medications in accordance with set protocols (Oliver & Allan, 1998). It is unclear whether NNPs chart/prescribe medications for other nursing staff to give as the NNP in New Zealand does.

There are some differences between the United Kingdom development of the NNP role and programme and the development of the NNP role and education in New Zealand. The importance of postgraduate education was a consideration at the inception of the first course so that the initial NNPs would not be disadvantaged in future years. The initial programme was developed over a two-year period and was recognised by the English National Board, giving national validation to the role (Dillion & George, 1997). This is in contrast to the NNP courses in New Zealand, which were developed quickly without consideration of the long-term educational direction of nursing and national planning. The role in Britain has not necessarily replaced senior house officers but, instead, in some units, has decreased their working hours and workloads (Casselden, 1995; Oliver and Allan, 1998). The role was set up to include an education, research and management component with a clinical focus (Allan, 1997; Casselden, 1995). This is in contrast to the role in New Zealand as it is developing to include education, research and management, but was initially a purely clinical role.

## Neonatal Nurse Practitioners in Australia

The Australian Neonatal Nurses Association (ANNA) put out a discussion paper on the role on the NNP in 1998. The specific issues outlined were the role, education and professional development of the NNP role. The role description is consistent with the practice of the role in the United Kingdom, the United States and New Zealand. The definition given by the New South Wales nurse practitioner working party is:

*A nurse practitioner is a registered nurse with appropriate accreditation who practices within the professional role. She has autonomy within the work setting and has freedom to make decisions consistent with his/her scope of practice, and the freedom to act on those decisions. (ANNA, 1998, p. 6).*

Educational entry criteria are similar to the entry criteria in both the United Kingdom and New Zealand. The exit level is a master's degree qualification. The New South Wales nurse practitioner working party noted that it would be beneficial to be able to transfer the qualification between Australia and New Zealand. Professional issues centre on maintaining the role in a nursing structure, remuneration, commitment to maintaining the role and the prevention of 'burnout' (ANNA, 1998).

A five-year pilot programme to evaluate the potential for a NNP role is currently being carried out in Newcastle, Australia.

## The New Zealand experience.

The development of the NNP role in New Zealand was due to multiple reasons. Paediatric registrars were being required to spend more time in neonatal units due to developing technologies. At the same time there was a

requirement for medical staff to reduce their hours of work and to spend more time gaining general paediatric experience. In effect, this led to a shortage of paediatric registrars. Experienced neonatal nurses were feeling frustrated and were seeking to take on increased responsibilities and to be able to act in a more autonomous way (Jones, 1999). In 1992 the first NNP course began at Waikato hospital, at a certificate level. The following year the course was extended to include students from Auckland and was run at certificate or graduate diploma level depending on which institution the student was involved with. Subsequently the programme has been developed into a postgraduate diploma within the framework of a Master of Nursing degree, offered by Massey University.

The role of the NNP as it is practised in New Zealand was outlined in an article I recently wrote on NNPs:

*The current New Zealand NNPs function in a similar role to the neonatal registrar or house officer. They carry out procedures such as intubation, chest drain insertion, umbilical line placement, peripheral arterial line placement, lumbar puncture, and suprapubic taps. The NNPs offer twenty-four hour cover for the neonatal service, in some neonatal services this means that they provide the only on site neonatal presence. The role includes assessment of neonatal patients, neonatal resuscitation, initiating appropriate treatment (for example respiratory, cardiovascular support including drug management), ongoing management in collaboration with medical specialists, appropriate referral to required services and accessing community services for families as necessary. Also inherent in the role is the uses of nursing expertise, this includes education and support of other neonatal nurses. The NNP acts as a consultant for neonatal enquires from midwives and general practitioners. The NNPs at present work on a combined NNP and registrar roster so that on call hours are shared between the two professions, however the NNPs tend to*

*individually carry a greater on call responsibility because of contractual differences.*  
(Jones, 1999 p. 30)

## **2.6 Conclusion and Question**

As with any culture, nursing culture is a continually developing and changing concept. Nursing needs to be receptive to the changing demands made upon it by the recipients of health care and the political and social environment that nursing serves. Nursing values and beliefs must remain at the core of any progression or change so that the unique identity that is nursing is maintained.

Historical issues, as discussed, have important implications for nurses developing roles that incorporate aspects of another profession. These are particularly relevant when the 'other profession' has traditionally been the dominant profession and nursing has been subordinate to that profession. As nursing moves to develop advanced practice roles definitions need to be considered to maintain clarity. The neonatal nurse practitioner role is an advanced clinical nursing role that requires expert nursing skills and knowledge. If the role could be performed without using expert nurses then it would not be an advanced nursing role.

In New Zealand, as in North America, there has been a similar development of the NNP role in nursing. Initially neonatal nurse practitioners were not accepted as performing nursing because they were not functioning in a 'traditional' nursing role. It is appropriate that the NNP role is now situated squarely back in nursing.

Given that, in New Zealand, the neonatal nurse practitioner acts as an advanced nursing practitioner the question for this research is thus posed:

**How is expert nursing incorporated into the neonatal nurse practitioner role in the New Zealand context?**

## Chapter 3: Research Literature

This chapter considers research literature that has been completed and published specifically on neonatal nurse practitioners (NNPs). Research articles relating to NNP practice were sourced from the United Kingdom, the United States of America and Canada. Medline and CINAHL databases and reference lists of articles relating to NNPs were searched. No research studies relating to NNP practice were gained from the Internet. Only research from 1990 until and including 1999 was considered, in order to reflect the current state of neonatal intensive care. Research relating to the NNP role in the early 1990's contained mainly studies to establish comparable safety in comparison to junior medical staff, cost effectiveness in comparison to junior medical staff, and acceptance of the role by other health professionals. The focus carried out in the mid 1990's appears to have shifted to consider nursing aspects of the role.

Two pivotal pieces of NNP research were also examined. These will be discussed briefly to 'set the scene' of the NNP role. The other research works fall either into blocks of works that consider different aspects of the NNP role or into individual pieces of research. The blocks of research will be considered together as they interlock to provide a sense of completeness. Consideration of the individual research studies follows these blocks of research and is divided into comparison studies, issues surrounding the NNP role, and a research article from the United Kingdom.

### 3.1 The pivotal works

Two works were published in the beginning of 1979. The first considered the safety of neonatal nurse practitioners (Johnson, Jung & Boros, 1979). This study compared care provided by a NNP and paediatric interns. The study concluded that the NNP provided comparable and often superior care. Only one NNP's charts were considered in this study. There were 10 paediatric interns' charts. Despite the obvious weaknesses in this study it provided enough evidence of safety for the development of the role. The second work by Johnson and Boros (1979) described the splitting of the NNP roles into the neonatal nurse clinician and the clinical specialist. The role described was similar to the practice now considered the NNP role in the United States and New Zealand. This included performing a role that was functionally similar to the junior medical staff. The NNPs in Johnson and Boros (1979) study were all graduates of a recognised university NNP programme; the level of this programme was not discussed. This study explored the acceptance of the NNP role; questionnaires were sent to paediatricians and to neonatal intensive care unit (NICU) staff nurses. The response rates were poor, 40% of paediatricians and 55% of staff nurses, but there was general approval of the role in all areas surveyed.

These two studies formed the platform on which the NNP role was launched. The nurse or nurses that developed the NNP role provided a firm educational foundation to the role when they placed it, at its inception, in a university setting.

### 3.2 The Canadian Group

Groups based at the McMaster University in Ontario, Canada, have systematically researched various aspects of the neonatal nurse practitioner role, from the late 1980's through the 1990's. This has resulted in a reasonably comprehensive body of literature on the NNP role in Canada, and was summarised by Mitchell-DiCenso, Pinelli and Southwell, (1996). The research began as the role was being introduced in Ontario, Canada. It gives a well thought out process of introducing a new way of delivering care to neonates in that region. The need for the development of the NNP role was researched prior to the establishment of the role (Paes et al, 1989 cited in Mitchell-DiCenso, Pinelli & Southwell, 1996). The research included:

- 1) An "evaluation of graduating neonatal nurse practitioners" (Mitchell, et al., 1991, p.789),
- 2) "Definition of an advanced nursing practice role in the NICU: The clinical nurse specialist/neonatal practitioner" (Hunsberger et al., 1992 p.91),
- 3) "Evaluation of an educational program to prepare neonatal nurse practitioners" (Mitchell, et al., 1995, p.266),
- 4.i) The development of a tool to measure parental satisfaction of neonatal care (Mitchell-DiCenso, Guyatt, Paes et al., 1996),
- 4.ii) "A controlled trial of nurse practitioners in neonatal intensive care" (Mitchell-DiCenso, Guyatt, Marrin, et al., 1996 p.1143).

The above research has been designed to interlink to produce an evidence-based outline for the introduction and evaluation of the NNP role into a neonatal intensive care unit. For this reason it is considered as one section of research. One aspect not considered in this research is the nursing component of the role. The research group developed and validated a questionnaire that evaluated parental satisfaction with medical care (Mitchell-DiCenso, Guyatt, Paes, et al. (1996). This tool was used in a controlled trial relating to NNP practice evaluating the difference between NNP care and the care provided by medical residents, Mitchell-DiCenso, Guyatt, Marrin, et al. (1996).

An "Evaluation of Graduating Neonatal Nurse Practitioners" (Mitchell, et al., 1991, p.789)

As is appropriate with any new development in care the first research considering a problem should be to ensure the safety of a new intervention. This study included all 10 graduates from the first three years of the NNP programme (Mitchell, et al., 1991); they were compared with 13 out of 15 second year paediatric residents. Four parameters were used for this comparison; neonatal knowledge, problem-solving skills, communication with parents and skill at procedures. The results showed that the NNP group performed similarly to the paediatric resident group, in all four parameters. There was a trend for the paediatric residents to be slightly better in the knowledge section. It was interesting to note that the second year paediatric residents who volunteered for the study scored above average when compared to other paediatric residents of the same level. The authors did not make a link between the slightly lower NNP scores and the paediatric residents slightly above average score when

compared to other paediatric residents. If NNPs were compared to the total paediatric resident group there might not have been a difference in the knowledge section. The authors acknowledged weaknesses in this study; this included the small size of the population studied, and that the assessment methods used were simulated situations rather than actual clinical situations. Despite these weaknesses the results indicated that NNPs graduating from that specific educational programme were safe to practice in that role. The programme that the NNPs had completed was similar to the programme completed by NNPs in the United States of America.

"Definition of an Advanced Nursing Practice Role in the NICU: The clinical Nurse Specialist/Neonatal Practitioner" (Hunsberger et al., 1992 p.91)

Hunsberger, et al. (1992) surveyed 655 health professionals that worked in NICU's. These included medical directors, head nurses, directors of nursing, staff nurses, junior medical staff, senior medical staff and NNPs. Surveys were sent to a number of different neonatal units mainly in Canada but some were also sent to NICUs in the United States. The research group received a 71% response rate to their survey. A definition that used the title Clinical Nurse Specialist/Neonatal Practitioner was used. The argument for combining the title was that this included the advanced practice that was the traditional Neonatal Practitioner component but also included elements of the traditional Clinical Nurse Specialist (CNS) role. This article adds to the confusion of titles by introducing the title Neonatal Practitioner rather than the traditional title of Neonatal Nurse Practitioner (NNP) or Nurse Practitioner (NP). The traditional Neonatal practitioner component was described as one that used technical medical

skills and functioning as a physician replacement, with expertise in clinical assessment and diagnosis. The traditional CNS component was described as incorporating clinical practice, education, research and administration. The survey results included the incorporation in the description of the role aspects of advanced clinical practice, education, research and administration. A description of the activities that the CNS/Neonatal Practitioner performs is given by the research group and is consistent with the elements of the NNP role as it is practiced in New Zealand. The survey did not include a question asking the preferred title of the role. This title appears to be particularly long, wordy and impractical for use in clinical practice. The title Neonatal *Nurse* Practitioner is sufficient to incorporate the specialist nursing components of the role. It could be argued that when the research group described the Neonatal Practitioner role they were merely describing the role as that of a physician assistant. Neonatal *nurse* practitioners (NNPs) use a nursing foundation to practice; this is not described in the research groups' definition of the NNP. The role that the NNP performs is clinical and should remain clinically focused but there are elements of education, research and administration inherent in the role. The importance of a clinical focus remaining is that it allows nurses who wish to use the expert clinical knowledge an opportunity to do so within a clinical career pathway.

"Evaluation of an Educational Program to Prepare Neonatal Nurse Practitioners"  
(Mitchell, et al., 1995, p.266),

This study (Mitchell, et al., 1995) considered an evaluation of the Master of Health science, which had been introduced to prepare graduates to practice as NNPs. Some of the participants were also involved in the

previous study that evaluated graduating NNPs and compared them to paediatric residents. The same information from those participants was used in both studies. This study involved the 10 graduating NNPs and 8 first year students; the 8 first year NNP students were re-evaluated using different questions when they graduated. The study was carried out over three years. The measures included were the same as in the previous study but did not include an evaluation of clinical procedures. Clinical procedures were not evaluated because the first year students had not received instruction in these medical tasks. The results suggested that graduating NNP s scored significantly higher in problem solving and the radiography test, which was one part of the assessment of knowledge. There was not a significant difference in the other evaluation method of knowledge, which was the multi-choice examination, or of communication skill, although there was a trend toward the graduating NNPs scoring higher in the knowledge evaluation. The limitations of the study were acknowledged. These were that the numbers were small and that because it was evaluating a specific educational programme it could not be generalised to other programmes. No reason for the insignificant differences in knowledge and communication results was given. These results might suggest that experienced bedside nurses have a sound knowledge base and are experienced at communication. It may also reflect that nurses embarking on a NNP career pathway are motivated to expand their knowledge base prior to commencing a formal course. It is interesting to note that if considered in relation to the previous study, where there was insignificant difference between paediatric residents and graduating NNPs, that nurses without the formal education have a similar knowledge base to the residents in the specific area of neonatal care.

"A Controlled Trial of Nurse Practitioners in Neonatal Intensive care" (Mitchell-DiCenso, Guyatt, Marrin, et al., 1996 p.1143)

This was a prospective randomised trial that was carried out in Ontario, Canada (Mitchell-DiCenso, Guyatt, Marrin, et al., 1996). The study aimed to compare the care provided by the CNS/NP with the care provided by the paediatric residents. Infants were randomised to care from either the NNP group or the paediatric resident group. Due to the small number of NNPs in practice the paediatric resident group cared for the infants randomised to NNPs during the night. There were a variety of outcome measures used. These included; mortality, morbidity, length of stay, quality of medical care, parental satisfaction, developmental outcome at eight months of age and costs. There was no significant difference in any of the outcome measures between the two groups. The researchers acknowledged that the tool that they used for quality of care had not been validated. The study supported the use of CNS/NP as care providers for infants requiring neonatal intensive care. This study is possibly the largest and most comprehensive study of the safety of using nurses in an advanced practice role of this type. The criticism of the study that could be made is that it failed to evaluate all clinical care outcomes provided by the two groups. There was a bias to medical outcomes and outcomes associated with nursing care were lacking. Outcome measures such as breast-feeding at discharge, an evaluation of parental confidence in care of their infant, or an evaluation of the appropriateness of the timing of discharge, could have been included. While this type of outcome measure might favour the CNS/NP group these are important aspects of clinical care in the neonatal unit, where the CNS/NP group might have significantly different outcomes. This

study does confirm the safety of nurses in this advanced practice role and therefore is an important piece of research.

### **3.3 The Massachusetts Group**

Judy Beal and her group are attempting to gain a comprehensive understanding of the place of nursing within the NNP role. Their research studies identify the NNP role and the NNPs' perception of the role. There are five research studies described by this group:

1. "Neonatal nurse practitioners: identity as advanced practice nurses" (Beal, Maguire & Carr, 1996, p.401),
2. "Creating a successful environment for neonatal nurse practitioners" (Maquire, Carr & Beal, 1995, p.53),
3. "Neonatal nurse practitioner role satisfaction" (Beal, Steven, Quinn, 1997, p.65),
4. "The role of the neonatal nurse practitioner in post NICU follow-up" (Beal, Tiani, Saia & Rothstein, 1999, p.78),
5. "Responsibilities, role and staffing patterns of nurse practitioners in the neonatal intensive care unit" (Beal, Richardson, et al., 1999, p.169).

These research studies were most interesting because they are directly applicable to this thesis. Lacking from this block of studies, however, is how nursing is actually practiced in the NNP role and implications that the culture of nursing has within the NNP role.

"Neonatal Nurse Practitioners: Identity as Advanced practice Nurses" (Beal, Maguire & Carr, 1996, p.401),

A non-experimental correlation design was used for this study (Beal, Maguire & Carr, 1996). The research used a survey format with participants marking on a visual analogue scale their responses from having a nursing philosophy to a medical philosophy. Questions about the influence of socialisation were also asked using a Likert scale. Six hundred surveys were sent to randomly selected NNPs. There were two hundred and fifty eight responses. A power analysis required that there would be one hundred and ninety two participants. Content validity and test-retest reliability of the research tool were established. Results concluded that NNPs that were educated through a generic masters degree program had a stronger nursing identity than those with other preparation to perform the role. This aspect showed the greatest significance. Other significant factors were: having a primary NNP preceptor, an institutional nursing philosophy, professional membership and a NNP role model. The research group suggested one possible reason for the importance of masters' degree and nursing identity was that the NNPs with masters' degrees tended to be older than those without masters degrees. The conclusion of these results is that socialisation is important in maintaining a nursing identity in the NNP group.

"Creating a successful environment for neonatal nurse practitioners" (Maquire, Carr & Beal, 1995, p.53)

This study followed on from the findings of the previous study (Maquire, Carr, & Beal, 1995). The authors outlined a variety of institutional

strategies based on the findings of the previous study, which might enhance nursing identity in the NNP role. These included:

1. Implementing a policy that gives preference to employing NNPs with graduate degrees
2. The development of a philosophy of nursing, and to develop systems and practices that support that philosophy
3. Using NNPs to clinically orientate new staff and selecting nurses with a strong nursing identity as candidates to become NNPs and supporting them in the development of networking skills and involvement in professional organisations.
4. Building and developing practice that provides clinical and professional opportunities for NNPs.
5. Building professional relationships that enhance collaborative practice. Included in this are the NNP responsibility structures, These are: responsibility to medical management, responsibility to nursing management or responsibility to both.

This was a confusing article to read as it was unclear that it was a product of the previous study. Despite this important implications for the NNP role were identified. The assumption of these two articles is that nursing identity is *better* than medical identity for nurses in advanced practice. No information to support this is, however, given in these studies.

"Neonatal Nurse Practitioner Role Satisfaction" (Beal, Steven, Quinn, 1997, p.65)

Beal, Steven & Quinn (1997) carried out a study that progressed from the previous studies. The group investigated the hypothesis that NNPs educated by physicians would be less likely to experience role conflict therefore would be more satisfied than NNPs educated in a graduate nursing programme. The assumption underlying this was that the socialisation process affects satisfaction in a role. A sample of 1000 NNPs were sent a survey. Three hundred and fifteen responses, that met the inclusion criteria, were received. A method of triangulation was achieved by the use of both Likert scale answers and open-ended answers. The results showed that all respondents were satisfied with their role, but that those who reported to a medical structure were more satisfied than those reporting to a nursing structure. Other results concluded that:

1. NNPs have a medical practice philosophy and that as the level of graduate education increased so did the tendency toward a nursing philosophy.
2. NNPs who reported to a nursing administration were more likely to tend toward a nursing philosophy
3. NNPs who viewed themselves as in advanced practice were less likely to have a nursing philosophy
4. NNPs with a nursing philosophy found most satisfaction in educational and research activities
5. NNPs with a medical philosophy found most satisfaction in patient care.

6. Although the results did not reach significance, NNPs who reported to both medical and nursing administrations were more likely to be satisfied and have a nursing philosophy.

Themes that emerged from a content analysis of the open-ended questions on what was satisfying were: "autonomy, relationships, patient care management, role issues and outcomes" (p72). Two themes on dissatisfaction were: staff and management relationships and administrative constraints. The NNPs felt that the role could be enhanced by greater support from management. The research group acknowledged the limitation of the study; that response bias may have occurred because return of the surveys was voluntary.

While all NNPs in this study acknowledged that patient care was satisfying it was disappointing to see that it was more satisfying for the NNPs with a medical philosophy. A reason for this may be that nurses are socialised to value the traditional career pathways of education and management, thereby devaluing the place that the majority of nurses 'do their work', which is caring for people in a clinical setting.

"The role of the Neonatal Nurse Practitioner in Post NICU Follow-up" (Beal, Tiani, Saia & Rothstein, 1999, p.78)

This study is not discussed in any depth here because in New Zealand the NNP role is in the process of establishing itself. The issues raised bring possibilities for the future development of the role, but the NNPs in New Zealand are not at the stage of developing into these areas at present. This study was carried out to explore the role of the NNP in the follow-up of infants that had been discharged from a neonatal service (Beal, Tiani, Saia

& Rothstein, 1999). A random sample of 1500 NNPs were sent the survey; 505 responses that met the inclusion criteria were received. Twenty-two percent of the respondents carried out follow-up care. Ninety-six percent of responders felt that there was an important place for follow-up care in the NNP role. The results included socialisation and educational factors that enabled NNPs to feel qualified in carrying out neonatal follow-up, when it would be appropriate to follow-up infants, and the nursing aspects that the NNP could bring to a role in follow-up. Limitations described were response bias, as in the previous studies, and the need for clarity in the definition and activities involved in the role.

This study may not have the same relevance in the New Zealand context because neonates discharged home are routinely followed-up by either a neonatal home care service, Plunket nurse, a lead maternity care provider, a general medical practitioner, or paediatrician. Consideration to follow-up provisions that are specific to the New Zealand context would have to be made prior to including a follow-up component in the role, however there may well be a place for this in the future.

"Responsibilities, Role and Staffing Patterns of Nurse Practitioners in the Neonatal intensive care unit" (Beal, Richardson, et al., 1999, p.169)

The term 'nurse practitioner' (NP) is used in discussion of this paper because this study included neonatal, family and paediatric nurse practitioners. Beal, Richardson, et al. (1999) in conjunction with five NICU's, carried out a descriptive study examining the role performed by NPs, the responsibilities of the NP, the staffing levels, onsite medical support and the profession who employed the NP. The study also compared the types of infants cared for by the NPs to those cared for by medical

residents. All 22 NPs who were employed in the five NICUs were surveyed by a standardized telephone interview and all directors of the NICUs were also surveyed. It was unclear if the directors were medical, nursing or administrative directors. Phone surveys were also carried out with the person co-ordinating the NP study in each NICU, the professional affiliation of this person was unclear. This was an important study, as the previous studies confirming neonatal NPs safety have not considered the various aspects of the role such as delivery suite attendance. No consistent description of the work done by NPs in neonatal services had been given prior to this study. The results of this study concluded that NPs provided neonatal care at all levels in NICU, antenatal consultation, care in the delivery suite, with transports and in post discharge follow-up. The NPs worked in consultation with either a neonatal fellow or neonatologist. All NPs had responsibilities in participating in family meetings, providing clinical management, educating staff and referral to other health professionals as appropriate. As more NPs were available the responsibilities increased. Seventy-five percent of NP time was spent in clinical management with the other time being spent in research or education. Medical coverage was on site 24hrs and provided either by the medical resident, the fellow or neonatologist. Over all units the infants that the NPs cared for were of a similar gestational age, weight and sickness when compared to the infants cared for by the medical residents, although in some units the NPs cared for statistically significant smaller and sicker infants.

This study describes similar responsibilities to the NNP group in New Zealand although in New Zealand the NNPs often practice without on site neonatal medical coverage. It was unclear in this study if the aspects of

staff education and research are formally recognised requirements of the role. This is important when considering the percentage of time the NPs spend in clinical practice as opposed to the research or educational role of the NPs. The NNPs in New Zealand at present have no role in post-discharge follow-up at present and are not routinely involved in family meetings. Although there have been no studies of the percentage of time New Zealand NNPs spend in clinical practice I suspect that it would be higher than 75% of time that the NNPs spend in paid NNP employment.

### **3.4 Comparative studies between NNP care and resident medical staff care in the United States of America**

Four studies were considered that compared the care provided by NNPs and resident medical staff:

"Replacing the Work of Pediatric Residents: Strategies and Issues" (Honigfeld, Perloff and Barzansky 1990, p.969)

Honigfeld, et al. (1990) concluded that medical "residents are the optimal hospital staff provider"(p.969). This research group used a case study designed method to examine nine hospitals that had decreased the paediatric resident staff by at least ten percent. Data collection methods included site visits, interviews, cross-site synthesis and validation. The paediatric medical residents were replaced by four categories of provider:

1. Health personnel with no specialised training, for example bedside nursing staff

2. Paediatric specialists other than medical doctors, for example NNPs
3. Shared paediatric residents, for example residents would rotate rapidly, and workloads were increased.
4. Moonlighting staff

The majority of units used a combination of two or more categories. An evaluation of the change in staffing on the quality of care was not carried out. The results concluded that although outcomes or evaluations of care were not carried out that the use of full-time attending physicians was the most acceptable option.

This study was interesting as it drew conclusions based purely on medical physicians' confidence in any alternative to care provided by their own professional group. There is an obvious professional conflict of interest if the respondents felt that another professional group were able to 'take over' their own role. No description of how long the change in staffing was in place prior to this study was given; physicians' might have changed their opinion if they had more experience with the alternative care providers. There was no information as to the reason that the use of full-time attending physicians was the most acceptable option. Finally the results were not broken down to the acceptability of the individual categories of care providers.

"Nurse Practitioners' Effectiveness in NICU" (Schultz, Liptak & Fioravanti, 1994, p.50)

A research study was done in a transitional care nursery (TCN) in a NICU that compared care given by house officers to care given by NNPs

(Schultz, et al., 1994). This research used a retrospective chart review method. The house officer group's care occurred between January and June in 1989 and the NNP groups' care occurred between January and June in 1990. Outcome measures included diagnosis, length of stay, hospital costs, place discharged to and readmission within one month. It was unclear if all charts were reviewed for these time periods. Infants in the NNP group were significantly more premature and more were female than in the house officer group. There were no significant differences between the NNP group and the house officer group when results were adjusted for gestational age. One interesting result was that the NNP group had higher ultrasound costs and radiographic costs but once this was adjusted for gestational age there was no difference. The NNP costs for laboratory tests, pharmacy and respiratory therapy were no different. It is unclear if these results were adjusted for gestational age. The research group concluded that the NNP reduced length of stay by 2.4 days and costs by \$3491 when results were controlled for gestational age. The research group acknowledged the limitations of carrying out a study in two consecutive years; they noted that hospital charges had not changed in the two years.

With these limitations in mind and combined with the evaluations of the following studies weight is added to the argument that NNPs provide safe and cost effective care.

"Comparison of Neonatal Nurse Practitioners, Physician Assistants and Residents in the Neonatal Intensive care unit" (Carazoli, Martinez-Cruz, Cuevas, Murphy and Chiu, 1994, p.1271)

A retrospective chart review was also carried out by this research group (Carazoli, Martinez-Cruz, et al., 1994). Charts of 244 consecutive admissions were reviewed. Infants were cared for by either group 1: medical residents or group 2: NNPs and physician assistants. There was no randomisation process in dividing infants into the two groups. There were no significant differences between the two groups of infants. No significant difference was found in outcomes between the groups. Outcome measures included: length of stay, days requiring critical care, ventilation and oxygen requirement, use of total parenteral nutrition, number of transfusions and the performance of various procedures. Secondary outcomes were also evaluated and included the outcome measures normally evaluated in medical neonatal literature with hospital and physician charges included in the evaluation. Results did not show significant differences between the two groups in any of the outcome measures, however there was a tendency toward decreased hospital charges in the NNP/Physician assistant group.

This study confirms the results of the previous study. There are professional issues associated with the NNP group and the physician assistant group being incorporated in the same group. The assumption in combining these groups appears to be that the NNPs perform in the same way as the physician assistants. This research confirms the safety of the use of NNPs in neonatal intensive care however fails to consider the nursing components of care.

"Neonatal Nurse Practitioner and Physician use on a Newborn Resuscitation Team in a Community Hospital" (Britton, 1997, p.61)

Britton, (1997), reviewed records for consecutive years before and after the introduction of NNPs at a community hospital. Prior to the introduction of the NNPs a newborn care physician attended moderate, high and very high risk deliveries. A hospital policy was in place as to the appropriate personnel and the categories of risk for deliveries. There was no significant difference in 5-minute apgar score pre or post the introduction of the NNP group. Performance was not quantitatively evaluated but appropriate resuscitation appeared to have been carried out when the records were reviewed. Prior to the introduction of NNPs the newborn care physician attended 39.5% of moderate risk deliveries, 91.6% of high-risk deliveries and 100% of very high-risk deliveries. The NNPs attended 88.6% of moderate risk deliveries, 99.2% of high-risk deliveries and 100% of very high-risk deliveries. The newborn care physician attended 2.1% of moderate risk deliveries, 6% of high-risk deliveries and 50% of very-high risk deliveries following the introduction of the NNPs. Some of these deliveries were not the same deliveries that the NNPs attended. The researcher concluded that NNPs were able to replace the newborn care physician for moderate and high-risk deliveries. The researcher suggested that the reason that NNPs attended more moderate risk deliveries might have been that they were present on site. The limitations of the study were acknowledged, this included that the study groups were evaluated over two different time periods and that performance was not quantitatively evaluated.

Although the researcher acknowledged that the limitation of the study was that evaluations occurred over two different years, this is appropriate in

an evaluative study of this type; it is also appropriate to consider a qualitative approach when evaluating data of performance. This study supports the use of NNPs as alternative care providers for neonatal resuscitations. This supports the findings of previous studies that NNPs practice safely.

### **3.5 Studies of the NNP role issues relating to NNP care from the United States of America**

Two research studies that compare other issues relating to the NNP role are considered here. One study was reported in two different journals.

The two studies are:

1. "What's Happening: Facilitators of and Constraints to Neonatal Nurse Practitioner Practice: comparing Nursing and Medical Models" (Ruth-Sanchez, Bosque & Lee, 1996, p. 175) and "A Descriptive Study of Current Neonatal Nurse Practitioner Practice" (Ruth-Sanchez, Lee and Bosque, 1996, p.23).
2. "Neonatal Nurse Practitioners: A Descriptive Evaluation of an Advanced Practice Role" (Trotter & Danaher, 1994, p.39).

"What's Happening: Facilitators of and Constraints to Neonatal Nurse Practitioner Practice: comparing Nursing and Medical Models" (Ruth-Sanchez, Bosque & Lee, 1996, p. 175) and "A Descriptive Study of Current Neonatal Nurse Practitioner Practice" (Ruth-Sanchez, Lee and Bosque, 1996, p.23)

These two articles by Ruth-Sanchez, Bosque, and Lee and Ruth-Sanchez, Lee and Bosque (1996) described a survey of all certified NNPs in the United States in 1994. Six hundred and seventy three responders met the

inclusion criteria. The survey used a Likert scale to identify factors that facilitated or constrained practice. Other information gathered included hours worked, the types of special procedures carried out in the institutions (these included, surgery or extracorporeal membrane oxygenation (ECMO)), educational qualification, and salaries (Ruth-Sanchez, Lee & Bosque 1996). The professional management that the NNP was accountable and responsible to was compared in the other article (Ruth-Sanchez, Bosque & Lee 1996). Demographic data was included in both articles. Facilitating factors were given as the top eleven factors identified (Ruth-Sanchez, Lee & Bosque, 1996, p.26-27)

1. "Personal satisfaction as an NNP"
2. "Key people who affect my NNP practice" (this included neonatologists or medical doctors the NNP worked closely with)
3. "My access to patient"
4. "Parent satisfaction"
5. "Responsibility I have for patient care"
6. "Independence associated with my NNP role"
7. "Person (medical) responsible for evaluating my performance"
8. "Key people who affect my NNP practice: staff nurses"
9. "Patients' families"
10. "Flexibility inherent in my NNP practice"

Constraints to practice were identified as:

1. Not enough "Participation in medical centre planning and decision making"
2. Insufficient "Mechanisms to resolve professional and practice-related issues"
3. No "Collective bargaining for NNPs at my centre"
4. Too many "Non-clinical duties assigned to me"
5. No "Promotion as an NNP"
6. Not enough "Participation in nursing service planning and decision making"
7. No "Participation in follow-up clinic"
8. Insufficient "Physical space available"
9. No "Working with physician assistants"
10. Insufficient "Clerical support available"
11. Not enough "Research participation"

The other article (Ruth-Sanchez, Bosque & Lee, 1996) compared educational qualifications, and the facilitating and constraining factors to which professional management the NNPs were responsible to. If the responders stated that they were jointly responsible to nursing and medical management their responses were excluded. Two factors with an autonomy theme, independence and flexibility in the NNP role, were rated as

significantly more facilitating with a medical management structure. Two constraining factors, working with physician assistance and clerical support, were significantly more constraining with a medical management. Three factors, too little participation in medical centre planning and decision-making, mechanisms to resolve professional and practice issues and non-clinical duties, were more constraining with a nursing management. The authors concluded that a model of practice that reflected both nursing and medicine is necessary.

As with any survey it is limited to answering the questions that the researchers consider as important. In this study reviewing the literature and carrying out a pilot study with six NNPs established content validity. There remains the risk however that some facilitators or constraints may have been overlooked. It was interesting to note that the majority of masters' degree prepared NNPs were more likely to work for medical management than the other groups, implying that they were more satisfied in their role as there were less constraints and more facilitating factors. This contradicts Beal, et al. (1996) study that concluded that masters' degree prepared NNPs and NNPs responsible to nursing management' have a greater nursing identity therefore should be less satisfied in a medical role.

This study may have points that are relevant to the New Zealand context but is not totally transferable because the health care system is different from the American one, which is largely private. New Zealand neonatal services do not employ physician assistants, so the constraining factor of no contact with physician assistants is not relevant in the New Zealand context. It is interesting to note that the facilitation factors relating to

the clinical care fail to rate higher than third. This may support Beal, et al. (1997) study that found that NNPs with a nursing identity found education and research more satisfying than those with a medical philosophy of practice.

"Neonatal Nurse Practitioners: A Descriptive Evaluation of an Advanced Practice Role" (Trotter & Danaher, 1994, p.39)

The researchers (Trotter & Danaher, 1994) surveyed all physicians, obstetricians and staff nurses in one NICU. One thousand four hundred and eighty three parents were also surveyed; it was unclear how the sample of parents was obtained. The results confirmed that the majority of physicians, both neonatal and obstetric (>90%), were satisfied with the NNP care and felt that the NNPs contributed significantly to the clinical care of neonates. The majority of staff nurses were also satisfied with the patient care provided by the NNPs. The vast majority of parents (98-99%) were also satisfied with the NNP care although there was some confusion about the NNP role.

The difference in the health care environment in the United States was highlighted in this study. Physicians appeared to have 'ownership' over the neonatal patients in the same way that private specialists have in New Zealand. The NNP role may have been less autonomous because of this difference. It is difficult to transfer this study to the New Zealand experience because it may have specificity to the particular neonatal service involved. The relationships with physicians and staff nurses are part of the unique culture of a specialist unit therefore research work to include a variety of neonatal units would be needed to confirm these findings.

### **3.6 Research relating to the NNP role in the United Kingdom**

The NNP role in the United Kingdom, like New Zealand, is relatively new. In the United Kingdom, as discussed in chapter 2, nurses that practice in a similar role to the NNP are called advanced neonatal nurse practitioners (ANNP). One study in this area has been published to date: an evaluation of the only advanced neonatal nurse practitioner programme in the United Kingdom (Dillon & George, 1997).

Twenty-two of the twenty-seven graduates from the first three ANNP courses, from 1992-1994, in the United Kingdom were surveyed by interview. Of these, three were not practising in the ANNP role, eleven were working full time in the role, and the remaining nurses worked part-time in the ANNP role and part-time as bedside nurses.

Results from the twenty-two participants concluded that clinical practice was the most important aspect of the role. Relationships with the senior medical staff, and trust and support, led to increased job satisfaction and enhanced the role of the ANNP in the NICU. A description of the professional management that was responsible for funding the ANNP was given. Most were funded by nursing management with some funded by medical management and some by both. Four ANNPs were funded by a specific ANNP budget. A description of salaries was given but is not considered in relation to the New Zealand NNPs because there are different career structures in the United Kingdom.

Description of the clinical role of the ANNP is similar to that of the NNP in New Zealand. Role responsibilities are in delivery suite care, admission and commencement of treatment and 'medical' procedures. The ANNP is often

the only neonatal 'medical' presence on sight, with phone consultation with senior medical staff. Almost half the ANNPs worked only part time in the ANNP role and worked the remainder of the time as bedside nurses but carried out an extended role while working at the bedside. Some felt that there was competition with medical staff to carry out procedures and that the ANNPs were left with the more routine care.

Other aspects of the role were in teaching; most ANNPs were responsible for developing and organising ongoing study days for staff. The ANNPs were also used to provide cover while junior medical staff had teaching sessions and provided them with initial orientation and teaching of procedures. Advanced Neonatal Nurse Practitioners also audited and wrote protocols on neonatal care and participated in joint research projects with medical colleagues.

The role in the United Kingdom is new and developing. Some issues arising from this research need consideration. It was positive to note that clinical care was one of the most satisfying aspects of the role; this anecdotally reflects the NNP experience in New Zealand. There is potential for role confusion and the misuse of the ANNP if they are switching between the ANNP role and the bedside nursing role, particularly in a role that is developing its own identity and struggling to gain acceptance. If the role has a large educational component this will reduce the clinical care component of the role and there will be no clinical career pathway open for nurses in the United Kingdom. Research appeared to be limited to joint projects with medical colleagues and did not promote unique nursing research which should be important in developing advanced nursing practice. Finally there should be caution when using ANNPs to cover senior

house officers so they can attend education sessions. If this is a reciprocal process then this is acceptable, but if not, then the ANNPs will remain as second class citizens to their medical counterparts because their needs will always be given secondary importance.

### **3.7 Conclusion**

While research considering the role of the NNP from both a nursing and medical perspective exists no literature gives an in-depth description of how nursing is applied in the practice of the role, or the unique implications that the culture of nursing has for those practicing in this role. The relevance of many of these studies is called into question because NNPs in New Zealand work in a different health care environment. Public health providers fund all neonatal units in New Zealand in comparison to the United States where private health care funds neonatal care. Cultural implications are values, rituals, beliefs, and the socialisation factors that effect the way in which nurses function in a role that is outside the normal cultural boundary. These may be unique in the nursing culture of New Zealand. In asking how expert nursing is practiced in the NNP role some of the specific issues relating to the beliefs, values and socialisation issues may become apparent.

An appropriate theoretical framework is needed to examine expert nursing in the NNP role. The following chapter outlines the theoretical framework that is used for the research in this thesis.

## Chapter 4: Theoretical framework

Individuals act intentionally and in accordance with their understanding of the issues at stake (Hilton, 1987). The assumption underlying the research contained in this thesis is that nursing has implications for those who practice in the NNP role. Nurses that undertake the NNP role are very experienced and expert nurses prior to commencing their NNP education therefore nursing is inherent in their practice. This may make it difficult for the NNPs to articulate how nursing is practiced in their role. An appropriate theoretical framework and method is needed to gain an understanding of the impact of nursing in the NNP role. This framework is outlined in this chapter.

The theoretical framework that underpins this research is one of change in nursing culture. Anthropology is traditionally the discipline that specializes in the study of culture. It is therefore appropriate to consider the assumptions of anthropology when considering nursing culture. Social anthropologists argue that understanding of phenomena, such as culture, can only be gained from observation from within the context of that culture (Keesing, 1981). The basic assumption of a cultural approach is that a person's behaviour is inextricably linked with the meaning that the situation has for him/her (Geertz, 1973; Keesing, 1981). It is the belief of the researcher that nursing's difficulty in accepting the role of the NNP is because nursing is at present in a position where it is trying to define its value in health-care delivery. Historical issues in nursing (as discussed in chapter 2) have also impacted on the acceptance of the NNP role. As the NNP role incorporates skills that were previously considered medical and as

NNPs are replacing medical residents in the neonatal unit and delivery suite some nurses no longer recognize the nursing input into the role. It is anticipated that by using a variety of research methods a description of how expert nursing is incorporated into the NNP role will be reached.

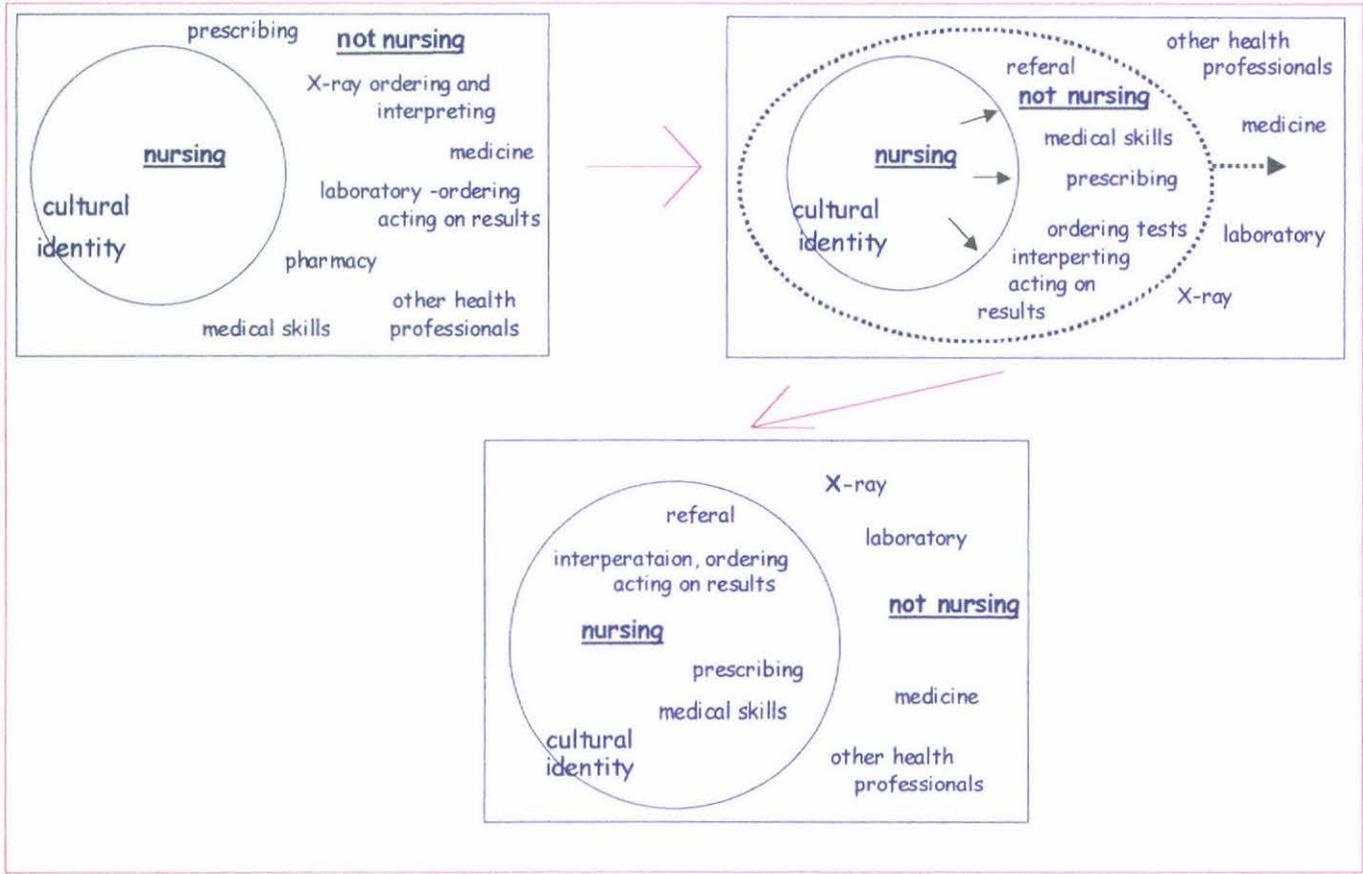
A description of cultural change particularly as it relates to the development of NNP role is now considered. Korerner (1993) suggests that we maintain our identity by boundaries. Everything inside the boundary is 'self' and everything outside the boundary is 'not self'. In the current health care environment nurses and other health-care professionals have to re-map these boundaries. Some have suggested that cultural change needs to be directed from the 'top' down because those at the 'bottom' don't have the wider picture (Dale, Rae, Tarbuck, 1995). This approach would not have been acceptable in the development of the NNP role in New Zealand. A collaborative approach was taken with nurses urging change and directing educational requirements with encouragement and guidance from medical staff and management.

Although in New Zealand no specific model of change was used there appears to be a process of change occurring. Many senior nurses were initially skeptical and resistant to the development of the NNP role. Over time this attitude appeared to change with a greater acceptance from others in clinical practice that work alongside the NNPs. As the role was developing NNPs initially appeared to focus on the acquisition of medical skills, then, as time progressed, they appeared to re-focus on their nursing expertise. While NNPs do not yet appear to have gained widespread nursing approval, it is hopeful that this will happen as the NNP role and other advanced practice roles become more common. Figure 1 offers an

operational model of how the researcher (Jones, 1999) understands the cultural change that is occurring with the NNP role and the culture of nursing. First there is nursing with its cultural identity as its boundary (indicated by the solid circle); this is followed by a pushing of the boundary (indicated by the solid arrow pushing against the boundary) by some inside the culture to incorporate *things* not traditionally nursing. At this stage the nurses pushing the boundary may not be considered as still nursing as they incorporate non-nursing skills in their practice (indicated by the dotted circle). There needs to be some pulling, or at least a space of little resistance, from those outside nursing for this to be possible (indicated by the dotted arrow). Finally there is a redefining of the cultural identity and the boundary is re-established with the new role incorporated. This theoretical model is speculative. Although the research is not designed to test this model the findings have shed light on the model, and has led to further development of the model, (as discussed in chapter 8).

The inclusion of skills previously carried out by other health professionals such as physiotherapists and medical staff into nursing is not a new concept, nurses have incorporated these in the past. These skills, such as giving intravenous medications, massage, to name a few, are now part of nursing's culture. It is the philosophy and understanding underpinning these skills that makes them nursing.

Figure 4.1: Jones Model of the NNP role changing the cultural of neonatal nursing



With this framework in mind critical theory would be used in conjunction with a more descriptive approach. Critical-social theory is useful in facilitating change or acts in an emancipatory way (Holloway and Wheeler, 1996; Mulhall, 1996; Wilson-Thomas, 1995). Street (1995) suggests a critical reflective research process, that involves the participants, as an ideal way of exploring the culture of nursing. In this research about NNPs participants were involved in a reflective process throughout the research. Most felt that by documenting their practice it gave their practice a tangible reality, and they were able to see the nursing component of their practice whereas before it was not visible. Most found the process gave them a method of reflecting on practice and modifying their future practice.

So what constitutes *'Nursing'* and what constitutes *'Medicine'* in the context of this research? McAllister (1992) gives a definition of the difference between expanding and extending nursing practice, as previously outlined (chapter 2). Extension is the skill or task and expansion includes the responsibility, accountability and autonomy to perform the task. It is from our nursing background that the knowledge and philosophy surrounding the decision to perform a skill is formed. An explanation of this is that as bedside nurses we may have the expert knowledge to know what the best decision is but as the bedside nurse we don't have the medical skill to perform the task. It is the decision making process that is nursing and the performance of certain tasks that is considered medical. *'Nursing'* is considered in the context of this research as that which is not taught as the *'medical'* component of the NNP course.

Using an ethnographic framework to illuminate what is the nursing component of the NNP role the researcher recognized that the participants are the holders of the expert knowledge of what is nursing within their role. It was therefore imperative that the participants' description of their experience, of how expert nursing is incorporated into their role, was the focus throughout the research. Through the research it became apparent that expert nursing was not only incorporated in patient care but nursing culture also impacted on the NNPs in their clinical practice.

In the following chapter the research design and methods used will be explained including how the participants were given the opportunity to explore how they perceived their role as NNPs.

## Chapter 5: Design and Methods

The main objective of this research is to describe the neonatal nurse practitioners' perspective of how expert nursing impacts on the neonatal nurse practitioner role in New Zealand. This chapter describes the design and methods that the researcher used to achieve this objective.

The research design utilised multiple methods of data collection. A variety of research methods were chosen to be consistent with the objective, and the theoretical framework outlined in the previous chapter.

Questionnaires, interviews, journal keeping (journalling) and supporting written documentation were the methods of choice. The assumptions, theoretical framework and methodology that underlie the research are those of an ethnographic approach as is appropriate when considering nursing in a cultural context. The ethnographic approach has been used in the participant selection, data analysis and interpretation. The central component of ethnography, which is participant/observation, has not been used for practical and ethical reasons, which will be discussed later in this chapter.

The questionnaire (appendix A) provided the initial data that was then explored in depth through interviews and journalling. Consideration of written documentation, which included standing orders and job descriptions, was also undertaken to enhance understanding of the nursing component of the NNP role. The advantage of the questionnaire was that all the NNPs could have some input into the research at a relatively low cost. It acted as a basis on which to focus the more in depth section of

the research. Limitations to questionnaires were considered. These included:

1. That the respondents may interpret the questions in a different way than was intended.
2. Questionnaires only answer the questions that the researcher asks therefore are biased to what the researcher understands as the most important factors.
3. If the response rates are low then there is the risk of bias in the results (Polit & Hungler, 1991).

Interviews, journalling and supporting documentation were used to enhance understanding. Whilst a purely ethnographic method is not used in this study the underlying assumptions are based on an ethnographic model. It is for these reasons that a discussion of the ethnographic method is pertinent and clarification of the reasons that adaptations to this have been made, are given. The premise of ethnographic research is that the meaning of a behavior is more important than the behavior itself. The researcher must gather a detailed (or thick) description of practice (Geertz, 1973). In the ethnographic method the researcher is considered an essential component of the research (Geertz, 1973; Lincoln & Guba, 1985; Lamb & Huttlinger, 1989). According to Mulhall (1996) while the researcher should not be centralised in the research she should be visible. It is debatable whether it is advisable or not to research in a culture in which the researcher is a member (Holloway & Wheeler, 1996; Morse, 1991). The perceived disadvantages of researching in ones' own culture is that objectivity may be lost and there is the potential that the researcher

may feel that they know everything about the culture (Morse, 1991). However, many nursing ethnographies are written within the culture of the researcher and it can be seen as an advantage to do this. Having knowledge of the language, setting and participants in a culture can enhance the researchers' ability to gain entry into the culture (Holloway & Wheeler, 1996; Morse, 1991).

Lamb and Huttlinger (1989) suggest three methods to overcome problems of researching in one's own cultural group. They are partiality, objective subjectivity, and engagement. Partiality is the identification with the participants (Oakley, cited in Lamb & Huttlinger, 1989). Objective subjectivity is the desire to understand the truth whilst acknowledging personal involvement in the setting (Rowan, cited in Lamb & Huttlinger, 1989). Engagement involves understanding the assumptions and practices that the researcher has with the setting (Morgan, cited in Lamb & Huttlinger, 1989).

Holloway and Wheeler (1996) suggest that it is possible to step back from the researcher's own culture and consider it with a new perspective. By identifying with the participants, acknowledging personal biases and assumptions, and desiring the truth, by stepping back and observing, it is possible to research in one's own culture (Holloway & Wheeler, 1996, Lamb & Huttlinger, 1989).

It is important not to assume that because the researcher is part of the culture they will necessarily have an emic (insider's) perspective. Both an emic and an etic (outsider's) perspective are necessary to give ethnography the depth of meaning (Boyle, 1994). There were ethical concerns regarding observing participants in the hospital environment that meant that the

researcher was unable to include participant observation in the design of this research (see Section 5.3 Ethical considerations). It is for this reason and the desire that the participants describe their own perception of nursing in the NNP role, that the researcher relied on collected personal journal and interview data to gain an insider's understanding of how nursing impacted on the role of the NNP. The researcher also kept a journal of her experience as an NNP throughout the study time. While the researcher's journal has not been used as data it has served to confirm that participants experiences of the NNP role were not aberrant to that experienced by the researcher as a practicing NNP. This enhanced the validity of the results by confirming that themes were not unique to the research participant's.

By using multiple data collection triangulation of data is possible, thus increasing the validity of the research findings. Triangulation of data can be performed in one of three ways. Data triangulation may consist of data collection at different times, in different sites and using different people (Kimchi, Polivka & Stevenson, 1991). This thesis contains triangulation of data collected between different neonatal units, uses a variety of methods of data collection, and involves NNPs of different levels of experience to increase validity.

For clarity the qualitative and quantitative data collection methods are described separately.

## 5.1 Quantitative Method: Questionnaires

### Participant Selection

The population of practicing NNPs in New Zealand is small therefore the researcher endeavored to include the entire population for this part of the study. All NNPs that were employed in NNP practice in March 2000 were invited to participate. Managers, of neonatal units, were used to identify the number of NNPs currently employed in New Zealand. Three neonatal units employed NNPs in March 2000. The manager of each neonatal service sent questionnaires, to all nurses in practice as NNPs in February and March 2000. There were eighteen NNPs in practice at this time. Seven worked in one neonatal service, six in a second neonatal service and five in the third neonatal service. Only NNPs currently employed as NNPs were considered.

A follow-up letter was sent to each of the neonatal services approximately one or two months following the initial questionnaire to remind participants if they had not yet returned it. This also included a thank-you to those who had participated in the questionnaire.

Fifteen (83.3%) questionnaires were returned by stamped self-addressed envelope.

### Data Collection

The questionnaire was designed by the researcher. The questionnaires were of a written format and consisted of demographic data, yes/no and Likert scale responses. The researcher was available to clarify questions by telephone, letter or E-mail, however no respondents requested clarification.

A copy of the questionnaire is given in Appendix A. Demographic data included an indication of the neonatal service they were practicing in, how long they had been practicing nursing, how long they had been practicing as an NNP, and how many hours they worked per week. The data served as a means of comparing experience, similarities and dissimilarities between services, which might impact on the way NNPs perceive the role, although numbers were too small for statistical comparisons. Questionnaire data was then divided into sections about nursing identity, professional issues, leadership and research, and NNP education. There was space for comments at the end of the questionnaire.

#### Data Analysis

Data analysis was commenced once the questionnaires were returned to the researcher. Findings were initially placed in rows and columns. For example:

	Quest 1	Quest 2	Quest 3
Respondent 1			
Respondent 2			
Respondent 3			

From this *raw data* a frequency count of the responses to each question was made and converted to a percentage of respondents. Bar graphs of each group were then created to provide a visual descriptive analysis.

Statistical analysis to consider if there were differences between NNPs practicing in each of the different units was not completed as the numbers of respondents were insufficient to reach statistical significance.

The results were used as a basis for the initial interview questions and were triangulated with interview and journal data.

#### Reliability and validity

As with any questionnaire which is voluntarily returned there is a possibility of participant bias. Only the NNPs with a particular point of view may have been motivated to return the questionnaire. In this study there was a reasonably high return rate 83.3% of the total population therefore the potential for bias was minimal. Polit and Hungler (1991) suggest that a 60% response rate is reasonable. The whole population made up the sample so bias from a sampling error was excluded.

The researcher designed the questions contained in the questionnaires; the results of previously published literature were used as a basis to ensure the content validity of the questions. The questionnaire was not piloted due to time constraints. An opportunity was given to participants to gain clarification or make comment on the questions; this was done in an effort to improve content validity. The questionnaire results were triangulated with the qualitative data and this enhanced both the reliability and validity of the study as a whole.

## **5.2 Qualitative Method: Interview, journal and supporting documentation**

Qualitative methods were used to gain an in-depth understanding of the impact of nursing on the NNP role by analyzing job descriptions, interviewing and using journals to document practice.

### Participant Selection: Interviews and Journals

Participant selection followed an ethnographic design using purposive sampling where 'key informants' were found (Holloway & Wheeler, 1996; MacKenzie, 1994; Parfitt, 1996). These key informants (called participants from this point on) were invited to participate, after showing an expression of interest by responding to the advertisements or information sheet sent with the questionnaires, that invited them to participate further in the interview and journaling phase of the study. Volunteers were requested to contact the researcher either by telephone or e-mail. Spradley, cited in Parfitt (1996) outlines the participant requirements for this type of research as: having a familiarity with the setting, being involved in the setting, having the time for interviews, not being analytical about the role, and being representative of the group. Exclusion criteria were that participants:

1. Had to have been working as a NNP for a minimum of one year
2. Had to be currently employed as an NNP in one of the neonatal services
3. Had to be able to give the time for the interview process and be willing to keep a journal for two months.

Two volunteers from each of the units employing NNPs would have been ideal giving a maximum number of six, and a reasonable spread across the units. As participant involvement was voluntary this was not possible. Five participants volunteered, there were two participants from one service, two from the second service and one from the third service. Representation from the neonatal services when given as percentage is: 14.3%, 33.3% and

40%. As it was a universal NNP role that was being examined qualitatively rather than practice differences in each of the neonatal units this mix was satisfactory. It was important however to have representation from each of the neonatal services. As there were only five voluntary responses the issue of participant selection, if there had been too many volunteers, did not arise.

#### Data Collection – Interviews and Journals

Interviews were carried out at a place and time convenient to the participants. Some participants felt that they were comfortable being interviewed at their place of employment; this was discouraged, as there was the potential for interruptions and other staff may have been able to identify the participants. However place of employment suited two participants.

An initial unstructured interview was carried out with each of the participants to gain an understanding of their understanding of the setting in which they practiced, the place of nursing in the NNP role, educational issues, professional issues and issues involving the culture of nursing. The initial interviews took between forty-five minutes and one hour and five minutes. An interview outline was used. The base questions are given in appendix B; interview 1, when other questions arose they were explored. Participants interpreted the questions in a way that had meaning for them; some asked for clarification. Participants were encouraged to follow their own thought process. The interview was audio taped with the consent of the participants. The interview was then transcribed and the transcription taken back to the participants for validation.

Following the initial interview the participants kept a journal of their practice for a period of two months. A critical incident format as described by Burnard and Morrison (1994) and a format described by Street (1995), which included documenting the setting, personnel, activity, interaction, thoughts and feelings, were outlined to the participants as a guideline. The participants could choose whether or not they used this format. The participants were encouraged to document any aspects that they considered important or representative of the role and to document any feelings or relevant thoughts or anything else pertinent to the question. Journals were taken and analyzed in the researcher's home. Some participant's journal information was analyzed prior to the second interview and again after the second interview, while other participants' journals were analyzed only after the second interview. This was dependent on the ability to schedule interviews and times to meet participants.

The second interview was carried out two or three months after the initial interview. These interviews were between fifty minutes and one hour and fifteen minutes in length, most being of one hour. This interview was used to begin to clarify the codes, concepts and themes that were emerging from the data. This interview was audio-taped. Participants were given a copy of the transcribed data and asked to validate the information they had given. An interview outline (appendix B; interview 2) with other questions specific to each individual participant clarifying issues from their specific previous interviews and journals was used. As in the first interview participants were encouraged to lead the discussion in the direction that they wanted to.

A final interview was carried out one or two months after the second interview. This interview was not audio taped and was an interview to confirm analyzed data and to validate the concepts and themes that had emerged from the data. These interviews were of between one hour and thirty minutes and two hours in length. The participants were also asked for permission to use the specific quotes used in the results chapter.

#### Data analysis – Interview and Journals

Data analysis was carried out as the data was collected. This is consistent with, and essential to the ethnographic method (MacKenzie, 1994; Parfitt, 1996; Street, 1995). Data from the interviews began to be analyzed following each interview, and the codes were established, concepts and themes emerged following the completion of the first interviews. The second interviews were transcribed, analyzed and coded to confirm that the categories and themes were consistent amongst the participants. Journal data were analyzed separately from the interview data so that the journal analysis could be compared to the analyzed interview data.

The method of content analysis used to evaluate the interview data was:

- 1) Audiotapes were transcribed by the researcher, some notes were taken during the transcription
- 2) Transcripts were re-read,
- 3) Data was broken down into smaller units which gave codes
- 4) Common codes were grouped, compared and contrasted,

- 5) Relationships were searched for between codes and these gave concepts
- 6) Description of the concepts and ideas which linked the codes to concepts is given,
- 7) Analyzed data was interpreted to give the themes of practice.

The above format for the analysis of qualitative data was based on the description for qualitative data analysis given by Burnard and Morrison (1994), Holloway and Wheeler (1996) and Polit and Hungler (1991). The results are presented under the heading of the appropriate theme, an explanation of the theme is given, and then concepts are given, under a subheading, with the codes that were used to link these concepts in italics. For example the second theme is 'orientation to family', the concepts involved in this theme are 'family care' and 'context of family', the codes that linked 'family care' were *relationship with family, communication and provision of care to family*, and the codes that linked 'context of family' were *baby's relationship with family and safety*.

At the end of the data collection, and once the analysis had been made, the data and analysis was taken back to the participants for reflection, validation and discussion. Participants all confirmed the results as an accurate description of their experience of nursing in the NNP role.

#### Reliability and Validity: Interview and Journals

There was potential that participants that volunteered for this part of the interview and journaling part of the research were not representative of the NNP population. To meet the aims of the research project it was

important to use participants that thought that nursing was practiced in the NNP role. As the participants were aware of the research question it was likely that those who carried this belief would volunteer. It was important that there was representation from each of the neonatal services to gain accurate representation. This was achieved. The participants accounted for 28% of the total population of NNPs in New Zealand.

Interview and journal data were analyzed independently of each other; this enhances the validity of the results through the use of triangulation. The participants validated the results after analysis. They confirmed that the codes, concepts and themes were representative of their experience of the NNP role.

The researcher kept a practice journal through out the course of this research. While this did not form part of the analyzed data it provided a check, following completion of the data analysis, of the uniformity of the NNP role. As the researcher is part of the small number of NNPs in New Zealand this confirmed that the findings were representative of a significant number of those practicing in the NNP role.

#### Data Collection: Written documentation

Job descriptions of the NNP and standing orders for NNP practice were obtained from each neonatal service that employ NNPs. The three job descriptions and three standing orders were compared and are described in chapter 6.

### **5.3 Ethical Considerations**

The ideal method of research would have included participant observation. Ethical concerns were raised regarding observing participants in a hospital environment and it was for these reasons that participant observation was not included in the design of this research.

Ethical considerations in carrying out a study of this type of study include ensuring confidentiality, benefit to the participants, that no harm is done and that consent is freely given (Polit & Hungler, 1991). Although nurses in this situation are not generally considered vulnerable subjects consideration to the effect of research in an employment situation was given. This included consideration of issues of safety while assessing personal journals of clinical practice, and the possibility of themes that did not enhance patient care; these ethical problems did not arise during the research process. A strategy was in place to deal with the issue of safety while assessing journals of practice; this was that it would be dealt with by confidential discussion with the participant.

A further consideration was for the families of the babies being cared for who would also be subject to observation albeit vicariously. Conflict of interest may also have arisen, between roles, for the researcher/NNP. It was for these reasons participant/observation was not a viable data collection method and information pertaining to specific families was not sought in this study.

Consent from the Massey University Human ethics committee and Waikato ethics committee was received for this study.

## Consent

Consent was gained from the participants depending on which part of the research they were willing to participate in.

Consent for the questionnaire was given by returning the questionnaire. An information sheet (Appendix E) was provided outlining the objectives of the study and inviting the NNP to participate by returning the questionnaire. While this was an anonymous questionnaire there was the potential that individuals might be identifiable as the NNP group was small. To minimize this risk gender was not asked for and age groupings were made rather than a specific age question. Handwriting was also a potential source of identification thus questions were structured so that only circling the answers was required. Comments were also invited and this again increased the risk of identification. Therefore, all questionnaires were treated with confidentiality and information was stored in a locked filing cabinet. The questionnaires will be destroyed after five years.

Consent for the interview and journalling was given in writing (appendix D). For the NNPs invited to participate it was important that there was an opportunity to refuse participation or to withdraw from the research at any stage up until the data analysis was completed. A written information sheet (Appendix F) was provided. Transcripts and audiotapes were locked in a filing cabinet, transcripts will be destroyed in five years and audiotapes were returned to the participants after data analysis was completed. The journals remain the property of the participants and were viewed for analysis then returned to the participant. While in the possession of the researcher they were stored in a locked filing cabinet at the researchers home.

## **5.4 Summary**

This chapter provides a description of how the exploratory design of the research contained in this thesis was undertaken. Multiple data collection methods were used. All NNPs that were in practice at the time of the research had the opportunity to be involved in this research. This design enabled an in-depth exploration of the impact of expert nursing on the NNP role, from the NNPs perspective.

The results of the research are reported in the two following chapters. Chapter 6 gives the quantitative results and includes the results from written documentation. Chapter 7 follows with the qualitative results.

## **Chapter 6: Quantitative Results and Supporting Documents**

This chapter reports the results from the questionnaire data and the data from written policies such as job descriptions and standing orders.

Demographic data is presented as percentages with ranges and averages where appropriate. The questionnaire results have been divided into four areas. These are: nursing identity, professional issues, leadership and research, and NNP education. Data is given as percentages of responses and then divided into the three different neonatal services that employ NNPs and presented as bar graphs. As the total population of NNPs is small statistical analysis of the difference between NNP groups is not given.

### **6.1 Questionnaires**

A total of eighteen NNPs were practicing in New Zealand in March and April 2000. Fifteen responded to the questionnaire giving a response rate of 83.3%. One respondent did not answer all questions, the number of respondents per question is noted.

### 6.1.1 *Demographic data*

#### Age (N=15)

<u>AGE</u>	<u>n</u>	<u>%</u>
30-40	11	73.3%
40-50	4	26.7%

#### Years in Nursing (N=14)

The average years as a Nurse = 16.25 years  
 The range = 9 - 25 years  
 The standard deviation = 4.55 years.

#### Years as NNP (N=14)

The average years as a NNP = 3.78 years  
 The range = 1 - 5.5 years  
 The standard deviation = 1.42 years

#### Hours worked per week (N=15)

<u>HOURS</u>	<u>n</u>	<u>%</u>
32-40	13	86.7%
10-31	2	13.3%

Responses to the rest of the questionnaire are given in bar graph form. Responses from each of the neonatal services are shown by different colour. These ratings are ranked as follows:

1 = very important

2 = important

3 = neither important nor unimportant

4 = unimportant

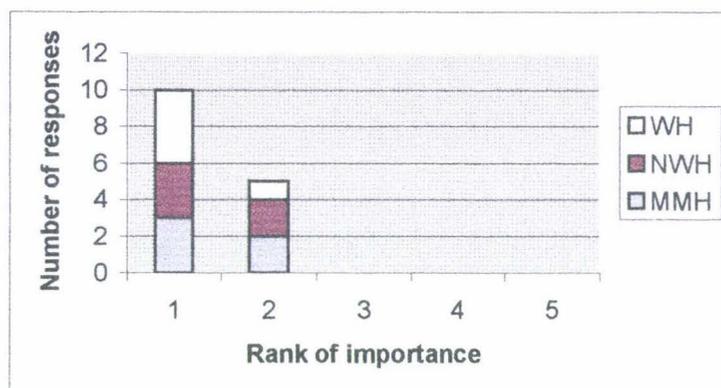
5 = very unimportant

The key used is WH (Waikato Hospital), NWH (National Womens Hospital) and MMH (Middlemore Hospital).

### *6.1.2 Questions: Nursing Identity*

Questions that gave information about the NNPs opinion concerning nursing identity were questions 1-6 and 22.

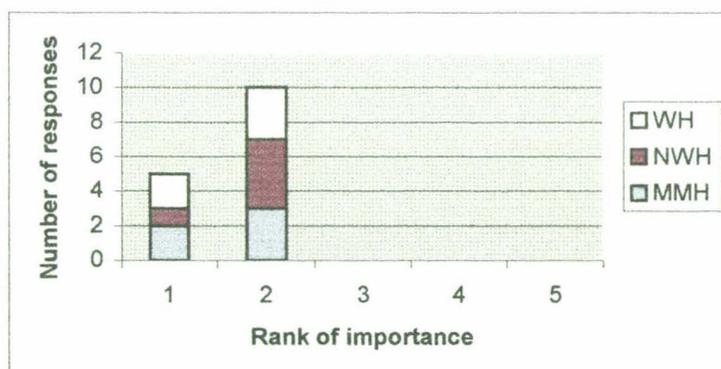
Question 1: How important is your nursing background in the performance of your role as an NNP?



**Figure 6.1: Importance of nursing background**

10 of 15 (66.7%) respondents gave a rating of very important, and 5 of 15 (33.3%) respondents gave a rating of important. There was a similar distribution of answers from each service. Respondents agreed that their nursing background was important in the performance of their role as a NNP.

Question 2: How important is it that NNPs primarily identify with nursing?

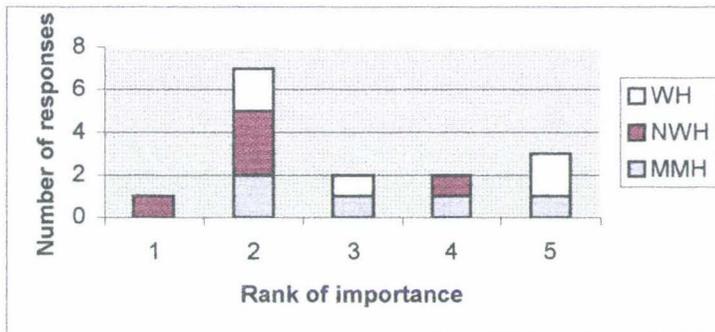


**Figure 6.2: Importance of primarily identifying with nursing**

5 of 15 (33.3%) respondents gave a rating of very important and 10 of 15 (66.7%) gave a rating of important. There is a similar distribution of

results from each of the neonatal services involved. Respondents agreed that it was important for NNPs to primarily identify with nursing.

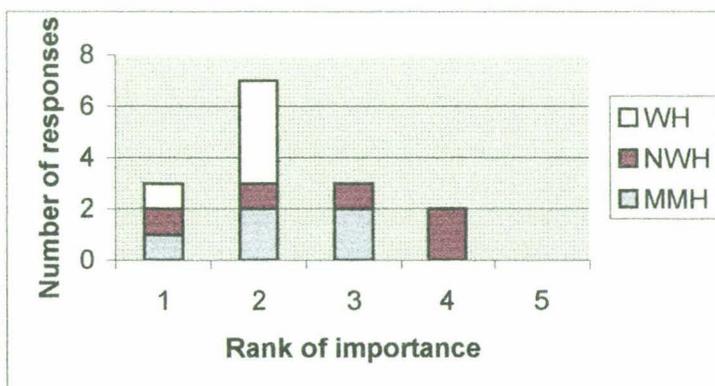
Question 3: How important is it the NNPs primarily identify with medicine?



**Figure 6.3: Importance of primarily identifying with medicine**

1 of 15 (6.7%) respondents gave a rating of very important, 7 of 15 (46.7%) gave a rating of important, 2 of 15 (13.3%) gave a rating of neither important nor unimportant, 2 of 15 (13.3%) gave a rating of unimportant and 3 of 14 (20%) gave a rating of very unimportant. Respondents were divided on the issue of NNPs identifying with medicine.

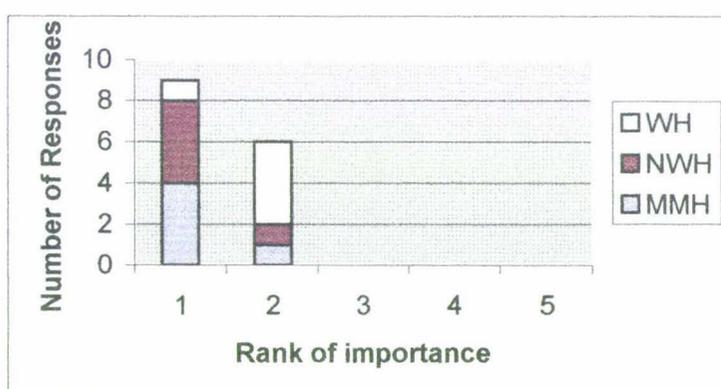
Question 4: How important is it that NNPs perform nursing activities in the NNP role?



**Figure 6.4: Importance of performing nursing activities in the NNP role**

Respondents were divided on the importance of performing nursing activities in the NNP role with two thirds (66.67%, 10 of 15) considering it somewhat important, of these respondents rating it important, [7 of 15] or very important [3 of 15]. Three (20%) gave a rating of neither important nor unimportant and two (13.33%) gave a rating of unimportant. Of note is all the WH respondents considered nursing activities important, some of the MMH respondents considered nursing activities important while some were ambivalent and there were divided opinions between the NWH respondents with some rating it very important and some rating it unimportant.

Question 5: How important is it the NNPs perform medical activities in the NNP role?



**Figure 6.5: Importance of performing medical activities in the NNP role.**

All of the respondents (100%) thought that it was important or very important to perform medical activities in the NNP role. There is a similar distribution between the different neonatal services.

Question 6: Is it important to you that nursing identifies the NNP role as an advanced practice nursing role?

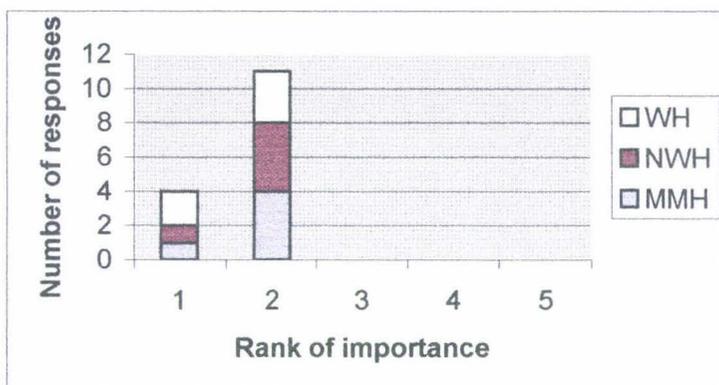


Figure 6.6: Importance of identifying the NNP role as an advanced practice nursing role.

All of the respondents (100%) rated identifying the NNP role as an advanced nursing practice role as important or very important. There is a similar distribution between different NNP groups.

Question 22: Do you consider yourself to primarily be performing a medical or nursing role?

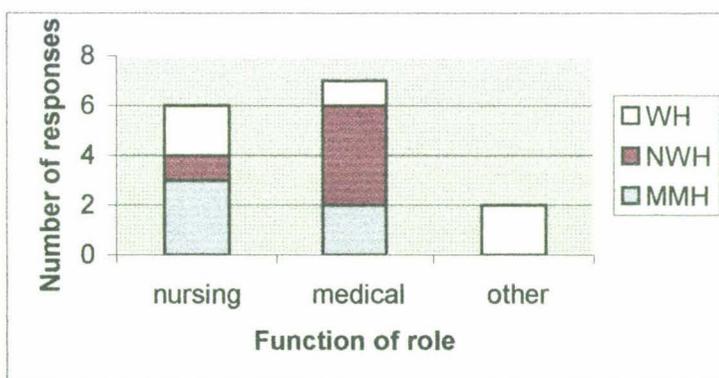


Figure 6.7: Role function: medical or nursing

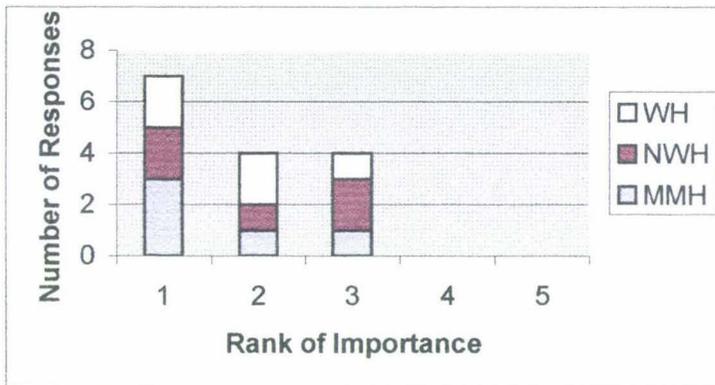
Thirteen respondents answered the question as asked (missing data =2). Six (46%) indicated they were primarily performing a nursing role, and seven (54%) indicated that they were primarily performing a medical role.

One respondent answered that both roles were primarily performed and one did not respond (these are indicated as other in figure 6.7). The respondents were clearly divided on the issue of the primary function of the NNP role.

### 6.1.3 *Questions: Professional issues*

Questions that related to professional issues that were specific to the NNP role were 7-11.

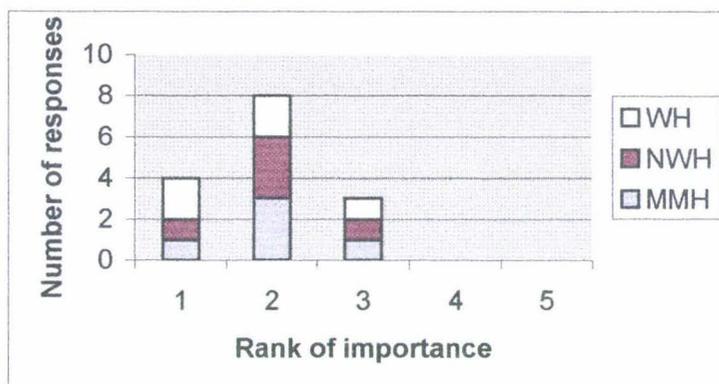
Question 7: How important to you is the title "neonatal nurse practitioner" as opposed to "neonatal nurse specialist"?



**Figure 6.8: Importance of the title 'neonatal nurse practitioner'**

Seven (46.7%) respondents thought that it was very important and four (26.7%) thought that it was important to maintain the title 'neonatal nurse practitioner'. Four (26.7%) were ambivalent about the title. The distribution of responses in each NNP group was similar. There were mixed thoughts on the importance of maintaining the title 'neonatal nurse practitioner'.

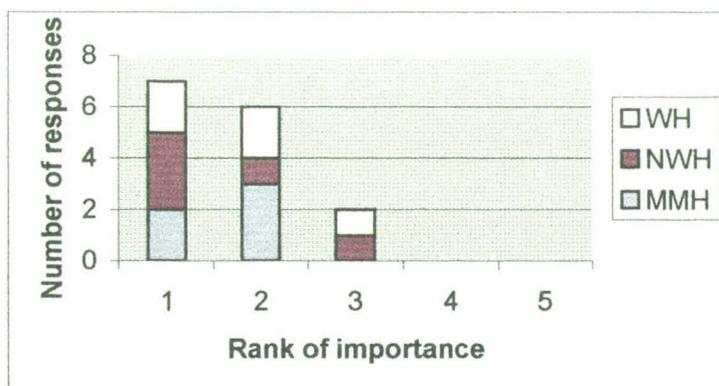
Question 8: How important is it the NNPs have a responsibility to nursing management?



**Figure 6.9: Importance of NNPs having responsibility to nursing management**

Four of the fifteen (26.7%) respondents thought it very important and eight (53.3%) thought it important that NNPs have a responsibility to nursing management. Three (20%) were ambivalent about this question. The distribution was similar in each NNP group.

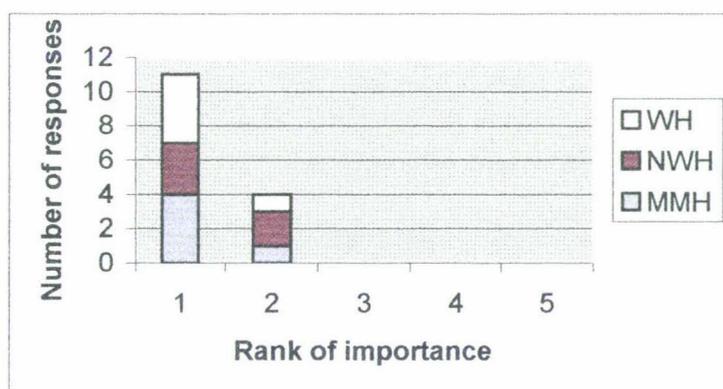
Question 9: How important is it the NNPs have a responsibility to medical management?



**Figure 6.10: Importance of NNPs having responsibility to medical management**

Seven of the 15 (46.7%) respondents thought that it was very important and six (40%) thought it important to have responsibility to medical management. Two (13.33%) were ambivalent. All MMH respondents thought that it was important to have responsibility to medical management, the distribution in the other NNP groups were similar.

Question 10: How important is it that NNPs belong to a professional body of nursing?



**Figure 6.11: Importance of NNPs belonging to a professional body of nursing**

All (100%) respondents thought that it was important or very important that NNPs belong to a professional body of nursing. The distribution was similar in each NNP group.

Question 11: How important is it that you belong to a professional body of nursing?

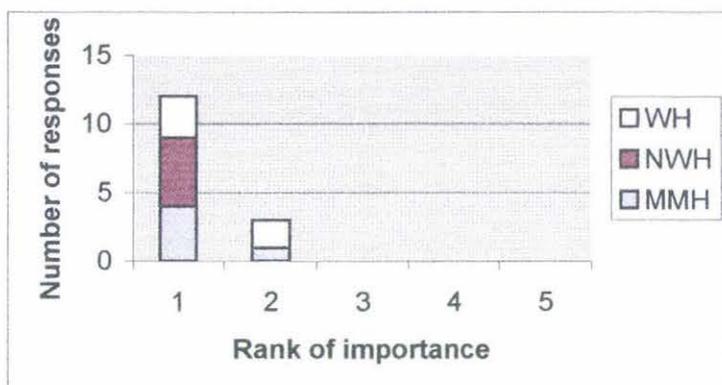


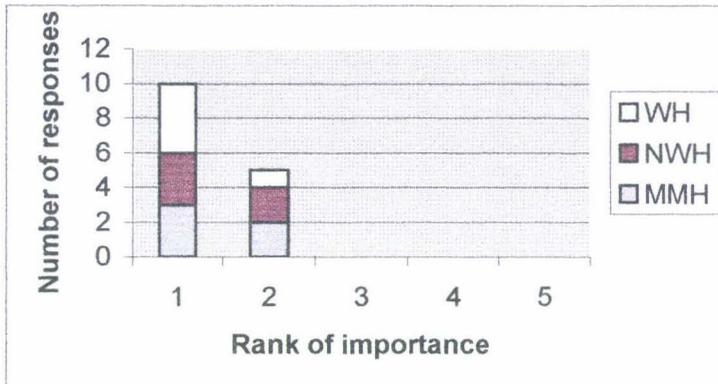
Figure 6.12: Importance to respondent of belonging to a professional body of nursing

All respondents (100%) thought that it was personally important to belong to a professional body of nursing. All respondents in the NWH saw this as very important while some in the other NNP groups saw it only as important.

#### 6.1.4 Questions: *Leadership and research*

Questions relating to leadership and research activities in the NNP role were 12-14.

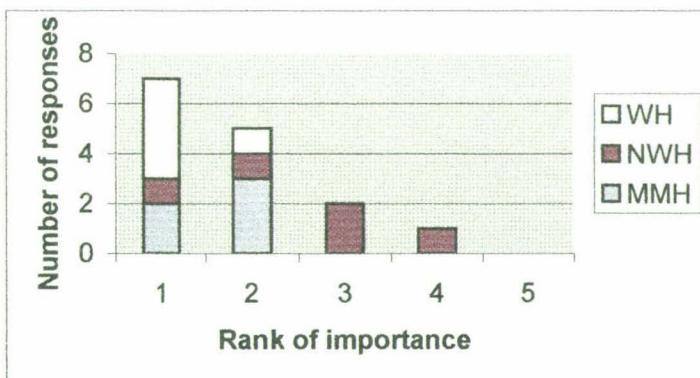
Question 12: Is acting in a consultative role to the bedside nurse an important part of the NNP role?



**Figure 6.13: Importance of NNP acting in consultative role for bedside nurses**

Two-thirds (66.7%) of the respondents thought that acting in a consultative role to bedside nurses was very important and one-third (33.33%) thought it important. The distribution is similar between NNP groups.

Question 13: Is helping the bedside nurse develop her or his nursing skills important to the NNP role?



**Figure 6.14: Importance of NNP role in helping the bedside nurse develop her or his nursing skills**

Seven of fifteen (46.7%) responders thought it very important and five (33.3%) thought it important for the NNPs to help in developing bedside nursing skills. Two (13.3%) thought it neither important nor unimportant and one (6.7%) thought it unimportant. All responders at MMH and WH thought it of some importance and three at NWH were ambivalent or thought it unimportant.

Question 14: Is undertaking nursing research important to the NNP role?

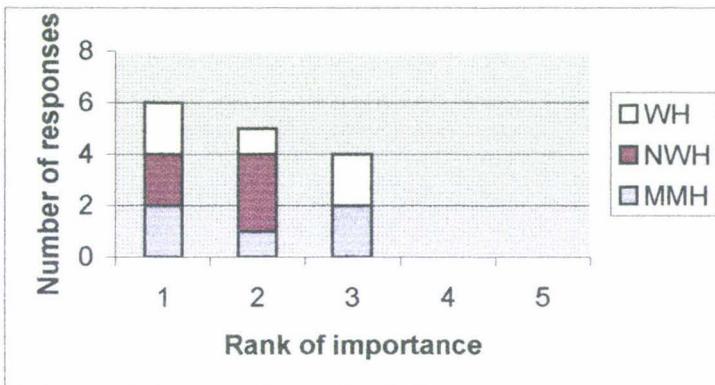


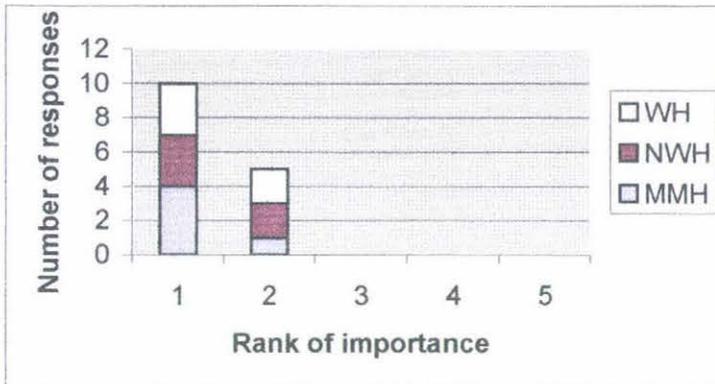
Figure 6.15: Importance of undertaking nursing research

Six of fifteen (40%) respondents thought it very important and five (33.3%) thought it important for NNPs to undertake nursing research. Slightly more than one-quarter (26.7%) were ambivalent about the importance of NNPs undertaking nursing research. All the NWH group thought that it was of some importance for NNPs to be undertaking nursing research while equal responders from MMH and WH were ambivalent about the importance on nursing research in the NNP role.

### 6.1.5 Questions: NNP education

Questions relating to NNP education were 15-21.

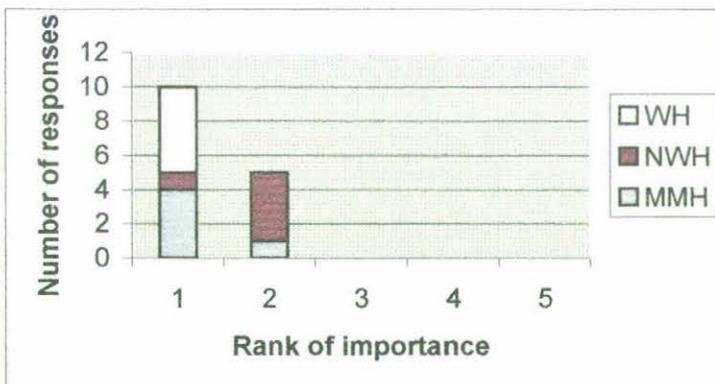
Question 15: How important is the neonatal nurse practitioner course that you completed in the performance of the NNP role?



**Figure 6.16: Importance of neonatal course to the performance of the NNP role**

All (100%) respondents thought that the NNP course that they had completed was important to the performance of their role as a NNP. The distribution was similar between neonatal services.

Question 16: How important is advanced nursing education in the neonatal nurse practitioner role?

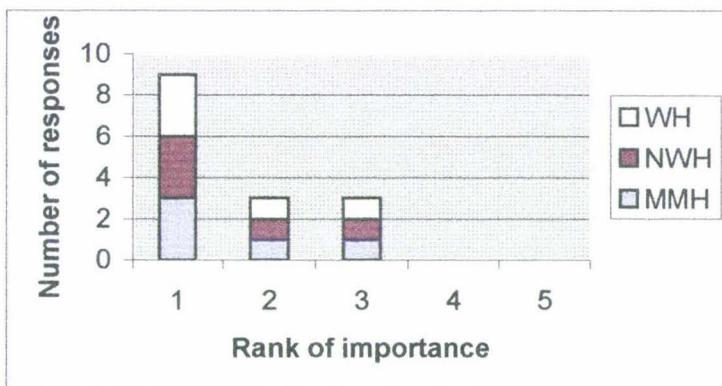


**Figure 6.17: Importance of advanced nursing education in the NNP role**

Three-quarters (66.7%) respondents thought it very important and one-third (33.3%) thought advanced nursing education was important to the

NNP role. All WH response gave a very important rank, while results were similarly distributed with the other groups.

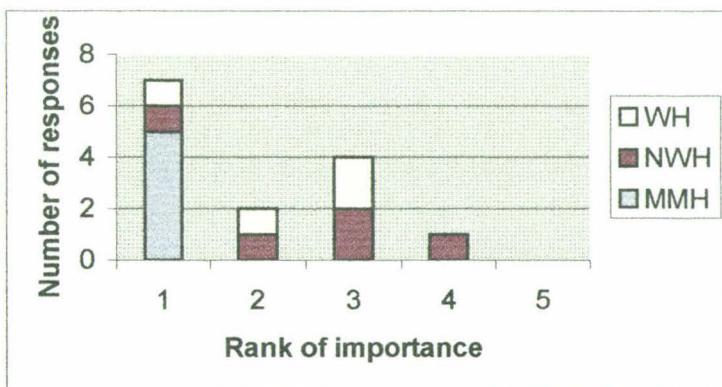
Question 17: How important is it that neonatal nurse practitioner education is at a post-graduate level?



**Figure 6.18: Importance of NNP education being at post-graduate level**

Twelve of fifteen (80%) respondents thought it of some importance for NNP education to be at post-graduate level. Three (20%) were ambivalent to the importance of post-graduate education. The distribution was similar in all NNP groups.

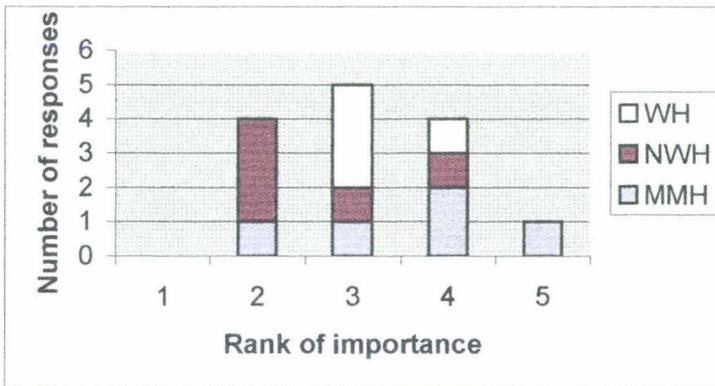
Question 18: How important is it that NNP education be centred in a tertiary nursing school?



**Figure 6.19: Importance of NNP education being in a nursing school**

Only 14 of the 15 respondents answered this question. Seven (50%) thought it very important and two (14.3%) two thought it important that NNP education be set in a nursing school, 4(28.6%) were ambivalent and 1 (7.1%) thought it unimportant. All MMH responses gave a ranking very important, and only NWH had a responder that thought it unimportant.

Question 19: How important is it that NNP education be centred in a tertiary medical school?



**Figure 6.20: Importance of NNP education being in a medical school**

Again only 14 of the 15 responders answered this question. Four (28.6%) thought it important that NNP education was in a medical school. Five (35.7%) were ambivalent. Four (28.6%) thought it unimportant and 1 (7.1%) thought it very unimportant that NNP education be in a medical school. The distribution between importance, ambivalence and unimportance was even in the NWH group, the MMH and WH tended toward ambivalence or unimportance.

Question 20: How important to you is it that post graduate education is set in a University?

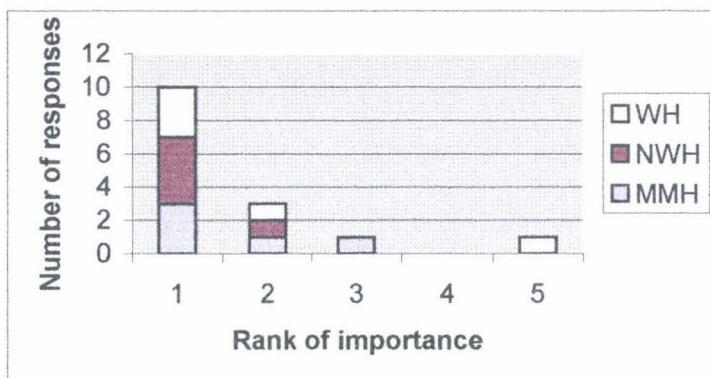


Figure 6.21: Importance to respondent of education being at a university

The majority of respondents thought it important that their post-graduate education be at a university, ten of fifteen (66.7%) respondents thought it very important and three (20%) thought it important. One (6.7%) was ambivalent and 1 (6.7%) thought it very unimportant. All NWH respondents thought it important that their post-graduate education be at a university.

Question 21: Do you or are you studying for a post-graduate degree?

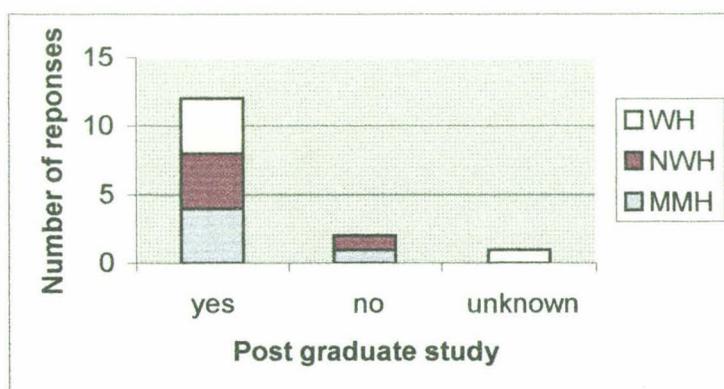


Figure 6.22: NNPs holding or studying toward a postgraduate degree

This question required a yes or no response. Fourteen of fifteen respondents answered this question. It was important to acknowledge that one had not answered this question to account for all respondents, thus fifteen responses have been recorded. Twelve (80%) responded yes and 2 (13.3%) responded no, the 1 (6.7%) did not responded was recorded as an unknown. The distribution is similar between NNP groups.

## **6.2 Written data: Job descriptions and standing orders**

### Setting of practice

All NNPs currently work in neonatal units with a combination of level 2 neonatal care and level 3 neonatal care. The levels of care are divided in different ways in each of the different neonatal services. The NNPs in all settings work on a combined junior medical and NNP roster. In one service the NNP roster is combined with either the house surgeon for level 2 neonatal care or the registrar roster for level 3 neonatal care, the NNPs rotate through both rosters over time. In the other neonatal units the NNPs combine with the registrar roster to work in either or both level 2 and level 3 neonatal care areas. Neonatal nurse practitioners act in all neonatal services as the 'paediatric presence', providing 'medical care' to high-risk neonates. 'Medical care' in this context refers to carrying out 'medical' procedures, ordering, interpreting and acting on test results and acting in certain situations in place of a medical person. (The concept of medical care will be discussed in the chapter 8.) On site neonatal 'backup' differs in each neonatal unit. One service has three neonatal personnel (NNP, registrar or house surgeon), one unit has a NNP or registrar and a house surgeon for term at risk deliveries and one unit has one neonatal

person on site (NNP or registrar). Medical consultants are available twenty-four hours per day for phone consultation and will attend if required, but are not necessarily on site.

Full time employment for NNPs in all neonatal services is considered to be forty hours per week. Hours of work range between eight hours and fourteen and a half hours per day. All NNP rosters are made with a mixture of hours divided into short days (eight hours), long days (twelve, thirteen and a half, or fourteen and a half hours), or nights (twelve, thirteen and a half, or ten and a half hours).

The NNPs in all organisations have an accountability structure leading to both nursing and medical management.

### *6.2.1 Job Descriptions*

#### Personal specifications

All job descriptions contain educational, experience and personality requirements.

Education requirements varied between

1. a NNP course as a requirement with post-graduate nursing study preferred
2. a graduate diploma as a requirement with a post-graduate degree preferred
3. an advanced neonatal nursing certificate and completion of the hospital and clinical component of a neonatal nurse practitioner course with a graduate diploma preferred

Experience and knowledge requirements were similar and included a level of expertise. Some job descriptions required that the NNPs had to be practicing at a designate level in a clinical career pathway, others required three years practice in a neonatal service, with level three experience.

Personality requirements varied slightly, however, all included:

1. Communication skills
2. Problem-solving abilities
3. Conflict management
4. Cultural sensitivity

Some include requirements such as:

1. Ability to manage crises
2. Positive identification with nursing
3. Team building skills
4. Role modelling
5. Competence
6. Assessment skills

#### Scope of practice

All described similar scopes of practices and responsibilities or accountabilities.

1. Management and provision of nursing and medical care. The medical care was consistent across job descriptions, the nursing component varied from: providing expert care that promotes the social, cultural, spiritual, physical, emotional and intellectual well-being of patients and families to: nursing care planning and care provision is undertaken in co-operation with the nurse at the bedside
2. A responsibility to provide family centred care was present in all job descriptions
3. Personal responsibility for professional development was present in all job descriptions
4. Research was present in all job descriptions; this varied from participation in audits to the use of critical analysis of research studies.

Other responsibilities were specific to individual services and included:

1. Maintaining institutional values and visions
2. Nursing education and professional development of other staff

### *6.2.2 Standing orders*

Standing orders were similar and included two sections. One section covered the charting of medications and the other covered procedures. All named the nurses who were allowed to practice as neonatal nurse practitioners in the respective organisations.

### Charting of medications

This section names the drugs that are allowed to be charted by the NNPs.

All divide the drugs into 3 classes:

- A. Can be signed by a NNP without informing a medical practitioner and given by a staff nurse. It must be counter-signed by a medical practitioner within 12-18 hrs (the time before it must be countersigned depends on the neonatal service)
- B. Can be signed by a NNP but must have verbal approval from a medical practitioner and can be given by a staff nurse. It must be counter-signed by a medical practitioner within 12-18 hrs.
- C. There is a difference between neonatal services in this class. In some it means medications that can be signed by the NNP and it doesn't need countersigning. In some it means medications need to be signed by a medical practitioner prior to giving.

### Procedures

Standing orders for procedures are virtually the same in each service.

They fall into three categories:

1. Physical procedures such as chest-drains, umbilical lines, endo-tracheal intubation, lumbar punctures etc. A description of how to carry out the procedure and under what circumstances it can be carried out without approval from the medical specialist is given

2. Ordering of tests such as laboratory tests, X-rays and daily orders. A description of the tests that the NNP can order without approval of the medical specialist is given.
3. Situations such as acting as the 'designated medical presence' in resuscitation and high-risk deliveries and performing exchange transfusion are described. The NNP responsibility in informing the medical specialist and the situations that the NNP must request assistance is given. The standing orders also cover the NNP in performing delegated medical tasks that are deemed by the NNP to be necessary according to the NNPs judgement.

### **6.3 Summary**

The very nature of the NNP role, as it merges with a medical role creates a tension for the NNP concerning their identity. While most of the respondents perceived themselves as nurses there is uncertainty as to whether the role performs a nursing or medical function. The NNP role is clearly a role for nurses in neonatal care requiring further education. In the following chapter the participating NNPs illuminate their nursing role through their interviews and journals.

## Chapter 7: Qualitative results

This chapter reports qualitative data results gained from interviews and journal data collection. Results from the interviews appear first, this is followed by journal data.

Initial data was coded, similar codes were grouped to form concepts and concepts were then grouped to form the overriding theme. Themes fell into *practice themes* or *professional themes*. The results are given as the overriding theme with the concepts described in sub-headings and the codes described in italics within the concept that they relate to. Appendix C displays how the codes progress to concepts and then to themes. Quotations are presented as indented paragraphs with the participant number in the introduction to the quotation or following (for example participant 1 = P1).

### 7.1 Interview data

The results from the interview data follow.

### 7.2 Themes from practice

Practice themes are themes that are directly involved in patient care. They include a consciousness of baby, orientation to family, the uniqueness of NNP care and leadership. The themes and concepts reoccurred in the journal data. Some aspects were only touched on in the interview data and became more consolidated in the journal analysis. Concepts that were described better in the journal data were those relating to nursing expertise, management and stressors.

### 7.2.1 *Theme 1: Consciousness of baby*

A 'consciousness of baby' is a way of understanding, of perceiving, of interpreting and of comprehending the patients that NNPs care for. It involves concepts of personhood, how NNPs understand and interpret wellness or sickness in babies and a contextual understanding of babies and their needs.

#### Concept 1: Personhood

The way that NNPs use *language* to identify the patients that they care for and the identification of individual *personality* has important implications to the way the NNPs care for their patients. Implications of personhood carry through into other themes such as how NNPs cope with the many stressors of the role. An implication of personhood also attributes rights to the babies, and responsibilities to the NNPs as caregivers.

*I think we see the babies slightly differently from the way doctors do. Because of our background as the babies care giver and I think the concept of ... caring for a baby and our feelings for the baby... (P2)*

An interesting discourse was uncovered in the NNPs *language* throughout the first interviews. One of the five participants used the terms 'baby' or 'babies' when referring to nursing or NNP care and 'neonate' when they were referring to medical care. The other participants used the terms 'baby' or 'babies' reasonably consistently throughout when referring to current clinical NNP practice but the term neonate when referring to medical or past nursing practice. Other terms that came up were 'kids', 'kiddy', 'child' and 'infant'. One participant referred to neonates in a context of sickness.

P2 uses the words 'baby' or 'babies' when considering the nursing aspects of care:

*I think we see babies differently from doctors do., ... our background as the babies care giver, ... it is the concept of caring for a baby and our feelings for the baby....*

Later P2 contrasts this with medical care

*... they still need to come to the neonatal unit to learn how to look after neonates - to learn what the medical care of the neonate is.*

P3 uses the word 'neonate' when referring to past nursing experience as a collective way of referring to care of the sick baby and uses the words 'baby' or 'babies' when referring to current practice:

*... because you're experienced looking after neonates from [your] nursing perspective ... you can then, I think, use those tools to gain the information and update where this baby is at .....*

P4 discusses the skills and knowledge that NNPs offer:

*that's both medical and nursing but it really relates to neonates ...*

and continues later to describe an incident using the terms baby and kiddy.

In the second interviews each participant was asked if the terms 'baby' and 'neonate' had different meanings. The participants were unaware of consciously using the terms 'baby' or 'neonate' in different contexts in the first interviews. They identified that 'baby' and 'neonate' carried different meanings for them. Baby carried the meanings: normal, caring, gentleness, empathy, belonging to parents, intimacy, personality and holism. Neonate carried the meanings: sick, clinical, academic, scientific/technical, of distancing oneself from, collective, dehumanising, and 'broken down to the

bit that's wrong'. Using the term baby the NNPs attributed the nursing values of caring, a concept of uniqueness, and relationship with infants that they care for.

Participants' also gave examples of attributing *personalities* to the babies in their care. *Personality* implies individuality which carries with it human rights.

*a while ago we had a really neat little twenty-five weeker who was just gorgeous.*

*(P5)*

P2 is more direct:

*... because each baby does have its own distinct personality in a way, I don't know if you can call it quite a personality but some kids are more vigorous than others, some kids cry more than others.*

One of the participants outlined the implications of acknowledging babies as having personality giving an example of an NNP withdrawing care and singing to the infant.

*I mean ... was like a classic example going in there when she was withdrawing [care] and she was singing to the baby ... (P2)*

This is such a human act; it acknowledges the humanity of the baby as a sensory being which has the rights accorded to humans.

A feeling of frustration was expressed by P2 when other health professionals view babies differently:

*... and it's not like this baby is like an alien being or anything, it's still part of humanity ...*

P1 also identifies the uniqueness of each baby:

*Where as we ... you talk about the babies and the entity and it's being in it's own right.*

P4 outlines the implications of attributing personhood to babies to whom, as a NNP, you have to carry out procedures that are unpleasant:

*I less often call them babies because I'm not there because I love babies. I couldn't do what I do to a child. I've left paediatric floors crying, you know, when I have to put in lines.*

This participant goes on later in the interview to identify that she does have an empathic relationship with babies; when discussing about being the first person to see pathology in an infant,

*It's kind of a horrible feeling ... this poor child. (P4)*

#### Concept 2: Understanding of wellness/sickness

Neonatal Nurse Practitioners have a way of understanding wellness and sickness in an infant. Developing a *feel* for the baby is an instinctive knowledge of the baby after a relationship with the baby had been established, distinct from the relationships developed with parents/families. *Multi-factorial and multi-sensory data gathering and interpretation* represents the observational skills that nurses are expertly skilled at and the factual analytical skills also used.

Most of the participant group identified the need to develop a *'feel'* of or for the baby before being able to make independent judgement as to whether an infant was well or not. If the participants were unable to do this for themselves they relied on bedside nurses or mothers to do this for them. Developing a *feel* for a baby generally involved time and prior knowledge of the baby although sometimes it was instantaneous. Developing

a *feel* was more than just an understanding of normality; it also included tacit awareness of the infant.

One method used to accomplish this is described as:

*...it's not unusual to find me helping the bedside nurse with the care of the baby for handling. ... Part of the reason that I do that is it gives me a feel for the baby ...*  
(P2)

The importance of time, prior knowledge and utilising the knowledge and experience of the bedside nurse in developing this type of understanding is described:

*...they'll [the bedside nurse] say 'the baby's not handling as well' ... if they've been looking after them for several days and this is the first time you've looked at them for several days you have to go along [and review them].* (P2)

P3 also acknowledges the importance of the knowledge of nursing staff and mothers

*... her [bedside nurses] general feeling and I ask, you know, saying 'how do you feel about this baby' if the mother's there I'll ask her as well, because they've seen the baby before.*

P1 confirms this type of understanding when discussing admitting babies to the neonatal service:

*... I realised for the first time probably that they never saw where I had come from what I had been doing the 5 minutes before hand, that they hadn't seen how flat the baby was at delivery or how sick it was up on the post natal ward ...*

And continues:

*... not necessarily at the point of resuscitation but when you're getting a feel for the baby over the day.*

P3 also acknowledged the implications and importance of this type of understanding:

*... I really wanted to put a drip in ... cause I didn't have a very good feel for this baby,*

and carries on to say:

*I had a feeling that this baby was going to get worse before it got better.*

P5 describes the 'feel for the baby being met for the first time:

*Well its just kind of that feeling you get in your nerve endings ... I don't know how I saw the group B strep ....*

The participants all describe a *multi-factorial and multi-sensory* way of gaining understanding of babies. *Multi-factorial* in the sense that NNPs use multiple sources of factual data and *multi-sensory* in that NNPs use a variety of senses to gain understanding. For example, factual data included; heart rate, colour, temperature, blood results, X-rays, presence of meconium, a poor CTG etc, and sensory data included; feeling tension in a room, recognition of anxiety, tone of voices, body language, recognition of something out of place in a given situation.

P1 was the first to describe the multi-factorial approach:

*so it's multi-factorial, it's signs and symptoms, but it's more than that it's experience, its looking at where they've come from and knowing.*

P2 confirms this and suggests an added sensory component:

*It will start with a history, as I walk in the room, seeing what's happening in the room. I think it even starts back to the look on mothers face, the people in the room, then I look at how the CTG is, how the mother is coping and what the*

*midwife's telling me about the history ....*

P3 describes the use of both sensory and factual data to tell if a baby was sick or becoming sick:

*... the response of the nurse looking after the baby. ...if I'm a little bit suspicious of it I will look closer to the observations ... what sort of apnoea and brady's they're having, their tone, you know their colour ... do a formal assessment and maybe look at the lab work as well.*

P4 also gives examples of multi-sensory data analysis:

*by the look, by their response, by the way the baby's lying, by the colour of the baby. But I know actually as soon as I see the child and then I guess I do the more clinical thing of like listening. But I'm more likely to, if the babies as flat as a tack to get started with the resuscitation and then listen ....*

P5 demonstrates this kind of understanding going from sensory data to factual data:

*... I mean you just notice that somebody's tooting [monitor alarming] more than usual, sometimes it's just a frown on the face of the nurse ... sometimes you can just tell from the story ... increase in ventilation requirements and oxygen and it didn't have an increasing metabolic acidosis like those kids often get ....*

P1 summarises the process most aptly:

*Its sort of like a computerised programme in your head that goes off, ..... it's not a conscious thing that you do, its an innate sort of thing, that experiential thing that you do and it's as if you just about make a complete analysis by your actually using lots of things that you might take a cursory glance and you've actually taken in a lot of information about the baby.*

### Concept 3: Contextual understanding

Contextual understanding describes the NNPs understanding of clinical situations. It includes a concept of the NNPs *primary focus* of care, which is to the baby, the way NNPs *prioritise* a situation and *responsibility* to the baby.

Participants all perceived that the baby is their *primary concern* of care. Parents and families are acknowledged but care of the baby takes precedence over family needs.

P1 recalls situations when resuscitating a baby and the bedside nurse asks her to talk with the parents:

*but I was actually concerned about where the baby was at ...*

and carries on to say,

*but I actually had the responsibility of actually continuing the care for the baby and to do that I had to be actually focusing on that. (P1)*

P3 explains when giving guidance to a bedside nurse:

*I still won't compromise the baby because of it, if I feel that the baby is compromised then I'll attend to it and explain that to the nurse*

and continues:

*I keep focussing back, well what's the purpose of it and the purpose is ... to have the best possible outcome for the baby. (P3)*

Participants describe a unique way of *prioritising the baby's needs*.

Neonatal Nurse Practitioners can slide between doing the medical tasks

that need to be done and the nursing tasks also important in an acute situation. *Prioritising* is also dependant on the situation.

*I mean if you've got a baby that's just been admitted ... that's got lots and lots and lots happening and you're getting lines in and you're getting TPN up and you're wanting dopamine and you're wanting [another inotrope] infusions and you want everything right now plus gases every 20 minutes you've got to get stuck in and do it yourself otherwise it won't get done and you're often telling them how to prioritise. [You] say 'look never mind the antibiotics get the volume in, get the dopamine running now .... (P5)*

P1 described another incident and gave another example when it was important that the family carried out a very brief religious ritual on their baby and the participant gave this priority over examining and drying the infant, as it was not thought to be detrimental to the infant.

P4 gives an example of prioritising unique to NNPs;

*So you don't look at things in terms of tasks or diagnosis ... you look at the neonate as part of a family, you group things [procedures and treatments] so either the family are there [with their baby] or they're not there or ... you come back later, as long as [the baby's] safety's not compromised.*

All NNPs acknowledge a *responsibility* to do the best for babies in their care. The concept of responsibility changes from that of the bedside nurse and is related to, but separate from, professional concepts of autonomy, decision-making and accountability. *Responsibility* included ownership over the decisions that were made and an acknowledgement of the long-term consequences those decisions may have in the life of the individual baby and family.

P1 describes the change in *responsibility*.

*...to suddenly actually be making the decisions is a big paradigm shift. A huge change in thought, it's not that it wasn't all there before but carrying it out, it's like being a four striper who knows everything but no responsibility and suddenly becoming a staff nurse and realising ... this all falls on me now.*

A practical example of *responsibility* is given:

*and sometimes it means that we go back perhaps earlier, perhaps later in the day because we want what's best for the baby (P2)*

and of the change in responsibility in relation to decision-making,

*I think that ... going from a staff nurse to NNP that it was one of the most difficult things that I had, was the decision making and taking responsibility for those decisions. (P2)*

*I think you feel hugely responsible because the buck, I felt the buck stopped with us. (P3)*

P5 explains responsibility to the baby:

*I mean you've got this case-load of babies ... and you're responsible for every little thing that happens in their lives.*

P1 gives a practical example, which is reflected by the other participants:

*I've had once where ... somebody didn't tell me, ... didn't want to come and find me and disturb me and that was really awful too because it had a big impact, although it wasn't my fault per se, I didn't know about it, I maybe should of made sure.*

The concepts of personhood, how participants understand wellness, sickness and the contextual understanding of babies contribute to the participants 'consciousness of baby'. 'Consciousness of baby' is the meaning participants perceive, understand and conceptualise 'baby'.

### 7.2.2 *Theme 2: Orientation to family*

Orientation to family has been considered as a distinct theme separate from a consciousness of the baby. Participants identify that their consciousness of the baby can be different from a family's consciousness of the baby and therefore a distinct theme is necessary. Participants recognise the importance of family as the babies ultimate care givers and work to provide family care as a secondary focus.

#### Concept 4: Family care

Relationships with family are considered to be the corner-stone in the provision of family care, closely interrelated with this is communication, responsibility to the family, and provision of care to the family.

All participants identified that the NNPs *relationship to the family* was an important aspect of NNP care and was distinctly nursing.

*It's the intimacies of the relationships that we have with our patients that make it different from the medical role. (P1)*

P3 explains:

*But I think the things that I incorporate in my practice that I take with me from the bedside role would be the continued relationship that you have with the family and the involvement with the family.*

*I think it's something nurses do so much better than doctors, even unintentionally, its just that we have spent many years developing relationships with people quickly, but developing relationships with the person so that we can help them and support them in whatever's happening. (P2)*

*nurses are maybe better at that kind of intimate relationship stuff than doctors*

*because that's what nurses deal with. Nurses deal with bowels and urinary frequency and sort of all that nitty gritty yucky stuff, ... where as doctors amble in and wobble the plaster and look at the x-rays and do stuff like that. (P5)*

P3 describes the elements of relationships with families:

*a really good relationship with them so that they, that relationship can be built on as a relationship of trust and empathy and compathy if you like.*

P2 describes the importance of honesty in relationships with parents in making sure, if introduced as 'the baby doctor,' this is corrected:

*Because I'm not a doctor and people do look at your badge and they wonder why you get introduced as the doctor and you've got nurse on your badge. To me it's lying to them and so that little white lie to me is a potential loss of faith in that person, they may not believe you as much.*

*Communication* with families was described as a two way process. Although *Communication* was involved in relationship building with families it has been coded as a separate code when participants described communicating with parents prior to the development of a relationship.

*The way in which we talk to patients (P1)*

P3 links this as a two way process:

*You use your nursing skills to ask the appropriate questions and to find the answers, I think from the family - both ways.*

P4 confirms the ability of NNPs as communicators:

*Often you can be a resource person very easily for a family because you understand the medical stuff and you can present it in a way to the family that is, that they can understand and they feel less threatened by it and they feel they can ask you over and over and over again.*

*Provision of care to family* was described as a responsibility to provide care as a secondary focus. It included examples of providing care to mothers or referring mothers to the appropriate care provider. It also involved maintaining the health of the family. Encouragement to take 'time out' from the neonatal units, or provision of support to the families was included in care of families. It also included getting appropriate referral to families who were in physical danger.

*Midwives will often by-pass the house surgeon and go straight to the NNPs, especially if they've got a ... young mum whose been raped or something like that.*  
(P5)

P3 stresses the importance of family care following on from relationship building:

*so the healing can take place or progress can occur, even support through ... death and dying as well.*

P2 acknowledges family development in providing care to a family:

*... trying to help them come to terms with dealing with what's happening with their baby and how their lives will change from it.*

#### Concept 5: Context of family

All participants acknowledge the context of the family as being important. Codes that arose from this were the *baby's relationship with the family* and also *safety of the baby* within the family was relevant in some neonatal services.

The *baby's relationship within a family* is important to NNP practice. This includes parental rights to consent and the impact of sick or premature babies on a family.

P5 describes the right of parents to know who is looking after their baby. The participant identified the need to be introduced as an NNP as opposed to 'the baby doctor':

*I think the other thing is that it cheats the families, they need to know that they've got a nurse there looking after their baby because if they're not happy about that they need to be able to say 'no I want somebody different to look after my baby'.*

P4 describes a situation in ensuring that parents feel that the appropriate treatment is offered

*I mean the only real reason for taking her to [the neonatal service] was to [provide specialized treatment] because that was the only chance she had, in fact she died, but the parents were happy with the decision that was made.*

The *safety* of the baby in the family context was also discussed by some NNPs. This included making sure of the appropriate forum for expressing concerns of family safety. Examples of this are not given as it may identify specific situations.

Orientation to family was important in participants practice. It included an acknowledgement of the family as the care providers that had ultimate responsibility for the baby. The family had to be cared for to ensure a safe environment in which the baby could be cared for.

### *7.2.3 Theme 3: Uniqueness of NNP care*

The participants perceived the care given by NNPs as unique. The first concept of *skills and tasks* includes the tools that NNPs have to give care. *Concepts underlying practice* are also important as they acknowledge some of the values present in NNP practice. Participants' use a variety of *knowledge bases* to underpin their practice.

*I think that the service that we provide is unique and the medical people, medical registrars and even consultants don't provide the same sort of care as us. (P1)*

P4 echoes this:

*We perform exactly the same function as a registrar does but an awful lot better because it's from a nursing focus.*

#### Concept 6: Skills and tasks

All participants acknowledge that there is a medical component to the NNP role and that nursing underpins their practice. *Decision-making* and the *autonomy* to make decisions is part of the circle that completes care. The process involves doing - thinking - choosing.

P1 sums up this process:

*it takes away from the task orientated, hand maiden, assistant type role to a think for thy self, do for thy self, total patient care role.*

The perception of *medical tasks* varies between NNPs. Most consider that the *medical tasks* such as endotracheal intubation, chest drain placement, lumbar puncture, etc are just skills traditionally owned by medicine but that they are skills that anyone could be taught to do. Other *medical tasks* include 'the daily review'. Participants describe an analytical type approach to this task. Most describe an approach which is medical, but also report a nursing focus when documenting the daily review. Charting of medications and the attendance at high-risk deliveries is also a *medical task* in the context of these neonatal services.

The medical approach is considered by P4 as:

*... where as medicine seems to come from science and principles and stuff like that.*

P2 explains the medical approach when describing the care NNPs provide:

*I hate to say, medical care, but it is medical care as well as the nursing side, but there are medical tasks in what we do.*

P5 sees the medical skills as just tasks in providing care,

*It's a mixture of being a medical technician, and that's the easy stuff .....*

Later in the interview this participant gives her perception of medical skills:

*well I guess I don't actually see them as medical skills, I mean I see them as hospital skills, you know those things belong to the patients who need to them done. (P5)*

The documentation of the 'daily review' is described;

*It's pretty medically written, I start with a problem list ... and then I usually put down what the medicines are ... and then I write down what their nutrition is ... and then I usually write down my examination findings and then an impression after that and then the plan. (P2)*

P4 describes the combination of document nursing and medical information.

*I write almost exactly what I wrote before I was an NNP, like ... what kind of a day they've had ... and then ... now I include ... things about their fontanelles and stuff like that, ventilation and then go on to their heart rate, blood pressure and whether their blood pressures supported by anything and then their input and output and then their mls per kilo per hour and all that kind of stuff. I always include something about their family whether they've been in, whether they haven't been in ... mums really tearful today, this was the reason why ....*

All participants agree that the NNP role is more than just the medical tasks. One of the ways in which this is directly demonstrated is by the use of *nursing expertise*. Examples of this are more common in the analysis of

the journal transcripts, but include concepts of relationship building, support, troubleshooting equipment, knowledge of nursing procedures – when they are being done correctly and how to use them to prevent medical interventions. Participants nursing backgrounds were important in the practice of their role.

*it's the essence of what I do (P1)*

later on in the interview an example is given,

*I'm quite happy to admit a baby and do all the work up myself and do every thing and ..... a nurse from the unit doesn't necessarily come in contact with the baby at all.  
(P1)*

Again when talking about the different perspective that the NNPs have,

*But I can't see them [doctors] gaining the same expertise that I think we have ... which is back to the caring, the dealing with the dying, the hands on way in which we do things. (P1)*

Others confirm this:

*I don't think that I could do this job with out it [nursing]. (P2)*

*Nursing expertise* is described:

*"knowing what to ask and what cues to ask and how to ask, I think is important, that's the nursing side of it". (P3)*

P4 describes NNP expertise when discussing teaching a new bedside nurse:

*I'd see a problem and I'd be practicing at like way up here and there are some steps to getting there, you know, like an art [arterial] line wouldn't function well, so I'd just go in and do the NNP kind of stuff.*

This demonstrates the expert's lack of need to use of an analytical principle, they miss out the steps needed to get to the solution, going directly to it instead.

*I've gone over and interrupted what they [bedside nurses] were doing because I didn't feel they were doing things adequately and it's made a huge difference in fifteen seconds, you know of just 'doing it right'. (P1)*

When asked why some questionnaire responses suggested that nursing was not an important activity in the NNP role all participants thought that it was important and a number were visibly shocked that some NNPs considered nursing to be unimportant.

*But it is! (P5)*

and after a pause

*I don't know who would see nursing as not important in the role.*

P3 offered an explanation:

*I think personally it is important to the role, but some people might not think it is because they don't utilise their nursing skills as much as some of us do.*

The *autonomous decision-making process* remains a nursing process but is considered to incorporate a different perspective to the bedside nurses. It considered the contextual elements important to the baby, the family, experience, education and intuition. NNPs were able to adjust their decisions to be specific to an individual baby or family depending on individual needs. *Autonomy* to make decisions was included in the *decision making process*, although NNPs work within 'standing orders' most

situations allowed for judgement and *autonomous decision-making* within the 'standing orders'.

*... as an advanced nursing role that allows me to have autonomy and practice independently although still with constraints. (P1)*

This participant goes on later to describe the difference in that process from medical decision-making:

*... the way in which we make decisions, we make them from a different stand point, from a different compassionate type place that nurses do. (P1)*

*You're told when your training that you'll actually never ever have to make a decision by yourself, you're told, on the 'standing orders', you know difficult really hard decisions ... like 'keep resuscitation until the medical staff get here', all that kind of stuff but in fact you really do make major decisions on your own. (P4)*

P4 saw the responsibility as a positive:

*I like the decision-making. I like being involved in the decision-making and stand back and look at the management [of the baby] and be focused on the whole thing rather than the day.*

P3 described the decision making process associated with professional responsibility:

*That's one of the things I always think of when I'm making decisions, can I justify this?, and I go over my decision making process backwards, forwards, sideways ... and I think of all the options... I think of the safest or the most appropriate, ... I really try to justify it because if you can't justify something you aren't being responsible.*

P5 explains the difference between bedside nursing decision-making and that of the NNP:

*As a staff nurse certainly you felt the need to make the right decision anyway and*

*often you were guiding the junior medical person ... but I guess the thing is that it's knowing that it's your can [responsibility] now.*

#### Concept 7: Concepts underlying practice

*A holistic approach, context and the NNPs identity* are concepts that underlie the clinical practice of the NNP. They are what make NNP practice distinct from other professional groups functioning in a similar role.

The concept that the NNPs provided a *holistic approach* to the care of babies and families was consistent among the participants. The *holistic approach* underpinned how the participants' perceived they were carrying out their role.

*I think it is definitely the holistic approach (P1)*

*I think trying to make the role as holistic as possible (P3)*

and goes on later to say,

*I don't know if holistic is the right word but you look at all aspects. (P3)*

P3 also gives an example:

*... so that if you are examining a baby and the baby requires suction [normally the bedside nurses role] I don't walk away from that and just leave the baby I think it's really important that those things are dealt with there and then...*

P4 confirms the *holistic* concept:

*Sometimes I can see a picture much more holistically or much more completely than the registrars.*

P2 describes *holism* as a nursing concept related to neonatal care:

*... they don't see how the mothers reacting, how a baby's reacting [they] only see the bit of that that is wrong and I suppose when you medicalise things you just, you break it down to the bit that's wrong rather than seeing the person altogether which is what nursing does, they see all of the person, the baby in relation to the family, does that make sense?*

P2 reflects the other participants in describing the unique *holistic* perspective the NNPs offer neonatal care:

*But nursing is so much more than what you do at the bedside, it's the what you do for the baby, it's what you can ... you can look at what might need to be done for the baby in the future, it's looking at how you support the family and work with the family, it's so much more than the physical things that you do for the baby.*

The participants used an understanding of the *context* in deciding what was important to be done immediately and what could be done later. They were *context* specific in that a priority for one baby may not be a priority for another depending on the *context* in which it occurred.

P1 identified the importance of *context* in a discussion about medical staff:

*But what they may not be able to do is use the contextual sort of knowledge that we have to be able to provide the extra things ...the caring.*

P4 describes the change in *contextual*/perspective from bedside nursing to NNP practice:

*... how you change from being a nurse to being an NNP and what actually happens to you, because you do, even your ethics focus changes because you see things a bit more globally maybe.*

P5 identifies *context*

*I see it as assessing each situation differently, while drawing on your experience and*

*knowledge.*

*Identity* is the concept of how NNPs as a group identify themselves; all participants identified themselves as nurses. Some identified themselves as sitting between nursing and medicine while others identified themselves as nurses who carried out medical tasks. Some acknowledged that nursing was important but found it difficult to describe. There were differing opinions about differences between advanced and expert practice and where the NNP role fitted into these.

Participants identified a perception of differences in *identity*

*Some of us are very medically orientated and others are more middle of the road ... and others are very very nursing. (P4)*

*I see myself definitely as a nurse (P1)*

and says later,

*I didn't belong in either world, I didn't certainly belong in the medical world ...and I also had been pushed past, pushed out of the nursing, my nursing group. (P1)*

*I see it as an extended nursing role (P3)*

then,

*I see it as a bit of a bridge really between medical and nursing (P3).*

P4 most eloquently described:

*I guess for me you've got to speak both languages without an accent, that's how it is for us*

And is reiterated:

*I feel that its between medical and nursing and has a foot in each camp (P2).*

P3 identifies nursing as an important component:

*I know it's always with me, my nursing, and I know it's always there and I'm not aware that I ever lose it ....*

P2 finds nursing hard to explain

*I have to say it's quite difficult even though I believe that it is I do find it difficult to try and put it into words and concepts. I believe it is part of the role because of your background.*

Nursing was identified as the foundation of practice.

*I wouldn't say that's where I come from all the time, it's definitely my foundation my leaping point ... I'm a nurse that's acquired medical knowledge. (P4)*

*It's the foundation of the role it's the cement and water - of what makes me have good practice. (P1)*

Participants had difficulty in defining advanced and expert practice.

*Advanced practice is kind of, strikes me more as technical stuff really, advanced practice might be more sort of more focused on one particular thing, an advanced practitioner might do asthma or diabetes ... where as your expert people kind of have a bigger picture (P5)*

Later when asked if the NNP role was an advanced practice role:

*Its more than advanced really the starting NNP is advanced practice ... and after a while she becomes expert -about getting involved in other things (P5)*

Participants identified that it was important to be introduced to parents as a 'neonatal nurse practitioner' as opposed to 'the baby doctor'. This had implications for the parents 'right to know' who was looking after their baby and also in maintaining an NNP identity.

All the participants are echoed with this comment:

*Because we are mistaken for registrars on a regular basis and I think it's incredibly important to be seen as the neonatal nurse practitioner, because I am a nurse (P2).*

#### Concept 8: Knowledge base

The participants identified three distinct knowledge bases from which they practice. These are *experience, education and reflectivity*.

Knowledge gained by *experience* was an important identified source on which decisions were made. Knowledge was not gained exclusively from neonatal nursing but also from other nursing experiences. *Experience* was knowledge that was passively acquired rather than an active process of reflection.

*I think it's very important and not just my neonatal nursing experience either (P3).*

*I have other areas of knowledge because I did nursing in other places that other nurse practitioners may not have but that's by good luck not necessarily by education (P1).*

*I've done lots of medicine, lots of mixed surgery, community stuff .....but that background probably gives you the confidence and knowledge ... (P5)*

*Education* tends to be viewed as *education* directly relating to the NNP role rather than general nursing education or education in a basic neonatal course. Participants described a number of issues around the education base that they use. Some acknowledge that NNPs lack the broad anatomy and physiology base that the doctors have. There was general agreement that it would have been better to have had more lectures from NNPs already working in the role. Issues of coping with the transition from bedside nursing to the NNP role were lacking in the education programmes

that the participants received. There were a number of issues surrounding the rapidly changing structure on the NNP programme and the participants felt disadvantaged. All participants agreed the need for ongoing education in the form of formal study days.

When discussing the education:

*I think probably the practical stuff was OK... but there's something about the role that I don't actually know you can ... be prepared for and that's kind of you know big people stuff and fighting your way through other people's prejudices (P5)*

*There wasn't much about role transition and I found that really quite a challenge, changing from being a nurse (P4).*

About the education programme:

*... which isn't even as big as a bachelor of nursing (P5)*

When asked how she felt about that she reflected the feelings of a number of the other participants:

*Well I felt cheated because its worth a lot more than that (P5)*

The need for ongoing education was emphasised by all participants.

P1 talked about the importance of ongoing formal education sessions once practicing in the role:

*By then you've got a bit of experience to lie it [education] upon, you can actually extract some more pertinent things.*

and adds,

*sometimes it's NNP things you want to know about too, issues that arise that are specific to the role (P1)*

All participants reported *reflectivity*. This was an active process of going over the care that they had provided and changing their practice. It was different from experience, which was assimilated knowledge.

P2 explains the process

*Every time I go to a resus I might change slightly or just make different decisions on, you know I definitely sort of make slight adjustments every time I go to a resus.*

P3 describes *reflective* practice following being questioned by other health professionals about decisions the participant has made:

*It helps with reflective practice, if you like, because I know I go over a lot of the things that I do to make sure I've made the right decision and I think you learn from that, so I think that's really valuable.*

P4 also describes using the reflective practice:

*... I could have done better. I might go to [a consultant] and say look this is the situation, this is what I did, what should I have done differently*

The participants identify practicing uniquely using *skills, knowledge* and *concepts underlying practice* that have a basis in nursing. They also incorporate medical skills to provide *holistic approach* to the care of babies and their families.

#### 7.2.4 Theme 4: Leadership

Leadership is divided into two concepts; issues of clinical care relating to other health professionals and management issues. Some of the leadership codes are not formally a component of the role; they have developed as the role has developed.

### Concepts 9: Issues of clinical care and other health professionals

These fall into four concepts; *consultation*, *liaison*, *area of speciality interest* and *staff education*.

*Consultation* is a formal role in the NNP role. It involves provision of *consultation* from community based health professionals, for example midwives, general practitioners and obstetric staff. Participants also provide advice to staff within the neonatal services.

Participant 5 describes the *consultancy* role

*I think NNPs have improved the relationship between midwives and the hospital because most of the midwives are sort of into community birthing and non intervention ... but they'll come and talk to nurses about jittery babies and stuff like that, where as before they just used to pretend those things weren't happening and doctors would be slamming them left, right and centre.*

*I'm really prepared to be asked about anything, I spend quite a lot of time promoting that (P1)*

and later

*I would, if the person was pressing for the baby to come in and even if the baby was perfectly fine ... it's my job to have a look at the baby (P1)*

An example from practice is given:

*... you've got lots of people ringing from elsewhere for advice ... somebody's in tears in [the community] because the baby's yellow and the mother doesn't want it to come [into the hospital] for phototherapy so you sort of spend twenty minutes offering them ways of getting mothers to send their baby's [into the hospital] (P5)*

P2 describes the need for health professionals to take responsibility for practice but acknowledges the role of *consultancy*.

*I'm very happy to be used as a sounding board ... they [midwives, general practitioners] can come and discuss it with us to help them make them sure [of their decision] or I can direct them to the right things, but there's several midwives and GPs who still use us to cover their butts.*

*Liaison* is an area that has developed with the NNP role. It involves NNPs liaising between doctors and bedside nurses, between families, consultants and bedside nurses and between staff that practice outside the neonatal service and those that practice within the neonatal service. Participants all felt that at times they were 'all things to all people'. This reflected their role in liaison in their neonatal services.

*The NNP does so much liaison between nursing and medical staff (P5)*

P5 also describes the being everything to everybody:

*So they come to us, to be their advocate and you end up being, advocating for absolutely everybody; the baby, the parents, the social worker and your advocating on behalf of the doctors to the nurses and on behalf of the nurses to the doctors ...*

P1 talks about liaison between delivery suite and the neonatal service:

*[We] get yelled at, you know 'why haven't you got any beds' ... at the obstetric end and you know you're supposed to be providing a service to them and you know you can't so the baby you bring us [the neonatal service] that's another problem ... you're expected to do the buffering between the two.*

All participants identified *areas of specialty interest* or expertise in both their own practice and other NNP practice. Specific examples will not be attached to individual participants as this would identify them. These areas included resuscitation, intravenous cannulation, breast-feeding, transport, care of CPAP and professional issues. Some participants from the different services had the same areas of specialty interest.

The majority of *staff education* outside the areas of specialty interest was done on an informal level. This involved education as situations arose. All participants gave examples of this. Staff education included teaching bedside nurses, medical staff and midwives.

When discussing an incident:

*Also take the opportunity, I think to, in those situations to do teaching and maybe if I've read a report or something ... (P3)*

P3 goes on to describe a specific teaching incident:

*So you spend a lot of time teaching ... you've often got a new registrar that you're overseeing and, you know, the medical people aren't very good at looking after their own (P5).*

P1 describes teaching consultants:

*I pride my self on is that dealing with ... the death of a baby in human terms and talking about feelings and having that relationship with the family ... And I think that I do a lot of teaching at consultant level, to the consultants ... I've certainly have on a number of occasions felt that like I've actually imparted some knowledge to them.*

#### Concept 10: Management

All participants provided some level of management in their roles. There were some differences between the neonatal services. The services with more on site senior nursing staff had a small role in general management.

All participants described *staff support* as an important aspect of the role. Participants identified that there is often a fine line between interfering with bedside nursing and supporting bedside nurses. Participants identified a difference between the NNP role and the role of the bedside nurse,

whilst they did perform some bedside nursing tasks on occasion these were not a routine part of the role. *Support of staff* was on an abstract rather than a practical level.

P1 explains:

*... I shouldn't be doing their jobs either, our jobs are different and I'm quite happy to assist, help, to encourage and all those sorts of things ... if I tried to do what they were doing I ... would be neglecting what I had to do.*

*I'm there as a support role ... I think they tend to look to me for advice and support more than doing the practical day to day kind of thing (P4)*

*Often the nurse practitioner is the one who is expected to go around with a box of tissues and patting peoples' shoulders anyway, that's part of the advanced role. (P5)*

P3 identifies the fine line between helping and interfering:

*Trying to help but not interfering as such, there's a fine line and you have to know how to pick up the cues.*

All participants described incidents of *crisis management*. These particularly involved incidents where there was a resuscitation situation and the participants were involved in delegating staff, managing the situation in hand and using knowledge of staff capabilities to deal with a situation, particularly if another baby needed immediate attention at the same time.

P3 describes the crisis management role reflectively:

*I think they're the hardest ones to actually stand up and take control, I find that really quite difficult because you haven't been there from the beginning you're not officially assigned to that baby. You come in as a support person, as a helper, often you have to take a more dominant role to get through a crisis ....*

Participants also described an informal role in *general management*. This included allocation of bed spaces of the appropriate level and included knowledge of space and the availability of staff. It also included knowing bedside nurses' abilities and ensuring appropriate placement of babies so that they received appropriate care.

*Sometimes that's because a nurse has got a work-load that's inappropriate for her level, so you end up doing all the advocating and you go out to the charge nurse and say 'so look you know that nurse can't manage those two babies. (P5)*

The NNP has a multifaceted leadership role in the care of baby that involves both a clinical component and a management component.

### **7.3 Professional themes**

Professional themes are themes that relate to professional issues. Themes include the culture of nursing, and issues of advanced practice related specifically to the NNP experience. Professional issues were discussed more in the interview data but some issues were also described in the journal data.

#### *7.3.1 Theme 5: Culture of Nursing*

Nursing culture was a theme discussed by the participants. It included concepts of identity and transition.

##### Concept 11: Nursing identity

Identity is important and includes a *definition of nursing, power issues, a sense of belonging* and issues of *prestige and respect*. Participants *definition of nursing* is important as this carries with it the values and

beliefs which are inherent in the culture. *Power* is important because it has implications for the political site of the culture. *Belonging* is important because the need to belong is associated with the cultural identity of the participant. *Respect and prestige* associated with the NNP role may be implicated in oppressed group behaviour where NNPs are fitting into the dominant group unless their identity within nursing culture is transparent.

*Definitions of nursing* all included a concept of caring. Other components were support, equilibrium, nurturing, empathy and helping them to deal with the situation that they are left with. Nursing was also seen as being a profession.

*I think nursing to me is a combination ..... of empathy and experience, caring, wanting to improve the comfort and experience for the patient and also being, I suppose an advocate for the patient (P3).*

*I guess nursing's about caring and helping really isn't it and nurturing ... and doing things they can't do until their well enough to be able to do again themselves or find other ways of meeting those activities of daily living (P5)*

*It means helping restore people to an equilibrium ... helping them be in whatever situation they are [in] or helping provide them with a good death so that recovery from that for those left behind is as best it possibly can be, so I guess it's about caring and helping people in the situations that they find themselves in (P4)*

P2 had difficulty in giving a mean of nursing but considered caring as important.

P1 defined it as a professional role:

*It's definitely a professional role that you're working with some kind of education to do it and up to a certain standard, its got standards and requirements.*

There are *power* issues in NNP practice. Power issues include medical power over NNP practice, and the NNPs power within a neonatal service.

*The parents see the power that the NNPs have (P5)*

Issues of medical control over NNP practice were also raised. Some neonatal consultants claim responsibility for NNP practice and this has caused debate. Examples are not given as they may identify participants and other staff.

The participant identified the need for *belonging* to the nursing group. Some participants gave examples of the negative impact of being excluded. Some participants gave examples of the positive feelings associated with being considered as part of the nursing group.

*I mean still if you go in and spend a day at the bedside people say 'oh your going to be a nurse today' and you say 'but I'm always a nurse". (P5)*

P2 describe the transition time and relates this to the importance of *belonging* to nursing:

*I got a lot of stick from my ... staff nurse friends in the unit about not being a nurse any more which used to ... it used to infuriate me, because I didn't feel that I lost any part of being a nurse ... I don't think they realised how much that used to frustrate me.*

Some participants identify the *respect and prestige* that goes with the NNP role. This is not part of the traditional culture of nursing. All identify issues of constantly trying to prove your ability. All participants discussed the respect they have from consultant medical staff; this is reflected in the relationships that the participants have with them.

P5 describes the prestige associated with the role clinically:

*That's the stuff that attracts people to the role, I think, you know putting in ET tubes and thundering down the stairs and resuscitating flat babies*

*They prefer the prestige of being, you know, what the role can bring to it, the importance of it". (P3)*

P5 describes the respect the NNPs have from the medical consultants

*They have awesome respect for us, but the way they sort of voice it is sort of different, 'she's one of the neonatal nurse practitioners here' he said 'you've got to watch out for these people, they'll teach you heaps but' he said 'they're scary because they know more than doctors'.*

*Most of the medical staff talk to me about things like I'm a peer rather than I'm a nurse (P4).*

Some sentiments were expressed by the participants that respect and prestige is not always present in the NNP role:

*It's constantly sort of like a struggle trying to prove yourself. (P2)*

This highlighted the need to be expert clinically to gain credibility and respect from nurses prior to becoming a NNP. All participants agreed with the need to be an expert bedside nurse, but not necessarily within an institutional career pathway framework.

### Concept 12: Transition

All participants considered transition important. It involved a code of *time* and a *change in perception of the role*.

There was an amount of *time* which new NNPs needed to function in the role before it became possible to reclaim their nursing knowledge. This

time was a time needed to develop the necessary medical skills, to feel comfortable with the changes in responsibility and to deal with issues around decision-making and working with other staff in the institutions.

P1 explains how long this takes:

*One to two years I think realistically.*

*Because that first year is also a lot about learning all the medical skills that you'll need. I think after that first year you become comfortable [in] combining the two (P2)*

Time is explained from a role perspective:

*Certainly comments from the other nurses were 'you're just medical technicians, you're not expert nurses at all' but those have died down and I guess because we've sort of grown through that point now. (P5)*

While the participants identified that they had a *changed perception of the role* and reclaimed their nursing roots, they considered that not all NNPs have reclaimed a nursing perspective:

*I think I'm far enough down the track now to be able to progress much more into the nursing side of things than into the medical side ... some people think that they've progressed by getting better at just the procedures without actually reflecting looking back at their nursing and how they ..... it they even consider themselves being nurses (P1)*

P5 illuminates the *change in perspective* back to a nursing focus:

*... and it [medical skills] just becomes merely tools that you use to do what your doing and yes you do re-expand back into that [nursing] again.*

The values, beliefs, meanings of nursing and socialization in nursing culture have particular issues, for NNPs as they move into an advanced practice role.

### *7.3.2 Theme 6: NNP experience of advanced clinical practice*

This theme examines issues that relate specifically to the NNP role. They are issues because the NNPs practice in an advanced clinical role. They are specific to the NNP role because that role is practiced in an intensive care area with a large proportion of acute work. At present NNPs are possibly the only nursing group functioning in this type of setting and role.

#### Concept 13: Vulnerability and confidence

Vulnerability and confidence falls into three codes. They are *legal vulnerability*, which can be either real or perceived. *Professional confidence* involves issues of doing tasks previously belonging to another profession. Finally personal *vulnerability and confidence* involved the NNPs personalisation of care.

*Legal vulnerability* is associated with NNPs pushing the boundaries of tradition nursing. It was almost as if it was a fear of the unknown. All participants acknowledged the level of responsibility has potential implications for their individual practice. Legal vulnerability was also associated with lacking the protection that is afforded doctors through their governing body. Participants perceived the New Zealand Nursing Council as being more accountable to the public and less protective of nurses than the New Zealand Medical Council was of doctors. There was an acknowledgement that NNPs have to be accountable and responsible for the care they provide:

*I guess the thing that's different is knowing that it's your can [responsibility] now, knowing that ... If you stuff up you're going to be standing in front of somebody's desk saying 'so how come you did it that way?' (P5).*

*It's unexplored territory, there's no real test cases to say what's going to happen if a mistake, your aware that they happen to doctors so they're going to happen to us eventually, it's the law of odds ... it's scary because it's end of your career type thing (P1).*

P4 describes the feeling of legal uncertainty:

*I think it's grey and I really want things to be a little bit more developed.*

*I still see a potential for us to be used as scapegoats if something went really wrong. (P2)*

P3 identifies the uncertainty of the New Zealand Nursing Council's response to NNPs:

*We have written to [the] nursing council about [professional issues] and got their support although we haven't got their full endorsement ... you don't know, I suppose, until there's a test case.*

*I think the nursing council is a much more honest body than the medical council. (P5)*

*I think they're an unknown quantity, I think they would support us if it was positive for their cause but if it was detrimental to them, I don't know that they would. (P2)*

*Professional confidence and vulnerability* issues arose from carrying out medical skills such as resuscitation, chest drain insertion and being questioned by other health professionals as to the NNPs competence. There was a sense of the participants feeling vulnerable and lacking confidence at certain times in their clinical practice.

P5 hypothesises why the NNPs may lack confidence in their abilities:

*I think it is by years and years of traditions, I think you have to be a very special kind of person to stand up to that stuff.*

An important example that was reflected in all the other participants' data to some degree, examples very similar to this were given by most participants:

*I had a hideous situation once where there was [a delivery] and it was a thick, thick, thick revolting meconium and there was [a doctor]... [the doctor] was clearly unhappy [about a stressful situation] you could tell by [the doctor's] body language ... when I got the baby [the doctor] kind of wanted to take control only I was sort of managing the airway and getting it all done, and then [the doctor] yelled at me and walked out of the [the delivery room], ... every body heard, even though I kept doing what I was doing and took the baby to the parents, talked about ... how pleased I was with the baby and all the rest of it ... I left the theatre ... and promptly burst into tears. (p4)*

Others confirmed feelings of a lack of *confidence* and *vulnerability*, and the ways they dealt with this:

*I used to get very very defensive toward them because I felt really threatened, I didn't feel confident in my abilities to do it, I think that's changed, I still think at times I'm threatened by them and can get quite defensive ... I'm much more quicker to rudely or not tell them to leave because they're actually interfering and ... I might have, may have made different decisions but I have found that sometimes that interference can push you into a decision that you wouldn't have actually made on your own and in hindsight you wouldn't have wanted to make. (P2)*

*You learn to challenge in the most appropriate way and you can do that - you don't have to be aggressive in your manner to achieve that, I do feel it's tough at times because you have to, you have to manipulate situations so you can achieve what you think is safe and sound. (P3)*

Also relating to confidence issues is the NNPs checking things numerous times to ensure they haven't made a mistake:

*You check things and check things and check things sometimes. (P4)*

*Personal vulnerability* describes the way in which the participants personalised incidents that had occurred in practice. It was related also to the perception of responsibility for a baby and reflective practice. It appeared that this was unique to NNPs because NNPs practice in a role alongside medical personnel with a different background. Issues of personal vulnerability flow onto confidence in participant abilities.

P5 following discussion on the supportive role of NNPs in critical incidents, was asked if the issues are different for NNPs, the reply:

*Yeah because your responsibilities are different and because you personalise your responsibility.*

Following a baby dying, P1 and P3 commented:

*We were feeling, you know sad about the baby dying and feeling a bit like a failure because we hadn't saved his life, feeling traumatised from the event ... he [doctor] said 'stiff upper lip, get on with it, 'this is what your going to get if you want to play big boys games' ... and he might have even said that 'you want to play in this game then you better learn to toughen up.*

*I mean the impression I get is that, oh you know, 'stiff upper lip', you know, medical staff cope with that all the time ... I know I've taken a lot on board with those sorts of things ... and I reflect greatly on them and go over and over and over them ... I think the process is quite harsh, because you're not supported enough through that, that grief period.*

#### Concept 14: Self determination

Participants all discussed issues of self-determination in the NNP role. These fell into two codes which were; the right of NNPs to determine what aspects should and shouldn't be part of the role (*self direction*), and *resentment of inappropriate expectations of the role*.

Participants identified the need to determine as a group the *direction* of the role. Some acknowledged the need for transparency in that process.

*Everybody has an opinion about what they think it's like but nobody actually knows. It's like the recommendations that came out were divided up amongst the administration group of which there's not an NNP on and all these recommendations about NNPs, and I went ballistic. ... people make decisions about our role and I find that really difficult because I don't think they're always the best decisions for the role. (P4)*

P5 confirms the need for self direction in the role and also the need to be accountable:

*I mean really the NNPs should be sorting our NNP business and we do resent interference ... but we still need to be able to be seen to be staying honest.*

Some participants described *resentment of inappropriate roles and tasks* being placed on the NNPs. These examples are not specific to any one neonatal service.

Examples of inappropriate roles included making decisions on bedside nursing policies that weren't related to NNP practice. It was felt that the bedside nurses should have self-determination of their own practice. Formal clinical teaching of junior staff was also inappropriate and potentially dangerous. Neonatal Nurse Practitioners use expert knowledge,

they may omit the analytical steps to get to a solution to a problem. It was inappropriate to be teaching beginning bedside nurses clinically because the participants felt they would miss out on the analytical steps to problem-solving.

#### Concept 15: Practice within a team

All participants identified the positive aspects of practicing as a team. All felt that team practice had been enhanced with the development of the NNP role. Team practice was practice with other health care professionals. These professional included bedside nurses, midwives, consultants and others. As NNPs don't practice with other NNPs they were not included in this Concept.

Participants identified *constraints* to team practice as issues of care for infants or issues when a consultant makes the ultimate decision of routine care.

Examples include when medical care differed from nursing care. Issues of different perspectives were those surrounding parental rights to choose for their infant, breast-feeding issues, the number of blood tests and the discharging of infants.

*Collaboration* included working alongside the bedside nursing staff, alongside midwives and alongside consultants. Each professional group has particular roles to play but none was considered superior.

P 3 described working with a bedside nurse to solve a problem:

*... unless you actually sit there and analyse it together and work on it together you won't come out with an answer, I think that's the key.*

*So we're all very much a team, just my role in the team is not the bedside nursing.  
(P4)*

P1 recognised another professional's expertise:

*It was saying to them I believe you, you as a practitioner.*

All participants acknowledged the way that NNPs generally practice in collaborative relationship with consultant medical staff.

*I think they actually do listen to us a lot. They listen to us a lot and take our lead, they often do a lot of things that we suggest they actually realise that we [especially about communicating with families] have special expertise. (P1)*

Consideration was given to *personality attributes* that are necessary to function in the NNP role. An ability to communicate well was considered by all participants as central to the role. Other attributes included; motivation, confidence, a passion for the role, a sense of humour. Some participants saw some NNPs as being very competitive. Nursing expertise and assessment skills were also considered as important:

*I think you have to have a really good sense of humour and I think you have to be able to see humour in places that humour isn't really seen. (P5)*

*I mean communication skills are paramount, you have to communicate at all levels and be prepared to be patient with that. (P3)*

*I think you need a strength of character a real sort of inner strength ... I think NNPs have to be incredibly motivated. (P2)*

P4 acknowledges the importance of clinical expertise, confidence and the ability to function under pressure:

*You need to be technically expert, you need to be able to put the chest drains in, in a hurry, your assessment skills need to be right up there.*

P1 reflects the other participants:

*I think you do have to have attained that expertise to actually be able to [get] through a lot of things, because you have to have reached a level where you gain confidence first ... you have to have something to base your practice on, if you're not expert... I think there will be bigger gaps when you're actually in the medical stuff.*

All participants identify the importance of contact with other NNPs. All NNP *groups function* without a designated leader. The NNP groups in each of the neonatal services function very differently. One is very supportive of each other and provides group cohesion, one lacks supportive and cohesive relationships and the third seems to fit between the two. All participants to some degree gained support from other NNPs.

*I needed to go to that and see others like myself. (P1)*

*You fit somewhere else and because of that it's made it a stronger support relationship between the NNPs in the unit ... no I think of us as strong, very supportive of people we really look out for on another. I don't think we would survive if we didn't. (P2)*

*Well [we use] each other [for support] and that's the good thing about sort of having built up our numbers now. (P5)*

and goes on to describe how the group functions as a support,

*Mostly reasonably although there's ... probably still some differences about attitude and the way we practice. (P5)*

Lack of a designated leader is explained:

*I don't think we need a leader as such, you do need somebody to coordinate sometimes. (P3)*

*We work a lot better now ... we don't have a leader or manager (P4)*

Competitiveness in the NNP group was identified by a number of the participants. This was described as being encouraged, probably unintentionally, by the participants' medical colleagues.

One NNP group describes combating this competitiveness:

*There's the person whose been out the longest I look up to the next person up the scale, who I can draw from experience ... but saying that there is other people with different skills, somebody's very good at [a particular procedure] who I would feel quite happy going and asking about, you know respecting that they're particularly good at that, I feel that I've got very particular expertise that they can use if they choose to. (P1)*

The process of building a supportive group was an active process. P1 felt that the NNP group had been more competitive in the past than currently.

#### Concept 17: Stressors

The stressors associated with the NNP role included, *lack of understanding from other health professionals, lack of support, tiredness and the workloads*. All participants described these stressors; the journal data had many clinical examples. Specific examples are not given here for reasons of confidentiality.

*Lack of support* included lack of management, education and support from clinical staff.

*The commitment for support wasn't as great, I don't think. (P3)*

All participants described *lack of understanding* of the pressures involved in the NNP role and the boundaries of the role. P4 speaks for all saying:

*Everybody has an opinion about what they think it's like but nobody actually knows.*

*Tiredness* was very common and included the inability to take annual leave and the long hours worked on a given day. Carrying the locator was identified as contributing to tiredness because you can never relax. The locator has to be answered immediately and the participants were always aware that it might have been a call to a major resuscitation that they were going to be responsible for. Awareness of the difficulty in taking sick leave also contributed to tiredness.

*... because your hard to replace no matter how bad things are you never not turn up for a night duty. (P5)*

*Work-loads* were also responsible for stress. This was particularly if the service was over census or staff were sick and hadn't been replaced. Also the stress of working constantly in an acute setting was acknowledged.

*The days are long days and we do have good days off around them it's not that, but it's ... at the interface, you take that stress for a longer time. (P1)*

*... sometimes instead of having [the normal number] of people in the [neonatal service] we'll cut it down so you're doing both [jobs] (p5)*

and also explains what it can be like when the service is busy:

*I think that's probably why you get exhausted is because you're giving one hundred and thirty percent to get through the work on those days and we can all do that for two or three days but when you're doing it for like two months .... (P5)*

The NNP experience of advanced practice raised issues that have implications for educating and supporting the NNPs in practice and will be discussed in chapter 9.

## 7.4 Journal data

Some codes did not appear in the journal data. The codes that failed to appear in the journal data were those containing abstract thought pertaining to the role. However all themes were represented to some degree in the journal data.

As was to be expected codes with a mainly clinical component were far more common. Direct examples are not given to prevent identification of participants. Codes are described as infrequently occurring (less than five examples), and frequently occurring (greater than five times). Infrequently occurring codes didn't necessarily mean that the codes were less important, because participant tended not to repeat similar situations. The amount of data journalled varied between participants.

### 7.4.1 *Consciousness of baby*

#### Concept 1: Personhood

The *Language* consistently used by participants was the term *baby* when examples of clinical care were given.

Infrequently the participants perceived the baby as having feelings and sensitivity to painful stimulation. Having feelings implies a *personality*, with rights, to be treated in the least traumatic way. Also included in this code were examples of empathy for an infant, for example empathy with infant receiving painful stimuli.

### Concept 2: Understanding of wellness/sickness

Participants infrequently identified *developing a feel for the baby* as a way to understand if a baby was deteriorating or getting better. The journals identified that it took time to develop this type of understanding. It was an understanding of 'what is normal for this baby' and this would change as the baby progressed.

Participants frequently described the *multi-factorial* evaluation of an infant including history taking, and looking at physical signs and symptoms. Some participants described the process of looking at the history, the physical signs and symptoms and occasionally these failing to match with the observable condition of the infant gained by other sensory data such as the colour, tone or *feel* of the baby. Other *multi-sensory data* such as analysis of busyness within a delivery room is included so that a decision as to the most appropriate course of action can be taken. The participants describe a rapid and almost subconscious evaluation that leads them to a particular course of action that may not necessarily be based on *factual analysis* but also based on analysis of *sensory* information.

### Concept 3: Contextual understanding

The *Baby as primary concern* appeared frequently throughout the journals. It included the baby as being of the primary concern in teaching situations, particularly in situations such as teaching medical staff resuscitation skills, but also in teaching nursing staff skills of care. It included participants giving up their own educational time because they identify that the baby is the primary focus of the role. It involved minimizing unpleasant stimuli to the infant, for example not doing unnecessary blood tests.

Infrequently participants gave examples of *prioritising baby's needs*. This included prioritising into needs that required immediate attention and needs that can be followed up at a later time. For example an acute respiratory deterioration needs to be dealt with before the emotional needs of the infant and family.

*Prioritising needs between babies* came up infrequently. Examples included were when the participant was resuscitating one baby and was called to another acute situation. The ability to perceive the situation and prioritise in these situations was a contextual understanding of the individual baby's needs.

*Responsibility* to baby was identified frequently and included the inability of the participant to distance herself from the baby because of the *responsibility* she felt toward the infant. A second example was that the participant felt responsible for the long-term outcome as a consequence of actions she may or may not have taken. *Responsibility* also included advocacy for the baby, for example referral to have a central line inserted because it was distressed with having numerous peripheral intra-venous cannulae.

### Summary

Frequently occurring codes were multi-factorial evaluation, the baby as primary concern and responsibility to baby. Codes noted but less frequently were: identification of individual personality, and prioritising needs. If a code appeared infrequently it didn't necessarily mean it was unimportant, that they occurred was important. Thus the journal data confirmed the theme of 'consciousness of baby'.

### 7.4.2 *Theme 2: Orientation to family*

#### Concept 4: Family care

Frequent entries considered *relationships with families* and these included developing therapeutic relationships acknowledging the importance of developing trust and partnership with families. Relationship building included listening to the family's expectations and anxieties pre delivery and their post delivery experience. It included doing what the participants said that they were going to do.

Infrequent examples of this *communication* were given. They included giving explanations of care, informal 'chatting' and active listening so that information can be given and received. It also included more formal education with parents around the experiences they may have in the neonatal services.

*Provision of care to families* came up frequently throughout the journal and included physical care, support and advocacy. Examples of physical care were ensuring parents were taken care of following transfer from other institutions. Allowing time with infants prior to transfer to promote family development, providing support for families to enable them to feel comfortable decisions they may have made were and support to families relating to the death of their baby were examples of care of families. Advocacy for families to ensure they were discharged appropriately was also described.

#### Concept 5: Context of family

*Baby's relationship in the family* came up frequently, this included parental rights to make decisions about treatment of their baby, parental rights to be informed, the right of parents to be present when procedures were being carried out.

*Safety* was discussed in the family context infrequently in the journals. It included a responsibility to ensure a safe family environment for babies. Being flexible to accommodate family wishes but maintaining the safety of the baby.

#### Summary

Orientation to family was clearly shown in the frequent examples given of relationships (with families, and baby within the family) and of provision of care to families. While infrequent examples of communication were given this code is implicit in relationships with families. Safety in the family context arose infrequent because they related to specific cases, which are uncommon occurrences. Orientation to family is, therefore, an important aspect of the NNP role.

#### *7.4.3 Theme 3: Uniqueness of NNP care*

#### Concept 6: Tasks and skills

*Medical tasks* were described commonly in the journals and included insertion of chest drains, endotracheal intubation, insertion of umbilical arterial and venous catheters and lumbar puncture.

There were frequent examples of the participants using *nursing expertise*, seventeen examples were given. These included the ability to trouble shoot equipment. Participants use nursing knowledge and intervention to prevent invasive interventions or unnecessary use of medications. Examples include knowledge that prevents infants from being sedated, or admitted for transient respiratory distress, or ventilated for apnoea and desaturations. Participants give examples of using nursing knowledge to carry out unpleasant nursing tasks and to help with nursing care, such as breastfeeding.

Frequently instances of issues surrounding *decision-making* were described. This included acknowledgement that *decision-making* was different from a bedside nurse because of a different perception. Decisions were constantly reviewed. Decisions were a combination of experience, education and reflection. Decisions were also often made *autonomously*.

#### Concept 7: Concepts underlying practice

Examples of *holistic care* were described infrequently. Job satisfaction was associated with total care, for example wrapping the baby after examination, considering the family, seeing multiple perspectives not just the part that's wrong. Dissatisfaction with the role was described when it was perceived that "*holism* is non-existent" in a particular incident, and related to working in a medical model of care. Also frustration if *holistic care*, which included taking time to discuss issues with family, could not be provided.

The importance of *context* was described infrequently. An example of this was a participant relating a decision made to the *context* of

transferring a baby; a different decision may have been made if the baby had been born in the institution in which the participant worked.

Frequent examples were given of the importance of *identity as neonatal nurse practitioners* were given. One participant described the importance of being identified as an expert nurse as opposed to being considered a 'mini doctor'. The use of caring language was important in maintaining a nursing identity.

#### Concept 8: Knowledge Base

*Experience* was described as knowledge that was based on past experience; this was described infrequently. These examples included being able to leave a baby that was 'grunting' with parents because in past experiences similar babies had stopped 'grunting' and knowing the diagnosis based of past experiences.

Examples of *reflectivity* were given infrequently. These included the development of the participants' practice through active reflection on a given situation. Also identified was the need for a safe place to critique one's practice, so that in future situations you may act differently.

#### Summary

While medical tasks were described frequently in the journal data these were accompanied by frequent examples of using nursing expertise; including decision-making. The importance of identity as a neonatal nurse practitioner was identified. The concept of holism incorporates medical skills and nursing expertise, which also includes experience and reflectivity. Thus the uniqueness of NNP care is acknowledged.

#### 7.4.4 *Theme 4: Leadership role*

##### Concept 9: Issues of Clinical care and other professionals

*Consultation* was identified frequently and included the provision of consults to midwives, general practitioners and other nursing staff.

*Consultations* were described as checking babies if the health professional was unsure about the significance of a finding or providing nursing advice on issues such as feeding. Some frustration was expressed at staff not taking the responsibility to make their own decisions.

*Liaison* was described frequently. This included *liasing* between management and bedside nurses, nurses/midwives and parents, medical staff and bedside nursing staff. Also discussed was the use of appropriate communication skills in *liaison*, which included not discussing professional issues in front of parents or other staff.

Participant infrequently *identified areas of specialty* interest in their journals.

*Staff education* was frequently described. It included teaching nursing staff, registrar teaching and the teaching of trainee interns. Examples included teaching nursing staff to carry out a literature review, to clinical teaching on how to 'bag' a baby. Medical teaching included educating trainee interns in nursing philosophy or registrars how to carry out a procedure. Teaching involved informal *staff education* that was possible because the NNP was present at the time on opportunity arose.

### Concept 10: Management

Also frequently reported was the NNPs role in *staff support*. This was identified in nine examples and included support and encouragement to medical staff that were learning. The main emphasis of *staff support* though was in supporting nursing staff and included confidence-building, support for nursing decision-making and support in crisis situations.

The participants gave frequent examples of their role in *crisis management*. It included their clinical role, which was a priority to the baby but also includes staff allocation, ability to prioritise, ability to perform nursing tasks as necessary and an ability to delegate tasks to appropriate staff.

The participants gave infrequent examples of *general management*. These included organising transfer of babies to level two areas, ordering medications, recognition of skill levels of staff and ensuring appropriate allocation of babies. Examples of management were described when nursing management staff were not available.

### Summary

Consultation, liaison, staff education, staff support, and crisis management were noted frequently. General management was only required in the absence of a nurse manager. These codes demonstrate a leadership role. Areas of special interest may not have occurred as the journals were viewed over a specific two month period, the area of special interest generally included formal education, which may not have occurred in this time.

#### 7.4.5 Theme 5: Culture of Nursing

##### Concept 11: Nursing Identity

Infrequently issues of *power* arose in the journal data. These involved issues of the power that consultant medical staff had. Examples included the need for consultants to give approval for the NNPs to maintain confidence in their NNP practice.

Infrequent examples of the need to be acknowledged as *belonging* to nursing were given in the journals. These included negative feelings when nursing staff expressed that participants weren't nurses. Acknowledgment was given to the positive affect being considered a nurse. An example was a comment such as 'good its all nurses on' had a positive affect on the participant's self perception.

##### Summary

Codes involved in the culture of nursing were seen infrequently in journal data. Concepts and codes involved in this theme are abstract, however the codes of power and belonging that did arise, do confirm parts of the culture of nursing theme.

#### 7.4.6 Theme 6: The NNP experience of advanced clinical practice

##### Concept 13: Vulnerability and Confidence

Issues of *professional confidence* were frequently combined with a feeling of vulnerability. The examples the participants gave included being questioned by staff as to the participant's competence to carry out

procedures and to make decisions. Generally medical staff unfamiliar with the NNP role were responsible for this and they often became obstructive. Some examples described nursing staff also lacking confidence (as perceived by the participants) in the NNPs' abilities.

*Personal vulnerability* arose infrequently in the journal data. It involved participants feeling 'over sensitive' to situations that had not gone as well as they could have. The potential impossibility of forgiving oneself if they caused harm was also raised.

#### Concept 14: Self determination

Examples of *self-direction* were given infrequently. One example involved senior nursing staff deciding what were appropriate tasks for the NNP role. Another example involved discussion of the need for NNPs to maintain control of the development of the role.

Examples of *inappropriate expectations of the role* were infrequent. They included expectations around the teaching of new staff. It placed the NNPs into a role where they were no longer allowed to use their skills and they taught to an inappropriate level.

#### Concept 15: Practice within a team

*Constraints* were an infrequently occurring code. They involved disagreement with consultant decisions and an inability to reach a compromise.

Examples of *collaboration* occurred frequently throughout the journals. It included NNPs appreciation of nursing/midwifery care and nurses/midwives appreciating NNPs care. It involved the ability to ask questions that

nurses may not feel comfortable asking doctors and the NNPs ability to rely on nursing/midwifery expertise.

Issues of *personality* occurred infrequently in the journals. Included this were the need to be passionate about the role, the desire to do a good job and to have a sense of humour.

Frequently occurring was *group function*. This included the need to discuss practice issues with other members of the NNP group. It also included maintenance of the group as a support network in individual places of employment. For example one NNP would stay late to support another.

#### Concept 16: Stressors

*Lack of support* occurred infrequently. It included a lack of appreciation of the role by management. Also included was the lack of feed back from consultant staff on performance. These issues were specific to particular institutions.

*Lack of understanding* was a frequently occurring code. Participants' perceive the hospital staffs' *lack of understanding* of the NNPs abilities and responsibilities. This included criticism and negative comments from hospital staff that did not understand the role. Also included was the expectation that the participant could be 'all things to all people', when the priority was to the tasks associated with the NNP role.

*Tiredness* was a frequently occurring code. It included concern about the participants' ability to function and make good decisions. It included the ability to get annual leave. It included issues of studying and working concurrently. Also described was tiredness with the lack of breaks, for

example participants could not relax away from the work because they were always available for either emergencies or consultation via locator.

*Workload* was a frequently occurring code. This included covering for staff sickness, for example often two people would be doing the work normally carried out by three. There was frustration at not being able to provide 'adequate care' when the job was 'frantic'. The amount of time 'on call' was also described as a stressor, particularly if other expectations such as teaching were also expected when the participant was 'on call'. Being the only person on a given shift was a stressor as nobody was able to help, for example if two acute incidents such as resuscitations were happening at the same time.

#### Summary

Frequently occurring codes were professional confidence, collaboration, group functioning, lack of understanding of the NNPs activities, tiredness and workload. Professional confidence and the last three codes depict negative issues in the experience of NNPs and to some extent may be the opposites of collaboration and group functioning, which included appreciation and support respectively. Infrequently occurring codes were self-direction, inappropriate expectations of the NNP role, constraints and personal vulnerability, these codes are more abstract and that they occurred is important. The codes demonstrate the NNPs experience of their role.

## **7.5 The future of the role.**

Participants thought the future of the role might involve more teaching of new NNPs, roles in community clinics and follow-up. Most participants saw that there was a huge potential for the development of other advanced practice roles in tertiary settings, these included: emergency department, paediatrics and other areas.

In the next chapter the issues raised from analysing the triangulated quantitative and qualitative data are further explored and discussed. These issues are also compared with the literature and current debate on NNPs and advanced nursing practice in New Zealand.

## Chapter 8: Discussion

The two results chapters, the literature review chapter and the background chapters have raised many issues that require discussion, surrounding the role of the NNP in New Zealand. These issues include where NNPs are at present, how they see themselves and where they fit into nursing in New Zealand. This is particularly relevant at present with the debates on advanced practice presently in progress at the New Zealand Nursing Council. There are implications for the education of future NNPs and other advanced nursing roles that may develop. Also important to consider are issues around why the method of this project was appropriate. Developments to my model (Jones, 1999) discussed in the theoretical framework will be given, based on the research data. In this chapter the aim will be to combine the information and debates from the previous chapters to complete a holistic understanding of nursing in the NNP role in New Zealand. Consideration will initially be given to the questionnaire results, then qualitative results are combined with questionnaire results. All themes that emerged through the qualitative data will be discussed. Only the concepts that require specific discussion will be considered individually. Finally ideas about how expert nursing is incorporated into the advanced practice role of the NNP will be elucidated.

### 8.1 Method

The objective of the method used for this research was to enable understanding of the contribution that expert nursing has in the practice of the NNP role in New Zealand to occur. Much of the previous research has had an underlying assumption that nursing is in some way better than

medicine. This research was not designed, and indeed did not want to perpetuate this assumption, rather an assumption that nursing is different than medicine was taken. For this reason the linear type questions with nursing at one end and medicine at the other end were not used and a comparison where scores involving medical questions were inverted, was not done. For example, responses considering nursing as important given a score of 1 or 2 and responses considering medicine as important given a score of 4 or 5 with the answers combined, was not done, as this presupposes nursing and medicine are opposite ends of a continuum. A written format was chosen, because as all the NNPs have a written and comprehension component to their role it was assumed that they were able to respond to this type of format.

As with all postal questionnaires there is a risk that bias may occur. As presented in chapter 5 this questionnaire had an 83.3% return rate and therefore expressed the views of a majority of practicing NNPs. The number of NNPs in New Zealand, at the time the research was carried out, was small (n=18), therefore statistical differences between the different unit groups could not be achieved. Quantitative results have therefore been given at only a descriptive level.

Participants for the interview and journaling phase were gained by volunteering. Those with an interest in the topic under examination were more likely to become involved in the research. As it was the nursing part of the role that was to be examined it was important that the participants held the belief that nursing was part of the role. One may assume that participants with a belief that nursing was important in the NNP role would volunteer. Neonatal nurse practitioners are experienced or expert nurses

prior to commencing NNP education therefore nursing may have become so embedded in their practice that a method that was able to uncover the nursing aspect of their role had to be used. The use of both interviews and journaling was an appropriate method to do this. The journals enabled the hidden nursing aspects to become visible and as the interviews progressed participants were able to reflect and describe nursing in the NNP role.

A critical incident technique (Burnard & Morrison, 1994) was suggested to the participants as one way of journaling as it allows the participants to explain and reflect on their actions. The appropriate places for NNPs to document their practice included the neonatal units, delivery units and postnatal wards. Other places that were identified by the NNPs as providing examples of NNP practice were also accommodated; these were specific to particular institutions. It was inappropriate for the researcher to consider written medical documentation on specific patients as part of the research as it was not the aim of the research to consider care of individual babies and it would not have met ethical requirements. It is acknowledged that journaling has limitations particularly in a profession with historically an oral tradition. Street (1995) suggests that journaling is an effective way of uncovering taken for granted aspects of care. In this research the taken for granted aspects potentially were the nursing aspects of the role. Participants described the embedded nature of nursing when they said that they knew nursing was in their everyday practice but it was difficult for them to articulate this. There was great variation in what, how, and how much the participants described in their journals. This reflected the limitations of using journals alone and thus the need for interviews. All participants felt that the journaling process was beneficial in both their professional development and as a tool for

reflective practice. Some felt that they would continue to journal their practice following the completion of the study. All participants felt that once something was written it added reality to their experience. This was the case with both interview and journal data.

Included in the analysis of the data is interpretation, which gives meaning and explanation of the culture. A conceptual framework is necessary for good interpretation of the data if the result is to be more than description (MacKenzie, 1994). Traditionally ethnography is written as a narrative including thick description, analysis and interpretation. Although an ethnographic method was not used the qualitative results have been given to maintain this thickness of description. Holloway and Wheeler (1996) suggest that the reader should get a sense of the experience of the participants. The results have aspired to give the reader a sense of the participants' experience of the NNP role. The results chapters would therefore be complete without requiring further discussion if a purely ethnographic approach were taken. The research needed to include critical evaluation of the role to be able to offer the potential for development (Lamb & Huttlinger, 1989; Street, 1995). Some of the results stand alone and require no further discussion. Results that illuminate expert nursing or have implications for future development are discussed in this chapter.

## **8.2 Questionnaires**

Questionnaire results were grouped into four themes, these were: nursing identity, professional issues, leadership and research, and education. These themes interlink with each other and are concerned with aspects of expert nursing practice. For example previous research (Beal et al, 1997)

found links between nursing identity, masters degree education and the professional management to which the NNPs are responsible and accountable.

### *8.2.1 Nursing Identity*

The first section considered nursing identity. All respondents identified that their nursing background was important and that NNPs primarily should identify with nursing. Nursing background was considered an important part of nursing identity because if the respondents had not considered it to be important then one could draw the conclusion that the NNPs were not practicing using the nursing knowledge and skills that they had acquired and therefore would be no different from someone given NNP education with no neonatal nursing knowledge. If these responses are considered in isolation the conclusion that NNPs have a nursing identity could have been made. However, identity for the NNP is more complex than that, so questions that address the criticisms of NNPs were included.

The responses were divided over NNPs identifying with medicine and nursing. This was interesting when considering that the same respondents who had considered, at least an important identity with nursing, also considered it important to identify with medicine. Two-thirds thought that nursing activities were important in the role. Nursing was not defined in the questionnaire, it was left up to the respondents to interpret this in their own way. Participants in the interviews were asked why one third of NNPs might have felt that nursing activities were not practiced in the role. Some participants found this difficult to explain, others thought that other NNPs may have been more medically orientated or they may have wanted to leave their nursing behind because medicine was seen to have more

prestige. This fits with Roberts (1983) discussion on oppressed group behaviour, where the individuals from the subordinate group perceive that they gain prestige and acceptance from the dominant group.

All respondents acknowledged that it is important to perform medical activities. These two questions are interesting if compared with that concerning which professional group it is important to identify with. There is a stronger trend toward identifying with nursing contrasted with a stronger trend to carrying out medical activities. If this is then compared with the last question in this section that asks does the NNP role primarily have a medical or nursing function then either answer could be anticipated. Neonatal nurse practitioners, as a group, appear to identify themselves as sitting between nursing and medicine, with a trend toward nursing identity. This was confirmed with interviews, and will be discussed later. Individual NNPs may have strong opinions of their own identity and where the NNP identity should fit but as a group NNPs identity is unique, and has both medical and nursing components.

Of note are the responses from the participants at NWH. Respondents tended toward considering nursing activities as less important (question 4) and medical activities as more important (question 5). They also tended toward the role as primarily having a medical function (question 22). If these responses are considered together then the NNPs in this neonatal service have a tendency toward a medical identity. The NNPs in other two neonatal services have a tendency toward a nursing identity. As lack of certainty arises over identity perhaps a clear NNP identity will derive from this research and the activities performed will be viewed as NNP activities.

### 8.2.2 Professional Issues

There was a trend toward the title of *Neonatal nurse practitioner* being important. This is important in considering the current debate from the Nursing Council of New Zealand (2000) on advanced practice roles.

Two questions that considered which professional management structures the NNPs should be responsible to are considered together. There are similar numbers of respondents that feel that it is important that NNPs are responsible to nursing management and a similar number of responses that consider that it is important that NNPs be responsible to medical management. No respondents thought that it was unimportant to have responsibility to either nursing or medicine but some were ambivalent about who responsibility should be with. Two responders were indecisive about having responsibility to either medical or nursing management. One that was ambivalent about having responsibility to nursing management thought it very important to have responsibility to medical management. From these results it seems that it is appropriate that NNPs have a joint responsibility to both nursing and medical management. This is consistent with the present accountability structure (see setting of practice, chapter 6) and is consistent with the literature (Beal, et al, 1997), which suggests that the best accountability structure that promotes both job satisfaction and nursing identity is to both professional groups.

All respondents felt that it was important, both personally and as a NNP that they belonged to a professional nursing organisation. It was interesting to note that one respondent felt that it was very important personally and only important as an NNP to belong to a professional organisation. Reasons for belonging to a professional body of nursing were

not within the scope of the research, but may have been linked to the need for litigation protection or, as discussed by the participants in the interviews, the need to belong to the wider culture of nursing, or to have communication with other NNPs. Other researchers have found that belonging to professional nursing organisations is important in maintaining a nursing identity (Beal, et al, 1996). This was interesting if considered with the previous differences in the NWH group who tended toward a medical identity. All NWH group considered it personally very important to belong to a professional body of nursing, suggesting a trend toward nursing identity. An interesting question might have been about whether NNPs felt it was important to belong to a professional medical body.

### *8.2.3 Leadership and research*

Two questions on leadership in the NNP role were considered. These were considering the consultative role of the NNP and the role in helping the bedside nurse develop their own nursing skills. It was interesting to find that while all respondents thought that it was important to act in a consultative role only approximately three-quarters thought that it was important that they help in developing nursing skills. The respondents that did not think it important that they develop nursing skills were all from the largest neonatal service and possibly may reflect a greater number of other senior nursing personnel that are available over all shifts. This is confirmed when compared to journal and interview data that considered general management in the neonatal services. It was only a code in the neonatal services where there was not routinely senior nursing staff available. However, developing nursing skills in others should be considered as an area that potentially could be developed in the future in this unit.

The question on research was interesting as it was considered by approximately two-thirds of the respondents as somewhat important, although what constituted nursing research was not well defined in the questionnaire. 'Research' did not appear through any of the codes in the interview or journal data. Only codes that appeared through the interview data were discussed at the interview level. As it was vital that a description of what was important to the participants was gained, a question on the importance of research in the NNP role was not asked in the interviews. This exclusion may have been a limitation as all nursing practice should be evidence-based. The ambivalence about undertaking nursing research could have been an artefact of the way the question was asked. The reason that research did not appear in the interview can only be surmised. It is possible that research was not being undertaken by participants at the time of their participation in this thesis, therefore was not foremost in their mind.

#### *8.2.4 NNP Education*

There was consensus from all respondents that the NNP course that they had undertaken, and that advanced nursing education, was important in the performance of the NNP role. The majority thought that this should be at postgraduate level although some were ambivalent about that. There was a trend toward it being important that NNP education be carried out in a tertiary nursing school, however one third of responses were ambivalent or thought that was unimportant. There was a trend towards it being unimportant that NNP education be housed within a medical school with the majority of respondents showing either ambivalence or it to be unimportant. The combination of these results appears to suggest that

NNP education should be within a nursing school, at post-graduate level, but that there needs to be an ability to use medical resources.

It is interesting to note that all the NWH responders and the majority of MMH and WH respondents thought it important that their education be at a university. This may reflect the dissatisfaction felt about the lack of recognition of their own education. This possibility was discussed and supported by the participants in the interviews. Education was raised in the interview data. There was a general feeling that the medical type of education that the participants had received was adequate but issues that were important in the NNP role were lacking. This will be discussed further in chapter 9.

Finally it was interesting to note that the majority of NNPs in practice are studying toward post-graduate degrees. This confirms the idea that NNPs are committed to ongoing professional education.

### **8.3 Putting it together: Combining questionnaires, written data, interviews and journals**

After completing the data analysis the literature was again searched for research that was specific to the themes that emerged. The literature that was uncovered included subsequent literature related to the NNP role, literature on intuition, the use of language in nursing, transition, and the 'ethic of care'. One article contained a similar study (Beal, 2000), which was published during the data collection phase of this research. This study was unavailable until the initial data collection of the thesis was commenced. Because Beal's (2000) research might have contained similar themes it was not read until the data-analysis of the thesis was completed. This was done

to contribute to the validity of the research results. Aspects of this article will be discussed as they become appropriate. The aim of Beal's (2000) research was to develop a model of NNP practice which is different from the aim of this thesis may account for differences in the type of information attained.

In the current research qualitative results were divided into themes from practice and professional issues because that was how the participants appeared to divide them in the interviews and journal data. Beal (2000) confirmed that the NNP role is a combination of clinical and professional roles, however the description of where she positioned clinical and professional roles was different. The participants in her study identified that the clinical was related to direct patient care and professional roles included education and leadership. The participants in the current study identified that clinical themes included leadership, education and management, as they related to the clinical care or the baby. Professional themes involved concepts that related to the wider culture of nursing. Despite these difference there were similarities between the results of Beal's (2000) study and the research contained in this thesis.

## **8.4 Practice themes**

### *8.4.1 Consciousness of baby*

The way that the NNPs understand and perceive babies as the priority for the provision of care holds many of the values of nursing. This includes the concepts that were uncovered in the qualitative results; these were personhood, an interpretation of wellness and sickness and a conceptual understanding. These concepts relate to two of the central concepts of

nursing, which are: person and health. Since these concepts are essential to nursing they require further consideration.

### Personhood

In the hospital environment nurses act in an intimate relationship with the patient. Nurses perform procedures with patients that outside the hospital or the caring relationship would be considered unacceptable or inappropriate behaviour. Procedures that include causing pain or discomfort, if carried out outside the context of medical or nursing care, could be considered as abuse, for example suctioning, taking blood tests, dressing wounds. The recent example of neonatal physiotherapy, as discussed in the media (Surprise at baby tapping enquiry, 2000), highlights the fine line between care and abuse as perceived by the public. Procedures that would be inappropriate if carried out by a stranger in normal life would include the intimate way nurses have contact with their patients, for example washing peoples' bodies and eliciting intimate knowledge of many personal details.

The NNP role expands the potential for carrying out unpleasant procedures on babies. Neonatal nurse practitioners also often have been involved in care at the delivery of babies. This means that NNPs are involved in one of the most intimate and emotional times in a family's life. How the participants have identified the patients that they care for is important, as this is central to a nursing concept of 'person'. It is important that nurses have a caring concept of individual people rather than distancing themselves from the patients that they care for.

Some literature is available on the use of language nurses use. While the literature is not specific to the type of care that NNPs perform there are parallels. Bjornsdottir (1998) described the importance of language in gaining an understanding of the meaning different contexts had for the participants. This parallels the participants' use of the term neonate when discussing medical care or attempting to be scientific or 'correct' in the description of the patients they care for. If Bjornsdottir's (1998) framework were considered the term 'neonate' would refer to distancing from individuals and the objective use of language in public discourse. The term 'baby' refers to the personal meaning and relational aspect of nursing care, which is considered private discourse (Bjornsdottir, 1998). As discussed in chapter 4 it is the underlying meanings that are important in considering cultures, and emphasises the expert nursing care dominant in the nursing culture of the NNP.

The terms that NNPs use to identify the patients that they care for may be one reason that NNPs have difficulty in dealing with outcomes other than 'normal' and why NNPs tend to personalise the care that they give babies in their care. Froggatt (1998) also considers language important in nursing and although considers the use of metaphors to deal with the emotional work of nurses, the work can be paralleled with the use of the terms neonate and baby. One participant's example of how this is dealt with is important; this participant acknowledges that it is difficult to deal with the unpleasant procedures when you have intimate relationship with the baby. Use of the term neonate may enable some to de-personalise caring so that unpleasant medical tasks can be carried out.

The description of infants as having a unique personality is also important as it implies uniqueness of being, individuality, and carries with it the rights that *persons* have in regard to health care. The concept of personhood involves the caring and empathy that all participants considered as an essential part of nursing and the rights and responsibilities associated with healthcare and nursing. This involves the 'ethic of care' that is discussed later in this chapter.

#### Understanding of wellness and sickness

It was interesting to observe that all the NNPs used the observational multi-sensory type data analysis in the first instance when approaching a problem, then moved on to the more factual data gathering and analysis. This reflects the nursing routes of the role where nurses are excellent observationalists. It also reflects the expert nursing skills that the NNPs utilize; they no longer rely on analytic principles in understanding if a baby is well or becoming unwell, rather an instinctive knowledge that can be confirmed by factual data.

This instinctive and tacit knowledge was conceptualised as developing a *feel* for the baby. For example expert nurses will pick up subtle changes in a patient's condition prior to factual changes, such as increase in bradycardia or apnoea. The NNPs had to have a *feel* for the infant to be able to interpret the subtle changes in an infant's condition. A number of authors (King & Appleton, 1997; Turnbull, 1999) have described the importance of intuition in nursing. This intuitive knowledge is described in the expert nursing definition given by Benner, (1984). There is debate as to the nature of intuition, whether it is inherent or whether it can be learnt. If it were inherent then one would be unable to gain or develop intuitive knowledge. If

it were learned then it implies time and experience is necessary to develop intuitive knowledge. The nature of intuition that seems to be appropriate in consideration of this study would be a learned intuitive knowledge that is gained by the expert practice of neonatal nursing prior to becoming a NNP, and developed further as experience is gained in the role. King and Appleton (1997) carried out a review of the literature about intuition and found that most of the literature related to the critical care environment. This would be appropriate to consider in relationship with the NICU environment, which concluded that intuition was related to expert practice. Neonatal nurse practitioners are expert nurses prior to becoming NNPs therefore have the potential for intuitive knowledge. Turnbull (1999) considered that the rapport in the relationships that nurses develop is related to intuitive knowledge; this fits neatly with the description that the participants describe in developing a *feel* for a baby.

#### Contextual understanding

Following from the concepts of personhood and understanding wellness and sickness is the contextual understanding the participants described. This included the caring, empathic relationship that they had with the babies in their care, as seen in the codes of the baby as the primary concern and the responsibility participants felt in providing care. Beal (2000) confirmed that the NNPs in her study also felt additional responsibility and autonomy was part of the NNP role. The contextual understanding that participants described is considered by Benner, (1984), as an essential component to expert nursing.

Underlying this theme is the 'ethic of care' that is central to nursing and found in expert nursing practice. It may shed light on the conflict that

NNPs have when working in a role that has traditional similarities with medicine. This will be discussed in more detail in the section on the NNP experience of issues in advanced clinical practice. It may account for some of the concepts that arose in the theme: NNP experience of issues in advanced clinical practice.

#### *8.4.2 Orientation to family*

The participants' concept of family was related to the nursing concept of environment. It is acknowledged that the concept of environment also includes the physical environment, however in the context of NNP practice, family was an important component of this concept. Orientation to family also included the provision of care to families. Although this was very much as a secondary focus of care, orientation to family is another component of expert nursing practice. The concepts described in 'orientation to family' reflect practice at an expert level.

Beal (2000) describes the NNPs model of practice in the United States as considering the concept of person as the baby and family as one unit. This does not appear to be the case in New Zealand. All participants acknowledge, however, the importance of, and work in collaboration with, families and stress the importance of developing the family. The development of family and care of the family in the context of NNP care was related to ensuring an appropriate environment for the baby or to support the family for the long-term care of the baby.

It is important to note that if the baby died the focus of care shifted from care of the baby to care of the family. While the baby was dying the focus was on ensuring comfort and ensuring the family's needs, values and

beliefs were met and following the death the focus shifted to one of family support.

### *8.4.3 Uniqueness of NNP care*

The participants described giving a unique type of care. This was confirmed in Beal's (2000) ethnographic study. Beal (2000) concluded that the NNP model of care was unique to the NICU. In New Zealand the NNP role is possibly the only role that is carried out in an acute, intensive care environment and it would be unwise to make the conclusion that the model is unique in nursing until development of similar roles in similar settings has occurred.

#### Skills and tasks

There were difficulties in categorising what was medical and what was nursing. Many situations that were considered 'medical' were only traditionally medical such as being the 'paediatric presence' at a delivery. Midwives in some areas, as described by one of the participant's, would have been the delegated person for the baby's resuscitation because NNPs or a medical people were not routinely available. In some of the institutions involved in the study bedside nursing staff will attend if the NNP or registrar is busy.

Other 'medical' components of the role as described in chapter 6 included ordering, interpreting and initiating treatment based on laboratory, X-ray and other 'tests'. If consideration is given to what expert nurses do they will often order laboratory tests, (whether officially allowed to or not) they will interpret the results and notify the medical personnel if they deem it necessary, and possibly suggest an appropriate course of action.

Therefore the question is "is it really 'medical'? The way that the problem is approached may be 'medical' or 'nursing' but the problem itself does not belong to 'medicine' or 'nursing'. Another 'medical' task that the NNPs carry out is the 'daily review' of babies. The participants were quick to point out that although this was a medical task and was sometimes written in a medical way, they added a nursing component to the daily review.

Beal (2000) established in her study that the NNP role was a combination of nursing and medical management. In the New Zealand context it is difficult to define what is nursing and what is medicine. Some participants' equated medicine being more scientific, nursing also uses scientific knowledge in combination with other ways of knowing so this contributes to the confusion in defining what is a medical skill, task or knowledge. Despite the debates the participants' espouse the belief that they are performing both a medical and nursing role. In essence labelling activities as medical or nursing becomes an anachronism in today's environment.

### Holism

Lack of holism was one of the criticisms of advanced practice roles such as the NNP role in Litchfield's (1998) paper. It was interesting to note that all participants identified an enhanced holistic perspective in the NNP role. Some participants considered that the NNP role is practicing total, 'real' or expert nursing. Beal (2000) confirms that a holistic perspective was important to the NNP participants in her study also.

### NNP identity

Nursing identity is important to the NNP group and may be related to oppressed group behaviour. Participants initially move toward a medical

identity then move back to a nursing identity. One interpretation of this is the participants move toward acceptance in the dominant culture then move back to the subordinate culture once it is recognised that equality can not be gained in the dominant culture. This process is described by Robert (1983). Maintaining a nursing identity was an important issue to the participants, even if it was perceived, by the participants, as not being important to other nurses. This is confirmed by the responses in the questionnaires.

Beal et al. (1997) associated patient care as being more satisfying for those with a medical philosophy and education and research as more satisfying for NNPs with a nursing philosophy. The research in this current thesis disagrees with Beal, et al's (1997) findings. In New Zealand it appears that NNPs have a nursing identity and find the most satisfying parts of the role are patient care involving both expert practical skills and relationships with families. One participant said in her journal that it was the positive comments from patients that make the NNP role worthwhile.

While all NNPs identified themselves' as expert nurses there were perceived differences of how that was practiced in the role. From the questionnaire results approximately half identified that they were primarily doing a medical job and half identified that they were primarily doing a nursing job with one considering the role involved both. The conclusion that the NNP group sees itself as practicing somewhere in-between or having a unique role seems appropriate, with aspects of both medical and nursing care inherent in the role. A nursing philosophy underpins the role. This was supported in the interview data where the participants saw themselves as performing medical tasks but nursing was

still the foundation of their practice. Some participants were more adamant in their perception of themselves as nurses. This may be reflective of the 'struggle' to maintain a nursing identity nationally, and to define what constitutes expert nursing practice in the advanced nursing role of the NNP.

#### *8.4.4 Leadership*

Leadership was considered a separate theme, for the reason that the uniqueness of NNP care and the consciousness of baby and orientation to family are all related to direct patient care. Leadership was a clinical component of the role but included other health professionals' clinical care. Beal (2000) considered leadership as a professional role, this did not fit with where the participants in the current thesis described leadership.

The questionnaire data suggested that a leadership role, such as the support and development of bedside nurses' nursing skills, was not important in one of the neonatal services. The participants interviewed suggested that in one neonatal service general management did not emerge as a code. This neonatal service routinely has a number of senior nursing staff and management available on site over the twenty-four hour day. It is hypothesised that the availability of other senior nursing staff diminishes this part of the NNP role, however even when other senior nursing staff were available NNPs were called on for general management advice.

Beal's (2000) study found that the leadership role included education, professional development, and acting as a resource to other nursing staff. This description is generally congruent with the information from the

interviews, journals and the majority of the questionnaire results in this current study. Other issues in the interview and journal data included liaison, advocating for nurses, parents, medical staff, and management, which are all functions of the expert nurse.

## **8.5 Professional themes**

Professional themes related to how NNPs view themselves within the culture of nursing and issues that involved the NNPs' experience of advanced practice. They reflect the effect that *expert* nursing has on the practice of the NNP role and the implications of expert nursing on the NNPs at an individual or at a personal level. As previously discussed it is unclear if the NNPs' experience of advanced practice is unique, as Beal (2000) would suggest. There is no literature available on many of the codes that emerged on the NNPs' experience of advanced practice. At present there is no research available on nurses practicing in a similar role in an acute and intensive care environment, in New Zealand. These codes therefore may be either specific to advanced practice nursing in New Zealand, or to the NNP role.

### *8.9.1 Culture of nursing*

The concept of nursing identity relates to how NNPs see themselves in the culture of nursing. Issues of power in the NNP role have important implications for maintaining a nursing identity. Asbell and Hilliard (1999) suggest that many clinical nurses in a hospital environment see power in a negative way and that power can become a neutral concept by maintaining a focus on patient care. The negative connotation of power may be related to the historical issues of gender and socialisation. Gender in that authority

and power are masculine attributes, (Davis, 1995; Gilligan, 1982) that fail to fit in the feminine context of nursing. Nurses are struggling for recognition as an autonomous profession, by the public and other health professionals, and power could be perceived as control over their practice.

Neonatal nurse practitioners have the power to advocate for parents, to enable their views, values, beliefs or wishes to be incorporated into the care of their babies. NNPs also have the power to ensure a high quality of bedside nursing is maintained. NNPs must understand this power and use it to value and support other nursing staff. The power that the NNP role brings has great potential in developing an advanced clinical culture in nursing, providing this is linked with maintaining a nursing identity.

Asbell and Hilliard (1999) suggest that nurses moving into management roles go through a cognitive developmental stage, that initially nurses changing roles have a need to be liked and that they must develop an autonomous and separate sense of self. They also consider that those who then progress into management go through a further level of cognitive development implying that those left behind at the bedside are somewhat inferior because they are not as 'highly' developed, just as a six year old is developing concrete thinking is more developed than a three year old who is at a magical thinking level. This places management as *above* those at the bedside. This notion has implications for the NNP role in their struggle for recognition as an advanced clinical career pathway, rather than a management pathway.

Neonatal nurse practitioners remain clinically focused, acknowledge the importance of belonging to a nursing culture and function in caring relationships with babies, families and staff. Neonatal nurse practitioners

also have a leadership role, which is a different concept to having a management role. Nursing has underlying values that include a sense of equality, justice and fairness; this can be seen in the professional ethical codes (NZNO, 1995) and in virtue-based ethics (Lagana, 1999). While power can be considered in a positive way in relation to patient care, it needs to be considered with awareness and with caution in relationship to having power over bedside nursing staff, remembering that all registered nurses are autonomous professionals and many are experts in their own right. The participants who were aware that there was a fine line between interfering and helping acknowledged this. NNPs may perceive that they gain respect and prestige from the role, however if they don't reaffirm their expert nursing routes they will never be seen as equals with nursing or medicine if they maintain a medical identity.

Transitions occur frequently in nursing as nurses change role, for this reason it is included in nursing culture. Moving into the NNP role can be considered a transition within a professional role, this would fit as a situational transition, as describe by Schumacher and Meleis (1994).

Transitions require a certain amount of time in which to occur (Schumacher & Meleis, 1994). Participants identified a code of time as important in the transition; this was required for the development of expertise, i.e. skill acquisition, consolidation of knowledge, development of decision-making skills and adjustment to different responsibilities. Participants then described the second part of transition as being reclaiming their nursing perspective. Schumacher and Meleis (1994) describe this as a movement from one state to another. The nature of change is also considered a universal property of transition. At an organisation level this included a change in nursing function. The NNP has a changed function from a bedside

nurse to NNP. The process, therefore meets the universal properties of transition.

The participants all suggested that it was not necessary to complete the transition back to a nursing perspective to be able to function in the role. The respondents did not give explanations of why some may have completed the transition and others may not have. Schumacher and Meleis (1994) suggest some important factors that seem to have relevance to the NNP experience. These are: expectations and the meaning of the transition from the perspective of the NNP, supportive preceptors and role models, identification and planning for the issues that arise during the transition, support of emotional and physical well-being during the transition. The participants identified the need for support during the transition phase. Most had limited support from people that had gone through the same transition because there were very limited or no NNPs who had made the transition before them.

The participants identified that they had made a reasonably healthy transition to the NNP role over a period of between one and two years, although they felt this was dependant on each individual. This healthy transition was reflected in a sense of mastery of the 'medical' skills developed, considering the role as a great role, and not wishing to go back to bedside nursing, and developing collaborative relationships with other staff. Following the transition all participants described reclaiming their expert nursing skills and knowledge and were then able practice expert nursing within the NNP role.

### *8.5.2 NNPs experience of advanced clinical practice*

Much of this theme stood alone as a description of living the NNP role. Two concepts relating to specific codes may benefit from further discussion, these are vulnerability and confidence, and group functioning. The NNP experience of advanced clinical practice related to issues of socialisation and the historical development of nursing as discussed in chapter 2.

Socialisation is part of developing a cultural identity but this was complicated in a developing role where there were no role models in practice from the same cultural group. As the numbers of NNPs increase, establishing the roles unique identity, this should improve.

#### Vulnerability and confidence

Vulnerability and confidence issues are considered in some literature as part of the transition process. In the context of NNP care there was vulnerability and confidence issues related to skill acquisition and role change which was related to transition, however the legal, professional and personal codes of this concept were described as distinctly different from the transition process.

Of particular interest is the code of personal vulnerability, which is linked to that of legal vulnerability. This code appeared to be related to the responsibility to the baby, family care and reflective practice. It involved a very real feeling of care for, and empathy with, babies and families. It appeared to fit into the area of ethical or moral care in nursing, or the 'ethic of care'. Langana (2000, p.12) explains that "fear of malpractice litigation has resulted in a defensive response by health care professionals that interferes with the development and maintenance of genuine caring

relationships with patients". Although this article considers implications in the United States, which has a different health care environment, participants are aware of the legally untested nature of the NNP role. Participants appear to have been able to separate their feelings of legal vulnerability from their ability to establish caring relationships with babies and families. This may change in the future as cases, involving NNPs, are taken to the New Zealand Nursing Council, the Accident Compensation Corporation, and through the courts.

The nursing 'ethic of care' may explain the personal vulnerability that NNPs experience. Involved in the ethic of care is the establishment of caring relationships and considers nurturance as an important factor (Langana, 2000). The NNPs function in intimate caring relationships with babies and families and this might account for the emotional feelings described in the results when the outcomes are not perfect. The nature of the responsibility within the expert practice of the NNP is different from the bedside nurse and this makes feelings NNPs describe different from other nurses. It is important that NNPs maintain these relationships if they are to maintain a nursing focus in the role, they need to be given the appropriate skills to be able to deal with personal vulnerability.

#### Practice within a team: Group functioning

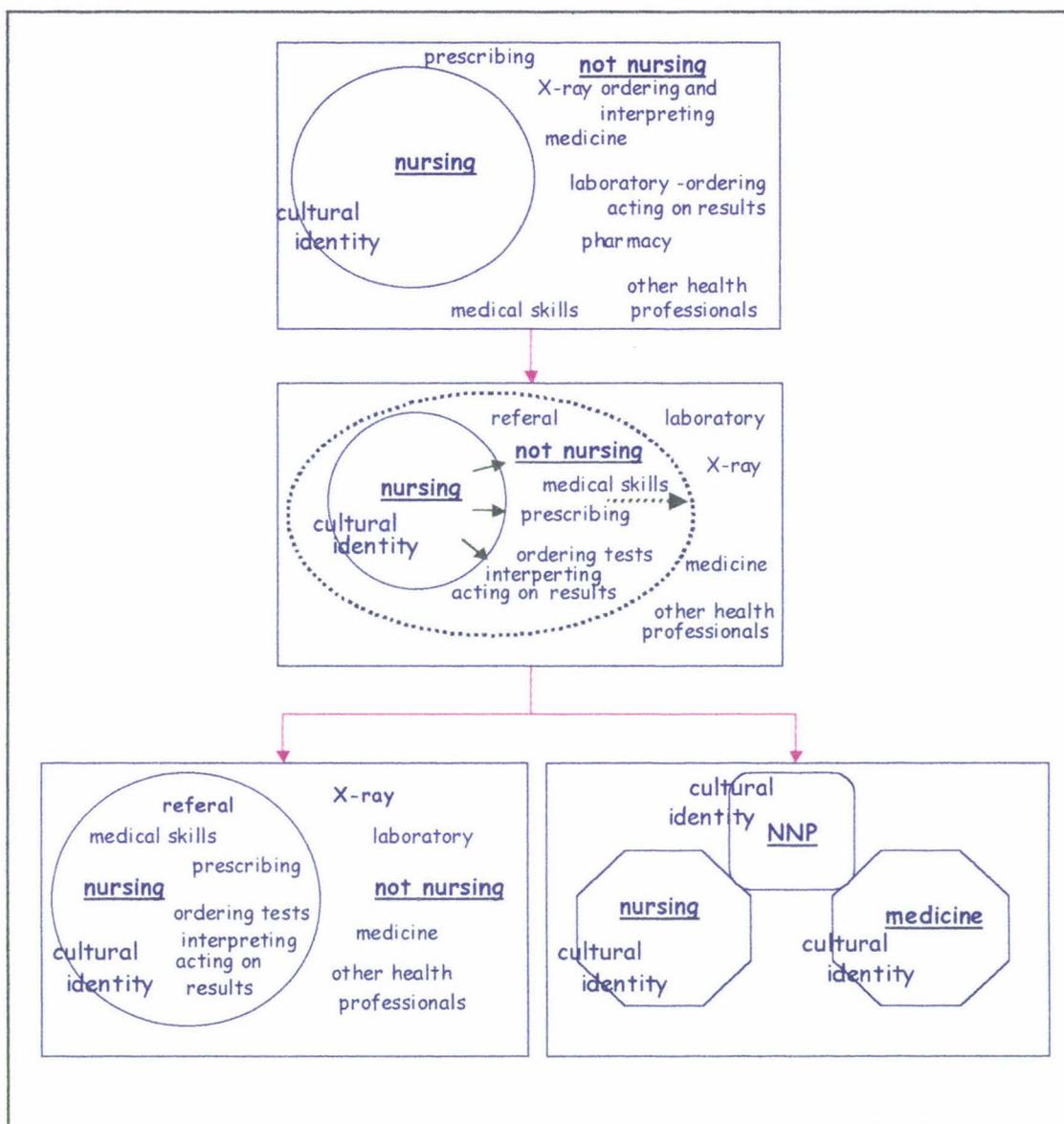
There were differences between the NNP groups in the different institutions. One institution had a very supportive group and it was perceived by the participants to be non-competitive. One reason suggested for this was the lack of other supports, using a cycling roster which meant that the group had to work collaboratively to get specific shifts changed, and an active process of working toward group support by every person in

the group. None of the NNP groups had an acknowledged leader. This may be reflective of the types of personalities involved and also a feminist or nursing way of organising themselves in a non-hierarchical manner, there by acknowledging each other as equals. Gilligan (1982) describes non-hierarchical organisation as reflecting the importance women place on equality and relationships. Also important in non-hierarchical organisation of groups is that it is more stable because the issue or power becomes unimportant, as members of the group are considered different but equal. This has the advantages of each individual getting information rather than it going through a central leader, however it also means that people trying to make contact with the NNP group have no one person to send information to.

Hickey, et al. (1996) identified the need for advanced practice nurses to be used as their own reference group. Because the issues in advanced clinical practice are unique to the professional socialisation that these nurses have undergone it is important that the development of a supportive NNP group is considered in the development of the role. This will be particularly important when the role develops in other neonatal services.

## **8.6 Development of the model of how NNP practice fits into nursing culture**

Another option in how the NNP role relates to a changing culture of neonatal nursing became apparent through the research; this is given in Figure 8.1.



**Figure 8.1: Developed Jones model of NNP role and the culture of neonatal nursing**

The interview participants and the questionnaire results suggest that the NNP role might provide a connection between nursing and medical cultures.

Nursing and medicine, although appearing to have similarities in practice, do not share a cultural boundary because of the different philosophies, values

and beliefs that underlie their practice. Culturally nursing and medicine also have different socialization to roles, a different history, and gender and professionalisation issues are different. Nursing and medicine, therefore, do not share a cultural boundary. Neonatal Nurse Practitioners may, however, touch the boundary of medical identity and have a glimpse inside.

The culture of nursing may push the NNP role outside the nursing boundary of cultural identity. The concepts of person, health, environment and nursing are inherent in NNP practice, because of our socialization. This socialization means that NNPs will always at least share a boundary with nursing. Thus NNPs push the boundaries of nursing across the boundaries of medicine. They can be expert nurses but not doctors, at any level.

A revised model that is a development of my model (Chapter 4, p.71) is presented in Figure 8.1. This model incorporates an alternative pathway for the development of a unique NNP culture.

## **8.7 Summary**

Although the Beal (2000) study used some different data collection methods and the focus of the purpose was slightly different it validates many themes that emerge in the data analysis of this thesis. Added together they build a description of practice that has the potential to be generalised to other regions where NNPs practice.

Neonatal nurse practitioners have a unique identity with nursing remaining the basis of their practice. The difference between nursing and medicine appears to be the philosophy behind the care provided. This raises the

question: do the NNPs that consider themselves to have a medical focus really have a medical focus or are they unaware of their nursing philosophy because it is embedded in their being and they have just neglected to reflect on that part of their practice? Further debate is needed about what is 'medicine' and what is 'nursing' and whether the two are mutually exclusive. If nursing nationally wants to maintain the NNPs' nursing focus it will need to support and acknowledge the NNP role as an advanced *nursing* role with an expert nursing component or the NNPs run the risk of become isolated from their nursing routes and functioning as a separatist group in much the same way as physiotherapy and occupational therapy became separated from nursing. Advanced practice in roles like the NNP role could be considered the ideal of nursing with increased responsibility, accountability and autonomy.

In this chapter the major elements (themes and concepts emerging from the data) were discussed. Triangulation of data collection methods have reduced any tendency toward specific bias and thus validates the research. The reader can audit the process and evaluate the findings. In the last chapter arguments are made for the recognition of the NNP role as an advanced nursing role and for the future directions of the role. Embedded in the advanced nursing role is expert nursing as practiced by the neonatal nurse practitioner.

## Chapter 9: Conclusion

This thesis establishes that a nursing philosophy underlies the practice of NNPs. It raises issues for the recognition of the NNP role as an advanced nursing role. There are also implications for future directions of the role, education, support and candidate selection arising from the research. The clinical themes that emerged demonstrate expert nursing as described by Benner (1984). The professional themes show the impact that socialisation as expert nurses has on the NNPs in the practice of this advanced nursing role. While the following conclusions are not directly taken from the data, it is very clear that the data informs the conclusions made. A preliminary model has been produced (see chapter 8, p.200). This model has the potential to be tested and further developed.

### 9.1 The NNP role as an advanced nursing role

The NNP role offers a clinical career pathway, in advanced neonatal nursing. Nurses having seen a need and being willing to take up the challenges have developed the role. While still in its infancy the NNPs need to remain responsive, innovative, and seize opportunities to develop the role. It is essential that nursing remains the underlying philosophy of practice or practitioners risk losing the uniqueness that makes them a NNP.

As discussed in chapter 2, Doherty (1996) argued that 'caring' must be diminished in the NNP role. I would argue that 'caring' could be enhanced in the NNP role as a more holistic approach can be offered. I would also argue that nursing is more than 'caring' that it involves a philosophy of health and person that is unique among health professionals. This

philosophy contributes to the unique place NNPs have in health care in New Zealand.

It is important that the NNP role is accepted as part of the wider nursing culture. Neonatal Nurse Practitioners stand on the precipice of nursing; the role can either be incorporated into nursing culture or pushed outside the boundaries of nursing. If the NNP role is pushed outside nursing the NNPs will be in a very isolated place. Their socialisation and nursing background means that they will not gain acceptance in medicine, the second most closely linked profession with some aspects of the NNP role. Isolation would have implications for the NNPs vulnerability; if they were not incorporated into nursing it would be easy for them to become the 'scapegoat' for medical misadventure. The results of this research suggest that expert nursing is incorporated into the NNP role although individual practitioners may not have recognised it, being immersed in learning 'skills' labelled as medical.

## **9.2 Neonatal nurse practitioners as expert nurses**

From this research it appears that NNPs go through a transition stage. Throughout this transition NNPs rely on the medical knowledge that they have gained in their NNP education program, and do not function at the expert nursing level that they were performing at prior to commencing the NNP role. Following this transition NNPs may then use again their expert nursing knowledge and skills. In this research all participants had reclaimed expert nursing as their basis of practice.

Expert nursing can be seen through all the clinical themes. 'Consciousness of baby' uses intuitive expert nursing as described by Benner (1984).

'Orientation to family' uses the skills of the expert nurse. These skills include communication skills, experiential knowledge of family development, and the ability to provide care to families as well as babies. The 'uniqueness of NNP care' is expert nursing care that includes medical skills. 'Leadership' is an expert nursing role (Benner, 1984), which the NNPs perform.

The implications of expert nursing, as practiced by the NNP in this advanced nursing role, are identified in the professional themes. Neonatal nurse practitioners are expert bedside nurses prior to commencing their NNP role. Following the transition stage they may reclaim their expert nursing and begin the process of becoming experts in this advanced nursing role.

### **9.3 Implications for the future**

#### Development of the role

The role of the NNP will need to continue to be responsive and innovative as health needs and the health care system change. Future possible areas of development of the NNP role are into the area of community care of sick babies, follow-up clinics (or community follow-ups), education, research and leadership. The importance of family in the care of babies was acknowledged by the participants. Although no literature suggests the use on NNPs in family development and assessment, this is one area that NNPs could develop to enhance the uniqueness of the care that NNPs provide. The NNPs need to be the leaders in the development of their role.

It is important in the development of the NNP role to have a nationally recognised standard of education to enable the NNP to practice

throughout the country. This will become more important as the role develops to include different aspects of neonatal care. However, as the role develops, the NNPs functions must be firmly based in the advanced and expert clinical care of the neonate and family. It would be wrong to see the role becoming focused on education, research or administration, as these roles existed long before the NNP role was established. Although a research role did not emerge from the qualitative data, research was valued in the questionnaire data. Research, therefore is valued by the NNPs as providing an evidence base for NNP practice. The NNP role has offered nurses wanting to focus on 'hands on' neonatal care, a clinical pathway and to develop as expert nurses in advanced nursing. Clinical care is the cornerstone of the NNP role.

#### Education

Education needs to be appropriate to the role that NNPs undertake. There have been many changes in NNP education since the inception of the role. Neonatal nurse practitioners in present practice should not be disadvantaged by these changes. Education should be at post-graduate level in recognised programs, and at a university.

Neonatal Nurse Practitioners in current practice need to be involved in the teaching of student NNPs. Education needs to continue with the present level of anatomy, physiology and care of the sick neonate input. Education should include more information on aspects of role transition, effective coping mechanisms for working in the role, leadership skills, and issues of advanced practice in the NNP role. The NNPs in current practice are ideal practitioners to share their knowledge and experience in these areas.

## Support

The development of supportive relationships with administrators is essential for the NNP role. While it is not necessary for administrators to have first hand knowledge of the NNP role, it is essential that they become aware of some of the unique issues that arise with nurses practicing in this particular role. These issues may also arise in similar roles, e.g. acute and intensive care when they develop.

Neonatal Nurse Practitioners need to actively, as a group, develop a cohesive support network to discuss issues as they arise in the role. Group NNP meetings and 'study days' may be one way to facilitate group development. Group meetings need to be on a regular basis. One suggestion is two to four times a year, with communication at other times by other means. As the NNP role develops in other neonatal services a facility for group meetings needs to be embedded into the role. If this is done it will then become an accepted expectation that these meetings occur. The development of a cohesive NNP group will provide strength when issues of expert practice arise. The public perception of nurses acting in what is traditionally a 'medical' role may be enhanced with group cohesion.

## Candidates for the NNP role

The selection of candidates for the NNP role needs consideration. It is important for both individual personal development and professional growth that appropriate nurses are chosen for this role. Nurses need the ability to cope with the many stressors of this advanced nursing role, and need acceptance from other neonatal nurses. Candidates need to have the respect of other bedside nurses as *experts* in neonatal nursing so that they will receive the necessary support as they begin practice in the NNP role.

They need to be *expert* nurses to have the confidence in their ability to make appropriate autonomous decisions. Good communication skills are paramount in the NNP role and need to be considered essential in selecting candidates.

Neonatal Nurse Practitioners need to be highly motivated nurses. This is necessary for the completion of a rigorous education program, followed by a difficult transition to this relatively new role. There is also the potential for development of the role and NNPs need the motivation to recognise areas of opportunity and make changes in the role.

## **9.4 Summary**

This thesis has explored and described the concept of expert nursing and how it is incorporated into the NNP role in New Zealand. It has raised issues surrounding the development of the role as an advanced nursing role. The NNP role provides a unique role in the care of babies that incorporates nursing expertise and philosophy with traditional medical skills and tasks. There is the potential for the development of similar roles in other specialist areas in tertiary health care. Nursing remains an inherent, although sometimes unrecognised, component of the role that underlies the NNPs practice. There is a constantly changing health environment in New Zealand and nursing needs to be responsive and innovative in meeting the challenges of the future. The NNP role is one response to these challenges.

Expert nursing is embedded in the clinical themes and has implications in the professional themes that emerged in this research. Despite the many stressors involved in the NNP role participants in this thesis were

committed to the role, and thought that it provided a satisfying clinical nursing career pathway for nurses.

*"I think it's a great role, I do, and I think there's lots of opportunity" (P3)*

## Glossary

**Advanced Neonatal Nurse Practitioner (ANNP):** Generally used in literature from the United Kingdom for advanced practice nurses that practice in a similar role to the NNP in New Zealand.

**Art line:** Abbreviation for peripheral arterial line

**Bedside nurse:** Registered nurse responsible for the daily care of babies in the neonatal unit.

**Clinical nurse specialist (CNS):** a) a registered nurse who facilitates the introduction of new policies and procedures in the neonatal unit, who maintains quality nursing care and generally has an educational component to the role: b) a registered nurse with experience in a specialist area, for example asthma or diabetes, who acts as an advisor or co-ordinator for the patient during episodes requiring care.

**Drip:** Colloquial language for intravenous cannulation and intravenous fluids.

**ET:** Abbreviation for endo-tracheal tube

**Four Striper:** Student nurse who has sat state examinations but prior to receiving results (term commonly used when nursing education was hospital based)

**Group B Strep:** Abbreviation for Group B Streptococcus, a bacterial disease with high mortality and morbidity in babies.

**Level 2 neonatal care:** Specialist care provided in neonatal units, but not including respiratory support, for example thermoregulation, intravenous nutrition etc.

**Level 3 neonatal care:** Intensive care provided in neonatal intensive care units (NICUs) generally including respiratory support.

**Neonatal fellow:** Medical professional who has completed specialist training in paediatric or neonatal care and is associated with a university generally carrying out research. This position is generally held prior to a consultant position.

**Neonatal Nurse Practitioner (NNP):** A registered nurse that has received specialist education, and is approved by the neonatal service to carry out 'medical' care and act as the 'medical' presence in the neonatal service. The NNP acts as a health care provider for babies and their families.

**Neonatal Service:** The institution that provides neonatal care to newborns and their families. It includes all levels of neonatal care and neonatal homecare services.

**NICU:** Abbreviation for Neonatal or Newborn Intensive Care Unit. Staff commonly use this abbreviated form.

**Nurse Practitioner (NP):** A registered nurse that has received specialist education and acts as the health care provider for patients, for example: family nurse practitioner, neonatal nurse practitioner, paediatric nurse practitioner.

Physician Assistant (PA): A person that has undergone training to undertake medical procedures.

Resus: Abbreviation for resuscitation

Standing orders: A document that details the 'delegated medial procedures' that the NNP is able to perform and is signed by the medical staff.

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**Exploration and Description of How Expert Nursing is Incorporated into the Neonatal Nurse Practitioner Role, in the New Zealand Context.**

16) How important is advanced nursing education in the Neonatal Nurse Practitioner role?                    1      2      3      4      5

17) How important is it that neonatal nurse practitioner education is at a post graduate level (Masters level)    1      2      3      4      5

18) How important is it that NNP education be centred in a tertiary nursing school?    1      2      3      4      5

19) How important is it that NNP education be centred in a tertiary medical school?    1      2      3      4      5

20) How important to you is it that post graduate education is set in a University?    1      2      3      4      5

21) Do you have or are you studying for a post graduate degree?    Yes/No

22) Do you consider yourself to primarily be performing a medical or nursing role?    medical / nursing

You are invited to make comments .....

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Please return using the stamped addressed envelop provided

**Thank you for you help by responding to this questionnaire**

Interview outline interview 1:

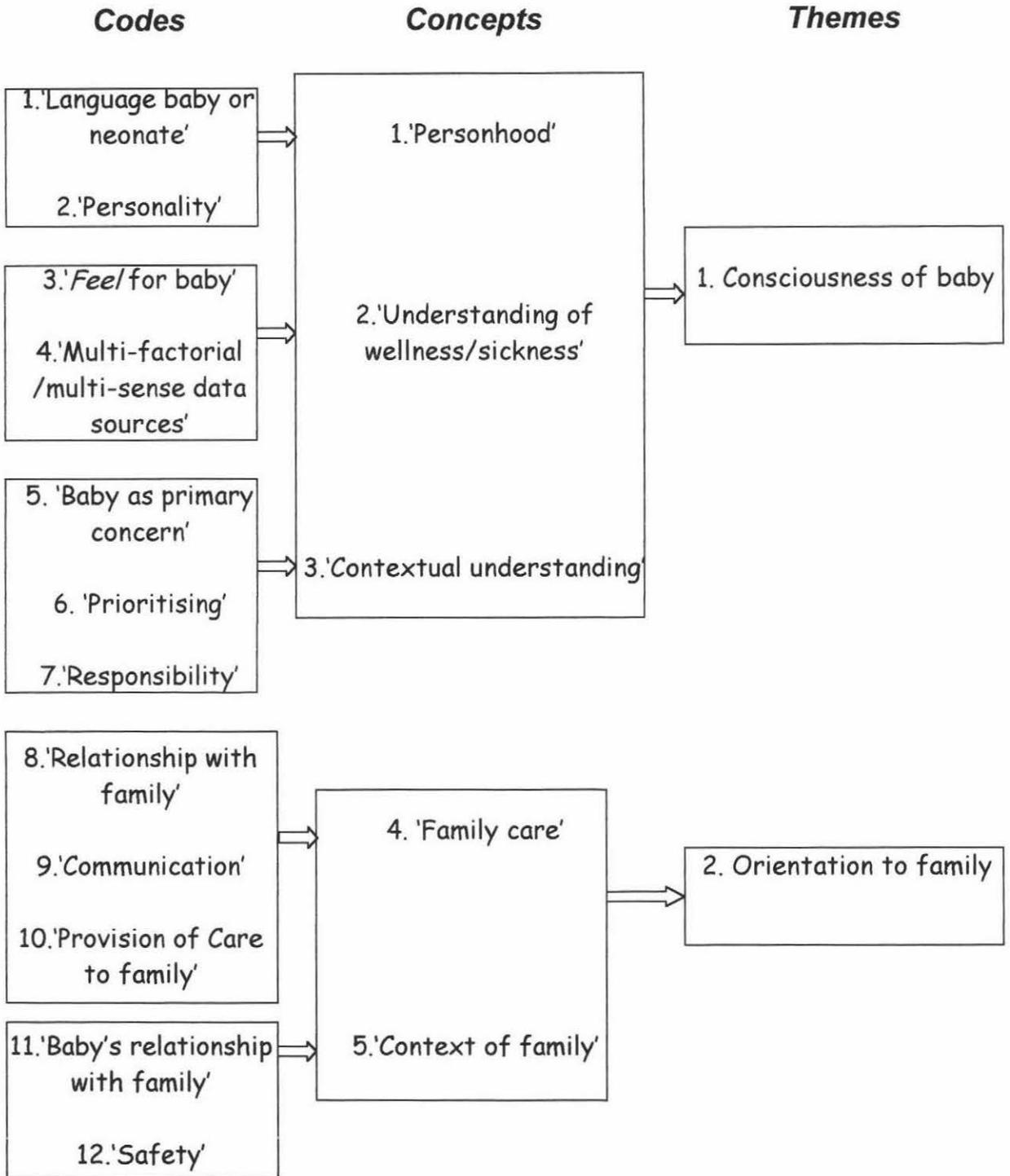
1. What does nursing mean to you?
2. Can you describe or define the NNP role?
3. Can you tell me about the importance of your nursing background in the NNP role?
4. How is nursing actually practiced in the role?
5. Does the role include helping the bedside nurse?
6. Is there a difference between expert and advanced nursing?
7. Did the education that you received prepare you for the reality of the role?
8. Has the relationships with staff changed?
9. Who did you use as role models and supports?
10. Can you describe how the NNP group is structured and how it functions
11. What do you see for the future of the NNP role?

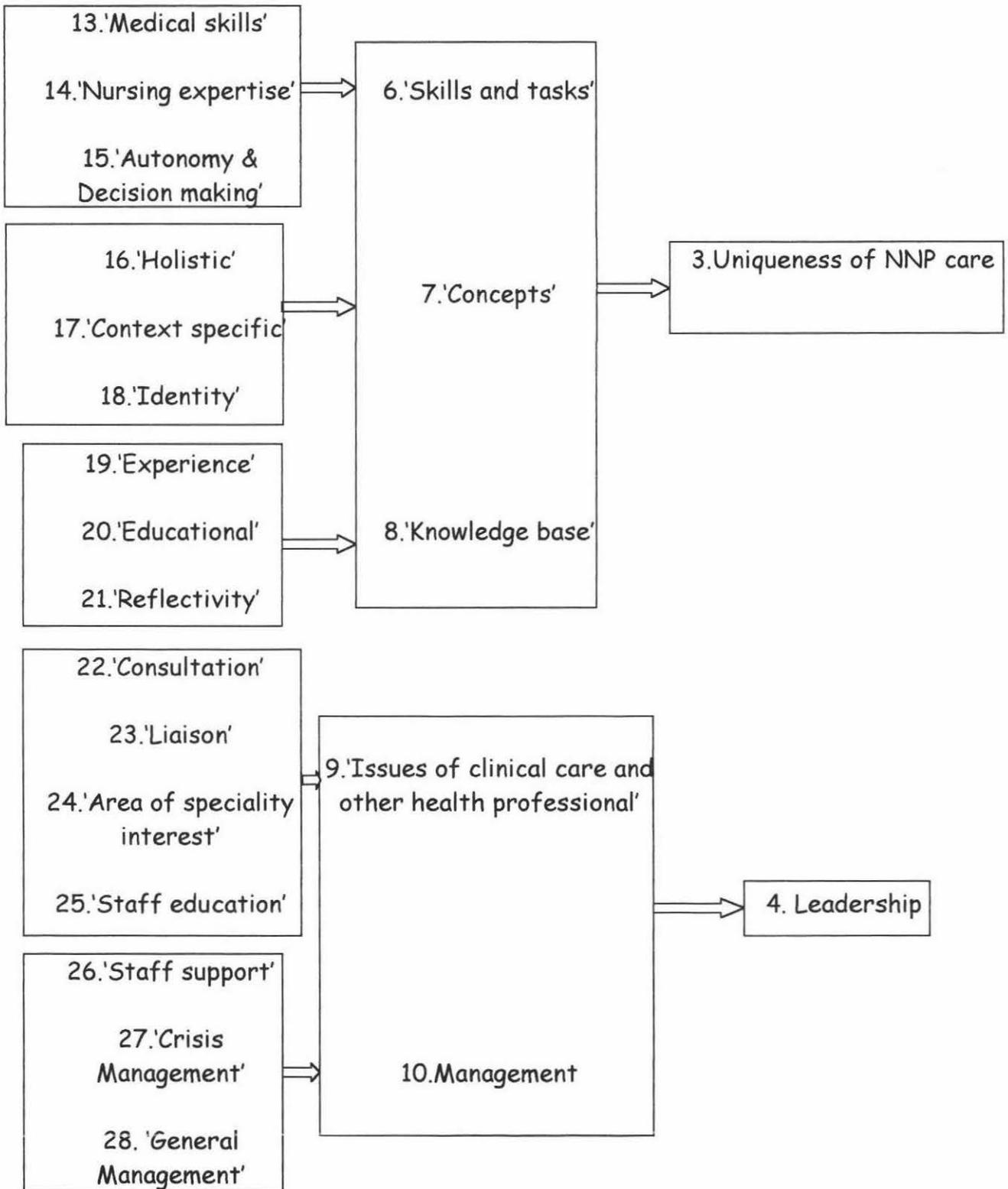
Interview outline, Interview 2

1. In some of the questionnaire replies it was suggested that nursing activity was not important, can you tell me why that might have been
2. A definition of the different use of the terms baby and neonate, which was apparent in the first interview was asked for?

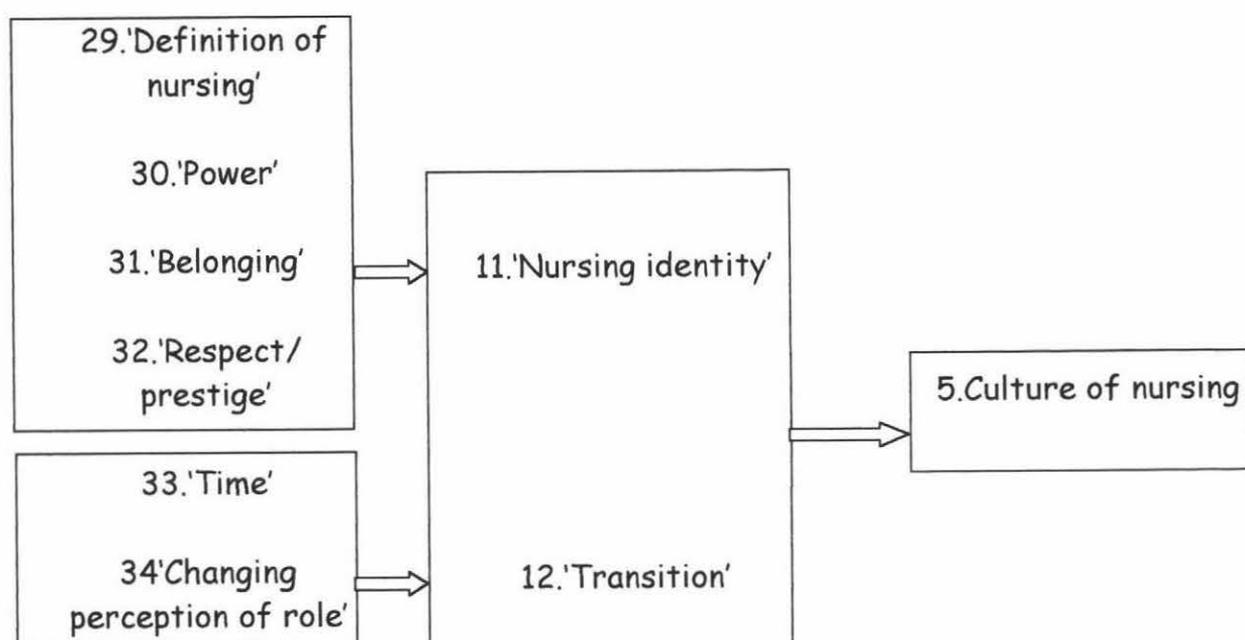
3. Can you tell me how you know if a baby needs resuscitation or is sick?
4. Can you tell me how you go through your daily examination?
5. Are relationships with parents important in the NNP role and do you think they different from doctors' relationships?
6. Do you feel that we are legally and professionally vulnerable as a group?
7. Do you think that we tend to personalize the care of babies if we feel that things haven't gone as well as we would have liked?
8. How do you feel about your confidence in performing procedures in your role when other health professionals are questioning you?
9. How do you feel about being introduced as the 'baby doctor' to parents?
10. What personality traits do you think make a good NNP?
11. What is your ideal educational program, particularly relating to ongoing study?
12. Do you feel that other health professionals for example; nurses, midwives, general practitioners ask advice more frequently than they would medical professionals?

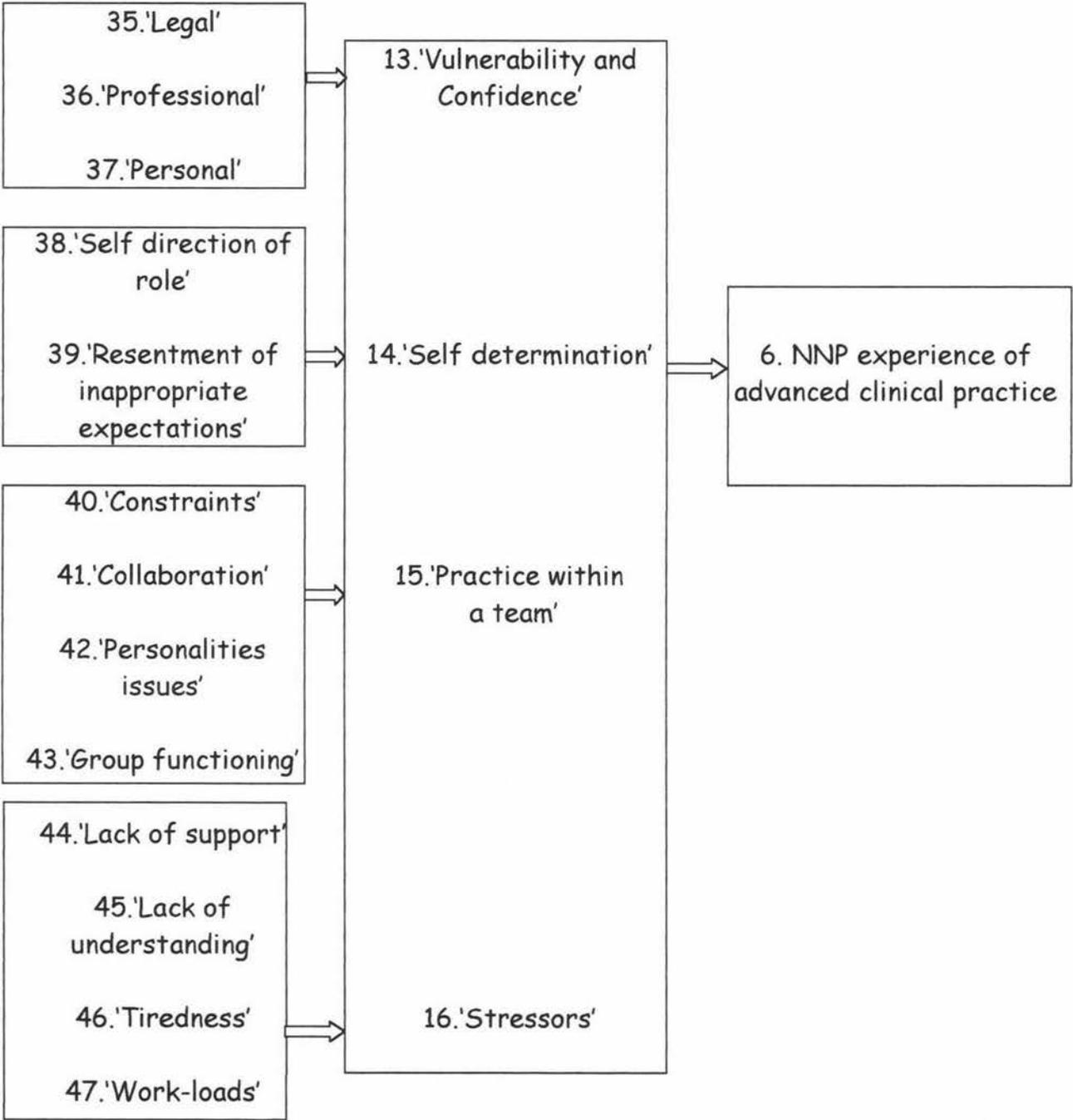
Clinical themes





## Professional themes





## Consent Form: Interview and Journalling Participants

### Exploration and Description of how Expert Nursing is Incorporated into the Neonatal Nurse Practitioner Role.

Thank You for agreeing to take part in this component of the research project.

This is a research project using a exploratory method to understand and describe how expert nursing is incorporated into the neonatal nurse practitioner role. The research is part of a thesis for a Master of Arts (Nursing). The research will involve the participant keeping a journal, participating in unstructured interviews and to reflect on practice. Every effort to attempt anonymity will be carried out, but I understand that anonymity cannot be guaranteed. Where the use of direct quotations might allow the participants to be identified the quotations may be altered in ways that will obscure the identification of people, places or events. I am aware that I may contact the researcher at anytime during the hours of 0800-2000.

I have been given and have understood an explanation of this research project. I have had an opportunity to ask questions and have them explained to my satisfaction. I understand that although some direct quotations from my data may be used no identifying features will be included. I understand that I may withdraw myself and my information from this research project, without jeopardy, up until the time that data collection is completed. I understand that I do not have to give reasons for my withdrawal and will not suffer any sort of penalty.

I agree to take part in this research project.

I agree/do not agree to the interview being audio taped.

I agree/do not agree to make my practice journal available to the researcher.

Signed:

Name of Participant:  
(Please Print)

Date:

## Information Sheet - Questionnaire

### Exploration and Description of how Expert Nursing is Incorporated into the Neonatal Nurse Practitioner role.

Thank you for taking time to read this information sheet. My name is Bronwyn Jones and I am a Neonatal Nurse Practitioner (NNP). I am interested in exploring the unique nursing expertise of the NNP. As you are currently working in the role of a NNP yourself I am inviting you to participate in a research project that explores and describes how expert nursing is incorporated into the NNP role. Benner's (1984, p.31) definition of expert nursing is used: a practitioner who "no longer relies on an analytic principle to connect her or his understanding of the situation to an appropriate action".

This research project uses a number of different means of data collection including a questionnaire, interviews, journal keeping (journaling) and evaluation of other documents. The attached questionnaire is one part of this project. This project has important implications for NNPs as it will offer a description of how the NNP role is a nursing role. This may have implications to the development and accreditation of the role within a national standard such as recognition by a governing body. It may also offer some insights into appropriate educational programs for NNPs. This research is part of a Master of Arts (Nursing) degree being completed through the School of Health Sciences at Massey University and supervised by Dr Gillian White.

The attached questionnaire is phase one of the research. It is being sent to all NNPs that have been identified by the managers of each unit in New Zealand currently employing NNPs. It is important to the development of neonatal nursing practice that all NNPs have the opportunity to participate. The return of the completed questionnaire indicates your consent to participate. The questionnaires will be anonymous therefore please do not put your name on them. Data will be entered into the computer in aggregate form. The questionnaires will be kept in a locked filing cabinet in the researcher's home for a period of five years (for audit purposes) after this time they will be destroyed by shredding.

Due to the anonymity of the questionnaire process a follow up letter will be sent to all NNPs after one month to remind you of the questionnaire. If you have decided not to participate in the project or have already completed the questionnaire then please disregard this reminder.

Please return the questionnaire in the envelope provided. If you have any questions or require further explanation please contact the researcher. Further explanation about the second phase of the research is provided in the enclosed information sheet on interviews and journalling. Please do not return an expression of interest in the second phase with your questionnaire as this will identify who has returned the questionnaire. To those interested in being a participant in reflective journalling and individual interviews please read the enclosed sheet and contact myself (Bronwyn Jones).

Thank you for your participation in this project.

**Bronwyn Jones (Researcher)**

Contact information:

Work Phone: (09) 276 0000 Locator 93 8373

E.mail Address: bronwyn\_jones@hotmail.com

This project has approval of the Massey University Human Ethics Committee.

If you have any concerns of an ethical nature about the research you may contact the following:

**Supervisors Name: Dr Gillian White**

School of Health Sciences  
Massey University (Albany)  
Ph. (09) 443 9373

**Chairperson of Ethics Committee: Dr Mike O'Brien**

Massey University (Albany)  
Ph. (09) 443 9700

## Information Sheet - Interview and Journalling Participants

### Exploration and Description of how Expert Nursing is Incorporated into the Neonatal Nurse Practitioner role.

Thank you for your interest in this component of the project concerning how expert nursing is incorporated into the neonatal nurse practitioner role. According to Benner (1984, p.31) an expert nurse is "a practitioner who no longer relies on an analytic principle to connect her or his understanding of the situation to an appropriate action".

This component will involve your participation in three interviews and keeping a journal of neonatal nurse practice which will be analysed. This research project is part of a thesis for a Master of Arts (Nursing) degree which the researcher is completing through Massey University. The research is being supervised by Dr Gillian White, Senior Lecturer, School of Health Sciences. The researcher is a Neonatal Nurse Practitioner currently employed in the role in Auckland. Two participants from each of the three neonatal units employing neonatal nurse practitioners will be sought for the research.

This information sheet outlines what the researcher requires of you as a participant in this project, what you have consented to, and what will happen to the information you provide. It will also outline what you can expect from the researcher.

A total of three interviews each of approximately one hour is envisioned. Initially you will be asked to participate in an unstructured interview with the researcher. This will give you an opportunity to discuss your views and beliefs about how expert nursing is incorporated into your role. You will also be asked to keep a journal for two months. An exercise book will be provided for you. Information from your journal will be used in analysing the nursing components and will involve you in reflecting and clarifying how expert nursing is incorporated into the role of the neonatal nurse practitioner. Interview two will be conducted half-way through the journalling period and interview three will be conducted at the end of the research period. Each interview will be audio-taped and transcribed by the researcher. It is envisioned that the data will be collected from your journal every two weeks over three months. Following the completion of data collection and analysis the information will be discussed with you for validation.

The interviews and journal data will be treated with confidentiality. Any identifiable material about yourself, people you work with or the agencies with which you are involved will be removed. While total anonymity cannot be guaranteed as the neonatal nurse practitioner population in New Zealand is small. You have the right to review the researcher's documentation, transcripts, and interpretation of the data. Tape recordings and transcripts will be kept in a locked filing cabinet in the researcher's

home until after completion of the thesis. Transcripts and tape recordings will then be destroyed or returned on request. Required data from the journals will be analysed by the researcher at her home and then returned to the participant. Journals will remain the property of the participant.

If safety of practice issues should arise then the researcher will discuss them confidentially with the participant. The researcher undertakes a non-judgmental position and acknowledges that all neonatal nurse practitioners are independent practitioners who may have different focuses and methods in caring for neonates and their families.

You will be requested to sign a consent form to participate in this research. This consent form will be kept separate from the information that you provide. You are reminded that you may withdraw your consent to participate, and the information you have provided, up until the data analysis stage.

Thank you for your participation.

Bronwyn Jones (Researcher)

The researcher will be available between the hours of 0800 and 2000 to answer questions or concerns about the research.

Contact Information

Work phone: (09) 276 0000 Locator 93 8373

Email Address - bronwyn\_jones@hotmail.com

This project has approval of the Massey University Human Ethics Committee. If you have any concerns of an ethical nature about the research you may contact the following:

Supervisors Name: Dr Gillian White

School of Health School

Massey University

Albany

PH. (09) 4439373

Chairperson of Massey Human Ethics Committee: Dr Mike O'Brien

Massey University

Albany

PH: (09) 4439700