



**The Canterbury and West Coast District
Health Boards' Professional Development
and Recognition Programme for Nurses:
A Comparative Study of Participants and
Non-participants.**

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Abstract

Background:

In response to recruitment and retention issues, professional development recognition programmes for nurses have become widespread internationally. In addition, in New Zealand the introduction of the Health Practitioners Competence Assurance Act (2003) with subsequent competency based practising certificates for nurses, and the signing of the Multi Employer Collective Agreement (NZNO, 2004) resulted in the mandatory introduction of professional development recognition programmes within District Health Boards. However, little research exists to demonstrate who is participating in these programmes and what the motivating factors and barriers to participation are.

Objectives:

The purpose of this research was to identify the demographic characteristics of both participants and non-participants in the Canterbury District Health Board (CDHB) and West Coast District Health Board (WCDHB) Professional Development and Recognition Programme (PDRP) and to explore the motivating factors and barriers to participation in this programme through the use of the Perceived Value of Certification Tool[®] (PVCT).

Method:

Female registered nurses permanently employed by the CDHB, who were eligible to voluntarily participate in the PDRP were randomly selected to anonymously complete two written questionnaires. The first questionnaire sought demographic information while the second was the Perceived Value of Certification Tool (PVCT[®]). Over a one month period 399 questionnaires were sent out with 245 usable returns received.

Results:

No significant demographic differences between programme participants and non participants were found. However, participants in the PDRP had higher levels of agreement with the value statements which comprised the PVCT than did non-participants. Value statements related to intrinsic motivation rated more highly than those related to extrinsic motivation for both PDRP participants and non participants, suggesting that the desire to participate in the programme is largely internally motivated. Exceptions were the motivation of increased pay, and exemption from Nursing Council of New Zealand audit. Barriers to participation are primarily related to

the process itself, with unwieldiness and the time required to complete a submission often cited as reasons for non participation.

Conclusion:

Registered Nurse participants in the programme represent a cross section of the CDHB nursing workforce. Participation in the programme appears to be internally motivated and non participation appears to be largely related to the perception that the submission process is onerous, therefore, future education and development aimed at increasing uptake of the programme needs to address these issues. It would seem that simplifying the submission process, and the evidence required would be the single most effective method of increasing participation in the programme.

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Chapter 1 Introduction

Aim of the Thesis

This thesis has two aims. The first is to identify the demographic characteristics of both participants and non-participants in the Canterbury District Health Board (CDHB) and West Coast District Health Board (WCDHB) Professional Development and Recognition Programme (PDRP). The second is to explore the motivating factors and barriers to participation in this programme through the use of the Perceived Value of Certification Tool[®] (PVCT).

Background to this Research

My interest in programmes designed to reward and recognize nurses' clinical excellence developed from my own participation in the CDHB and WCDHB PDRP, as a successful applicant to the programme within the first six months of its existence, and the first successful applicant at Registered Nurse (RN) Expert level at the hospital where I am employed. In addition I have been an assessor for the programme since it began. I was subsequently seconded into the role of coordinator for the programme for a six month period in 2008/09.

I became interested in investigating the participation patterns and rates in the CDHB programme as while assessing portfolios I noticed that some areas of the DHB had very high participation rates while others had lower or no participation. Questions arose such as:

1. Are certain practice/clinical areas embracing the programme while others are not?
2. Are participation rates determined by intrinsic or extrinsic factors?
3. Are certain groups of nurses more likely to participate than others?
4. Are these groups defined by specific demographic characteristics such as: gender, clinical area, length of time nursing, age, number of dependents and ethnicity?

The Canterbury programme has been accepting applications since July 2005, and little formal evaluation of the programme has occurred. It is expected that this research will provide much needed information about the programme and will form part of the evaluation required for an upcoming programme review by the Nursing Council of New Zealand (NCNZ).

Overview of the Thesis

Chapter Two of this thesis is the literature review which explores relevant literature on professional development recognition programmes for nurses, and discusses findings from published studies. A history of professional development programmes and their inception and development from an international, national (New Zealand) and local (Canterbury) perspective is detailed. This includes the catalysts to their inception, the philosophical underpinning of the programmes, and purported benefits of professional development recognition or other clinical recognition programmes to the individual nurse, consumer, employer and nursing profession. The literature on benefits of programmes, participation rates, and motivators and barriers to participation is also discussed. This section supplies definitions of professional development programmes and their precursors.

Chapter Two also includes information about the CDHB & WCDHB PDRP. A history of PDRP in Canterbury is given, this includes a brief discussion about a previous programme for nurses run by the then Canterbury Area Health Board. The process for the development of the current programme is discussed; this includes the planning, implementation, evolution and evaluation phases of the programme. Later specific information about the CDHB & WCDHB programme is given outlining aims, structure, application and assessment processes. Some statistics about current uptake of the programme will be supplied also.

Finally, motivation theory and studies looking at nurses' motivation to participate in professional development were explored in Chapter Two. One of the primary reasons for undertaking this research was to determine why some nurses and groups of nurses were participating in the programme and others not. Therefore an understanding of general motivation theory would help separate the responses into themes, and provide suggestions of how motivation to participate in this programme could be improved across the nursing staff.

In Chapter Three the methods and methodology are presented. A description of how the research came about and its significance in the context of the Canterbury and West Coast District Health Board programme is included. The design and methodology are detailed.

Chapter Four contains the results. Findings are reported in graphic, tabular and descriptive formats. Any statistically significant differences between cohorts are identified and discussed. Results from this study are also compared with those of published studies using the PVCT.

Chapter Five includes discussion of the findings of this study in relation to other studies. An evaluation of the research process and effectiveness of the data gathering is undertaken, and ways this research project could have been improved are suggested.

Chapter Six of the thesis concentrates on the dissemination of findings, the compilation of recommendations with regard to the CDHB & WCDHB PDRP programme development, education about the programme and the future direction for evaluation of the programme.

Chapter 2 Literature Review

A review of the literature was undertaken to determine what information was available about professional development and recognition programmes for nurses which could answer questions for the researcher about who is undertaking PDRP and their motivations for participation. A background search was undertaken to explore the structure and purpose of PDRP, and its history from an international, New Zealand and local perspective.

Search Strategy

The search of literature was undertaken for the purpose of identifying what information was available in a number of fields related to professional development recognition programmes (PDRP). Themes explored were:

1. Definition of professional development and recognition programmes
2. How long programmes had been in existence and why were they introduced
3. What research had been conducted about participation rates and demographics of those who participated
4. What research had been conducted about motivating factors and barriers to participation in such programmes

An electronic search using Embase, Medline, OVID Nursing Database and ERIC databases was conducted using the key and textwords: “clinical career pathway”, “clinical pathway”, “clinical ladders”, “clinical career structure”, and “professional development programme”. The words “nurse”, “nurses” and “nursing” were then combined in a search with these. A “Google Scholar” search was also conducted using these words.

Inclusion criteria for these initial searches were that the papers were available electronically or readily available through request via library services and published in English as this is the only language the author can read fluently. There were no limitations placed on the age of the publication as it was deemed essential to discover any seminal work which had been undertaken in this area, and a history of the programme development was sought.

A combined total of 675 articles were identified from these searches and the abstracts for each reviewed. The literature fell into the following areas;

- Definition of PDRP and alternate names for similar processes
- The history and rationale for programme development
- The planning, structure, and implementation of specific programmes
- The purported benefits of programmes to the nurse, consumer, organisation and profession
- Evaluation of programmes

During the review the concept of “certification” arose. The certification process is different from professional development recognition though it has many similarities. Certification, like PDRP, is a largely voluntary process undertaken by nurses who wish to have their clinical expertise recognized over and above their basic registration. Due to the similarities between the two processes a further database search was conducted using “certification” as a key word, and then combined with “participation” and “motivation”. As a result of this search 323 further articles were identified, 17 of which were used after the abstracts were reviewed.

From this search, studies using the Perceived Value of Certification Tool (PVCT[®]) were discovered. The literature included research on the tool’s development, tests of its validity and reliability, and research that used the tool.

A manual search was conducted at the University of Otago, Christchurch Library for unpublished information relating to the history of PDRP at CDHB. This uncovered a number of papers about a previous nursing recognition programme which was instigated in 1992 at what was then the Canterbury Area Health Board (CAHB). This information was valuable as background information to the current CDHB programme.

The references of all articles were reviewed and further relevant articles identified. A search of the electronic database Medline located these articles and abstracts were read. The references in these articles were reviewed and further articles of possible use identified. This process was repeated until no further articles of relevance were identified.

In addition to the electronic database searches outlined above, internet searches of the NCNZ, the New Zealand Nurses Organisation (NZNO) and District Health Boards New Zealand (DHBNZ) were conducted in order to locate material about the background,

structure, and guidelines for PDRPs in New Zealand. The Ministry of Health webpage was also searched for information about background and relevant legislation which has an impact on PDRP for nurses in New Zealand.

Many of the articles retrieved were descriptive in nature, that is, they often described a specific programme including the planning, design and implementation of a programme into a particular setting. Other articles described the history of PDRP generally or at a specific site, how and why it was developed and how it had evolved since its inception.

Few articles retrieved were research articles which evaluated programmes and even fewer were aimed at identifying participation rates or characteristics of participation in programmes or motivation for the same.

Definitions

Professional development recognition programme.

Though the term “professional development recognition programme” is the one used throughout this research, many different names for very similar processes are used throughout the literature. Examples of other terms are clinical career path, clinical ladder, clinical pathways and clinical career structure. Each of these terms describe a process which is designed to recognize and reward the acquired skills of those nurses who remain at the coal face delivering direct care to their patients or clients (Buchan, 1997).

The American Hospital Division of Nursing (Thornhill, 1994 p. 17), defines clinical recognition programmes as a “horizontal development system used to develop, evaluate and promote clinical nurses providing direct patient care throughout their nursing career”. This is the definition used to determine the relevance of literature reviewed in this work as it is in keeping with the purposes of the CDHB and WCDHB PDRP.

Certification.

Certification dates back to 1946 when it was first introduced as a method of acknowledging and encouraging personal achievement and expert performance in nursing (Gaberson, Schroeter, Killen, and Valentine, 2003). The American Nurses Association (ANA) defines certification as "a means of measuring competency, and the identification of competent nurses that will promote the public welfare for quality in

health care" (ANA, (n.d.). In these ways it has similar aims as New Zealand PDRP programmes. Though originally aimed at rewarding and recognizing the nurse at the bedside, a secondary purpose of ensuring competence for the protection of the public developed with the introduction of legislation.

History, Rationale and Implementation of Professional Development Recognition Programmes

An international perspective.

History.

The first published work directed at developing a system for recognizing the clinical skills of nurses in response to the nursing shortage was that of Creighton (1964, cited in Roberts, 1999). However, Zimmer's (1972) study is widely recognized as the catalyst for such systems. Zimmer drew from various theories of organisational development and individual motivation to argue for the development of clinical ladders in answer to recruitment and job satisfaction issues. Zimmer argued that without some form of recognition of clinical expertise and the existence of an environment which enabled and promoted growth of competence, nurses would lack the incentive to increase competence and to stay at the bedside. Four concepts were identified as important in the recruitment and retention process: nurses needed to feel and be part of an "integrative group" which works together to achieve mutual goals for the patient (Zimmer identified the multi-disciplinary team); nurses need to feel they are autonomous but within a supportive environment; nurses need to feel they have a competent superior and effective peers; and nurses need to have professional growth (which Zimmer suggests is an inherent need for humans). Zimmer advocated for the introduction of a system for clinical advancement for nurses but said this needed to be done in combination with encouragement of professional development.

The first programmes were introduced in the United States in the 1970s. In the mid to late 1980s many programmes adopted the work of Benner (1984) as a theoretical basis. Benner's theory is an adaptation of Dreyfus's skill acquisition model. Dreyfus (1982, cited in Benner 1984) described the behaviour exhibited by an adult acquiring a skill by instruction in five clinical advancement stages. Benner took this theory and applied it to nursing to describe the characteristics displayed by clinical nurses as they gain experience and knowledge. Benner (1982, 1984) entitles the five levels as "novice", "advanced beginner", "competent", "proficient" and "expert". The levels reflect

changes in a movement from reliance on abstract principles to drawing on concrete experience as paradigms, and an understanding that though a number of parts make up a situation, not all parts are equally as relevant.

Rationale.

Prior to the implementation of professional development recognition programmes, the way for a nurse to gain promotion or recognition often resulted in a move away from the clinical setting or direct patient care into management, administration or education (Calavecchio & Tescher, 1979, cited in Koch,1990, p. 869; Hamric, 1993). This was considered one of the factors which led to decreased job satisfaction amongst nurses, and impacted on the retention of nurses providing clinical care. Many authors attribute the retention issue, coupled with recruitment issues, as being responsible for the nursing shortages which were being experienced throughout the world in the 1970s (Bjork, Hansen, Samdal, Torstad and Hamilton et al., 2007; Lysaught, 1970, cited in Thornhill, 1994; Zimmer, 1972).

Development and implementation.

The development of clinical career paths began in North America in the 1970s (National PDRP Working Party, 2004) and by the beginning of the 1990s had become widespread in the U.S.A. Havens and Mills (1992) surveyed 520 randomly selected hospitals in the U.S.A. A 43% usable return rate showed that approximately one third of those hospitals surveyed reported using clinical ladders in 1990 and 67% predicted they would be using them in 1995. These findings were congruent with Murray (1993) who reported, from a survey of 543 hospitals who employed 200,000 registered nurses, 44% of the hospitals had clinical career ladders and 44.7% intended implementing them in the next 12 months.

Other countries were also introducing clinical career pathways in the 1980s and 1990s. Australia implemented its first pathways in the early 1980s (Buchan, 1999). Although attempts to implement clinical ladders at local level had been made in the United Kingdom (UK), Buchan (1999) reported they were not widespread or fully implemented by 1997. Norway began to develop programmes in the 1990s in response to a long period of nursing shortages as described by Bjork et al. (2007). The first programme in Norway, based on Benner's (1984) work, was introduced in 1992. Several other hospitals have introduced similar programmes in Norway (Torstad and

Bjork, 2007). Initially these programmes were designed to recognize achievements; however, they are now being aimed at developing competence in response to the requirement of both health organisations and health personnel in Norway to practise safely and competently. Unlike New Zealand, there is no formal process for the regulation of this. The Norwegian Nurses' Association set the criteria for clinical ladder programmes in 1996 so there is a national similarity, with some organization and content variance.

National perspective.

History.

Although the concept of clinical ladders or career pathways for nurses had first been mooted in the United States in the 1960s, and subsequently added to by Zimmer (1972), it was not until 1976 that nurses in New Zealand began to look at clinical career pathways (CCP) (Trim, 1998). Carryer, Budge and Russell (2002) state that although initial interest was shown in the 1970s, and promoted by the then New Zealand Nurses Association (NZNA), it was not until 1987 that a working party was set up to investigate the implementation of a CCP in New Zealand. At that stage it was envisaged that the approach would result in a national clinical framework (National Professional Development and Recognition Programmes Working Party, 2004).

In 1989 a "Proposal for a Clinical Path for Nurses in New Zealand" was developed by the NZNA. At the same time the NZNA introduced an advanced certification programme which recognized Nurse Clinicians and Consultants, though this was not recognized for employment or promotion (Trim, 1998).

In 1990 the State Services Commission (SSC) initiated a review of nurses' salary structures and career paths by setting up a working party. This review identified a number of issues for nurses, including the need to develop clinical pathways. At this time there were major economic reforms underway in New Zealand which impacted on the New Zealand health service in many ways, particularly on how the health system was structured. Instead of a national perspective on health, the health reforms introduced in 1993 led to the setting up of a number of Regional Health Authorities, resulting in the introduction of local pay and autonomous hospitals or Crown Health Enterprises (Buchan, 1999). As a result, instead of the national clinical framework which had been proposed in 1987, a number of local career pathways began to develop

around New Zealand, and the opportunity to develop a nationally recognized pathway which was transferable across regions was lost (Hine & Trim, 1996, cited in Carryer, Budge & Russell, 2002, p. 19).

The next major influence on programme development in New Zealand was the proposed change to legislation regulating nursing in New Zealand, in the early 2000s. The New Zealand Health Strategy announced in 2000 (King, 2000) outlined the proposed future direction for health services in New Zealand. It was aimed at “ensuring quality services (which are) clinically sound, culturally competent” (King, 2000, p. 25). This directive makes all employers responsible for ensuring that all nurses within their employ are competent to do the job they are employed to do (NCNZ, 2001). One of the methods of ensuring this was through the “modernisation of health professional regulations, to provide for ongoing competency assurance” (King, 2000, p. 26).

Although the concept of competency based practising certificates had been long discussed in nursing circles in New Zealand, it was not until 2001 that the Nursing Council of New Zealand (NCNZ) published its “Guidelines for the Issue of Competency Based Practising Certificates for Registered Nurses” (NCNZ, 2001b).

These guidelines require applicants to practise to a specified standard in four domains:

- Professional responsibility
- Management of nursing care
- Interpersonal relationships
- Interprofessional health care and quality improvement.

The domains are further broken down into 20 competencies which the registered nurse must provide evidence of to demonstrate competence (NCNZ, 2001b).

The introduction of the Health Practitioners Competence Assurance Act (HPCA Act) in 2003 was a further catalyst for change in the monitoring of individual nurses’ care delivery standards. Prior to the introduction of the HPCA Act (2003), the Nurses Act (1977) and Nurses Regulations (1986) directed nursing in New Zealand. Under these pieces of legislation NCNZ was responsible for the initial certification of nurses and the issuing of annual practising certificates. Competency was determined at initial registration of individuals and through the approval, monitoring and auditing of nursing education programmes (NCNZ, 2001a). Though the NCNZ had the ability to remove

nurses from the register or put restrictions on their practice following disciplinary procedures, there was no onus on Council to monitor ongoing competence of practicing nurses after initial registration. The introduction of the HPCA Act (2003) put the onus on NCNZ to ensure that all nurses being issued with an annual practising certificate are competent to practice.

The New Zealand Public Health and Disability Act (2000) also had ramifications for the monitoring of quality nursing care and an individual's competence. Section 23 of this Act states one of the functions of District Health Boards (DHBs) is to "monitor the delivery and performance of its services by it and by persons engaged by it to provide or arrange for the provision of services". This gives the DHB responsibility for ensuring that individual nurses it employs are competent and able to deliver appropriate care.

These statutes make certain that both DHBs and NCNZ are responsible for ensuring the competence of practicing nurses. Whilst it is the responsibility of the individual nurse to ensure that they have a current practising certificate, the DHBs are responsible for ensuring that all nurses they employ have a current New Zealand practising certificate issued by NZNC which attests to the individual's clinical competence. Competence is ensured through either random audit or nurses' participation in an endorsed PDRP.

In addition to the legislative changes which were occurring in the health field aimed at protecting the consumer, employment contract negotiations between nurses and their District Health Board (DHB) employers also influenced the development of PDRPs. New Zealand nurses and others had actively sought a national clinical framework since the 1980s as a means of recognizing clinical expertise and for nurses to retain professional autonomy and development.

The health reforms of the 1990s led to the fragmentation of nursing in New Zealand. Each region had its own employment contracts and localized clinical career pathways or professional development programmes, and a national nursing collective became a thing of the past. However, at the 2003 Nurse Practitioners Forum held by the College of Nurses Aotearoa, a national framework again became the priority, resulting in the setting up of a working party (National Professional Development & Recognition Programmes Working Party, 2004). In 2003, nurses in the public health sector throughout New Zealand voted for a national collective. Employment contracts were

negotiated with the country's DHBs leading to the Multi Employer Contract Agreement (MECA), which was ratified in 2004. Appendix 3(d) NZNO (2004) of this agreement contained the directive that all DHBs must have a Professional Development Recognition Programme (PDRP) in place by July 2005. Though these PDRPs could differ from DHB to DHB they needed to align to the New Zealand Nursing Council's "National Framework for Nursing Professional Development and Recognition Programmes" and the HPCA Act (2003). It was further stated that both NZNO and DHBs must be included in the development/alignment processes (NZNO, 2004). In 2005 the implementation of PDRP in all services covered by the MECA (all District Health Boards and a number of other parties) became mandatory.

Rationale.

The motivation for the development in New Zealand of clinical career pathways (CCP) was the same as that which initiated interest overseas; the loss of nursing expertise from the bedside, coupled with an international nursing shortage. Roberts (1999) suggests the introduction of CCPs in New Zealand was also aimed at enhancing the benefits they bring to the individual, the organisation and the profession. From this initial reason of recognizing and rewarding the expertise of practising nurses, the rationale widened to include ensuring competence of practicing nurses to protect the consumers of health services as illustrated above.

Development and implementation.

The first programmes were introduced in New Zealand in 1988 in Counties/Manukau and Auckland. Others were implemented throughout the 1990s with the last of the DHBs introducing a programme in 2005 (DHBNZ, 2009), as required under the national MECA of 2003. The early New Zealand programmes were reviewed by Buchan (1999) as part of an international review of nursing clinical career pathways. The review reported that though all the programmes were competency based, they differed in the number of levels within the programme, and while some were linked to pay others were not. This development of separate pathways is also described by Carryer, Budge and Russell (2002), and illustrated further in the work of Trim (1998) who conducted a review of clinical career pathways in New Zealand in 1995. Trim (1998) reported that there were 14 clinical ladders/pathways in existence across New Zealand at that time and though many of these programmes used the NZNA proposal as

their basis there were differences in design and the pace of implementation between them.

A survey was conducted by NZNO of health care providers in New Zealand (Trim, 1999), to explore the number and longevity of PDRP in New Zealand. 20 providers responded, 16 public and four private. Twelve public providers had a clinical career pathway or intended implementing one in the next 12 months, and four did not. The longest running programme was 10 years old, three programmes had been running for between five and ten years, and five for five years or less.

Today, though programmes are now linked to pay under the Multi Employer Contract Agreement (MECA), there is still considerable variation in evidential requirements between programmes (DHBNZ, 2009).

Local perspective -Canterbury.

History of PDRP at CDHB.

In 1992, what was then the Canterbury Area Health Board, conducted a six month pilot implementation of a Clinical Career Path (CCP) for nurses (Ainge, 1993a). A designated programme co-ordinator oversaw the implementation of the programme. The programme was designed for nurses who provided direct clinical care for patients, and comprised six levels from new graduate to nurse consultant. The first five levels of the ladder were uncapped but the sixth level, “nurse consultant” was capped. Participation was voluntary with the onus on the individual nurse to initiate the process. The bases of this programme were the New Zealand Nurses’ Association (NZNA) framework for CCP developed in 1987, and Benner’s (1984) theory of skill acquisition. All Canterbury Area Health Board nurses were eligible to participate in the programme which was based on applied knowledge and assessed by a peer review board. Successful applicants were rewarded not with money (the programme was undertaken within the then current grading system), but with extrinsic rewards such as a letter of congratulations, notification in newsletters, the presentation of a certificate at an evening ceremony, documentation in their personal file and money for continuing education.

After six months the pilot was evaluated; by that time 47 Registered Nurses had been successful at Practitioner II level and eight at Nurse Specialist (Bye, 1993). The aim of this evaluation was to monitor job satisfaction or dissatisfaction to nine job related

factors comparing pre and post CCP findings (Ainge, 1993b). Unfortunately though this data was gathered and reported it was not analysed and therefore its value was severely limited.

Bye (1993), reports that there were a number of problems associated with this pilot and the environment in which it was set. Concerns were raised by the nurses who felt the right people were not necessarily being recognized as the higher levels on the pathway were appointed, and that remuneration should be part of the reward system. Bye (1993) also highlights the health reforms of the 1990's which divided the one Area Health Board into three separately functioning Crown Health Enterprises (CHEs). This led to the disintegration of the programme with the acute areas which became Canterbury Health, instead adopting a separate "pathway". These issues and a change in nursing management led to the demise of the CCP in the Canterbury district. The lack of success of this programme appears to have had an influence over attitudes to the current programme (anecdotal evidence).

Rationale.

The impetus for the original programme in Canterbury was to enhance patient care by keeping clinical expertise by the bedside and thus developing nursing practice (Bye, 1993). The catalysts were recruitment and retention in a time of international nursing shortage, and a push since the 1970s by the NZNA to develop a programme of recognition for clinical nurses in New Zealand. Though recruitment and retention remains an issue, with 211 nursing vacancies existing in the CDHB as at September 2008 ("Canterbury short 200 nurses", 2008), the push for the development of a PDRP in Canterbury came about with the passing of the Health Practitioners' Competence Assurance Act (2003) and the signing of the nursing MECA in 2004.

The introduction of the HPCA Act (2003), changed the responsibilities of Nursing Council when issuing annual practising certificates. The renewing by right to nurses, was replaced by the introduction of competency based practising certificates. One of the stated purposes of the CDHB and WCDHB PDRP is to "support nurses to demonstrate their level of competence to Nursing Council of New Zealand." (CDHB, 2007a, p. 1)

The MECA, which was ratified in 2005, joined the nursing forces of New Zealand into one national collective agreement. Within this agreement was the directive that by July 2005 all District Health Boards (DHBs) must have a Professional Development

Recognition Programme in place (NZNO, 2004). As a result in 2005 CDHB started on the process of developing the current Professional Development Recognition Programme for nurses.

Development and Implementation.

The signing of the MECA by DHBs and the New Zealand Nurses Organisation (NZNO) (formerly the NZNA) led to the setting up of the Canterbury District Health Board (CDHB) Steering Committee on PDRP. This committee was chaired by the Executive Director of Nursing (DON), and had seven NZNO representatives, two DONs, a Nurse Practice Consultant, Clinical Charge Nurse (CCN), Clinical Nurse Specialist (CNS), Clinical Nurse Co-ordinator, a Professional Development Representative and the NZNO Professional Nurse Advisor, Susanne Trim (CDHB, 2005). The initial purpose of the committee was to plan the design of the programme and to set timeframes and processes for the implementation of the programme throughout Canterbury and West Coast District Health Boards.

After the implementation of the programme the role of the committee changed focus as reflected in the change of name from Steering Committee to Advisory Committee. The purpose of this committee is to “oversee the ongoing development, monitoring and evaluation of the Nursing Professional Development Recognition Programme for the Canterbury and West Coast District Health Boards” as expressed in the terms of reference (CDHB, 2008). Further objectives are to review provision of the programme, identify issues or gaps in the programme provision, to identify solutions to issues raised and to ensure a participative process to this.

In the 4 ½ years since the programme was first “rolled-out” a number of other organisations have aligned themselves to the programme and have memorandums of understanding with CDHB/West Coast to ensure the programme maintains its integrity. These partner organisations as at March 2009 are, South Canterbury District Health Board, Nurse Maude and St George’s Hospital. As a result of the programme expansion the PDRP Committee has also expanded to include representatives of all these organisations.

The committee reports and is accountable to the Executive Director of Nursing at CDHB and the Directors of Nursing at West Coast and South Canterbury District

Health Boards, Nurse Maude and St George's. Meetings are held a minimum of quarterly and minutes are circulated widely as well as available on the CDHB intranet.

Goals and principles.

The CDHB and WCDHB PDRP is a largely voluntary system. It exists to; assist nursing staff working within the DHB to demonstrate their competence to Nursing Council, to fulfill the obligations of the DHB in ensuring nurses are suitably skilled and competent to fulfill the role they are employed in, and to ensure that nursing clinical expertise is visible, valued, understood and rewarded (CDHB, 2005).

Nursing Council of New Zealand approval.

Nursing Council New Zealand in 2004 introduced competence based practising certificates for all nurses working in New Zealand. To be registered to work in New Zealand as a nurse it is compulsory to attain an annual practising certificate. There are two ways in which Nursing Council assess nursing competence, either by a random audit carried out by Council or by a nurse's participation in a NCNZ endorsed professional development recognition programme.

Five percent of New Zealand's practicing nurses are chosen annually for audit as part of the annual certification process. Nurses who are audited are required to provide evidence in three areas; 450 practice hours in the last three years, evidence of having participated in a minimum of 60 hours professional development in the last three years (including a statement of learning which outlines what was done, what was learned and how it affirmed or influenced practice) and evidence of assessment of competence which is shown by the completion of two of the following three components; a self assessment, assessment by a senior nurse, and peer assessment or review. All of these are measured against Nursing Council competencies and must be completed by and signed and dated by a nurse (NCNZ, 2007). If audited the nurse has to provide this information before an annual practising certificate is issued.

The other way for a nurse to provide evidence of competence to Council is to successfully participate in an endorsed programme. What endorsement means for nurses is that if a successful submission is made to an endorsed programme that nurse is not subject to random audit by Nursing Council while they remain on that programme. As at February 2009 there were 24 endorsed programmes throughout New Zealand (NCNZ, 2008). A programme is endorsed by NCNZ after a process of investigation by Council

to satisfy them that the programme is robust, and measures performance against NZNC requirements. Canterbury District Health Board programme was endorsed in 2006, therefore any nurse who is endorsed on the programme will have his/her name forwarded to NCNZ and is deemed to be competent to practice and therefore eligible for an annual practising certificate.

In June 2006 a three person “approval team” appointed by Nursing Council made a site visit with the purpose of collecting information to assist in the endorsement of the CDHB programme process. This process involved a desk review of the programme manuals and other supporting documents and a one-day panel site approval visit. The panel met with a number of people involved with the programme including Executive Director of Nursing, other DONs, the PDRP Coordinator, resource nurses, nurse educators, the steering group, assessors and applicants. As a result of this process recommendations were made as to how the programme could meet all of the “Standards for Professional Development and Recognition Programmes” (NCNZ, 2005, pp.4-5). Minor changes were made to the programme to fulfill all recommendations. Council was advised of the changes made and in December 2006 it was announced the CDHB PDRP had received Nursing Council endorsement (CDHB, 2006- December).

Another purpose of the CDHB and WC PDRP is to fulfill the legislated obligations of the DHBs by having competent nursing staff. Health Strategy 2000 (King, 2000) was aimed at ensuring consumer safety within the New Zealand Health system through ensuring adequately skilled and competent clinical staff. This directive put the onus onto DHBs to ensure the nurses it employed were able to fulfill the requirements of the position they were employed in to. This was further enforced by the Public Health and Disability Act (2000) which set out the DHBs’ responsibilities to the public in Section 22 (1) (i) “to uphold ethical and quality standards commonly expected of providers of services of public sector organisations”.

The Structure of Specific Programmes

An international perspective.

Design.

While there are dissimilarities in the structure of professional development programmes many have common ground. All have a number of levels which differentiate the degree of competence of clinical practice; however the number of levels within the programme

differ. A study 239 hospitals' clinical ladder programmes, in the United States, showed over half the hospitals had four levels in their programmes, with a range between one and eight (Buchan, 1997). This is consistent with the findings of this review which includes more recent publications. The programmes described in the literature in this review vary from three levels (Bjork et al., 2007; Evans & Spencer, 2003; Walker, 2005) to six levels (Cote and Burwell, 2007; Goodloe, Sampson, Munjas, Whitworth, Lantz, Tangle, 1996; Hamric, 1993). Programmes with four levels included those described in Erickson, Daniels, Smith & Vega-Barachowitz, (2008); Froman (2001); Gustin, Semler, Holcomb, Gmeiner, Brumberg, Martin, & Lupo, (1998); O'Hara, Duvanich, Foss and Wells (2003) and with five levels those described in Krugman, (2000); Pettersen (2004); Winslow and Blankenship (2007).

The majority of programmes are based on Benner's (1984) work with levels equated to her "novice", "competent", "proficient" and "expert" terms which recognize and reward professional growth and the application of clinical nursing expertise at the higher levels "above the standard" (Robinson, Eck, Keck and Wells 2003, p. 441). Some programmes have a different philosophical basis such as that described by Schmidt, Nelson and Godfrey (2003) which is based on Carper's theory of Fundamental Patterns of Knowing.

The vast majority of programmes are uni-disciplinary, catering for nursing staff only; however one programme identified in the literature (Erickson et al., 2008) included nursing as well as occupational therapy, physical therapy, respiratory therapy, social work and speech-language pathology. In his systematic review Buchan (1999) identified that the majority of programmes described in the literature included only Registered Nurses and not Enrolled or second tier nurses.

The process of application.

Most programmes involve a voluntary submission by an applicant wishing to be considered for endorsement onto the programme (Bjork et al., 2007; Winslow & Blankenship, 2007). It seems that voluntary or mandatory participation is determined by the organisation itself with no specific pattern apparent. The actual evidence required and the process for assessment varies across programmes, though most involve the submission of a professional portfolio.

The content of this portfolio usually includes some or all of the following:

- a curriculum vitae (Drenkard & Swartwout, 2005; Froman, 2001; Goodloe et al., 1996; Hamric, 1993; Winslow & Blankenship, 2007).
- performance evaluation/appraisal by manager (Drenkard & Swartwout, 2005; Froman, 2001; Goodloe et al., 1996; Hamric, 1993; Walker, 2005; Winslow & Blankenship, 2007).
- self assessment, (Evans & Spencer, 2003; Froman, 2001; Goodloe et al., 1996; Hamric, 1993).
- peer assessment (Evans & Spencer, 2003; Froman, 2001; Goodloe et al., 1996; Hamric, 1993; Streeter, 2007; Walker, 2005).
- project involvement (Drenkard & Swartwout, 2005; Streeter, 2007).
- clinical narrative/reflection which describes best practice (Drenkard & Swartwout, 2005; Evans & Spencer, 2003; Froman, 2001; Hamric, 1993; Winslow & Blankenship, 2007).

Another aspect of the submission which is variable across sites is the role of the manager. For some programmes the manager has input only through the completion of a performance appraisal, while in other programmes the manager's endorsement is required at the higher levels on the programme. In others still it may be the role of the manager to appraise the submission for the lower levels of the programme (Goodrich & Ward, 2002; Hamric, 1993; Steaban, Fudge, Leutgens & Wells(2003); Winslow & Blankenship, 2007).

Assessment.

Most international programmes described use an evaluation committee of nurse managers and clinicians who consider applications through the review of evidence submitted against set criteria. Usually an interview with the applicant is involved, particularly at the higher levels of a programme (Hamric, 1993; Steaban et al., 2003).

The criteria which applicants are assessed against to determine whether they fulfill the requirements for the level to which they have applied varies from programme to programme, but the literature suggests there are commonalities.

Areas assessed may include:

- participation in continuing education (Cote & Burwell, 2007; Drenkard & Swartwout, 2005; Murray, 1993; Robinson, 2003; O'Hara et al., 2003; Schmidt

et al., 2003; Streeter, 2007; Walker, 2005; Winslow & Blankenship, 2007; Gustin, 1998).

- clinical expertise (Drenkard & Swartwout, 2005; Evans & Spencer, 2003; Goodrich & Ward, 2002; Hamric, 1993; Robinson et al., 2003 ; Walker, 2005;).
- communication skills/ability to build therapeutic relationships with the patient and family (Cote & Burwell, 2007; Evans & Spencer, 2003; Goodloe et al., 1996; Gustin et al., 1998; O'Hara et al., 2003; Walker, 2005; Winslow & Blankenship, 2007;).
- committee participation (Drenkard & Swartwout, 2005; Schmidt et al., 2003; Streeter, 2007).
- leadership skills/preceptor/mentor role (Cote & Burwell, 2007; Drenkard & Swartwout, 2005; Hamric, 1993; Murray, 1993; Streeter, 2007; Walker, 2005; Winslow & Blankenship, 2007).
- clinical/patient education (Cote & Burwell, 2007; Hamric, 1993; O'Hara et al., 2003; Streeter, 2007; Walker, 2005; Winslow & Blankenship, 2007).
- participation in quality improvement initiatives (Cote & Burwell, 2007; Hamric, 1993).
- participation in research and evaluation (Cote & Burwell, 2007; Robinson, 2003).

National perspective.

Design.

Trim (1999) reported that of the 16 public and four private hospital programmes reviewed by the NZNO in 1998, the majority had four levels, but there was a range from two to five. All of the programmes had open progression and there was no capping of numbers at upper levels.

Carrier, Budge and Russell (2002) described the Mid Central Health programme which was introduced in 1998. This programme has five levels for nurses/midwives. It is an expectation that all nurses within this organisation complete a portfolio (Carrier, Russell & Budge, 2007) but participation in the (now) PDRP programme is not compulsory.

The lack of information available about PDRP programmes and national inconsistency has been acknowledged. At the National Nursing PDRP Coordinators (NNPC) meeting

in March 2007 this was highlighted (B. Hickmott, September 9, 2008, personal communication) and resulted in the commitment to gather data from existing programmes bi-annually, though this data does not appear to be publically available.

Recently an attempt to make information more widely available has been made with DHBNZ providing a section on PDRP on their website which showcases specific programmes in New Zealand. Currently there are links to six PDRP programmes on this site. These programmes vary in many regards; some are mandatory and others voluntary, requirements for evidence differ though all have mandatory requirements for annual performance review, professional development hours and practice hours as defined by Nursing Council of New Zealand. Most have three levels for registered nurses in clinical practice and one for those in leadership or senior nurse roles. All require submission of a portfolio. These six programmes appear to be based on Benner's model with levels being equated to competent, proficient and expert.

In July 2009 further information was supplied on the DHBNZ website after a national stocktaking of PDRP in New Zealand. All 16 programmes showcased (covering 21 DHBs) are based on Benner's (1984) work, and incorporate the National PDRP Framework levels of practice (2004), NCNZ Competencies (2007), and encompass Te Tiriti o Waitangi. All organisations which supply data indicate they have 4 levels in their structure. Many of the programmes have partner organisations, which may be fellow DHBs or primary health care organisations, and some also have partnerships with private providers.

Participants.

Trim (1999) reported that of the 12 programmes running in the public sector in New Zealand in 1998, nine were only for Registered Nurses, and three incorporated aides. Under the current DHB MECA (NZNO, 2004, p.50) all registered and enrolled nurses are entitled to participate in PDRP programmes.

Little literature is available which details current programmes in New Zealand, though limited information is available through individual DHB websites and the DHBNZ website. Though anecdotal evidence indicates that most programmes are for nurses only there are programmes which include other allied health members. The Southern Cross programme has five levels for registered nurses, four for those in clinical practice and a

fifth for nurses in leadership, management or education roles. It also has a two level programme for “clinical team members supporting registered nurses”, for example anaesthetic technicians (Southern Cross Hospitals, 2009). The Lakes District Health Board also has a programme which has strands for allied health staff including occupational and physiotherapists, psychologists and social workers (Lakes District Health Board, 2009).

The process of application.

The Nursing Council of New Zealand requires that all nurses maintain a professional portfolio and it is this portfolio which is usually submitted as evidence of performance at a particular level of a PDRP programme. Trim (1999) reports this was the case for all programmes surveyed in New Zealand in 1998 and a current review of available programmes online shows this is still the case.

Assessment.

Assessment of submissions to New Zealand programmes are usually completed by assessors who are trained in workplace assessment through the completion of US498 (DHBNZ, 2009).

Nursing Council has set minimum requirements to evidence competence as outlined in their “Recertification audit requirements” (NCNZ, 2009):

- 450 practice hours over the past three years
- 60 hours of professional development over the past three years with an overall statement of learning and reflection on three key learning activities and their application to practice
- An annual performance review
- Assessment of practice against all the competencies for the nurses scope of practice by two of the following; self/peer/senior nurse

These requirements therefore form the basis of evidence required for all Nursing Council New Zealand endorsed PDRPs. What form and how much additional evidence is required varies between programmes as acknowledged by discussion at the February 2009 National Nursing Organisations (NNO) meeting (B. Hickmott, June, 11, 2009, personal communication). It was from this discussion that a working party was formed

with the directive to gain national consistency for the type and amount of evidence required for PDRP submission at the various levels. This process is currently being undertaken (NNO PDRP Evidential Requirements Working Party, 2009).

A Local Perspective – (The Canterbury District Health Board and West Coast District Health Board programme).

Design.

The design of the programme is such that it; encourages reflection on practice, and evidence based practice; identifies nursing role models; provides structure for ongoing education and training and ensures the pathway of professional development is transparent. The programme has four levels for both Registered Nurses (RNs) and Enrolled Nurses (ENs). These are Nurse Entry to Practice (NetP), Competent, Proficient and Expert Registered or Accomplished Enrolled Nurse.

Philosophical underpinning and structure.

The CDHB programme is loosely based on Benner's (1984) model of experiential learning. It has been shaped and refined since its inception, with the first major change occurring in 2006 when the competencies were aligned to Nursing Council competencies with a subsequent change to the indicators for each competency. Submissions are assessed against indicators in each competency, what the indicator states depends on what level of the programme the submission is leveled against. The main difference between competent and proficient level is that at proficient level the nurse is acting as a resource and role model within their practice setting, beginning to display leadership skills, and having an influence on policy. This compares with the expert nurse who is displaying these attributes as well as having a wider impact on nursing/care delivery/patient outcomes through involvement at an organisational and/or national level through education, committee involvement or participation in conferences for example.

Implementation.

In preparation for the first day of submission to the programme a number of study days and workshops were held throughout the organisation. These were aimed at introducing staff to the structure and purpose of the programme and the evidential requirements for a submission. In addition, information was disseminated through the PDRP newsletter and other CDHB publications. The CDHB intranet has links to PDRP through the

“Nursing” section. This site provides information about the submission process, checklists and templates to help focus evidence, and a list of resource staff who assist applicants in preparing their submission.

The first submissions to the programme were received in July 2005. Since that time there have been (as at November 2009) 501 successful submissions (Canterbury/West Coast Regional PDRP, 2009).

Evaluation.

Ongoing evaluation of the CDHB programme exists in a number of ways. Study days which are run for assessors as part of their annual requirement, are evaluated by participants, with collation and reporting of this data performed by the PDRP office. Themes from these evaluations are examined, and if a particular session is not well received, or is deemed unnecessary by the attendees, changes are made to future sessions. Workshops run for intending participants are also evaluated by attendees and the information collated and reported by the office. This information is used to adapt sessions for future days. One change which resulted from feedback received was to include a session on “how to start” the process. This involved where to find information and what templates to use. This will be expanded further as a result of further feedback.

Evaluation has also been conducted to identify how many people who have attended workshops have gone on to submit an application to the programme. Results of this show about 30% of attendees go on to be successful on the programme. Further exploration of these results needs to be undertaken as reasons for attendance may include knowledge gaining so as to act as a resource for others.

Each applicant to the programme is asked to complete and return an evaluation of the programme and process once their submission is successful. These sheets are anonymous and are collated by the PDRP office. All information from these evaluations is reported to the PDRP Committee and recommendations made.

Nursing Council of New Zealand conducted an evaluation of the programme prior to endorsement. Included was a site visit where focus groups of assessors, applicants and resource people were held and a desk exercise assessing the programme against Council Standards was performed. As part of the ongoing endorsement by Council a five yearly

evaluation of the programme is undertaken by Council. Information for this review is being collated currently and further evaluation is proposed for this process.

Resources.

Currently there are a number of resources available for staff who wish to learn more about the PDRP programme or the application process. The CDHB intranet has a link to the programme through the nursing page. Information available here includes all the guidelines for the various levels of the programme. These guidelines include checklists for core and elective components of the submission, the Nursing Council framework statements for each level, and the competencies and indicators for each level. Templates used within the portfolio are also available through the intranet. Examples of what is included are: preceptor evaluation forms, reflection on professional development tools, case study templates, and journal article review templates.

All applicants are strongly encouraged to work with a resource person when compiling their portfolio for submission. Resource people have undergone training in the programme and the assessment process. Many resource people have submitted applications to the programme themselves and are very knowledgeable about the process, and therefore able to assist in ensuring all the necessary evidence is in the portfolio, that there is not superfluous evidence, that it is current, and that the layout is conducive to easy navigation.

Hard copy resource manuals and a DVD are available throughout the DHB also. These have been recently updated to reflect current format. These manuals have information about what is and is not acceptable as evidence, and they also contain a mock portfolio which assists applicants with compiling the evidence into a portfolio format.

Workshops are conducted six monthly for interested staff. Sessions included in this day are an introduction to the PDRP which outlines the background in New Zealand to PDRP and the Canterbury programme. Other topics covered are reflective writing, building evidence, legal and ethical considerations, Treaty of Waitangi – Maori health disparities, evidence based practice, or sessions as requested by participants.

Application process.

Application to the programme is predominantly voluntary, with applicants able to choose what level they wish to apply for. Applicants must notify their line manager of their intent to submit but they do not require manager endorsement. Participants in the NetP programme are required to submit an application to PDRP to evidence competence to practice. These portfolios are submitted to the NetP office and assessed primarily by NetP staff. Record of the assessment process and outcomes are recorded on the PDRP database.

Submissions at competent level are assessed by their line manager who must have undergone either a four hour session run by the PDRP coordinator for senior nursing staff who will be assessing portfolios, or else they must have completed US4098 workplace assessor qualification run by The Open Polytech of New Zealand (TOPNZ). Other submissions are forwarded to the PDRP office on one of ten set dates of the year. These are currently monthly, with the exception of December and January, when there are no submissions accepted. Applications are logged into the confidential PDRP database by the PDRP administrative assistant and then placed in a secure cupboard until assessment can take place. Two assessment days per submission date are held. At the end of each year assessors are sent a list of assessment days for the following year. They are asked to indicate on which dates they will be available so a plan for assessments can be made prior to each assessment day. Assessors are allocated portfolios according to experience as an assessor and area of practice. Prior to submission applicants are asked to cross any assessor off the list with whom they have a professional or personal relationship. This is done to ensure that the assessment is completed only on the information contained within the portfolio, therefore maintaining the integrity of the programme. Assessment is made against criteria as set out in the checklists contained within the guidelines package, and indicators for each competency within each domain of practice.

Components of the portfolio fall into core and elective categories. Required components differ slightly across the levels being applied for, and from Registered to Enrolled Nurse, but all must include a C.V, a performance review (within the last 12 months), peer review (number varies depending on level), evidence of practice hours (minimum 450 in last three years), and evidence of professional development (minimum 60 hours in last three years). The professional development component must include a statement

of overall learning as well as reflection on three key activities, including learning outcomes and how this is applied to the individual's current practice.

Assessors.

Requirements and nomination of an assessor.

To become an assessor for the CDHB PDRP programme a nomination form needs to be forwarded to the PDRP office. This form is available on the PDRP website on the CDHB intranet. The nomination process incorporates an assurance by the line manager that if successful the nominated nurse will be released for training as a Workplace Assessor. This training comprises completion of a two day workshop and successful fulfillment of the requirements of US4098. In addition the nominating manager commits to release their staff member for the purpose of assessing a minimum of eight portfolios per year. Nomination forms are forwarded to the CDHB PDRP Committee for consideration. Assessors are selected for their, "expertise and sound clinical knowledge base, commitment to the PDRP, respect and credibility from peers/colleagues, commitment to own education and professional development (...and ...) it is expected they will share the philosophy and vision of nursing at CDHB" (CDHB, Feb 2006, p 1).

Following successful completion of US4098 assessors have each of their first five portfolio assessments moderated. This process involves "double assessing" of the portfolios, the second assessment being completed by a senior assessor. In addition to the assessment, a moderation package is completed by the second assessor to ascertain if they are in agreement with the initial assessment. The comments provided to the applicant are also reviewed to ensure they are valid, transparent, and constructive. The moderation documents for each assessor are reviewed and a letter sent to outline whether or not the moderator agreed with outcomes and if any further action is required. The moderation process is ongoing. Every tenth assessment by an assessor is moderated to ensure consistency across the programme, and a report detailing findings of the moderation, and recommendations for the assessor is forwarded to the assessor who was moderated.

Ongoing education is provided to the assessors with compulsory attendance at one update per year. This update is of eight hours duration, content is defined by what has been identified throughout the year as deficits, or information about changes to the

programme. Examples of what have been covered include; feedback from the National PDRP Conference, feedback from analysis of assessors comments to applicants with an emphasis on ensuring comments are personalized to the applicant and are constructive and positive, cultural safety and the Treaty of Waitangi (assessment from the assessor perspective), appeals, legal and ethical assessment issues and a review of the qualities of evidence.

The assessor uses the guide provided by the applicant showing where evidence to support the submission can be found within the portfolio. Evidence is assessed to ensure it is consistent, valid and verified. Guidelines are provided for applicants as to what constitutes evidence, for example, the core components but also other optional pieces such as case studies, education sessions provided, reflections on practice, testimonial letters from colleagues, assignments or essays, conference reports, personal statements, quality initiatives and evidence of committee involvement. There is not a set format to the portfolio and creativity is supported providing it is in keeping with a professional image.

The assessor gives written feedback to the applicant covering where evidence was found, what the evidence was and whether there was sufficient valid evidence to show each competency was met. If there is insufficient evidence the applicant is notified and asked for further evidence in a particular area. The applicant has eight weeks to supply this evidence for their initial submission date is to be used. Further evidence is reviewed by the assessor and a final decision is made as to whether the applicant has provided evidence to show all competencies are met. The outcome of the assessment is entered into the CDHB PDRP database.

If the applicant is successful after one assessment by a senior assessor who does not require moderating, the process for a successful applicant is initiated. If a second assessment is required, or the first assessor needs moderating, the portfolio is returned to the secure cupboard until a further assessment can be made.

Applications at “expert/accomplished” level require two assessments as well as an interview. Interviews are attended by the applicant, the assessors, the PDRP Coordinator (or her nominee) and the PDRP administrative assistant who types the interview while it is in progress. The applicant is personally notified of their success, by the PDRP

coordinator. The electronic process is to enter “successful” on the database in the “status” column. This generates a standard letter which is then completed for the applicant. A copy of this letter is sent to payroll, the nurse’s line manager, and the nursing department (for placing in the nurse’s personal file). In addition an electronic letter is sent to payroll notifying of success so that remuneration can commence. A certificate is completed for the applicant and placed inside their portfolio. When the applicant receives their portfolio it has the assessor comments in it, a copy of which is also kept in the PDRP office in the applicant’s file.

The Benefits of PDRP Programmes

Like PDRP, certification is a process for clinical nurses to evidence clinical competence and at higher levels, advanced skills, and practice. Throughout the literature claims are made about both processes and the benefits they provide. These include benefits to the individual nurse, the organisation and the consumers of the health service provided by that organisation.

Benefits for the individual nurse.

It is suggested that nurses benefit by the introduction of professional recognition programmes through:

- increased job satisfaction (Drenkard & Swartwout, 2005; Walker, 2005;)
- enhanced professional development (Drenkard & Swartwout, 2005; Ward & Goodrich, 2007)
- improved staff relations (Bjork et al., 2007)
- improved clinical skills (Bjork et al., 2007; Ward & Goodrich, 2007)
- personal development (Bjork et al., 2007)
- financial benefit (Bjork et al., 2007)
- acknowledgement at work (Bjork et al., 2007)

The credentialing arm of the American Nurses Association (ANA), the American Nurses Credentialing Center (ANCC), claims benefits of certification for the nurse are the validation of skills, knowledge and abilities through professional recognition, personal recognition, career progression, professional opportunities, networking, and an increase in salary (ABNS, 2006). This is supported by Gaberson et al. (2003) who also include personal achievement and satisfaction, challenge and increased job satisfaction and Niebuhr and Biel (2007) who add professional commitment.

Niebuhr and Biel (2007) also state that certification is associated with high levels of professionalism which is characterized by attitudes of self regulation, self-determination and independence. Fetzer (1997) suggests there is a perception that certification influences accountability. Craven (2007) identifies the affirmation of expertise and being valued by nursing leaders as the benefits of certification for the individual nurse.

While many claims exist in the literature there are few published studies which back them. Buchan (1999) completed a systematic review to determine to what extent the claimed benefits of clinical ladders have been proven to be realised in practice. Buchan (1999) reported the majority of literature available at that time described a specific programme and its implementation rather than articles which outlined research findings. This is also the case for much of the literature published since that time however, there are a number of studies which investigate specific claims about PDRP and its benefits.

Increased job satisfaction.

Buchan cites the findings of Roedal and Nystrom (1987) who investigated 81 nurse participants in a clinical ladder programme at a 200 bed hospital in the United States. They identified that nurses on Level III of the programme self reported greater autonomy, motivation and task identity. This study also found a statistically significant increase in job satisfaction amongst these same nurses.

Further evidence of increased job satisfaction after the implementation of a ladder/recognition programme is identified by Drenkard and Swartwout (2005) in a survey of participants in a clinical ladder programme in Virginia, USA. The programme covered five hospitals, a home-health agency, urgent care centres and two long-term care facilities. The survey looked at differences in satisfaction rates amongst nurses in this organisation prior to, and one year after, the implementation of the programme. In the initial survey 478 responses were received (a 19% return rate); when repeated two years later, 310 responses were received (a 10% return). Findings were that nurse satisfaction increased from 47% to 68% after one year of the programme. A weakness of this study was that the respondents may not have been the same for each survey and therefore the reported changes can not be directly attributed to the implementation of the programme. It was also not clear what other changes may have occurred, either within the organization, health system or nursing which could have had a direct impact

on satisfaction rates. If programme participant and non-participant satisfaction rates had been compared perhaps a stronger link between the programme and satisfaction rates could be made.

Koch (1990) evaluated a pilot study in a South Australian Hospital to determine differences in job satisfaction pre and post clinical career structure implementation. Nurses within the pilot were more satisfied with the job, communication and leadership but “role overload” was still problematic. Following this pilot a six month trial of the structure commenced, involving 5000 registered nurses in South Australia. Evaluation of this restructuring began with the gathering of pre-restructuring data. Koch (1990) found job satisfaction improved in Levels II-IV but was reduced in Level I. Satisfaction was measured in 16 areas including salary, recognition, independence, status, and growth. Only salary and growth had significant changes. Though there was increased satisfaction with salary overall, the rating was 49.9 which indicates only half of the participants were satisfied with salary. It is difficult to attribute changes in satisfaction to the re-structuring in this study as it is not clear what other changes occurred and whether the time lapse between data gathering had an impact on satisfaction. In addition though three levels had improved satisfaction rates, satisfaction rates for first level nurses actually reduced.

The findings of Lacey, Teasley, Henion, Cox, Bonura, & Brown (2008) were in keeping with the above studies. They reported that overall satisfaction with the work environment and perceptions of workload had improved six months after the implementation of a clinical ladder programme within their children’s hospital in Texas, USA, as measured by The Individual Workload Perception Scale (IWPS). These findings are in contrast to those of Bjork et al. (2007) who found that there was no significant difference in job satisfaction rates overall between clinical ladder participants and non participants as measured by the IWPS. However there was a significant difference between the two groups when viewing the nurse-nurse interaction subscale, with participants having greater satisfaction.

While it appears that a link may be made between the implementation of recognition programmes and increased job satisfaction, due to the number of other factors within an organisation and environment it can not be stated categorically that the improvement is directly attributable to the programme.

Empowerment.

Piazza, Donahue and Dykes (2006) examined the difference in perceptions of empowerment between certified and non-certified nurses. 265 active status registered nurses at the 174-bed acute community hospital studied returned the “Conditions of Work Effectiveness II Questionnaire” (58% return rate). It was found that certified nurses have a higher perception of empowerment than non-certified nurses. Kanter’s theory of empowerment suggests that this results in higher levels of self-efficacy, motivation, commitment and ultimately work effectiveness (Piazza et al., 2006). Similar findings from Chandler (1986, cited in Piazza, Donahue and Dykes (2006, p.278)) associate higher levels of empowerment with decreased burnout and greater job satisfaction.

Cary (2001) states that nurses from the International Study of the Certified Nurse Workforce also reported increased confidence, competence, credibility, ability to collaborate with other health providers and greater autonomy and control as a result of certification.

Benefits for the organisation.

Many of the individual benefits have positive spin-offs for the organisation. Ridge (2008) suggests, at the unit level certification promotes team cohesion, collaboration, and meaningful opportunities to set goals together and celebrate success as a team. These factors lead to increased job satisfaction which in turn impacts on recruitment and retention. This is in keeping with Piazza et al. (2006, p. 283) who state that “nurses who are empowered to do their job and who are recognized for their expertise may be more likely to remain in the organisation.”

Others claim that the introduction of PDRP programmes also lead to improved recruitment and retention of nursing staff (Cote & Burwell, 2007; Walker, 2005). Drenkard and Swartwout (2005) back this claim finding that participation in the clinical ladder programme had a direct impact on staff retention. Turnover rate of nurses participating in the clinical ladder programme was 5.2% compared with an overall rate of 14.1% for that organisation. These turnover rates for participants also compared favourably with national rates.

Koch (1990) showed that vacancies in the hospital studied reduced in three units but remained the same in five units after the introduction of a PDRP. In addition absenteeism dropped over the six month trial period. It would be expected that if job satisfaction increased (as reported above) there would be a corresponding drop in staff turnover and absenteeism.

Whilst findings from these studies indicate that there may be a link between recognition programmes and turnover and absenteeism rates, it is not conclusive. Koch's (1990) study was only looking at data from a six month period and the sample size was only n=322. The outcomes cannot be directly attributed to the programme as other variables were not eliminated which may have had an impact on turnover and absenteeism. There may have been institutional, seasonal, economic or other changes during the period of research which had an impact. A further study by Drenkard and Swartwout (2005) noted the same pattern. Whilst findings appear to support the premise that participation in PDRP reduces turnover, it is not possible to directly attribute these decreases to the introduction of the clinical ladder programme as other factors within the organisation may have had an impact.

In contrast to the findings above, a further study indicated that a clinical advancement programme was not seen as instrumental in determining the continuation of employment. Ward and Goodrich (2007) reported on findings from a survey of 960 registered nurses from a community hospital in the United States of America. Results showed that though nurses identified the clinical advancement programme as important for job satisfaction and career and work choices, only 25% identified it as important in influencing the decision to continue employment. In addition only 34% stated that they would not consider working in a setting which did not have such a programme.

The influence of certification on retention of staff is further illustrated by Craven (2007). Craven reported that the implementation of a number of strategies to increase rates of certification (and a resulting 60% increase in certified nurses) within an acute medicine unit resulted in registered nurse (RN) turnover rates decreasing from 16.7% to 8.1% after one year, and the RN vacancy rate decreasing from 11% to 4.73%. Craven (2007) suggests that this occurred as a direct result of the nurses feeling more valued and professionally challenged. These results suggest a correlation between recognition through either certification or professional development programmes and retention and

recruitment of the nursing workforce. However as Craven (2007, p. 371) concludes, “in the complex environment of healthcare, isolating one intervention to prove a cause-and-effect relationship is virtually impossible.”

In 2005 the American Board of Nursing Studies Research Committee conducted an on-line survey of ABNS member organisations (Niebuhr & Biel, 2007). From a possible sample size of 94,768, 11, 427 (12.1%) nurses responded, 8615 of whom were certified and 2812 who were not. In contrast to the findings of the studies previously discussed, there was no apparent difference in sick days taken or retention rates between the two groups. However, as discussed in the article itself, and in support of Craven’s (2007) comment, it is too complex an issue to draw conclusions from the research available.

Cost benefit.

Analysis of cost benefit of a clinical ladder indicates that the cost of introducing a programme is more than compensated for by the savings gained through improved retention rates. Drenkard and Swartwout (2005) assessed the difference in staff turnover between their study hospital and the national average. The cost of introducing the programme was more than offset by the savings associated with reduced turnover. In this study analysis of cost of the turnover of staff appeared to be comprehensive, advertising, human resources and orientation costs were included. It appears however, costs associated with the programme may have been limited to the increase in salary of the staff on the programme. Costs such as planning, implementation, and ongoing running of the programme may not have been factored in, therefore the financial saving in their study may not have been as great as reported. This is another situation where the complexities of the programme make it difficult to make a direct link between factors. For example, whilst costs associated with the programme may be relatively easy to measure it is not so obvious how to put a dollar value on improved patient care.

Other studies did not identify the cost benefit of implementing a programme but did comment on the costs associated with the implementation of a programme and factoring this in to future budgets (Gustin et al.,1998; Hamric, Whitworth & Greenfield, 1993).

Benefits for the consumer.

The suggestion is made that the changes which occur as a result of the introduction of professional recognition programmes have positive outcomes for the consumers of health care. Proven clinical competence, more experienced nurses, an increase in evidence based care provision, and increased professional development are all purported to impact positively on patient care and therefore outcomes.

One of the main aims of more recently implemented professional development recognition programmes is evidencing nurse competence, with consumer safety and optimal patient outcomes the goal (CDHB, 2005). One way of measuring the success of a programme is by measuring patient outcomes, but providing evidence of improvement in outcomes is difficult.

One measure described in the literature is the response to patient opinion surveys and quality measures. Koch (1990) describes the results of a pilot study in an oncology ward whereby quality of care was measured by the Rush Medicus Quality Monitoring tool and Patient-opinion surveys. While findings were that patients, “perceived that the quality of care had improved” (Koch, 1990 p. 870), Koch states it is not possible to directly attribute these changes to the programme implementation. These findings are supported by Cary (2001), who also identifies improved patient satisfaction ratings associated with a certified work force.

A further study indicates that the perception by nurse managers is that clinical ladders may have a positive influence on delivery of care and thereby patient outcomes. Corley, Farley, Geddes, Goodloe, & Green, (1994) explored the clinical ladder programme of a 900 bed university teaching hospital in the United States. Surveys were sent to all successful participants (n=269) at the challenge levels of the programme (above novice) in the first 18 months of its existence. A return rate of 69% was achieved. Part of the study examined nurse managers’ perceptions of the impact of the programme on patient care and unit functioning. There was a varied response to these questions with some managers stating successful applicants had been responsible for initiating new patient care programmes, while other managers suggested those who had been successful were already functioning at higher levels.

Managers perceived a positive change to practice as a result of clinical ladders in the research of O'Hara et al., (2003) also. Changes include; an increase in interest and motivation towards growth; initiation of conversations around quality of care issues; a more personal approach to problem solving and increased formal teaching initiated by staff for new RNs. An increase in research, the sharing of this information, and a desire to initiate practice change was also reported. These factors all contribute to improved patient care and ergo patient outcomes, though it is difficult to prove a cause and effect.

Ward and Goodrich (2007) also support these findings, stating that there was an increase in the understanding of the need to provide rationale for care, increased decision making and increased mentoring of new staff as a result of the implementation of the professional recognition programme in their study.

Improved patient care and outcomes are also reported as a benefit of having a certified nursing workforce. One study which supports this premise is that of Craven (2007) who states that patients benefit from nurse certification through having more highly skilled and knowledgeable bedside caregivers which translates to increased satisfaction with overall nursing care. Craven reports an increase in overall patient satisfaction with nursing care a year after a certification initiative which resulted in a 60% increase in the number of certified nurses within the study hospital. The number of "excellent" responses within this unit increased from 88.2% to 90.4% over this period. However it must be noted that the national mean also improved from 83.7% to 87.2% during this time.

Stromberg, Niebuhr, Prevost, Fabrey, Muenzen, Spence, Towers, and Valentine, (2005) reported 58% of the surveyed managers said they saw a difference in the performance of certified nurses whereas 29% said they did not. This did not necessarily translate to perceived satisfaction from patients or families with only 30% stating that there was greater satisfaction with certified nurses compared to 55% who did not. It is not clear how the data which led to the report of satisfaction was gathered and therefore if it was accurate or based on perception of the manager alone.

In the same way that PDRP is deemed to ensure clinical competence the American Nurses Credentialing Center state that certification demonstrates competency. Stromberg et al. (2005, p. 36) state that certification serves to protect the public by

“establishing and maintaining standards” for those who are specialty certified. Stromberg et al. (2005) used a two page survey to collect data at a nursing management conference in 2002. The purpose, in part, of this survey was to identify nurse-manager perceptions of certified registered nurses. The three main reasons given for employing certified nurses over non-certified nurses in the 139 completed surveys was that certified nurses have a proven knowledge base in their specialty (85.8%), have demonstrated greater professional commitment to lifelong learning (77.5%) and have documented experience in a given specialty (61.7%). Though these factors may be seen to indicate that certification translates to improved care, there is little evidence of this in the literature.

As Stromberg et al. (2005) state, the measure of a patient’s satisfaction with their care may be based on other factors such as the friendliness or method of communication of the nurse rather than their clinical expertise. Attributing the changes directly to certification is questionable.

Participation in Programmes

PDRP participant demographic characteristics.

Identification of demographic characteristics of those applying to PDRP has not been the primary focus of published research. Corley et al. (1994) analysed the demographic characteristics of successful clinical ladder participants. 94% of the respondents were women, 62% were married, the mean age was 31 (with a range from 24-56), 61% held bachelors degrees, 15% Masters, 13% diplomas and 11% associate degrees. The number of years in nursing ranged from less than three years to more than 20. Though the characteristics were interesting, it would have been useful to compare them to non-participants, or the nursing group of that organisation as a whole to give a better picture of any areas which were over or under represented, rather than merely a statistic in isolation.

Thornhill (1994) did make comparisons between participants and non-participants in the PDRP in her research which explored nurses’ perceptions of the need for the existence of the current clinical advancement programmes in the five regional medical centre hospitals in her study. A stratified random sample from the hospital population was taken: 120 programme participants (out of a population of 398) and 480 non-participants (out of 1,371). The overall response rate was 81.8%. Though the groups

differed slightly in educational level (participants had higher qualifications), time nursing (participants longer than non-participants) and average number of years in current position (participants less time in current position than non-participants), none of these differences were associated with participation or non participation in the PDRP. Indeed, Thornhill (1994) states the results from her survey strongly suggest that demographic variables such as age, educational level, years in clinical practice and years in current position do not influence participation status in PDRP programmes.

PDRP participation rates.

Studies exploring participation rates in PDRP were aimed primarily at identifying why participation rates in a particular programme were at the level they were. Studies were often conducted due to dwindling or lower participation rates than expected or desired. Gustin et al., (1998) researched low participation rates in a clinical advancement programme which had been in place since 1978, but by 1991 participation rates had dropped to 5%. A study was conducted to identify what changes needed to be implemented to increase uptake so that the programme could be updated to meet the current needs of the healthcare environment. As a result of the changes, participation rates increased to 17% by 1998.

Carryer, Russell and Budge (2007) conducted studies of the Clinical Career Pathway at a New Zealand hospital in 2001 with a follow up in 2006. After the implementation of strategies aimed at improving education and increasing knowledge about the process they found participation rates increased from 19.7% of eligible staff in 2001 to 53.4% in 2006. During that time NCNZ had introduced competency based practising certificates and the HPCA Act (2003) had been passed however. In addition the implementation of the MECA, which required all DHBs to have a PDRP by July 2005, had occurred, therefore the influence of the specific strategies introduced within the organisation aimed at increasing participation is difficult to assess as these other factors may also have had an influence on participation rates.

An unpublished report from the National Nursing PDRP Coordinators (A. Russell, personal communication, June 26, 2009) provides statistics from December 2008 for New Zealand PDRP programmes. 24 organisations responded to the request for information, representing 25,399 nurses of whom 11,108 (43.7%) were currently participants in a PDRP. Of these 40% were at competent RN level, 37% proficient, 13%

expert and the remaining 10% either senior nurses or enrolled nurses. The percentage of participants for each organisation ranged from 87% to 11%. This data is potentially misleading as programmes had been in existence for differing lengths of time and some are mandatory while others are not.

The Role of Motivation in PDRP Participation

Motivational theory.

Reasons for engagement in an activity is the subject of much research. Eccles and Wigfield (2002) reviewed recent research on motivation and discussed theories which focused on the reasons for engagement of an activity. One such theory is that of Deci and Ryan (1985, cited in Eccles and Wigfield, 2002, p 112), who proposed the self determination theory, which is based on intrinsic and extrinsic motivation. Eccles and Wigfield state that intrinsically motivated people “engage in an activity because they are interested in and enjoy the activity”. Ryan and Deci (2000, p. 56) define intrinsic motivation as “doing the activity for its inherent satisfactions rather than for some separable consequence”. Though intrinsic motivation comes from within the individual, people have differing levels of intrinsic motivation for different tasks. Some suggest this is dependent on the task being interesting, and others on the satisfaction gained from the task engagement itself (Ryan and Deci, 2000).

Ryan and Deci’s (2000) self determination theory is based on the premise that for individuals to have high levels of intrinsic motivation they must experience satisfaction of the needs for both competence and autonomy. Their theory focuses specifically on factors which “facilitate versus undermine” intrinsic motivation. They suggest things which are conducive to feelings of competence can enhance intrinsic motivation but they must be accompanied by a sense of autonomy.

The importance of autonomy is underlined by the research cited in Ryan and Deci (2000) which shows that where perceived controllers of behaviour such as rewards for performance, or threats, directives or deadlines are introduced, intrinsic motivation is undermined. This is very important when looking at the CDHB and WC PDRP to ensure that the “rewards” associated with the programme do not de-motivate those who are intrinsically motivated. Ryan and Deci (2000) stipulate that these factors only hold true for activities that the individual perceives as novel, challenging or of having aesthetic value for them, otherwise extrinsic motivation needs to be explored.

Eccles and Wigfield (2002) state those who are extrinsically motivated engage in an activity for reasons such as receiving a reward; Ryan and Deci (2000) state it is; “in order to attain some separable outcome” (2000, p 60). They suggest that external motivation has varying levels of autonomy, and that the levels of autonomy correspond to the degree of enjoyment of engagement. The least autonomous motivation is *external regulation* where an individual is motivated to perform an activity either to satisfy a demand from another or to gain a reward. *Introjected regulation* motivates by exerting pressure to perform in order to avoid guilt or anxiety or to gain ego-enhancement or pride. The third is *identification* where the individual accepts the importance of the behaviour and adopt it as their own. The most autonomous form is *integrated regulation* which occurs when the new regulation is brought into line with your own values and beliefs.

Ryan and Connell (1989, cited in Ryan & Deci, 2000), found that the more an individual was externally regulated the less they showed interest, value and effort whereas the more autonomous extrinsic motivation was associated with interest, enjoyment and competence. This is supported by the findings of others cited in Ryan and Deci (2000) who found that greater autonomy lead to more engagement, less dropping out and greater psychological well-being.

Ryan and Deci (2000) suggest that the primary reason people are likely to undertake an activity that is not inherently interesting is that it is valued by someone significant to whom they feel, or would like to feel, connected. Further, people are more likely to undertake an activity if they understand it and are likely to succeed at it, and they must also inwardly grasp its meaning and worth.

The theory proposed has ramifications for participation levels in the CDHB and WC PDRP, and the ways in which engagement can be enhanced through the understanding of the roles of intrinsic and extrinsic motivation. This will be discussed further in the discussion section of this thesis.

Motivation and participation in PDRP.

A number motivators for participation in either recognition programmes or certification processes are identified in the literature. In some cases this was a secondary objective of the research conducted. Much of the literature suggests that the most common and

highly ranked motivating factors are intrinsic with the exception of financial compensation or reward, and external recognition.

Bjork et al. (2007) conducted a comprehensive study of nurses' motivation for participation in programmes in Norway. They sampled 4,650 nurses, receiving 2095 replies (a 45.5% return rate). 541 of the respondents were present or former clinical ladder participants. In this study nurses were asked to choose as many factors from a list of 12 which motivated their own programme participation. Findings were that intrinsic factors received the highest level of response and extrinsic factors were seen as the least important (with the exception of an increase in pay which was the third ranked factor). The major reasons identified included a desire for personal development and up-skilling to improve knowledge for better patient care and nursing in general.

Allen and Girard (1992, cited in Fetzer, 1997), explored motivation in perioperative nurses. Their findings were in keeping with those of Bjork et al. (2007). They determined personal accomplishment, improved practice, advanced knowledge, validating professional achievement and the demonstration of professional commitment as the five main motivators for becoming certified.

Another study which indicates that it is predominantly the intrinsic rewards that motivate participation was that of Goodrich and Ward (2004). They evaluated the programme of a regional not-for profit healthcare system in Virginia, USA to identify reasons for the perceived inactivity of the (then) current career ladder process. A 28% return rate, from a convenience sample of 1021 RNs on the clinical ladder, was achieved. In addition to the survey, personal interviews were conducted with eight nurses who were at level II, III, IV or Unit Managers. Questions were aimed at identifying aspects of the current programme with which participants were either satisfied or dissatisfied.

Findings were that pay was the most important motivating factor (but least rewarding) followed by improved autonomy and professional status. Two years later Ward and Goodrich (2007) conducted a follow up study for the purpose of evaluating changes which had been made to this programme. Surveys were sent to a convenience sample of all 960 registered nurses in the programme, with a 18.3% response rate. The survey included open ended questions regarding motivation and barriers to participation. The

major drivers of participation were cited as monetary compensation and peer recognition.

Gustin et al. (1998) found that though (financial) compensation was motivation for participation in the clinical ladder studied, it was the opportunity for professional growth that was rated as the number one motivating factor by the registered nurse respondents to the survey.

Stage Three of the International Study of the Certified Registered Nurse Workforce explored nurses' perspectives on the effect of certification (Cary, 2001) by examining how certification contributes to nurses' personal and professional development and to their practice. 19,452 nurses from the original sample of 40,426 (48.1%) completed data for analysis. Participants identified the four main reasons for seeking certification as: it is required in area of practice; workplaces offer certified nurses advancement opportunities; they want to practice in areas where it is required or advantageous; and commitment to advancing practice regardless of opportunities it affords.

Though these were the cited reasons for seeking certification the response to what certification has enabled the nurse to do included the following: experience personal growth, feel satisfied professionally, feel more clinically competent, feel professional confidence, feel more accountable, and be seen as a credible provider. It could be suggested that although these factors were not cited as reasons for becoming certified they are positive value statements which result from certification.

These responses are similar to those collated by Carlson (1990, cited in Fetzer, 1997) who collected data from a random sample of 296 emergency nurses in the United States. The participants rated the three most important motivators in seeking certification as professional knowledge, professional advancement and the significance of the credential acquisition.

In 1993 the American Board of Perianesthesia Nursing Certification (ABPANC) received 832 responses to their survey from certified post-anaesthesia nurses (Fetzer, 1997). The primary reason for 79% of the respondents to seek certification was personal and professional satisfaction. Other reasons cited were; assessment of skills and

knowledge (7%), job requirement (7%), and for credibility (6%). These results again show the influence of intrinsic factors on motivation.

McClain, Richardson and Wyatt (2004) sent surveys to two groups of generalist paediatric nurses who had maintained (n=275) and not maintained (n=317) their certification. As well as demographic data a list of questions were distributed, asking why certification had been maintained or allowed to lapse. Respondents were asked to rank each statement according to how important it was in maintaining or letting certification lapse. Increasing confidence in knowledge and encouraging personal continuing education were cited as equally most important for the highest number of respondents. Recognition and respect from the health “system” and colleagues were third and fourth respectively. As with other studies, financial benefit was not particularly highly rated; in this instance it was ranked eighth with just over half of the respondents (50.9%) choosing this option.

In addition to intrinsic motivational factors, Bjork et al. (2006), Ward and Goodrich (2007), and Cote and Burwell (2007) cite the importance of peer and leader support and encouragement to the success of the individual and the programme. Torstad and Bjork (2007) discovered there was a wide variation in participation rates between wards, which seemed to be dependent on the attitudes of the leaders. They noted that when leaders saw the clinical ladder programme as a means of securing competence and developing quality they found it easier to motivate staff than when they saw the programme as education or a bonus for staff.

Barriers to Participation in PDRP and Certification

A number of studies asked participants to identify what they perceive as barriers to participation in either the PDRP or certification processes. The factors which have been identified can be grouped into those related to the programme or process itself, personal factors, and external factors.

The programme or process.

Barriers related to the programme itself include lack of time to prepare the information or attend the necessary professional development; the competencies do not truly measure performance; the overwhelming amount of information required, and the difficulty in assembling the required evidence (needing others to provide documents)

(Winslow and Blankenship, 2007; Bekemeier, 2007; Byrne, Valentine and Carter, 2004).

Time.

Winslow and Blankenship (2007) cited anecdotal evidence which was supported by direct nurse surveys of a clinical ladder program in a 176 bed community hospital in the United States. This indicated one of the major identified barriers was a lack of support for the preparation of evidence. The lack of support in preparing information or support to complete the requirements such as professional development was also cited by Bekemeier (2007); Byrne et al. (2004); Schmidt, Nelson and Godfrey (2003); and Goodrich and Ward (2004).

The concept of time as a barrier was further developed by Carryer, Budge and Russell (2002) who surveyed 239 nurses and midwives, representing all areas of a regional New Zealand hospital, about the PDRP at their institution. They identified that 65% of the sample were unhappy about having to prepare their portfolio outside work time, though this dropped significantly to 15% if the organisation provided some paid time as well. This concept of the process invading personal time was also cited by Ward and Goodrich (2007) as a deterrent to application.

Competencies or programme relevance.

Carryer et al (2002) also cited issues with the process itself identified by the respondents of this survey. These included that the “competencies (are) too general and don’t suit all nursing areas” (47.8%) and “competencies (are) unclear or difficult to understand” (44.5%).

The perception that the competencies being assessed do not always reflect actual practice or have relevance is supported by the findings of Robinson et al., (2003) who reviewed staff satisfaction surveys from the Vanderbilt University Medical Centre and found that nursing staff viewed the clinical ladder there as “laborious, insignificant, inapplicable to daily practice” (Robinson et al., 2003, p. 444).

The question of relevance is also cited by Winslow and Blankenship (2007). They explored nurses’ perception of barriers to participation in the existing clinical ladder programme of a 176-bed community hospital in Virginia, U.S.A., with the purpose of

improving uptake to the programme. Many respondents questioned the value of the ladder in relation to practice.

Goodrich and Ward (2004, p.395) state that those interviewed as part of their study voiced concerns that the process did not necessarily identify clinical expertise and that the emphasis was on “tasks, committee work and continuing education”.

This perception that programmes have little relevance to the role of the nurse was also identified by Thornhill (1994, p.23) who cites Wyatt Company (1998), who found that clinical nurses want advancement opportunities which recognize, promote and give feelings of achievement and which result in increased job satisfaction. They do not want programmes which are not clinically focused and take them away from clinical practice.

Evidential requirements.

Corley et al. (1994) evaluated nurse satisfaction with the clinical programme they researched. 269 nurses who had advanced to the challenge level of the programme within the first 18 months of its existence, were sent a survey, resulting in a 69% return rate. Difficulties identified with this programme were related to the gathering of evidence required for submission. Many stated the preparation of CVs, examining their practice in depth and articulating what they do through exemplars was a new and often difficult experience. Hamric, Whitworth and Greenfield (1993) also stated that respondents cited difficulty in learning how to develop a portfolio.

Other authors cited the amount of evidence required as being perceived as overwhelming, intimidating or unrealistic (Goodrich & Ward, 2004; Robinson et al., 2003; Schmidt et al., 2003; Carryer, Russell & Budge, 2007) and therefore acting as a barrier, and that what evidence is required is not always clear (Carryer et al., 2002; Glenn & Smith, 1995).

Schmidt et al. (2003) identified concerns about the assessment process, especially in relation to inconsistencies and inequities, as a deterrent to participation. Carryer et al. (2002) reported on concerns voiced such as assessors ability to know the individual's area of specialty, though Steaban et al. (2003) state that nurses without a specific clinical expertise can evaluate accurately the practice of a nurse from a specialty area.

Other issues identified related to gathering the evidence, including reluctance to ask peers and other health team members for letters of support (Corley et al., 1994) and the difficulty of finding someone suitable to write attestations, (Carryer et al. (2002). Just under a third of respondents also expressed doubt about the validity of testimonials or attestations provided in support of submissions (Carryer et al. (2002).

Financial barriers to participation.

Interestingly, though financial benefits are rarely cited as a primary reason for seeking certification or participating in a recognition programme, it is commonly identified as a barrier to seeking initial, or maintaining ongoing, recognition.

A number of authors cited the perception held by many nurses that the effort or work involved in completing and maintaining the certification or level on the clinical ladder was not rewarded adequately or compensated for (Bekemeier, 2007; Goodrich & Ward, 2004; Robinson et al., 2003; Sechrist, Valentine & Berlin 2006; Ward & Goodrich, 2007). These authors also cite the lack of value the “system” and administrators attach to certification

Niebuhr & Biel (2007) and others (Byrne et al., 2004; Sechrist, Valentine & Berlin, 2006) added that certificants had let their certification lapse for similar reasons of inadequate or no compensation for the costs associated with gaining and maintaining certification, and no corresponding increase in salary or other reward. When exploring reasons for the lapse in certification of generalist paediatric nurses McClain et al., (2004) reported the five most frequently cited reasons were associated with cost and lack of value or benefit.

Personal barriers to participation.

Carryer et al. (2002) found other barriers to submission of a portfolio, with 41.4% of respondents identifying “embarrassment at having to describe myself in terms of what I have achieved” (41.4% agreement) and “embarrassment at describing what I am good at” (43.3%).

In addition to concerns over the ability to articulate practice, Winslow and Blankenship (2007) stated some study participants cited fear of failure and anxiety over the process.

Niebuhr & Biel (2007) also identifies a discomfort with test taking as a reason cited for non participation in the certification process.

The Perceived Value of Certification Tool

Design and rationale.

In 1999, the Certification Board Perioperative Nursing (CBPN) of the United States, set about finding a research based answer to the question of how certification is valued. A research committee was set up, a review of the literature conducted to determine the purported benefits of certification, and groups arranged to find qualitative data for the research. Focus groups were conducted (four in total) until no new information came to light. Participants were first asked how they personally perceived certification, the value of certification to others, and their beliefs related to the value of credentials. From these focus groups a series of themes emerged: competency, recognition, evidence for consumers, intrinsic rewards, marketability and financial benefits.

These themes were used to develop an 18 value statement tool which used a Likert-type five-point scale, 1= strongly agree to 4= strongly disagree and 5=no opinion. This tool was piloted on 400 certified perioperative nurses, with a 61% return rate. A review of results led to the slight adjustment of the tool and the finalization of what is the Perceived Value of Certification Tool (PVCT[®]) (Byrne et al., 2004) see Appendix 3.

Studies Using PVCT.

There have been a number of published studies across nursing specialties using the PVCT[®], usually to compare certified and non-certified nurses perceptions of the value of certification. A cross sectional exploratory study was conducted by Bekemeier (2007) which examined the perceived value of credentialing of Public Health Nurses. An anonymous self-report survey which was based on both the PVCT and the National Certification Board of Paediatric Nurse Practitioners and Nurses Barriers Scale adapted to public health nursing, was used. A 33-42% response rate (based on estimated sample) with 625 respondents was obtained. Intrinsic statements received a higher agreement (90%) from respondents, than did the extrinsic factors (70%). Most respondents disagreed with the specific extrinsic statement that certification increases salary.

Findings were similar from a study of perioperative nurses, using the PVCT, conducted by Sechrist, Valentine and Berlin (2006). This study involved 1,250 certificants, 2000 non-certificants and 1,250 administrators from which there was a 55.5% response rate.

Overall the level of agreement was the highest for intrinsic items with all groups agreeing with these statements to differing degrees (from 98.6% to 75.8% for certificants and 94.3% to 60.9% for non certificants). The most highly rated statement by all groups was that certification enhanced a feeling of personal accomplishment, with certificants having the highest level of agreement (98.6%) and non-certificants the lowest (94.3%). The lowest ranked intrinsic statement for all groups was “enhances professional autonomy” which ranked from 60.9% (non-certificants) to 75.8% (certificants).

Though intrinsic statements rated more highly than the extrinsic overall, there were some exceptions with “increases marketability”, “promotes recognition from peers” and “promotes recognition from other health professionals” rating more highly than “indicates level of competence”, “provides evidence of accountability” and “enhances professional autonomy” for some groups.

Analysis was completed for this study by comparing means and standard deviations for the intrinsic, extrinsic and overall scores for each group. Those who did not complete a response, or ventured no opinion, were excluded from analysis. Post hoc Scheffe comparisons showed that there were significant differences between non certificants and both certificants and administrators, and between certificants and administrators for the intrinsic constructs. For extrinsic factors there was a significant difference between non-certificants and certificants, and non-certificants and administrators, though not between certificants and administrators.

Total PVCT scores showed similar results with a significant difference between non-certificants and both certificants and administrators, though not between certificants and administrators. Non certificants had the lowest total PVCT scores of the three groups.

Interestingly though evidencing nursing competence is described as one of the benefits of certification, findings from this study indicated that increasing consumer confidence was not highly rated by any of the groups, with non-certificants only showing 45.4% agreement with this statement.

Bivariate (Pearson’s) correlation was conducted to determine any possible influence of demographic variables such as age, years of perioperative or overall nursing experience on intrinsic, extrinsic and total PVCT scores. There were no significant correlations.

Gaberson, et al. (2003) sampled 2750 certified perioperative nurses with a resulting 50.8% return rate. For analysis, responses to the value statements were categorized into agree and disagree. The degree of agreement with each statement was then calculated. In this study all intrinsic factors other than “enhances professional autonomy” (69.9%) rated more highly than all extrinsic factors. The agreement with intrinsic statements ranged from 97.2% (“enhances personal accomplishment”) to 69.9% and for extrinsic statements from 75.5% (increases marketability) to 30.7% (increases salary).

In 2004, the American Board of Nursing Studies (ABNS, 2006) used the PVCT to conduct a survey of its 94,768 nurses. Of the 11,427 (12.1%) on-line responses, 8615 (75%) were certified, and 2,812 (25%) were not. A subset of 1,608 Nurse Managers was identified, 77.3% of whom were certified. “Agree” and “strongly agree” responses were combined to calculate the level of agreement for each value statement for certificants, non-certificants and nurse managers.

As in other studies the most highly rated statement was “personal accomplishment” for all groups, and the intrinsic factor with least agreement was “enhances professional autonomy”, which rated less highly than the extrinsic factors of recognition and marketability for some groups. Certificants rated intrinsic factors from 98.7% to 81.7% agreement compared with non-certificants with a range of 95.8% to 68.2%.

Overall intrinsic factors received higher levels of agreement than extrinsic for all groups with a range from 90.4% to 43.6% for certificants, 81% to 35.4% for non-certificants, and 98.6% to 43.6% for Nurse Managers. The only statement which received less than 50% agreement was “increases salary” which was the statement with the lowest rating for all three groups. Certified nurses had a higher degree of agreement than non-certified nurses. A t-test for Equality of Means revealed these to be significant for all value statements.

Prowant, Niebuhr and Biel (2007) used data from the ABNS data as described above to explore findings for the sub-group of nephrology nurses. Of the 684 nephrology nurses who participated in the survey 672 (98.25%) were certified compared with 12 who were not. Findings mirrored those of the overall survey except that the percent of agreement was higher in nephrology nurses for all statements except “marketability”

and “increases salary.” As in other studies only the latter did not receive a majority agreement. Due to the large imbalance in numbers between the groups and the very small response rate of non-certified nephrology nurses the significance of this data could be questioned, however, the findings are similar to that of other studies which have been conducted.

Biel (2007) reports on a survey conducted by the Infusion Nurses Certification Corporation (INCC). From 2000 infusion nurses surveyed there was 17.5% return rate (351), 238 (67.8%) of whom were certified and 113 (32.2%) who were not. Intrinsic factors overall received greater levels of agreement for all groups than did extrinsic factors. Again feelings of “personal accomplishment” received the most agreement and “enhances professional autonomy” the lowest. As with other studies certified nurses had higher levels of agreement for all statements than non-certified respondents. These differences were significant for 15 of the 18 value statements. The three which were not were “promotes recognition from employers”, “increases salary” and “promotes recognition from other health professionals”. All value statements with the exception of “increases salary” received high levels of agreement (above 50%) for both certified and non-certified respondents.

The findings of this study were different from those of Gaberson et al. (2003) and Sechrist et al. (2006) with regard to “increases consumer confidence”. In this study 79.8% of the total sample agreed with this statement (certified 83.8%, non-certified 63%) whereas Gaberson et al. (2003) reported certified respondents had 50.5% agreement, and Sechrist, Valentine and Berlin (2006) reported 56.4% agreement for certified respondents and 45.4% for the non-certified. Reasons for this variance between studies are not clear.

Overall findings from studies using the PVCT show:

- certificant have higher levels of agreement with the value statements overall than non-certificants
- intrinsic factors received a higher level of agreement than extrinsic factors
- the highest rated statement most commonly was the intrinsic factor “enhances feelings of personal accomplishment”
- the lowest rated intrinsic factor was “increases autonomy” and this often received less agreement than a number of extrinsic factors.

- there was less than 50% agreement that certification increased salary in all studies.

The latter is interesting given that Cary (2001) found that over 50% of certified nurses earned \$50,000 per annum compared with an average of \$38,567 for all nurses (1996 figures). This is perhaps an indication that certification is undertaken by more experienced nurses, and certification leads to increased opportunities of promotion or more highly financially rewarded positions rather than evidence of financial recognition for the certification per se. The perception that certification does not lead to an increase in salary supports the frequently cited barrier to achieving or maintaining certification, of a lack of financial recognition or cost of meeting the requirements associated with certification.

Chapter 3 Methodology

This study involved a cross-sectional non experimental design comprising a survey of demographic data and the PVCT[®]. An open question seeking additional factors which have motivated participation or non-participation in the programme was also put to participants.

Rationale for Chosen Methodology

Polit and Beck (2004) state cross sectional designs are appropriate for describing relationships amongst phenomena at a fixed point in time. They further state the main advantage of this type of design is that they are “practical, easy to do and relatively economical” (p 167). The rationale for choosing a non experimental design was fourfold. As Polit and Beck (2004) state, it is not only impossible to manipulate many human characteristics, as required for an experimental design, but also if harm is caused, it is unethical. In addition they suggest it is often not practical to conduct a true experiment due to time or financial constraints, and that for descriptive studies it is not appropriate. This study was such an example whereby its intent was to document the characteristics of both those who participated in the PDRP and those who did not.

Whilst there was some qualitative research which had been previously conducted into PDRP participation in New Zealand, there were no larger scale quantitative studies in the literature. Due to the author’s ability to access a large database the opportunity existed to conduct research which would identify the scope of the problem of barriers to participation and the description of critical relationships between relevant variables. From this study the opportunity would exist for follow-up with qualitative research from the findings of this study.

Surveys were chosen as the method of data gathering for this research as the purpose of the study was to identify the prevalence, distribution and interrelations of the PDRP participants and non participants. Polit and Beck (2004), suggest surveys are designed for this purpose. The advantages of surveys according to Polit and Beck (2004) are that they are flexible, can be applied to many populations, can focus on a wide range of topics, and the information can be used for many purposes.

The Research Context

This study was conducted within the Canterbury District Health Board, which encompasses a number of sites. Included are; the main public hospital located in a large

metropolitan city, other smaller specialized hospitals within the city specializing in mental health and rehabilitation services, and a number of smaller town or rural hospitals. Other nursing staff working in the community in a number of publically funded health services were also included.

Research Participants

The participants for this study were drawn from the Canterbury District Health Board nursing staff. Specific parameters for the sample groups were determined after an analysis of the “nursing employees” databases provided by payroll, and in consultation with a biostatistician. Initially it was proposed that a comparison would be made between participants in the Professional Development Recognition Programme and a matched group of non participants. It was proposed that groups would be matched for gender and employment status, i.e. whether the nurse was enrolled or registered. It was proposed that all current voluntary participants in the programme would be selected (n=300), and a matched group of non-participants (n=300) would be randomly selected from the employee database.

Permission to undertake this research was sought and gained from both the Canterbury District Health Board (Appendix 1) and the University of Otago Board of Studies. In addition, a proposal was submitted to the Upper South Region Ethics Committee, and after minor adjustments permission to undertake this study was granted (see Appendix 2).

After Board of Study and Ethics Committee approval was received the researcher was given access to an Excel document which had been produced by the payroll department at CDHB. This document comprised two worksheets, one of all nurses who had submitted to the PDRP programme (n=411), and the other those nurses who had not (n=2775). The database provided information on; the division in which the employee worked (older persons’ health, mental health, rural health, women and children’s health, medical/surgical), the cost-code they are paid under (which budget their pay comes from), the position they are employed in (staff nurse, enrolled nurse, senior nurse), FTE status (hours worked each fortnight), the pay plan they are paid under (what pay rate they are on) the step of that plan they are on (greater detail for payroll), employment status (part time, full time, casual, temporary), gender, and whether or not they have been successful on the PDRP programme, and if so at what level. Further information

supplied included whether or not their participation in the programme was as a NetP participant or as a voluntary participant.

Prior to the researcher gaining access to these spreadsheets they had been randomized and blinded through names being removed and a unique number applied to each person. A list of which name corresponded to which number was held by the administrator who had blinded the data.

Those aspects which could be matched were limited by the information about nursing employees held by CDHB or available from other sources. It is recognized nationally that data about the nursing workforce of New Zealand is difficult to obtain (Clark, 2008; O'Connor, 2008). Once the researcher examined these spreadsheets it became apparent that it would not be possible to match the groups by gender, role or employment status due to insufficient numbers in some groups.

Further consultation was undertaken with a biostatistician and the sampling changed. Due to the small numbers of enrolled nurses and males it was decided that these groups should be excluded as numbers would be too small to make meaningful comparisons. In addition, those nurses who had been employed on the Nurse Entry to Practice (NetP) programme had a requirement to submit an application to the PDRP in order to complete their course, thereby making their application mandatory. Therefore, any nurse identified as a NetP Applicant was removed from the research as their motivation could be different from those who submitted voluntarily. Further exclusions were midwives as they have a different recognition programme, and those who were no longer employed at the CDHB (Table 1).

Table 1
Initial Exclusion Criteria for Research Participants

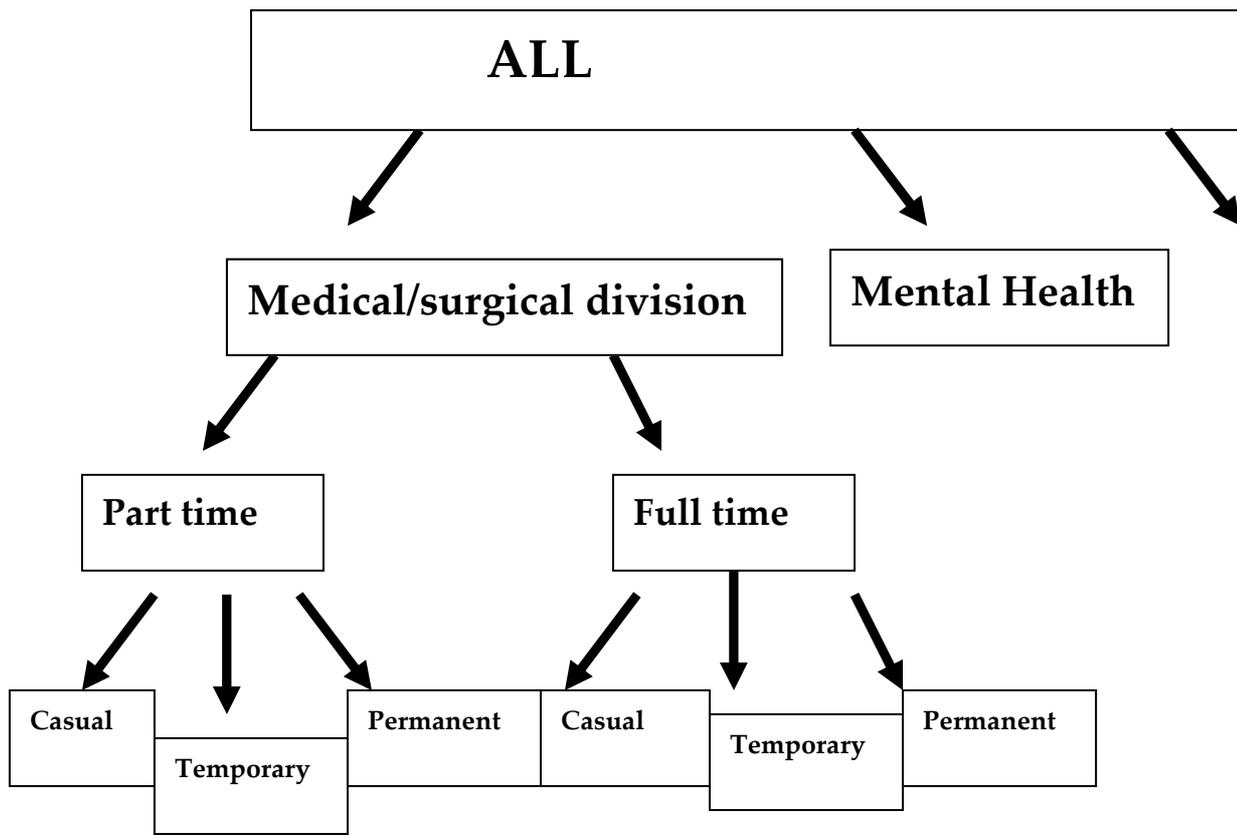
	Non PDRP participants	PDRP participants
Total before exclusions	2775	411
Removed as left		9
CDHB/NetP let lapse	0	
Net P	0	96

Males	287	21
Gender not specified	1	0
Enrolled nurses/Karitane nurses	179	24
Midwives (identified on database)	28	0
Total after exclusions	2281	261

After discussion with the biostatistician the remaining sample was divided into five groups by “division” of employment i.e. Medical/surgical, mental health, rural, older persons health and women and children’s health. Each of these groups was then divided by employment status, either part time or full time. These groups were divided into casual, permanent and temporary staff (Diagram1).

Diagram 1

An Example of Breakdown to Determine Cohorts



Once these divisions had been made it became apparent that many groups were too small to allow meaningful comparisons to be made, and made participants too identifiable. As a result all temporary and casual staff were excluded from the sample (Table 2).

From a total population of 3186 on the database (PDRP applicants n=411, non PDRP applicants n=2775) once exclusion criteria had been applied there was a population of 2126 who were eligible for the research; 1881 of whom were Non PDRP applicants and 245 who were PDRP applicants. Inclusion criteria for the research were; permanent female, registered nurses who were eligible to voluntarily apply to the CDHB and WC PDRP programme.

Table 2

Sample Numbers Once Exclusions Applied

	Non PDRP	PDRP
Balance after initial exclusion	2281	261
Casual	213	8
Temporary full time	112	4
Temporary part time	75	4
Total of further exclusion	400	16
Total after all exclusions	1881	245

These 2126 remaining nurses were separated into four cohorts: Non PDRP applicants who worked part time, Non PDRP applicants who worked full time, PDRP applicants who worked part time and PDRP applicants who worked full time (Table 3).

Table 3

Numbers for Each Cohort Before Sampling

	Non PDRP	PDRP
Permanent Full time	658	99
Permanent Part time	1223	146
Total	1881	245

A power calculation was undertaken by the biostatistician which showed there would need to be 50 returns for each group to make the study valid (Cohen, 1977). Assuming a 50% return rate, 100 questionnaires needed to be sent out to each group.

McLennan's (1998) software programme was used to obtain 100 randomly selected numbers for each group (except for the PDRP full time group, n= 99). The random numbers generated by this programme were then applied to the four cohorts, and the final sample obtained (n=399).

Instruments Used in Data Collection

Two instruments were used for data collection in this research. The first was a demographic questionnaire (Appendix 3). This questionnaire included twenty one structured questions and was created by the author.

The second instrument was the Perceived Value of Certification Tool (PVCT[®]). This tool was developed by the Competency and Credentialing Institute in 2001 (American Board of Nursing Specialties, 2006). The PVCT[®] (Appendix 4) consists of 18 value statements which are rated according to the level of agreement they have with the statement in relation to certification. Answers range from strongly agree to strongly disagree or “no opinion”. Psychometric evaluation of responses indicates “strong internal consistency reliability (standardized $\alpha=.924$). Several survey items demonstrated high intercorrelations, but none were over .80” (Gaberson et al., 2003, p.274). Further evaluation also showed that responses to PVCT were able to adequately predict group membership, leading Sechrist, Valentine and Berlin (2006, p.252) to state, “overall, the PVCT is a valid and reliable tool to measure perceived value of certification.”

Permission to use this tool was sought, and received from the copyright holders (Appendix 5).

Data Collection

The demographic questionnaire and PVCT[®] were sent out over a one week period. Also contained in the package was an information sheet (Appendix 6) and a return envelope addressed to the PDRP Administrative Assistant. From the initial post-out 217 questionnaires were returned. After a further three weeks a follow up letter (Appendix 7) was sent to all non respondents (total – 182), this resulted in a further 18 questionnaires being returned over the next two weeks.

Return numbers were 75 for the PDRP Full Time group, and 76 for the PDRP part-time group. Returns at this stage for the Non PDRP part-time and full-time groups were 44 and 45 respectively. As the number of questionnaires returned for both PDRP groups were in excess of the 50 required for validity of the study, no further reminders were sent to the people in these groups. However, as returns from the non-PDRP participant groups were below that required a further reminder and set of questionnaires and

information sheet were sent out to all Non PDRP non-respondents at their work locations. From this final request 15 further questionnaires from the part-time group and five from the full-time group were returned.

As data was being entered in to the SPSS database it was noted that 21 of the respondents had only returned the demographic questionnaire and not the PVCT questionnaire. A list of identification numbers of these participants was sent to the administrative assistant who matched the numbers to participant names. Each of these participants were sent another copy of the PVCT and a letter explaining the importance of this data (Appendix 7). A return envelope was supplied.

Of the 21 participants who had initially not completed the PVCT, 13 were returned after the request was sent out to individuals. This left a total of eight participants who had not completed the PVCT and they were subsequently removed from the study.

It was noted that for a number of respondents the FTE status recorded on the company database did not match those currently working and the cohort was different from that originally selected (Table 4).

Table 4
Sample Size after Adjustment for Change in Status

	NonPDRPFT	NonPDRPPT	PDRPFT	PDRPPT	Total
Original sample size	100	100	99	100	399
Sample size after adjustment for change of status	96	100	100	103	399

Six questionnaires were returned unopened with “address unknown” written on the envelope. Five were from the Non PDRPFT group and one from the Non PDRPPT group. These were also removed from the sample. One participant returned the questionnaires with page one missing. Despite a follow up letter sent by the administrative assistant this was not returned and therefore this respondent from the PDRPPT cohort was removed from the study. One further respondent from the

NonPDRP FT cohort was removed due to the number of non responses. A further four participants were removed as they had entered “no opinion” in response to all value statements within the PVCT.

The final denominator was determined for each study group by adjusting the original sample numbers for change in status and then subtracting the returned and unopened “address unknown” and “employment terminated” replies. The percentage return rate was calculated by multiplying the number of returned questionnaires by 100 and dividing by the final denominator. Usable returns were calculated by subtracting the incomplete questionnaires from those returned for each sample group (Table 5).

Table 5 Final denominator and Usable Returns

Group	Original Sample	Final de-nominator	Returned	% return rate	Usable returns
Non PDRPFT	100	91	50	54.9	43
Non PDRPPT	100	99	59	59.6	54
PDRPFT	99	100	76	76.0	76
PDRPPT	100	101	76	75.2	72
Total	399	391	261	66.8	245

Statistics

The Pearson Chi square was used to explore PDRP status and full time equivalence and highest nursing related qualification. A Pearson Chi square was also conducted to explore full time/part time status and the level of endorsement on the PDRP; and whether those who had participated in a similar programme previously in New Zealand were more likely to participate in this programme than someone who had not.

Means and ranges were calculated for each demographic characteristic by PDRP status and individual cohort. Independent t-tests were conducted to identify any statistically significant differences between PDRP participants and non participants and by full time/part time status. Analysis of variance was undertaken to explore differences in demographic characteristics between the four cohort groups.

PVCT responses were given a numerical value, strongly agree =1 to strongly disagree=4, and means and standard deviations calculated. Independent t-tests were conducted to explore PDRP participants and non participants, and by full time/part time status for each value statement.

Chapter 4-Findings

Responses to questionnaires were collated and data entered into SPSS Version 17. Calculations were performed to determine return rates as shown in the methods section. Initial analysis was a descriptive exploration of demographic data whereby each demographic question was explored from an overall perspective and then according to PDRP status and then by the four cohorts. Each data category was analysed by the above process with frequency of occurrence for responses being described, the range (where applicable) and then a comparison of means.

Data from the PVCT[®] were collated and in the first instance described by percent agreement. This was calculated by grouping responses according to whether the respondent agreed or disagreed with the value statement, by combining the “agree” and “strongly agree” responses into one group and the “disagree” and “strongly disagree” into another.

Statements were then divided into intrinsic and extrinsic factor statements and results given for overall total values, total intrinsic and total extrinsic factors. Percentage agreement with each statement was also calculated and reported by PDRP status with comparisons made between the PDRP and non PDRP groups. Findings are shown in tabular and graphic format (Table 17).

Responses to each value statement were added together to ascertain a total score for each participant (from 18-72), and for intrinsic total (12-48) and extrinsic total (6-24). Comparisons were made between the PDRP and non PDRP groups, part time and full time status and between the four cohorts. ANOVAs were calculated to identify any statistically significant differences between groups.

Analysis was conducted for each individual statement to identify any statistically significant differences in response by either PDRP status or cohort. Findings are described and reported in tabular form, including means, ranges and significance of difference.

Analysis of the qualitative data received in answer to other factors which contributed to participation or not in the programme was collated and then separated into themes.

Return Rates

From an initial post out to a sample of 399, n=261 responses were received. Once exclusions had been made, as described earlier, the number of responses eligible for analysis was 245 (Table 5). Of the 245 questionnaires included in the analysis 148 (60.4%) were PDRP applicants and 97 (39.6%) were non PDRP applicants.

Demographic Data

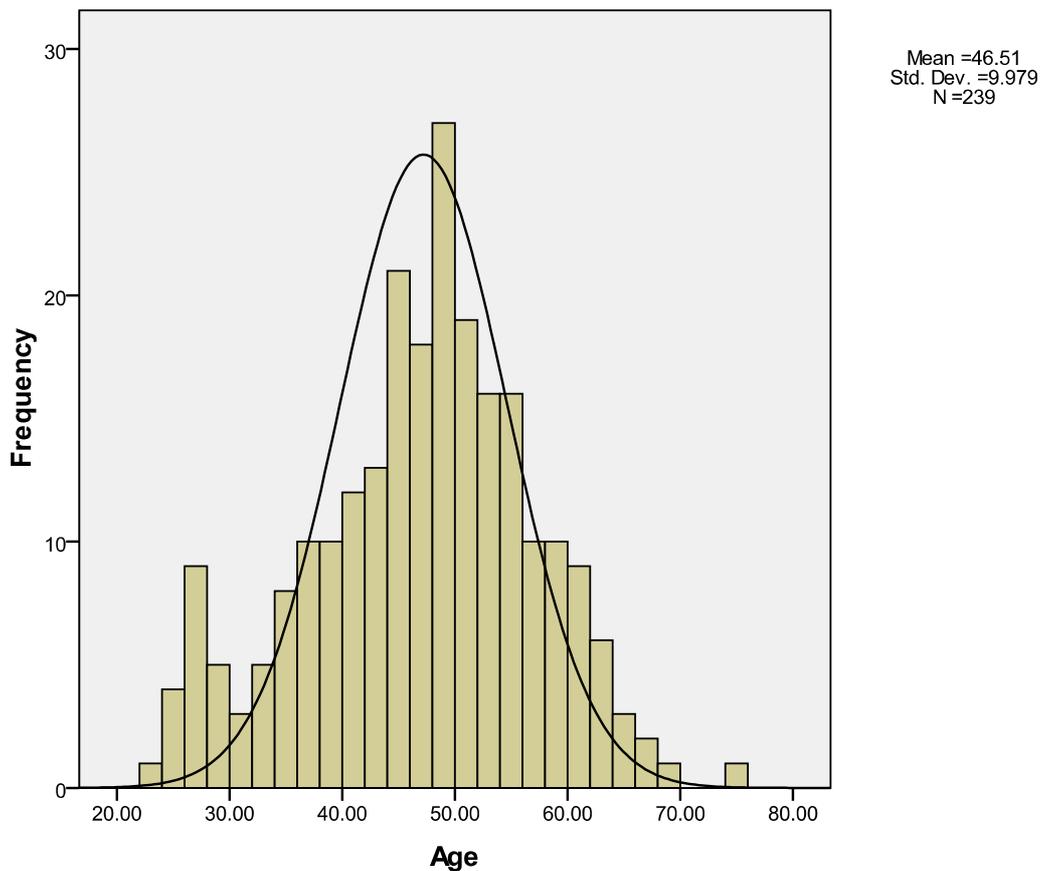
Data were analysed by PDRP status and individual cohort to describe mean and range for each demographic characteristic (Table 6).

Age.

The age of participants ranged from 23 to 75 years old. The mean age was 46.5 years. This compares to a mean age for CDHB female registered nurses of 43.8 years (Hipkiss, R, personal communication 10th July, 2009). An exploration of the distribution of age demonstrates a normal distribution with a slight skew towards the right (older age group). The mean age of the PDRP applicants was 46.6 years and non PDRP was 46.3.

Analysis to explore the PDRP status between the four cohorts and FT/PT status by age found no statistically significant difference in age between PDRP applicants (M=46.61, S.D.=9.93) and non applicants (M=46.34, S.D.=10.11) $t(238)=.043; p=.84$. No statistically significant difference between the cohorts either (PDRPFT; M=45.57, S.D.=10.18; PDRPPT, M=47.70, S.D.= 9.61; NonPDRPFT , M=43.61, S.D. =10.45; NonPDRPPT, M=48.45, S.D.=9.40) $t(238)=2.43; p=.066$ was noted. However there was a statistically significant difference in age between part time (M= 48.08, S.D.= 9.42) and full time staff (M=44.75, S.D.= 10.32); $t(237)=6.78; p=.01$.

Graph 1 Distribution by age



Ethnicity.

The majority of study participants identified as New Zealand European/Pakeha or New Zealander n= 196 (80%). The percentage of NZ European, female registered nurses employed by CDHB is 77.3% (MOH, 2009). The breakdown of other groups was; English n=9 (3.7%), Maori n=6 (2.4%), South African n=4 (1.5%), Ireland and Germany n=3 (1.2%), two (0.8%) identified as each the following; Indian, Filipino, Chinese, United States of American and Australian, and one (0.4%) each of British, Scottish, Zimbabwean, African, Romanian, Spanish American, Dutch, Belgian, West Indian, Japanese, Malaysian, Russian and Tongan descent. Three respondents wrote “other” but did not specify actual ethnicity.

Table 6

Demographic Characteristics of Study Participants

	Total Research Participants		PDRP		NonPDRP		PDRPFT		PDRPPT		NonPDRPFT		NonPDRPPT	
	Mean	Range	Mean	Range	Mean	Range	Mean	Range	Mean	Range	Mean	Range	Mean	Range
Age (years)	46.5	23-75	46.6	23-74	46.3	25-68	47.7	23-74	45.6	24-66	43.9	25-65	48.5	26-68
Number of Dependents	1.0	0- \geq 5	1.03	0- \geq 5	0.96	0-3	1.03	0- \geq 5	1.04	0-4	0.88	0-3	1.02	0-3
Time in Current Clinical Area (years)	6.97	.1-30	7.08	.1-30	6.82	.2-26	6.29	.1-30	7.92	.3-30	5.77	.2-25	7.66	.5-26
Time at CDHB (years)	12.27	.3-41	12.97	1-41	11.2	.3-38	12.04	1-41	13.92	2-34	8.69	.3-30	13.34	.6-38
Time Nursing in NZ (years)	19.94	.6-52	20.79	1-52	18.6	.6-49	19.07	1-52	22.59	3-47	16.06	.6-48	20.75	.6-49

Table 7

Significance of Difference between Groups for Demographic Characteristics

	Significant difference between PDRP and Non PDRP Applicants	Significant difference between Cohorts	Significant difference between Part Time and Full Time Respondents
Age	No	No	Yes
Ethnicity	No relationship	*	*
Number of Dependents	No	No	No
Full Time Equivalence	No relationship	*	*
Time in Current Clinical Area	No	*	Yes
Time at CDHB	No	*	Yes
Time Nursing in NZ	No	Yes	No
Initial Qualification	No relationship	*	*
Highest Qualification	No relationship	*	*

* Numbers insufficient to allow meaningful analysis,

One hundred and twenty one New Zealanders/NZ European/Pakeha had completed the PDRP (61.7%) compared with 75 who had not (38.3%). Of all other ethnic groups 27 had completed PDRP applications (55.1%) compared to 22 (44.9%) who had not. This difference was not significant $\chi^2(1, n=121)=.72, p=.40$.

Dependents.

The number of dependents ranged from zero to five or more. Nearly half the respondents did not have any dependents (Table 8). A one way between groups analysis of variance was conducted to explore the PDRP group and FT/PT status by dependents. Homogeneity was not violated, the difference was not significant.

There was no statistically significant difference in the number of dependents between cohort either. Non PMFT (M=0.88, S.D.= 1.14), NonPMPT (M=1.02, S.D.= 1.04), PDRPFT (M= 1.03, S.D. = 1.31) and PDRPPT (M=1.04, S.D.= 1.17). $t(242)=.18, p=.91$ (Table 7).

Table 8

Number of Dependents by PDRP Status and Cohort

Number of dependents	Non PMFT	Non PMPT	Total NonPDRP	PDRP FT	PDRP PT	Total PDRP
0	24 (55.8%)	23 (42.6%)	47 (48.5%)	39 (51.3%)	33 (47.8%)	72 (49.7%)
1	6 (14%)	12 (22.2%)	18 (18.6%)	13 (17.1%)	11 (15.9%)	24 (16.6%)
2	7 (16.2%)	14 (25.9%)	21 (21.6%)	13 (17.1%)	15 (21.8%)	28 (19.3%)
3	6 (14%)	5 (9.3%)	11 (11.3%)	6 (7.9%)	9 (13%)	15 (10.3%)
4	0	0	0	4 (5.3%)	1 (1.5%)	5 (3.4%)
5	0	0	0	1 (1.3%)	0	1 (0.7%)
Mean	0.88	1.02	0.96	1.03	1.04	1.03
Range	0-3	0-3	0-3	0-5	0-4	0-5

Full time equivalence.

The majority of participants were employed fulltime n=148, (60%). A Pearson chi-square was conducted to identify if PDRP status and FTE were significantly related. This difference was not significant $\chi^2(1,n=148)=.76, p=.39$.

Current role.

The majority of participants were RN 5's (minimum of four years post-registration experience) (179, 75.5%). Thirty were less experienced registered nurses (12.7%) and 28 (11.8%) were in senior appointed nursing roles such as Clinical Nurse Specialist, Clinical Nurse Educator or Clinical Nurse Manager.

Qualification which led to nursing registration.

The majority of participants began their nursing careers with hospital training (n=133, 55.7%). 56 started with a diploma (23.4%) and 50 a Bachelors degree (20.9%) (Table 9). This compares with the overall female registered nurse population employed by CDHB of whom 1007 (38.9%) are hospital trained, 724, (28%) began with a Diploma of Nursing and 718 (27.7%) commenced nursing with a Bachelor of Nursing (MOH, 2009).

Table 9

Initial Qualification for Registration

	Hospital Training	Diploma	Degree	Total
PDRP Applicant	78 (54.25%)	34 (23.6%)	32 (22.2%)	144 (100%)
Non PDRP Applicant	55 (57.9%)	22 (23.2%)	18 (18.9%)	95 (100%)
Total	133 (55.7%)	56 (23.4%)	50 (20.9%)	239 (100%)

Highest current qualification.

Most respondents (n=116, 48%) had an undergraduate qualification, followed by those with a post-graduate qualification (n=79, 32.6%). For the remainder (n= 47, 19.4%) initial hospital training was their highest nursing related qualification (Table 10).

Table 10

Highest Qualification by Applicant Status

	Hospital Trained	Undergraduate	Postgraduate	Total
PDRP Applicant	22 (15%)	68 (46.6%)	56 (38.4%)	146 (100%)
Non PDRP Applicant	25 (26%)	48 (50%)	23 (24%)	96 (100%)
Total	47 (19.4%)	116 (48%)	79 (32.6%)	242 (100%)

A Pearson Chi-square was conducted to explore the relationship between PDRP status and highest nursing related qualification. A chi-square value = 4.44 with significance equal to .11. This shows no relationship between PDRP status and the highest qualification held.

Site of work.

The majority of respondents were from the major tertiary teaching hospital (n=145, 59.2%), with 73 (29.7%) from four other public hospitals within the metropolitan area.

A further 12 (4.9%) were from a small town regional hospital and the remainder (16, 6.2%) from either the community or small rural public hospitals within the district. Two of the metropolitan hospitals had higher PDRP engagement than all the other areas (Table 11)

Table 11

Site of Work by PDRP Status

	PDRP Participant	Non Participant
Major tertiary hospital	84 (57.9%)	61 (42.1%)
Smaller metropolitan hospital A	18 (78.3%)	5 (21.7%)
Smaller metropolitan hospital B	12 (75%)	4 (25%)
Smaller metropolitan hospital C	9 (52.9%)	8 (47.1%)
Smaller metropolitan hospital D	10 (58.8%)	7 (41.2%)
Small town regional hospital	7 (58.3%)	5 (41.7%)
Rural hospitals combined	3 (37.5%)	7 (62.5%)
Other	5 (83.3%)	1 (16.7%)
Total	148 (60.4%)	100 (39.6%)

Clinical area of practice.

One hundred and sixty seven respondents represented a wide range of hospital and community settings throughout the CDHB area. A further 22 respondents were from various mental health settings, 21 worked in an operating theatre; 17 in ICU; 10 in a Post Anaesthetic Care Unit; and 8 in the Neonatal Intensive Care Unit.

Time in current clinical area.

The mean number of years in the current clinical area was 6.97 years. The majority of participants in all groups had worked in their current clinical area for 1-10 years (Table 12). An independent t-test was conducted to compare time spent in the current clinical setting by PDRP status. There was no significant difference between time in current position and PDRP status (PDRP M=7.08, SD 5.73, Non PDRP M=6.82 SD 6.38); $t(243)=-.33$, $P=0.74$ (2-tailed). Equal variances assumed. For both PDRP and Non-PDRP groups, part time participants had spent a longer period of time in their current clinical

setting than full time participants. An independent t-test was conducted to compare time spent in current clinical area by full-time and part-time status. There was significant difference between full time (M=6.08, SD 6.20) and part time status (M=7.79, SD 5.70; $t(242)=-2.23, p=.026$ (2-tailed)). Equal variances assumed. Levene's Test for equality of variances $p<0.05$).

Table 12

Time Spent in Current Clinical Area

Time in area	Number of respondents		PDRP		Non PDRP	
			FT	PT	FT	PT
<1 year	31	(12.7%)	9 (11.9%)	3 (4.2%)	13 (30.2%)	6 (11.1%)
1.1-5 years	86	(35.1%)	31(40.9%)	25(34.8%)	15 (34.8%)	15 (27.7%)
5.1-10 years	83	(33.9%)	26(34.2%)	29(40.2%)	8 (18.6%)	20 (37%)
10.1-15 years	23	(9.4%)	6 (7.9%)	9(12.5%)	2 (4.7%)	6 (11.1%)
15.1-20 years	13	(5.3%)	1 (1.3%)	5 (6.9%)	2 (4.7%)	5 (9.3%)
20.1-25 years	4	(1.6%)	0 (0%)	0 (0%)	3 (7%)	1 (1.9%)
25.1-30 years	5	(2%)	3 (3.9%)	1 (1.4%)	0 (0%)	1 (1.9%)
Total	245	(100%)	76 (100%)	72 (100%)	43 (100%)	54 (100%)

Time at Canterbury District Health Board.

Participants had been employed at the Canterbury District Health Board (CDHB) on average 12 years (median 9 years, range 3 months – 41 years). This compares with an average of 7.67 years for New Zealand Registered nurses working for District Health Boards in New Zealand (HWIP, 2008). The biggest differences between the respondents in this study and the general New Zealand female registered nurse workforce was in the 0-2 years length of service with the percent in this category for study participants being 8.9% compared with 34% for NZ registered nurses overall and over half the participants in this study (50.5%) had worked for the CDHB for more than 10 years compared with 26% of the NZ average (Table 13).

Table 13

Length of Service with Current Employer (CDHB)

Length of service	PDRP Applicants	Non PDRP Applicants	Study participants Total	NZ Registered Nurse *
<1 year	0%	14.6%	5.7%	13%
1 year	2%	1%	1.6%	12%
2 years	1.4%	2.1%	1.6%	9%
2>-5 years	23%	16.7%	20.5%	21%
5>-10 years	27%	22.9%	25.4%	19%
10>-20 years	27%	25%	26.2%	16%
20>-30 years	14.9%	15.6%	15.3%	8%
>30 years	4.7%	2.1%	9%	2%
	100%	100%	100%	100%

* DHBNZ (2006).

Participants on the PDRP programme had worked for CDHB for a longer period of time than the Non PDRP applicants, but this was not statistically significant (PDRP M=12.97 years, S.D. 9.35, Non PDRP M=11.20 years S.D. 9.19 $t(242)=1.45$ $P=0.14$).

An independent t-test was conducted to compare the time employed at CDHB by full-time and part-time status. There was a significant difference in time for full-time (M=10.73, SD 9.37) and part-time M=13.64, SD 9.09; $t(242)=1.45$, $P=.015$ (2-tailed). (Equal variances assumed. Levene's Test for equality of variances $P<0.05$).

Country of first registration.

The vast majority of respondents (n=202, 82.4%) first gained nursing registration in New Zealand. This compares with 84.2% of the overall female registered nurse population at CDHB (MOH, 2009). 15 people first gained registration in the United Kingdom (Scotland, England, Northern Ireland and U.K). Two respondents stated "other" but did not specify what country. The remaining 26 respondents represented 13 other countries of first registration. This is shown in Table 14.

Table 14

Country of First Nursing Registration

	Sample	Sample %	CDHB % *
NZ Registration	203	83	84.2
UK Registration	15	6	9
Other	27	11	6.8
Total	245	100	100

(MOH, 2009)

Length of time nursing in New Zealand.

PDRP participants had spent more years nursing in New Zealand (M=20.79, SD11.87) than the Non PDRP participants although this was not statistically significant (M=18.60, 13.00; $t(239)=1.34$, $p=.18$ (2-tailed)). For both groups (PDRP and Non PDRP) part time participants (M=24.35, S.D. 10.83) had spent a longer period of time nursing in New Zealand than their full-time counterparts, although this was not statistically significant (M= 21.64, S.D. 12.02; $t(242)=-1.85$, $p=.65$ (2-tailed)).

PDRP PT had nursed in New Zealand for the longest time, (M=22.59, SD11.10) and Non PDRPFT for the shortest time (M=16.06, SD=13.36). The difference between these two cohorts is significant $t(113)=2.83$, $p=0.006$ (2-tailed).

Rates of success for PDRP application.

In response to the question, “Were you successful” in your application to the PDRP there were 148 responses, 140 (94.6%) of whom were successful, and two (1.4%) who were not. Six respondents (4%) had not heard the outcome of their submission at the time of completing the survey questionnaire. Of the successful applicants, 72 were from the PDRP FT and 68 were from the PDRP PT cohort. Both unsuccessful applicants were employed part time. Of the six who had not heard the outcome of their application, two were part time and four full time. Policy states that applicants will be informed of the outcome of their submission within eight weeks, therefore the six participants who had not heard the outcome of their submission must have been recent applicants to the

programme. These participants changed cohort as a result of their submission to the programme. All six were subsequently successful in their application.

Level of Participants on PDRP.

Study participants were asked if their application to the PDRP was successful, at what level on the programme were they endorsed? (Table 15). One hundred and thirty nine responses were received, 72 from the PDRP FT cohort and 67 from the PDRP PT cohort.

A Pearson's chi-square showed there was no relationship between full time or part time status and the level of endorsement on the programme $\chi^2(1,n=139)=3.04,p=.22$.

Table 15

Successful Applicants on PDRP by Level of Endorsement

Level on PDRP	Competent	%	Proficient	%	Expert	%	Total	%
	8	5.8	99	71.2	32	23	139	100

Future submissions.

Two questions related to the intent of Non PDRP applicants to submit an application to the programme in the future. The first explored the intention to apply in the following 12 months, and the second the intention to apply at any point in the future. Thirty seven respondents (43%) intended to submit an application within the next 12 months and 49 (57%) stated they did not. There were 11 non responses. A further six respondents indicated the intention to apply sometime in the future, and 21 were considering this. Twenty two respondents indicated they had no intention of applying to the PDRP at any time.

Participation in similar programme in New Zealand.

The majority of participants had not participated in a similar programme within New Zealand (n=214, 89.2%). Of those 129, (60.3%) were PDRP applicants and 85 (39.7%) were Non applicants. Of the 26 nurses who had participated in a PDRP at another DHB 15 (57.7%) were PDRP participants and 11 (42.3%) were Non Applicants. Those who

had participated in a similar programme elsewhere in New Zealand were slightly more likely to participate in the PDRP at CDHB than those who had not participated elsewhere in New Zealand. This difference was not statistically significant $\chi^2(1, n=214)=.72, p=.40$.

Participation in a similar programme overseas.

The number of respondents who had participated in a similar programme overseas (n=6) was too small to allow meaningful analysis.

Comparison with Other Studies

Demographic characteristics for the PDRP participants in this study were compared with the findings of Corley (1994). The mean age of PDRP applicants in this study was 46.6 years (31 years, Corley (1994)), with a range from 23-75 years (24-56 years, Corley, (1994)). Qualifications held by respondents is the only other data which can be compared between these studies. Of the clinical ladder participants in Corley's (1994) study, 13% held a diploma (9.7% this study) 11% an associate degree, 61% a Bachelor's Degree (67% this study); and 15% a Master's Degree (8.2% this study).

Thornhill (1994) noted that participants were more highly qualified and had been nursing for longer than non-participants. These findings are consistent with the findings of this study. Thornhill (1994) found that participants had on average spent less time in their current clinical position than had their non participant counterparts, which is the contrary to the findings from this study. Both the findings from this study and that of Thornhill (1994) found that though there were differences in the demographic characteristics between participants and non participants none of those measured had any influence on PDRP participation.

Perceived Value of PDRP

Percent agreement with statements.

By combining "strongly agree" and "agree" into one set and "strongly disagree" and "disagree" into another, percent agreement with the value statements was calculated. These results were determined for the total response, and then by PDRP status, full time or part time status, and by cohort. In addition to analysis of each statement the total response to intrinsic and extrinsic factors are reported (Table 16). For further analysis the statements were then divided into intrinsic and extrinsic factors. When responses

were totalled for all respondents there was 79.6% agreement with the intrinsic factors compared with 63.3% for extrinsic factors. PDRP applicants had a higher level of agreement for the total intrinsic score (82%) than did the non PDRP group (75.9%). PDRP applicants had a higher percent of agreement for all individual intrinsic value statements than non PDRP applicants except for “promotes professional challenge” (85.4% PDRP, 86.5% non PDRP) and “indicates professional growth” (83.7% , 84.8%).

All intrinsic statements received higher than 50% agreement from both PDRP and non PDRP groups. For five intrinsic statements the PDRP group had a 10% or greater level of agreement than the non PDRP group (Table 16). When the percent of agreement for all extrinsic factors is totalled, PDRP applicants have a higher level of agreement than non PDRP participants (64% versus 62.2%).

PDRP participants indicated a higher percent of agreement than the non PDRP group for each extrinsic value statement with the exception of “promotes recognition from other health professionals” (40.7% versus 48.8%) and “increases consumer confidence” (24.6% versus 27.6%) (Table 17). All other statements received more than 50% agreement from both groups.

Mean value for each statement.

In addition to percentage agreement with each statement, mean values were also calculated. The lower the mean value, (closer to 1), the higher the level of agreement with the value statement. For an individual’s response to the PVCT the possible range for the total score was 18-72. A score less than 45 would indicate a positive response to the value of PDRP whereas a score more than 45 would indicate a negative attitude to the value of PDRP. The mean score for all respondents with no missing values was 36.6 indicating a positive response to the value of PDRP.

Comparison between PDRP applicants and non applicants using independent t-test revealed that PDRP applicants had a lower mean (higher level of agreement) for the total value of PDRP than did non PDRP applicants but the difference was not statistically significant; $t(165)=-.89$, $p=.35$ (Table 18).

Table 16 Agreement with Intrinsic Value Statements by PDRP Status

PVCT value statements	PDRP applicants		Non PDRP applicants		Total	
	SA/A	SD/D	SA/A	SD/D	SA/A	SD/D
Intrinsic factors						
Enhances feeling of personal accomplishment	133 (91.1%)	13 (8.9%)	76 (86.4%)	12 (13.6%)	209 (89.3%)	25 (16.1%)
Provides personal satisfaction	127 (94.1%)	18 (5.9%)	72 (81.9%)	16 (8.1%)	199 (85.4%)	34 (14.6%)
Provides professional challenge	123 (85.4%)	21 (14.6%)	77 (86.5%)	12 (13.5%)	200 (85.8%)	33 (14.2%)
Provides evidence of professional commitment	129 (87.2%)	19 (12.8%)	69 (75%)	23 (25%)	198 (82.5%)	42 (17.5%)
Validates specialized knowledge	128 (86.5%)	20 (13.5%)	76 (83.5%)	15 (16.5%)	204 (85.4%)	35 (14.6%)
Indicates professional growth	123 (83.7%)	24 (16.3%)	78 (84.8%)	14 (15.2%)	201 (84.1%)	38 (15.9%)
Enhances professional credibility	112 (78.9%)	30 (21.1%)	73 (76.8%)	22 (23.2%)	185 (78.1%)	52 (21.9%)
Indicates attainment of a practice standard	130 (88.4%)	17 (11.6%)	72 (77.4%)	21 (22.6%)	202 (84.2%)	38 (15.8%)
Provides evidence of accountability	120 (81.6%)	27 (18.4%)	62 (67.4%)	30 (32.6%)	182 (76.2%)	57 (23.8%)
Enhances personal confidence in clinical abilities	105 (72.4%)	40 (27.6%)	58 (67.4%)	28 (32.6%)	163 (70.6%)	68 (29.4%)
Indicates level of clinical competence	113 (76.9%)	34 (23.1%)	63 (65.6%)	33 (34.4%)	176 (72.4%)	67 (27.6%)
Enhances professional autonomy	90 (63.4%)	52 (26.4%)	52 (58.4%)	37 (41.6%)	142 (61.5%)	89 (38.5%)
Total	1433 (82%)	315 (18%)	828 (75.9%)	263 (24.1%)	2261 (79.6%)	578 (20.4%)

Table 17

Percent Agreement with Extrinsic Value Statements by PDRP Status

PVCT value statements	PDRP applicants		Non PDRP applicants		Total	
	SA/A	SD/D	SA/A	SD/D	SA/A	SD/D
Extrinsic factors						
Increases salary	141 (95.9%)	6 (4.1%)	82 (88.2%)	11 (11.8%)	223 (92.9%)	17 (7.1%)
Promotes recognition from employers	119 (82%)	26 (18%)	73 (81.1%)	17 (18.9%)	192 (81.8%)	43 (8.2%)
Increases marketability	101 (74.8%)	34 (25.2%)	56 (62.9%)	33 (27.1%)	157 (70.1%)	67 (29.9%)
Promotes recognition from peers	92 (63.4%)	53 (36.6%)	54 (62%)	33 (38%)	146 (62.9%)	86 (38.1%)
Promotes recognition from other health professionals	59 (40.7%)	86 (59.3%)	42 (48.8%)	44 (51.2%)	101 (43.7%)	130 (56.3%)
Increases consumer confidence	33 (24.6%)	101 (75.4%)	24 (27.6%)	63 (72.4%)	57 (25.8%)	164 (74.2%)
Total	545 (64%)	306 (36%)	331 (62.2%)	201 (37.8%)	876 (63.3%)	507 (36.7%)

Table 18

Mean Value of Total PVCT score by PDRP Status

	Total response		PDRP		Non PDRP		Significance
	Mean	S.D.	Mean	S.D.	Mean	S.D.	
Total PVCT	36.60	11.00	36.04	10.65	37.75	11.71	p=.35

Comparison between full time staff with that of part time staff was made by combining PDRP full time and non PDRP full time responses to form one group, and PDRP part time and non PDRP part time responses to form another. Full time staff had a lower mean for the total value than did part time staff but t-test analysis showed this was not statistically significant $t(165)=2.885, p=.09$ (Table 19).

Table 19

Mean Value of Total PVCT score by Full / Part time Status

	FT		PT		Significance
	Mean	S.D.	Mean	S.D.	
Total PVCT	35.09	11.38	37.98	10.53	$p=.09$

Final analysis for total PVCT scores was completed to compare the four cohorts. The PDRP Full time cohort had the highest level of agreement for the total value of PDRP (M=35.00 , S.D. 11.33), and the Non PDRP Part time the lowest. (M=40.22, S.D.=11.82). The difference between groups using ANOVA was not statistically significant, $t(165)=1.50, p=.215$ (Table 20).

Table 20

Mean Value of Total PVCT score by Cohort

	PDRPFT		PDRPPT		NonFT		NonPT		Significance
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	
Total PVCT Score	35.00	11.33	36.98	9.99	35.38	11.30	40.22	11.82	$p=.22$

The statements were then grouped into intrinsic and extrinsic value statements. Total intrinsic and extrinsic scores were calculated and compared by PDRP status, full time or part time status and cohort. The total intrinsic score for an individual respondent had a possible range from 12 (strongly agree with all statements) to 48 (strongly disagree with all statements). A score less than 30 indicates over all agreement with intrinsic factors, whereas a score above 30 indicates disagreement overall. Total intrinsic scores for PDRP and non PDRP applicants were calculated and then compared. Both PDRP and non PDRP group total intrinsic score indicate agreement with the intrinsic statements in the PVCT. Though the PDRP group had a higher level of agreement the difference was not statistically significant using ANOVA $t(197) = 1.75, p = .19$. (Table 21)

Table 21

Total Intrinsic and Extrinsic Scores by PDRP Status

	Total response		PDRP		Non PDRP		Possible range	Significance
	Mean	S.D.	Mean	S.D.	Mean	S.D.		
Intrinsic	22.98	7.49	22.50	7.42	24.00	7.58	12-48	p=.19
Total								
Extrinsic	13.53	3.56	13.29	3.31	13.97	3.94	6-24	p=.21
Total								

The total extrinsic score for both PDRP and nonPDRP groups also indicated agreement. Though the PDRP group had a higher level of agreement (Table 22) the difference was not statistically significant using an independent t-test $t(188) = 1.60, p = .21$.

Though there was agreement with both intrinsic and extrinsic statements the intrinsic factors received higher levels of agreement from both PDRP applicants and non applicants, than did the extrinsic value statements.

Extrinsic and intrinsic total scores were also compared by full time and part time status. Full time respondents had higher levels of agreement than part time staff for both

intrinsic and extrinsic total scores (Table 21). Independent t-test showed the difference was not statistically significant for the intrinsic total $t(197)=2.79, p=.096$, however there was a statistically significant difference between full time respondents and part time respondents in their total extrinsic score, $t(188)=4.02; p=.046$ (Table 22).

Table 22

Total Intrinsic and Extrinsic Scores by Full /Part Time Status.

	FT		PT		Significance
	Mean	S.D.	Mean	S.D.	
Intrinsic total	22.07	7.54	23.84	7.37	.096
Extrinsic total	13.02	3.54	14.05	3.52	.046*

*Statistically significant

Comparison of total intrinsic and extrinsic scores was made between the four cohorts. The mean scores are illustrated below (Table 23). The minimum score possible was 12 and the maximum 48. There was no pattern with the highest level of agreement being from the PDRPFT group and the lowest from the Non PDRPPT group. These differences were not statistically significant $t(197)=1.83, p=.14$ using one way analysis of variance.

The extrinsic total scores were calculated with 6 being the minimum and 24 the maximum possible score. The PDRPFT group again had the highest level of agreement and the Non PDRPPT group the lowest. The differences between groups were not significant using one way analysis of variance $t(188)=1.88, p=.14$ (Table 23).

Table 23

Total Intrinsic and Extrinsic Scores by Cohort

	PDRPFT		PDRPPT		NonPDRPFT		NonPDRPPT		Significance
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	
Intrinsic total score	21.93	7.60	23.07	7.24	22.35	7.33	25.55	7.60	p=.14
Extrinsic total score	12.92	3.43	13.67	3.18	13.31	3.69	14.70	4.14	p=.14

The response to individual statements was analysed by comparing the mean for each statement by PDRP status, full time and part time status and the four cohorts. The response from PDRP applicants and non applicants was compared for each intrinsic statement. PDRP applicants had higher levels of agreement for each intrinsic statement. For four statements;

- Enhances feeling of personal accomplishment $t(233)=5.21, p=.02^*$
- Provides personal satisfaction $t(232)=5.99, p=.02^*$
- Provides evidence of professional commitment $t(239)=8.05, p=.005^*$
- Provides evidence of accountability $t(238)=7.47, p=.007^*$

the difference was statistically significant (Table 24).

Intrinsic value statements.

The response from full time and part time study participants was compared for each intrinsic value statement. Full time respondents had a higher level of agreement for each intrinsic value statement than did the part time respondents (Table 25).

Table 24

Intrinsic Value Statements by PDRP Status

	PDRP		Non PDRP		Significance Between Groups
	Mean	S.D.	Mean	S.D.	p<
Enhances feeling of personal accomplishment	1.60	.77	1.83	.75	.02*
Provides personal satisfaction	1.69	.78	1.94	.75	.02*
Provides professional challenge	1.74	.79	1.90	.73	.17
Provides evidence of professional commitment	1.78	.74	2.07	.81	.005*
Validates specialized knowledge	1.90	.74	1.96	.74	.71
Indicates professional growth	1.91	.72	2.01	.75	.31
Enhances professional credibility	1.89	.81	2.05	.76	.13
Indicates attainment of a practice standard	1.97	.67	2.11	.74	.11
Provides evidence of accountability	1.96	.72	2.23	.77	.007*
Enhances personal confidence in clinical abilities	2.08	.86	2.20	.81	.26
Indicates level of clinical competence	2.12	.78	2.25	.79	.19
Enhances professional autonomy	2.28	.90	2.36	.76	.19

*Statistically significant

Table 25

Intrinsic Value Statements by Full time /Part Time Status

	FT		PT		Significance
	Mean	S.D.	Mean	S.D.	p<
Enhances feeling of personal accomplishment	1.65	.75	1.71	.78	.58
Provides personal satisfaction	1.74	.76	1.83	.78	.35
Provides professional challenge	1.74	.78	1.83	.77	.37
Provides evidence of professional commitment	1.77	.78	2.00	.75	.02*
Validates specialized knowledge	1.83	.73	1.99	.75	.09
Indicates professional growth	1.85	.71	2.04	.75	.05*
Enhances professional credibility	1.85	.82	2.06	.77	.05*
Indicates attainment of a practice standard	1.92	.66	2.1	.73	.04*
Provides evidence of accountability	2.03	.76	2.09	.75	.57
Enhances personal confidence in clinical abilities	2.03	.85	2.20	.83	.11
Indicates level of clinical competence	2.09	.79	2.24	.78	.12
Enhances professional autonomy	2.23	.88	2.35	.82	.26

*Statistically significant

For each of the following four statements the difference was statistically significant;

- Provides evidence of professional commitment $t(239)=5.49, p=.02$
- Indicates professional growth $t(237)=4.02, p=.046$

- Enhances professional credibility $t(236)=4.04, p=.045$
- Indicates attainment of a practice standard $t(240)=4.09, p=.04$.

Comparison of responses to intrinsic statements by cohort group showed mixed results (Table 26). Though the PDRP FT group usually had the highest level of agreement and the Non PDRP part time group the lowest level of agreement, this was not always so.

Using one way analysis of variance, two of the 12 intrinsic value statements showed statistically significant differences between cohorts;

- provides evidence of professional commitment $t(239)=4.83, p=.003$
- provides evidence of accountability $t(238)=2.69, p=.047$

Extrinsic value statements.

The same analysis was conducted on the individual extrinsic value statements with the following findings. PDRP applicants and non applicants agreed with all extrinsic statements except that PDRP “increases consumer confidence” and gains the nurse “recognition from other health professionals”. Both PDRP applicant and non applicant respondents had the highest levels of agreement with the fact that being endorsed on the PDRP resulted in an increase in salary, followed by gaining recognition from the employer and improving marketability.

PDRP participants had a higher level of agreement with all extrinsic statements than non participants (Table 27) with the exception of “increases consumer confidence” for which non PDRP applicants had a higher, but not statistically significant, level of agreement $t(220)=.01, p=.91$. The responses received for two extrinsic statements were statistically significant. These were; “increases marketability” $t(223)=4.07, p=.05$; and “increases salary” $t(239)=6.59, p=.01$, using one way variance of analysis. Other differences were not statistically significant.

Table 26

Intrinsic Value Statements by Cohort

	PDRPFT		PDRPPT		Non FT		Non PT		Significance
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	
Enhances feeling of personal accomplishment	1.57	.74	1.62	.8	1.83	.75	1.83	.75	.15
Provides personal satisfaction	1.65	.78	1.73	.78	1.88	.71	2.00	.78	.08
Provides professional challenge	1.70	.80	1.77	.80	1.81	.74	1.94	.73	.42
Provides evidence of professional commitment	1.70	.77	1.86	.70	1.88	.80	2.22	.79	.003*
Validates specialized knowledge	1.83	.70	1.97	.79	1.81	.77	2.04	.70	.29
Indicates professional growth	1.84	.69	1.99	.75	1.85	.74	2.14	.75	.18
Enhances professional credibility	1.82	.86	1.97	.76	1.88	.73	2.19	.77	.07
Indicates attainment of a practice standard	1.91	2.01	1.95	.66	2.24	.79	2.02	.70	.07
Provides evidence of accountability	1.96	.72	1.96	.72	2.16	.78	2.29	.76	.047*
Enhances personal confidence in clinical abilities	1.99	.85	2.15	.87	2.10	.83	2.29	.79	.29
Indicates level of clinical competence	2.05	.77	2.18	.79	2.14	.80	2.34	.78	.24
Enhances professional autonomy	2.21	.86	2.26	.86	2.28	.75	2.48	.77	.37

* Statistically significant

Table 27

Comparison of Extrinsic Value Statements by PDRP Status

	Total		PDRP		Non PDRP		Significance
	Mean	S.D.	Mean	S.D.	Mean	S.D.	
Recognition of peers	2.28	.80	2.23	.82	2.34	.76	p=.31
Recognition of other health professionals	2.54	.78	2.53	.79	2.54	.78	P=.89
Recognition of Employer	2.02	.72	2.01	.70	2.03	.76	p=.79
Marketability	2.20	.76	2.12	.72	2.33	.79	p=.05*
Consumer Confidence	2.87	.74	2.87	.71	2.86	.79	P=.91
Increases Salary	1.68	.70	1.59	.62	1.83	.80	p=.01*

*Statistically significant

Analysis of response to extrinsic statements by full time equivalency showed that full time respondents had higher levels of agreement than part time respondents for all extrinsic value statements (Table 28). Full time respondents agreed with all extrinsic statements except that PDRP increases consumer confidence. Part time respondents did not agree with this statement either, nor did they agree that PDRP gained the nurse recognition from other health professionals.

Both full time and part time respondents had the highest levels of agreement with the fact that being endorsed on the PDRP resulted in an increase in salary, followed by gaining recognition from the employer and improving marketability (Table 28). Though there were differences in response between the full time and part time respondents this was only significant for “increases salary” using one way test of variance $t(239)=10.48$, $p=.001$.

Analysis of cohorts’ response to the extrinsic value statements showed the PDRP FT group has the highest level of agreement for all statements, but there was no other discernable pattern to where the other cohorts ranked. All cohorts had the highest level of agreement with “increases salary”, followed by “recognition of employer”. All

groups had the least level of agreement with the statement “increases consumer confidence”.

Table 28

Extrinsic Value Statements. A Comparison by Full time/ Part time Status

	FT		PT		Significance
	Mean	S.D.	Mean	S.D.	
Recognition of peers	2.19	.81	2.36	.78	.09
Recognition of other health professionals	2.45	.79	2.62	.78	.10
Recognition of Employer	1.95	.71	2.08	.73	.15
Marketability	2.17	.76	2.23	.75	.49
Consumer Confidence	2.82	.78	2.91	.70	.34
Increases Salary	1.53	.58	1.82	.78	.001*

*Statistically significant

Though there are differences in response to statements between cohorts, only the response to “increases salary” $t(239)=5.61$; $p=.001$ is statistically significant (Table 29).

Analysis of data shows that both participants and non participants perceive PDRP participation to result in higher levels of intrinsic reward than extrinsic reward. With the exception of “increases salary” which was the statement with the highest level of agreement for both PDRP and non PDRP applicants, intrinsic value statements were the ten most agreed with statements for the PDRP group, and nine of the top ten for the non PDRP group. The least agreed with intrinsic statement for both groups was “increases professional autonomy” and the least agreed with statement for both groups was the extrinsic statement “increases consumer confidence”.

Managers and non managers response.

The statements of the PVCT were next analysed by employment status. The respondents were separated into two groups, staff nurses and “managers”. Managers were defined as

Table 29

Extrinsic Value Statements: A Comparison of Cohort.

	PDRPFT		PDRPPT		NonFT		NonPT		Significance
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	p<
Recognition of peers	2.16	.83	2.31	.80	2.24	.77	2.43	.75	.32
Recognition of other health professionals	2.44	.81	2.63	.76	2.50	.74	2.59	.82	.50
Recognition of employer	1.95	.68	2.07	.72	1.95	.74	2.10	.77	.55
Marketability	2.12	.78	2.12	.67	2.26	.73	2.38	.85	.21
Consumer confidence	2.81	.72	2.94	.70	2.85	.87	2.88	.73	.78
Increases salary	1.50	.55	1.69	.67	1.61	.62	2.00	.89	.001*

*Statistically significant

Clinical Nurse Specialists, Clinical Nurse Educators, or Clinical Nurse Managers. Twenty six respondents were categorized as “managers”. The mean PVCT total score, total intrinsic score and total extrinsic score was calculated for both the manager and non manager groups. The total PVCT score could range from 18 (strongly agree with each of the 18 value statements to 72, strongly disagree with each of the statements).

Total intrinsic scores had a possible range of 12 (strongly agree with all statements) to 48 (strongly disagree with all statements). Total extrinsic scores had a possible range of 6 to 24. Results of analysis of means are shown in Table 30.

An independent t-test showed there were no statistically significant differences for the total score, $t(161)=2.20$, $p=.14$; total intrinsic score $t(190)=3.33$, $p=.07$ or the total extrinsic score, $t(184)=.76$, $p=.39$ between groups.

Table 30

PVCT Total Scores by Manager or Non Manager Status

	Total PVCT		Total Intrinsic Score		Total Score	Extrinsic
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Non Manager	36.96	11.41	23.31	7.87	13.65	3.62
Manager	34.63	6.84	21.13	4.57	13.28	2.82

Managers indicate a high level of agreement with most of the value statements related to PDRP participants' practice. Mean values of 1.00 – 2.00 reflect strong agreement with the value statement. Managers rated 12 of the statements from 1.00-2.00, this being 10 of the intrinsic factors and two of the extrinsic factors. Non managers rated only seven of the 18 statements between 1.00 and 2.00 (six intrinsic and one extrinsic).

Managers had a higher level of agreement with every value statement than did the non managers, however, a one way analysis of variance indicated that only the differences for the two intrinsic value statements; “enhances professional credibility” $t(229)=8.94$, $p=.003$ and “provides evidence of professional commitment” $t(231)=6.36$, $p=.012$ were statistically significant between the two groups.

PVCT Findings in Relation to Other Published Findings

For the purposes of comparison the findings from the studies using the PVCT were divided into the results of response to intrinsic and extrinsic value statements. They were further divided into PDRP/Certified respondents and non PDRP/non certified responses so comparison could be made with like groups. Tables were constructed to illustrate the percent agreement with each intrinsic value statement for this study and the four other published studies which use the PVCT.

In addition the intrinsic value statements for each study were ranked from 1 (the statement with the highest level of agreement to 12 the statement with the lowest level of agreement) and comparisons made. The study with the lowest and highest levels of agreement for each value statement was identified and the range and average calculated

Table 31

Mean Values of Intrinsic Value Statements and Comparison Between Nurse Manager and Non-Manager Response

PVCT Value Statements	Mean Value		
	Total Sample	Nurse Managers	Non Managers
Enhances feeling of personal accomplishment	1.70 n=226	1.52 n=25	1.72 n=201
Provides personal satisfaction	1.79 n=225	1.56 n=25	1.82 n=200
Provides professional challenge	1.80 n=226	1.52 n=25	1.83 n=201
Provides evidence of professional commitment	1.90 n=232	1.54 n=26	1.94 n=206
Validates specialized knowledge	1.92 n=232	1.84 n=25	1.93 n=207
Indicates professional growth	1.95 n=230	1.73 n=26	1.98 n=204
Enhances professional credibility	1.97 n=230	1.54 n=26	2.02 n=204
Indicates attainment of a practice standard	2.03 n=233	1.92 n=26	2.04 n=207
Provides evidence of accountability	2.08 n=231	1.85 n=26	2.11 n=205
Enhances personal confidence in clinical abilities	2.12 n=224	1.84 n=25	2.15 n=199
Indicates level of clinical competence	2.17 n=235	2.04 n=26	2.19 n=209

Table 32

Mean Values for Extrinsic Value Statements and Comparison Between Managers and Non Managers Response

Extrinsic Factors

Increases salary	1.69 n=232	1.65 n=26	1.69 n=206
Promotes recognition from employers	2.03 n=228	1.96 n=25	2.03 n=203
Increases marketability	2.21 n=217	2.04 n=24	2.23 n=193
Promotes recognition from peers	2.29 n=226	2.04 n=25	2.32 n=201
Promotes recognition from other health professionals	2.56 n=225	2.50 n=24	2.56 n=201
Increases consumer confidence	2.87 n=216	2..83 n=23	2.88 n=193

for each statement across the studies. Firstly the PDRP/Certified participants' responses and then the non PDRP/Certified participants' responses to the intrinsic value statements were analysed, and then the process was repeated for the extrinsic value statements.

For the total intrinsic statement value, level of agreement was lower for the PDRP applicants in this study than for certified nurses in all the other studies (Appendix 8). When the response to individual intrinsic statements is compared across studies, without exception, the PDRP applicants from this study had the lowest level of agreement with each intrinsic value statement (Appendix 8).

With the exception of "shows professional credibility", certified respondents in Biel (2007) showed the highest level of agreement with each intrinsic value statement. Across all studies "personal accomplishment" and "personal satisfaction" consistently

rated in the highest levels of agreement (Appendix 8), whereas “indicates clinical competence”, “evidences clinical ability”, “improves accountability” consistently showed the lowest level of agreement. For all studies “improves autonomy” received the lowest level of agreement from PDRP/Certified respondents.

Statements were ranked from 1 (the highest level of agreement) to 12 (the lowest level of agreement), for each study. Results show that “personal accomplishment”, and “personal satisfaction” received the highest levels of agreement across the studies with all but Biel (2007) ranking them either 1 or 2. The consistently lowest ranked statements were “enhances professional autonomy and “indicates level of competence”. There was some variation between studies with ranking of other statements with “indicates professional growth” ranging from 3rd highest to 7th highest, and “enhances professional credibility” ranging from 5th to 9th (Appendix 9).

Responses from non PDRP applicants and non certified respondents were compared across studies. There was no clear pattern. The respondents from this study had the second lowest levels of agreement with the total intrinsic score, and the lowest level of agreement for four of the value statements. The respondents from Byrne et al. (2004) received the lowest level of agreement with the other eight intrinsic value statements. The respondents from Niebuhr and Biel (2007) had the highest levels of agreement for nine of the value statements and the other three were from Biel (2007) (Appendix 10).

For each study, responses from the non PDRP/non certified respondents to the intrinsic value statements were ranked from 1 (highest level of agreement) to 12 (lowest level of agreement) (Appendix 11). Rankings for each statement across studies is fairly consistent with “personal accomplishment”, “personal satisfaction”, “specialized knowledge” and “professional challenge” consistently ranking in the top five and “clinical competence”, “clinical abilities”, “accountability” and “autonomy” consistently receiving the lowest levels of agreement.

For all intrinsic statements except “provides evidence of accountability” the Non PDRP respondents from this study were below the average for all studies. Levels of agreement with each statement were relatively consistent across the studies with the range 10.5% or less for seven of the 12 statements. The statement with the most variation in response

between studies was “enhances professional autonomy” with a range from 47-69.9% agreement (22.9% range).

The response to extrinsic value statements by the PDRP/certified study respondents is variable. The respondents from this study attributed the lowest level of agreement of all study respondents to four extrinsic value statements, and the highest to another two statements (“recognition from employers” and “increases salary”) (Appendix 12).

The response to extrinsic value statements by the PDRP/certified study respondents is variable. For four of the extrinsic value statements the PDRP respondents from this study had the lowest level of agreement of all studies, however for the other two statements “recognition from employers” and “increases salary” the respondents from this study had the highest level of agreement (Appendix 12).

Responses to extrinsic value statements for PDRP/certified respondents for each study were ranked from 1 (highest level of agreement) to 6 (lowest level of agreement) (Appendix 13).

Ranking of statements varied considerably between studies. The highest ranked statement by the PDRP respondents in this study “increases salary” was the lowest ranked statement in all other studies. “Promotes recognition from employers” was also ranked more highly by respondents in this study than corresponding respondents in all other studies. The respondents in this study ranked “promotes recognition from peers”, “promotes recognition from other health professionals”, “increases marketability” and “increases consumer confidence” lower than corresponding respondents in all other studies.

Some of the extrinsic statements had large variation in levels of agreement between studies. The statement with the greatest range was “increases salary” which had a 64.2% range in response, followed by “increases consumer confidence” which had a 59.2% range across studies. The statements which had the most consistent response were “increases marketability” with a 13.7% range and “promotes recognition from employers” with an 18.3% range between studies. The statement with the highest average agreement overall was “increases marketability” and that with the lowest was “increases salary”.

There was no clear pattern to findings from non PDRP participants in this study when compared to the findings of the other studies (Appendix 14). For two of the extrinsic value statements the respondents in this study had the lowest levels of agreement, for two they had the second lowest level of agreement and for the other two statements they had the highest level of agreement. Overall, the total extrinsic statement average for the respondents in this study was slightly above the average level of agreement for all studies.

The highest ranked statement overall for non PDRP/non certified respondents was “recognition of peers”, (Appendix 15) though respondents from this study ranked it fourth, it was ranked either first or second in all other studies. In three of the studies “increases marketability” was ranked either first or second, however in this study and that of Biel (2007) it was ranked third and fourth respectively.

The lowest ranked extrinsic statement overall was “increases consumer confidence” with all studies having it ranked either fifth or sixth with an average over studies of 5.1. The statement “increases salary” received the lowest ranking in four of the studies however respondents in this study ranked it highest, resulting in a slightly higher average ranking than “increases consumer confidence”.

The non PDRP respondents from this study, had lower than average levels of agreement with four of the extrinsic statements and higher for two, “increases salary” and “promotes recognition from employers”. There is a large range in levels of agreement with the extrinsic value statements across the studies by the non PDRP/Certified respondents. The statement with the smallest range between studies is “increases marketability” with a 20.3% difference between the highest and lowest studies. The response to four of the statements have some studies showing disagreement with the statement and others showing agreement. The two statements “increases consumer confidence” and “promotes recognition from employers” have a range of 35.4% and 35.5% respectively. The most significant difference however is “increases salary” with a range from 22.2% (strong disagreement with the statement) to 88.2% (strong agreement with the statement) a 66% range.

Ranking of Value Statements

A column was provided on the PVCT and respondents were asked to rank each statement from 1 (most important) to 18 (least important) in motivating them to participate in PDRP. Only 13 respondents completed this part of the questionnaire and therefore analysis was not completed.

Feedback from Open Question about Motivating Factors or De-motivators

While the majority of respondents chose not to add a response to this question n=142, those who did had a variety of answers. Several themes emerged about what motivated or would motivate participation in the programme (Table 33).

Table 33

Qualitative Responses Indicating Motivation to Participate in the CDHB and WC PDRP

Theme	PDRP Applicant	Non PDRP Applicant	Total
Exemption from audit	21	4	25
Financial reward	13	5	18
Personal recognition or challenge	15	3	18
Support or encouragement from peers/manager	7	2	9
A way to articulate professional expertise	3	1	4
For professional recognition	3	1	4
Helps with professional development	2	1	3
Helps with career development/progression	2	1	3
Already had a portfolio for a course	2	1	3
Attendance at a study day	1	1	2
Mandatory as an assessor	2		2

The most commonly cited reason for participating in the PDRP process with the CDHB and WC DHB programme was to exempt the applicant from NCNZ audit. This was cited by 25 respondents, 21 from the PDRP groups and 4 from the non PDRP groups. Two factors; the financial reward of endorsement on the programme, and the personal recognition or challenge associated with the process, were cited by 18 respondents as

factors which would or did motivate participation. Support from peers and managers were also identified by a number (9) of respondents as being important in motivating PDRP participation (Table 33).

The most commonly cited barrier to PDRP participation (Table 34), was related to the unwieldiness of the process, specifically the amount of paperwork and evidence required to support the submission. This was cited by 34 respondents including 14 who had completed the process successfully. The second most common reason was that it was “not the right time”. Some respondents were intending leaving the organisation in the near future, others had family commitments which impacted on their current focus; others had recently moved to their current area of practice and wanted to settle before considering an application to the PDRP. The third most commonly cited barrier to PDRP participation was the belief that the programme does not reflect practice standards. This is a belief held by both PDRP (7) and non PDRP applicants (4) and is supported by the PVCT results.

Table 34

Qualitative Responses Indicating Barriers to Participation in CDHB and WC PDRP

Theme	PDRP Applicant	Non PDRP Applicant	Total
Too much time/cumbersome	14	20	34
Not the right time	1	11	12
Doesn't reflect practice standards	7	4	11
Unable to get time off to fulfill requirements or complete submission	1	8	9
Senior nurse- no advantage	1	5	6
Issue with process/evidence	1	4	5
Money gained doesn't compensate for work required	1	3	4
Negative past experiences		3	3
Lack of encouragement support at unit level		2	2
Lack of knowledge about process	1	1	2
Difficult to complete requirements due to work situation (part-time, non-clinical role)		2	2

Chapter 5 - Discussion

The participants in this study had similar demographic characteristics to those participating in other programmes cited in the literature. However, some of the responses to the PVCT by participants in this study differ significantly to those of other published studies.

Demographic Characteristics

The findings of this study were consistent with those of other studies published in that though there were demographic differences between those who have participated in the CDHB and WC DHB PDRP and those who have not, none of these differences are statistically significant, nor is there a correlation between any specific demographic characteristic and participation or non participation in the PDRP. This would indicate that those who participate in the CDHB and WC PDRP represent a cross section of the nursing population and that no particular group (demographically) is more likely to participate in the process than any other. This would support the premise that factors other than demographic characteristics are the determinant of PDRP participation.

PVCT Results

The PDRP participants in this study had the lowest level of agreement with each intrinsic value statement when compared with other studies, and also therefore, the lowest total intrinsic score. These findings could indicate that the CDHB and WCDHB PDRP programme is not valued as highly by those participating in it than is certification by those who participate in that process. However, an unanswered question is does cultural difference between the participants in this study, and those from other published studies have bearing on the results, as all other studies were conducted in the United States?

Though all statements indicate lower levels of agreement from this study's participants it is especially those which pertain to clinical competence, clinical abilities professional credibility and growth which have the greatest gap between PDRP and certification participants. For the statement "enhances personal confidence in clinical abilities" 23.1% of PDRP and 34.4% of non PDRP respondents disagreed, meaning that nearly a quarter of the PDRP participants and a third of non PDRP participants did not believe that PDRP enhanced clinical competence and 27.6% of PDRP and 32.6% of non PDRP participants disagreed that PDRP endorsement "provides evidence of clinical abilities".

This could indicate that the PDRP process, in the eyes of PDRP participants, is failing to provide evidence of the very factors it was implemented for, namely to show clinical competence and recognize professional development or growth. If this is so, it is a concern, as it could undermine the credibility of the programme and raise the question of what is the current programme actually achieving?

Non PDRP participants in this study, as would be expected, had a lower level of agreement with intrinsic factors than did PDRP participants. However when compared to the corresponding groups from other studies results were usually similar, with some a little higher and others lower. Again, levels of agreement with statements related to clinical competence and clinical ability are amongst the lowest (65-67%) however, they are not dissimilar to findings from other studies.

PDRP participants in this study had neither the highest nor lowest levels of agreement for the extrinsic factor total when compared with other studies, however for three statements the level of agreement was significantly less than all other studies, and for one, significantly higher. Those which were lower were recognition from peers, recognition from other health professionals and increases consumer confidence. These all relate to the visibility of the programme to others. The response to the first two statements could be viewed in a number of ways, firstly the names of those who have participated in the programme which is the focus of this study are not widely publicised, nor is there any physical evidence by way of badge or other indicator of success. These factors may well contribute to the perceived lack of recognition from peers and other health professionals for programme participants, as it is not possible to acknowledge something that you are unaware of. On another level it may relate to the perception that the programme is not measuring clinical ability and competence and therefore its validity is questioned. These factors of visibility and measuring clinical ability and competence could also account for the low level of agreement with the statement that PDRP increases consumer confidence (24.6%) for this study. Whatever the reason for this low rating, the difference between the findings of this study and that of other studies is significant. The level of agreement for this study is less than half that of the next lowest study findings, and less than a third that of the highest study published. This would seem to indicate that the perception is that PDRP does not increase consumer confidence, which is one of the aims of its introduction.

Only the statement “increases salary” received higher levels of agreement from PDRP participants (in this study) than those of certificants in other studies. The differences were significant with this being the statement (intrinsic and extrinsic) which received the highest level of agreement in this study and the lowest level of agreement in all other studies. These differences may be explained by the fact that for the respondents in this study there is actually a corresponding salary increase related to progression on the PDRP, whereas for the respondents in the other studies becoming certified does not lead to a salary increase per se, but may lead to an opportunity to be employed in a position with a higher salary.

Non PDRP study participants had similar responses to extrinsic statements as non-certified participants from other studies, with the exception of “increases salary”. Probable reasons for this difference are explained above. Though there are differences in responses to other extrinsic statements between studies none of these are significant.

Managers in this study had a higher level of agreement with the value statements than did non managers, though numbers who identified as managers were small. A positive factor in nurse managers expressing high levels of agreement with the value of PDRP is that nurse managers hold an influential role in promoting and recognizing PDRP attainment within their work context. Therefore, if they place high value on the programme they are more likely to support staff who wish to participate in the programme and cultivate a positive attitude to the programme.

Summary

The overall findings from this study are consistent with those of other published studies using the PVCT. In all studies;

- both PDRP/certified and non PDRP/non certified participants have a higher level of agreement with the intrinsic than extrinsic value statements
- PDRP/certified participants have higher levels of agreement with both intrinsic and extrinsic value statements than do non PDRP/non certified participants.

However, on average, respondents from both the PDRP and non PDRP groups in this study had lower levels of agreement with intrinsic statements than those from corresponding groups in other studies. In addition the PDRP participants in this study have a lower total extrinsic score than do the corresponding groups from other

published studies . Only the non PDRP participants from this study have higher levels of agreement with the extrinsic value statements than was average for the other studies.

The individual value statements which have the biggest difference between this study and other published studies using the PVCT are; the extrinsic statements, “increases salary” and “enhances recognition from employers”.

Limitations of this Study.

Limitations of this study began with the sampling for the study. Due to the small numbers in some groups of employees, decisions about who to sample were made in consultation with a biostatistician in the initial stages of the research. The predominance of a largely female, registered nursing workforce meant that the numbers of males and enrolled nurses were so small as to exclude them from participation in the study as their small number could skew results. The result was that these voices were not heard, and the opinions expressed, were limited to those of female registered nurses.

Though the use of surveys for data gathering has the benefit of being able to gather data from large groups, and to provide data about a wide range of topics, they also have the disadvantage of providing largely superficial information, and rarely “probe deeply into such complexities as contradictions of human behaviour and feelings” Polit and Beck (2004, p 234). An attempt was made offset this problem and to deepen the information gained by survey by also posing an open question about barriers and motivators to PDRP participation, however many respondents chose not to add further data limiting the data available for analysis.

The study was further limited by the response rate. A response rate of 50% falls short of the 65% that Polit and Beck (2004) state is probably sufficient to remove the risk of nonresponse bias. It is suggested that the researcher should attempt to discover who representative the respondents are relative to the selected sample, in terms of basic demographic characteristics in order to identify bias, however the database that was available did not have sufficient accurate information to allow this. The only method of obtaining demographic data was through the responses received. This means that it was not possible to ascertain whether the respondents in this study were typical of the overall sample, and therefore limited the value of the findings.

Analysis of the data was limited in some instances by the small numbers of respondents in specific groups. This related particularly to the significance of difference of demographic characteristics between the four cohorts (Table 7, p 65).

As stated earlier, some of the information held on the workforce database was not current or accurate which resulted in limitations in the sampling. Some participants were identified as full-time when their response indicated they were part-time, this resulted in their being sampled to the wrong cohort. Data about ethnicity and age amongst other demographic information is not held on the database and therefore ensuring the respondents were representative of the surveyed group was not possible.

Implications of Findings and Further Research

The findings of this study have been described, and comparison with other studies exploring the value of certification made, however the other important questions which need to be addressed are;

- What does this research add to the literature about motivation, barriers and benefits of PDRP?
- What was the intention of the introduction of PDRP in CDHB and WCDHB?
- Has this been met according to the respondents in this study?

As with the published research about PDRP/Clinical career pathways and certification, this study shows that with the exception of an increase in salary it is intrinsic factors which provide the greatest levels of motivation for participation in such a programme. This would indicate that the introduction of further extrinsic rewards for the successful participation in the PDRP may not have a great impact on participation rates.

The commonly cited motivators for participation in such programmes are the personal and professional satisfaction and development which the undertaking of such a process provides (Bjork et al.,(2007), Allen and Girard, (cited in Fetzer (1997), Fetzer, (1997), McClain, Richardson and Wyatt (2004). The findings from this study are consistent with those cited in the literature. PDRP participants in this study ranked personal satisfaction and personal accomplishment as the second and third most highly valued statements, indicating that these intrinsic factors are highly motivating in deciding to undertake submission to the PDRP. These were also the second equal most commonly cited motivators in the qualitative aspect of this study. Further research needs to be

undertaken to identify methods of stimulating this internal motivation and whether removing some of the perceived barriers, and making the process more clinically focused would increase the perceived value of the programme and therefore improve uptake.

For those people who are less intrinsically motivated, the internal rewards such as feelings of personal satisfaction and achievement will be less likely to motivate participation. Deci and Ryan (2000) suggest that when an activity is not “interesting” to the person then the primary reason for participation is if the activity is valued by someone significant to them. The question which needs to be answered is, whose opinion do nurses value? Is it patients, peers, managers or other health professionals? If these people can value the PDRP then it may motivate other nurses to participate.

Currently it is not clear who has participated in the PDRP process and been successful or at what level. Whilst success is announced to the individual, the manager, payroll and the Director of Nursing and sometimes published in the hospital newsletter, those who have been endorsed on the programme are not visible to peers, other health professionals or consumers. Those statements which received lower rankings by this study’s respondents all relate to the visibility of the success of applicants. This raises two questions. If the individual’s PDRP status is more widely advertised would the programme gain more respect and value from patients, peers and fellow health professionals and therefore increase people’s motivation to participate?

The second consideration is, if it is not public knowledge as to the PDRP status of individual nurses how can the public be assured of the nurse’s competence other than the fact the nurse has a practising certificate? And how does this impact on the status of PDRP?

Though, all those who participate in a PDRP endorsed by NCNZ have met the competency requirements set by NCNZ and are therefore deemed “competent”, findings from this research indicate that there is a degree of disagreement that the PDRP process is an accurate measure of clinical competence. From the qualitative responses to factors which created a barrier to PDRP participation, the comment that the process “does not reflect practice standards” was the third most highly cited. These factors suggest that while the majority of surveyed nurses feel that the process does provide evidence of clinical competence there is a group which does not believe the process is a true measure. Ryan and Deci (2000), state that in order for someone to participate in an

activity they must be able to grasp its meaning and worth, and furthermore that it must reflect their own values and beliefs.

It is suggested therefore that in order to remove this perceived barrier and to ensure that the PDRP process does truly reflect clinical competence a review of the programme needs to be undertaken which aligns the evidential requirements more closely with the NCNZ competencies related to clinical competence in consultation with nurses at the coalface.

The most commonly cited barrier to PDRP participation was that the process is too cumbersome and time consuming. Ryan and Deci (2000) suggest participation in a process is more likely if the person understands the process and is likely to succeed. These findings support a review of the submission process and a review of the evidential requirements to increase the quality and decrease the quantity of evidence being required for submission to make the process more manageable for the nurse submitting to the programme.

One of the main purposes for the introduction of PDRP or clinical recognition systems was to address recruitment and retention issues for nurses due to world-wide nursing shortages. This study does not explore the impact of the introduction of the PDRP on recruitment and retention of nursing staff at the CDHB or WCDHBs. Though the effect of PDRP on recruitment and retention would be difficult to measure due to a number of factors such as all DHB's within New Zealand now have a PDRP, and status is transferable nationally, it is an important measure of the value of PDRP and evidence that the programmes are meeting the purpose for which they were implemented.

Future research into PDRP in New Zealand needs to be undertaken to evaluate whether current programmes are fulfilling the purpose for which they were implemented. Does the existence of the current PDRPs have any impact on attracting people to nursing, or where nurses choose to be employed? How well do current PDRPs actually measure clinical ability or competence of nurses and how does this transfer to consumer confidence? Has the mandatory existence of PDRPs for nurses within District Health Boards had any impact on levels of job satisfaction or feelings of recognition for nurses?

With appropriate research to answer these questions the true value of PDRP to the nursing profession, individual nurses and consumers can be determined.

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Appendix 1

Permission to conduct research with CDHB and to name organisation in thesis.

Canterbury

District Health Board

Te Poari Hauora o Waitaha

Corporate Office

Level 2, The Princess Margaret Hospital
97 Cashmere Rd,
PO Box 1600, Christchurch

Tel: (03) 364 4104
Fax: (03) 364 4101
mary.gordon@cdhb.govt.nz

29 January 2009

Helen Bloomer
Registered Nurse
Burwood Hospital

Dear Helen

Re: Permission to Name Canterbury District Health Board in Your Thesis

I am writing to confirm that you had permission from me to conduct your research relating to our Professional Development & Recognition Programme. I am also willing to grant permission for you to name the DHB in your thesis. This is in recognition that your research was specific to our programme and did not include any other organisation.

I am pleased to hear that you are close to submitting your thesis and I am sure you will be pleased to have this work behind you.

Regards



Mary Gordon
Executive Director of Nursing

Appendix 2

Upper South A Regional Ethics Committee Approval Letter .

21 September 2008

Helen Bloomer
358 Hereford Street
Christchurch

Dear Helen Bloomer

The Canterbury District Health Board Professional Development and Recognition Programme for Nurses: A comparative study of participant and non-participant demographic characteristics, perceptions of the programme, and motivational factors for participation

Investigators: H Bloomer, L Whitehead (supervisor)

Ethics ref: URA/08/26/EXP

The above study has been given ethical approval by the **Chairperson** of the Upper South A Regional Ethics Committee.

Approved Documents

Information sheet (please insert the full study title, and date 10 September 2008 in the footer)

PVCT©

Demographic Questionnaire (please insert the date 10 September 2008 in the footer)

Progress Reports

The study is approved until **31 December 2009**. The Chairperson will review the approved application annually and notify the Investigator if they withdraw approval. It is the Investigator's responsibility to forward a progress report prior to ethical review of the project in **September 2009**. The report form is available on <http://www.ethicscommittees.health.govt.nz>. Please note that failure to provide a progress report may result in the withdrawal of ethical approval. A final report is also required at the conclusion of the study.

Amendments

It is also a condition of approval that the Committee is advised if the study does not commence, or is altered in any way, including all documentation eg advertisements, letters to prospective participants.

Please quote the above ethics committee reference number in all correspondence.

It should be noted that Ethics Committee approval does not imply any resource commitment or administrative facilitation by any healthcare provider within whose facility the research is to be carried out. The organisation may specify their own processes regarding notification or approval.

We wish you well with your study.

Yours sincerely

Alieke Dierckx

Upper South A Ethics Committee Administrator

Alieke_dierckx@moh.govt.nz

Appendix 3

Demographic Questionnaire



1. Have you submitted an application to the CDHB PDRP? Yes No

2. Were you successful? Yes No
 Have not heard

3. If yes, at what level?

4. If you have not submitted an application do you intend to do so in the next 12 months? Yes No

5. If not, do you have any intention of making an application to the programme? Yes No
 Maybe

6. What is your age?

7. Which ethnic group do you belong to? New Zealand European
(Mark the space or spaces which apply to you) Māori
 Samoan
 Cook Island Maori

- Tongan
- Niuean
- Chinese
- Indian
- Other (such as English, Dutch, Japanese etc)

If other, please specify

8. How many dependents do you have responsibility for?

- 0 1 2 3 4 ≥5

9. At what CDHB site do you work? e.g. Christchurch Public, Burwood, TPMH, Hillmorton

10. What clinical area do you work in? e.g. CCU, ICU, PACU, Community Mental Health, Ward 15

11. How long have you worked in this area?

12. How long have you worked for CDHB?

13. How long have you been nursing?

14. How many hours do you work per fortnight?

15. What is your current role?

- SN1 SN2 SN3 SN4 SN5 Other

(Please specify)

16. What qualification did you begin nursing with?

- Hospital trained

- Polytech diploma
- Bachelor
- Other

(Please specify)

17. What is your highest nursing related qualification now? Hospital

- Diploma
- ADN
- Graduate Cert
- PG Cert
- PG Diploma
- Bachelor
- Master
- Other

(Please specify)

18. In what country did you first gain registration? NZ _____ Other

(Please specify)

19. How long have you worked in New Zealand as a nurse?

20. Have you participated in a similar professional recognition programme in New Zealand? Yes No

21. Have you participated in a similar professional recognition programme overseas? Yes No

Thank you for completing this questionnaire

Appendix 4

Perceived Value of Certification Tool[©]

PERCEIVED VALUE OF CERTIFICATION TOOL (PVCT)[©]

Directions: Below are 18 value statements. Could you please apply these statements to the **CDHB Professional Development Recognition Programme (PDRP)** and indicate the degree to which you agree or disagree with the statements by circling SA for strongly agree, A for agree, D for disagree, SD for strongly disagree, or NO for no opinion.

In addition could you please rank these factors from 1-18 depending on how important you feel they are in **motivating** participation in the CDHB PDRP, with 1 being the most important and 18 the least.

	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion	Motivation Ranking
Validates specialised Knowledge	SA	A	D	SD	NO	
Indicates level of competence	SA	A	D	SD	NO	
Indicates attainment of a practice standard	SA	A	D	SD	NO	
Enhances Professional Credibility	SA	A	D	SD	NO	
Promotes recognition from peers	SA	A	D	SD	NO	
Promotes recognition from other health professionals	SA	A	D	SD	NO	
Promotes recognition from employers	SA	A	D	SD	NO	
Increases consumer confidence	SA	A	D	SD	NO	

Enhances feeling of personal accomplishment	SA	A	D	SD	NO	
Enhances personal confidence in clinical abilities	SA	A	D	SD	NO	
Provides personal satisfaction	SA	A	D	SD	NO	
Provides professional challenge	SA	A	D	SD	NO	
Enhances professional autonomy	SA	A	D	SD	NO	
Indicates professional growth	SA	A	D	SD	NO	
Provides evidence of professional commitment	SA	A	D	SD	NO	
Provides evidence of accountability	SA	A	D	SD	NO	
Increases marketability	SA	A	D	SD	NO	
Increases salary	SA	A	D	SD	NO	

Do you have any other factors which would or did motivate you to participate in the CDHB PDRP? If so could you please write them below.

Appendix 5

PVCT Permission Letter

September 15, 2008

Dear Helen:

Thank you for submitting the materials required to receive permission to use the CCI Perceived Value of Certification Tool (PVCT[®]). We reviewed the information and are pleased to grant you permission to use the instrument.

As a reminder, this permission is granted with following conditions:

- You will use the instrument without modifications.
- You will include the necessary copyright statement at the bottom of all photocopies.
- You will use the instrument only for the purposes of the research project you originally submitted.
- You will provide CCI with any validity and reliability data you derive from the PVCT[®] based on your sample.

Thank you for your interest in the PVCT[®], and best of luck with your work. We look forward to hearing from you.

Sincerely,



Shannon S. Carter, MA, CAE

Chief Executive Officer

Appendix 6

Information Sheet for Study Participants.



Study Title: The Canterbury District Health Board Professional Development and Recognition Programme for Nurses: A Comparative Study of Participant and Non-participant Demographic Characteristics, Perceptions of the Programme, and Motivational Factors for Participation.

Principal Investigator: Helen Bloomer, Staff Nurse, PACU, Burwood Hospital and Master Student, Centre for Postgraduate Nursing Studies, University of Otago. Telephone 383 6836 ext 99972 or e-mail helen.bloomer@cdhb.govt.nz.

Supervisor: Dr Lisa Whitehead, senior lecturer, University of Otago. E-mail lisa.whitehead@otago.ac.nz. Please feel free to contact either of us for further information about the study.

Introduction:

You are invited to take part in a research study that will explore the Canterbury District Health Board Professional Development Recognition Programme.

The study will provide a deeper understanding of who is, and is not, participating in the programme and what factors motivate participation. Having this data will help focus future planning and education for participants, about the programme. Would you please

assist me by completing the enclosed questionnaire? Your opinions are very important and are needed to gain an accurate picture of CDHB PDRP participation and motivation.

You have been chosen either because you have participated in the programme or else because you will be part of the comparison group. **This does not mean you have to take part.**

The study will involve the completion of the enclosed questionnaire. Your name has been coded to ensure anonymity, personal information is not available to the researcher and therefore will not be available for any prospective publication. I therefore hope you will feel comfortable about giving your honest opinions. If you prefer not to answer a particular question please feel free to leave it blank. Please do answer questions if you can though – it should only take about 10 minutes of your time. To analyse the information in a timely fashion I ask that you return the questionnaire by November 28th.

If a response has not been received after seven days a reminder will be sent out. A final reminder will be sent out after a further two weeks to non-respondents. If the questionnaires are not returned by this stage it will be deemed that you have decided not to participate in this study, and no further contact will be made. Completed questionnaires will be kept in a locked filing cabinet in a secure office. After five years all data will be destroyed.

This study will take 18 months to complete and you will be sent the results of the study if you want to receive this.

Results will be written up in the thesis and may also be published in nursing journals. Results may also be presented at conferences in the future. Any results will be shared in general terms only and detail which could allow identification of specific participants will not occur. Your participation is entirely voluntary (your choice). You do not have to take part, and if you choose not to take part this will in no way affect your employment.

You can get more information about the study from Lisa Whitehead at the address given at the top of the page.

If you have any queries or concerns regarding your rights as a participant in this study you may wish to contact a Health and Disability Advocate, telephone:

- South Island except Christchurch 0800377 766
- Christchurch 03 377 7501

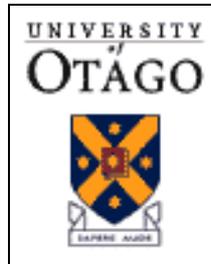
Thank you very much for your co-operation and assistance in this endeavour. If you have any questions or would like a copy of the summary of results of this study please let me know by email.

This study has received ethical approval from the Upper South Ethics Committee, and approval from Mary Gordon, Executive Director of Nursing, at Christchurch Public Hospital.

Please feel free to contact the researcher if you have any questions about this study.

Appendix 7

Follow Up Letter to Study Participants.



Study Title: The Canterbury District Health Board Professional Development and Recognition Programme for Nurses: A Comparative Study of Participant and Non-participant Demographic Characteristics, Perceptions of the Programme, and Motivational Factors for Participation.

Principal Investigator: Helen Bloomer, Staff Nurse, PACU, Burwood Hospital and Master Student, Centre for Postgraduate Nursing Studies, University of Otago. Telephone 383 6836 ext 99972 or e-mail helen.bloomer@cdhb.govt.nz.

Supervisor: Dr Lisa Whitehead, senior lecturer, University of Otago. E-mail lisa.whitehead@otago.ac.nz. Please feel free to contact either of us for further information about the study.

Dear Study participant,

You were randomly selected to participate in the above study, and should have received a package including information and questionnaires in the past two weeks.

Though there has been a good response to the study numbers returned so far are insufficient to validate the study, so I am urging you, if you have not done so to please complete and return the questionnaires you received as soon as possible.

This is an important piece of research which will help us to understand the PDRP process at CDHB better and allow for future planning and education about the programme.

If you are keen to complete the questionnaire and have not received one, or have misplaced the first copy could you please advise Suellen at the PDRP office Christchurch Hospital ext 81774 or suellen.knopic@cdhb.govt.nz; who will arrange for another copy to be sent to you. Remember the process involved in the handling of the completed questionnaires ensures that the responses are not traceable to a specific participant.

Thank you in anticipation,

Helen Bloomer

Appendix 8

Percent Agreement with Intrinsic Value Statements for PDRP/Certificants: A Comparison Between Studies

	Bloomer *	Biel (2007)	Byrne et al. (2004)	Sechrist et al. (2006)	Niebuhr and Biel. (2007)	Average
Intrinsic	PDRP	Cert	Cert	Cert	Cert	
Personal accomplishment	91.1	99.1	97.2	98.6	98.7	96.9
Personal satisfaction	94.1	98.3	96.6	98.2	98.2	97.1
Specialised knowledge	86.5	99.1	95.2	95.8	98.7	95.1
Professional challenge	85.4	96.5	91.8	93.7	95.9	92.7
Practice standard	88.4	97.4	92.8	92.0	95.9	93.3
Professional credibility	78.9	96.6	90.9	93.9	97.1	91.5
Professional growth	83.7	98.7	93.7	94.7	97.0	93.6
Professional commitment	87.2	97.4	92.2	93.9	97.0	93.5
Clinical competence	76.9	91.5	82.1	83.6	87.9	84.4
Clinical abilities	72.4	94.9	85.0	87.0	90.7	86.0
Accountability	81.6	95.3	81.9	83.4	88.6	86.2
Autonomy	63.4	87.0	69.9	75.8	81.7	75.6
Intrinsic average	82.5	96.0	89.1	91.0	94.0	90.5

*This study

Appendix 9.

Ranking of Intrinsic Statements for PDRP/Certified Respondents: A Comparison Between Studies

	Bloomer*	Biel (2007)	Byrne et al. (2004)	Sechrist et al. (2006)	Niebuhr and Biel. (2007)	Average
Intrinsic	PDRP	Cert	Cert	Cert	Cert	
Personal accomplishment	2	1=	1	1	2	1.4
Personal satisfaction	1	4	2	2	1	2
Specialised knowledge	5	1=	3	4	3	3.2
Professional challenge	6	8	7	7	7	7
Practice standard	3	5=	5	8	6	5.4
Professional credibility	9	7	8	5=	5	6.8
Professional growth	7	3	4	3	4	4.2
Professional commitment	4	5=	6	5=	5	5
Level of competence	10	11	10	10	11	10.4
Clinical abilities	11	10	9	9	10	9.8
Accountability	8	9	11	11	9	9.6
Autonomy	12	12	12	12	12	12

*This study

Appendix 10

Percent Agreement with Intrinsic Value Statements for Non PDRP/Certified Respondents: A Comparison of Studies

	Bloomer *	Biel (2007)	Byrne et al. (2004)	Sechrist et al. (2006)	Niebuhr and Biel. (2007)	Average
Intrinsic	Non PDRP	Non Cert	Non Cert	Non Cert	Non Cert	
Personal accomplishment	86.4	92.1	94.9	94.3	95.8	92.7
Personal satisfaction	81.9	88.4	92.2	94.1	94.6	90.2
Specialised knowledge	83.5	90.2	83.0	88.7	92.9	87.7
Professional challenge	86.5	91.2	83.6	88.7	92.4	88.5
Practice standard	77.4	86.4	79.1	83.9	86.0	82.6
Professional credibility	76.8	86.8	73.4	84.0	90.3	82.3
Professional growth	84.8	84.9	79.8	86.8	90.1	85.3
Professional commitment	75.0	83.9	74.7	80.7	85.2	79.9
Clinical competence	65.6	72.5	61.6	68.5	70.0	67.6
Clinical abilities	67.4	78.7	69.7	77.4	80.7	74.8
Accountability	67.4	69.0	57.5	61.0	71.1	65.2
Autonomy	58.4	69.9	47.0	60.9	68.2	60.9
Intrinsic average	75.9	82.8	74.7	80.8	84.8	79.8

* This study

Appendix 11

Ranking of Intrinsic Statements by Level of Agreement for Non PDRP/Certified Respondents: A Comparison Between Studies

	Bloomer *	Biel (2007)	Byrne et al. (2004)	Sechrist et al. (2006)	Niebuhr and Biel. (2007)
Intrinsic	NonPDRP	NonCert	NonCert	NonCert	NonCert
Personal accomplishment	2	1	1	1	1
Personal satisfaction	5	4	2	2	2
Specialised knowledge	4	3	4	3	4
Professional challenge	1	2	3	4	3
Practice standard	6	6	6	7	6
Professional credibility	7	5	8	5	7
Professional growth	3	7	5	6	5
Professional commitment	8	8	7	8	8
Clinical competence	11	10	10	11	10
Clinical abilities	9=	9	9	9	9
Accountability	9=	12	11	10	11
Autonomy	12	11	12	12	12

* This study

Appendix 12

Percent Agreement with Extrinsic Statements for PDRP/Certified Respondents: A Comparison Between Studies

	Bloomer *	Biel (2007)	Byrne et al. (2004)	Sechrist et al. (2006)	Niebuhr and Biel. (2007)	Average
Recognition from peers	63.4	91.4	72.2	78.4	90.4	79.2
Recognition from other health professionals.	40.7	85.5	66.8	74.2	86.0	70.6
Recognition employers	82.0	79.5	63.7	70.0	80.4	75.1
Consumer confidence	24.6	83.8	50.5	56.4	74.8	58.0
Marketability	74.8	88.5	75.5	78.8	86.6	80.8
Increases salary	95.9	40.0	30.7	39.1	43.6	49.8
Extrinsic average	63.6	78.1	59.9	66.2	69.9	67.5

*This study

Appendix 13

Ranking of Extrinsic Statements By Level of Agreement for PDRP/Certified Respondents: A Comparison Between Studies

Extrinsic	Bloomer *	Biel (2007)	Byrne et al. (2004)	Sechrist et al. (2006)	Niebuhr and Biel. (2007)	Average
Recognition from peers	4	1	2	2	1	2
Recognition from other health professionals.	5	3	3	3	3	3.4
Recognition from employers	2	5	4	4	4	3.4
Consumer confidence	6	4	5	5	5	5
Marketability	3	2	1	1	2	1.8
Increases salary	1	6	6	6	6	5

*This study

Appendix 14

Percent Agreement with Extrinsic Value Statements for Non PDRP/ Non Certified Respondents: A Comparison of Studies.

	Bloomer * %	Biel (2007) %	Byrne et al. (2004) %	Sechrist et al. (2006) %	Niebuhr and Biel. (2007) %	Average % agreement
Recognition from peers	62.0	78.7	54.8	64.3	81.0	68.2
Recognition from other health professionals.	48.8	74.3	53.0	62.8	79.1	63.6
Recognition from employers	81.1	70.5	45.6	59.3	70.2	65.2
Consumer confidence	27.6	63.0	33.1	45.4	61.6	46.1
Marketability	62.9	70.0	58.8	68.7	79.1	67.9
Increases salary	88.2	36.6	22.2	32.4	35.4	43.0
Extrinsic average	61.8	65.5	44.4	55.5	67.7	59.0

*This study

Appendix 15

Extrinsic Value Statements Ranked By Level of Agreement for Non PDRP/ Certified Respondents: A Comparison of Studies

	Bloomer*	Biel (2007)	Byrne et al. (2004)	Sechrist et al. (2006)	Niebuhr and Biel. (2007)	Average
Recognition from peers	4	1	2	2	1	2
Recognition from other health professionals.	5	2	3	3	2=	3
Recognition from employers	2	3	4	4	4	3.4
Consumer confidence	6	5	5	5	5	5.1
Marketability	3	4	1	1	2=	2.1
Increases salary	1	6	6	6	6	5

*This study