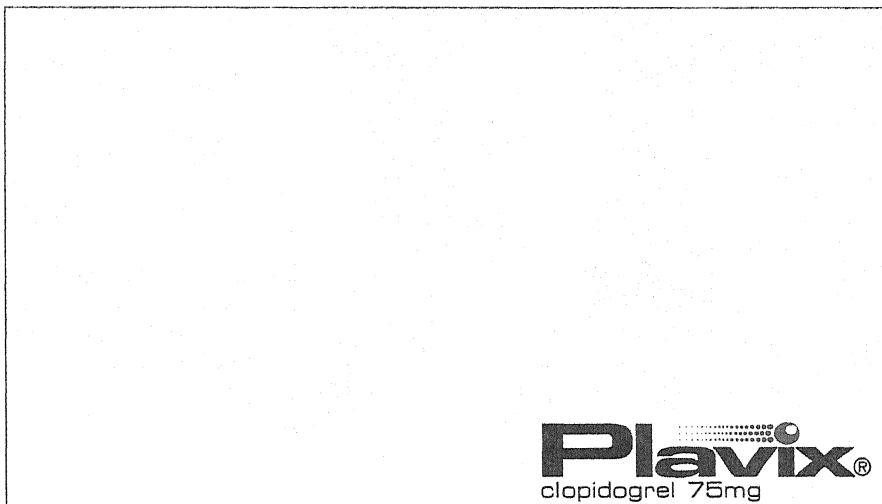


Nurses' Perceptions of the Provision of Quality Nursing Care to Post Procedure Elective Percutaneous Transluminal Coronary Angioplasty (PTCA) Patients

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ABSTRACT

This grounded theory study was conducted in a large Metropolitan Hospital, Queensland, Australia, to explore and describe nurses' perceptions of quality nursing care and factors that affect quality nursing care provided to patients undergoing Percutaneous Transluminal Coronary Angioplasty (PTCA) procedures. Data were gathered from focus group interviews, participant observations, in-depth interviews and published literature. Information was recorded using an audio recorder during the focus group sessions and note-taking during the participant observations and in-depth interviews. Thirty-five registered nurses from a Cardiac Investigation Unit (CIU) and a Coronary Care Unit (CCU) participated in the study. The process of data collection, analysis and theory formulation occurred by using a constant comparative data approach suggested by Strauss and Corbin (1990).

The results of this study showed that the nurses viewed quality nursing care as the combination of *basic*, *personal* and *application standards*. The participants perceived quality as a complex concept. Quality of nursing care was reflected best when nurses combined *basic standards* - '*doing to*' with *personal standards* - '*being with*' to become the core concept of *application standards*, which represented the nurse-patient relationship and a marriage of expectations that both the nurse and the patient have. This study identified a range of conditions that affect the provision of quality nursing care for elective PTCA patients. These conditions were later grouped into three categories, structure, process and culture. Their relationship with the theory of quality was examined and discussed.

This study recommended that nurses develop strategies to provide innovative ways in which to overcome the conditions that reduce time available for conducive nurse-patient relationships and to achieve the marriage of expectations.

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DECLARATION

I certify that the main text of this thesis is entirely my own work and as such work has not been previously submitted as a requirement for the award of a degree at Central Queensland University or any other institution of higher learning.

Signature Redacted

Signature:

Mrs Sonja R Cleary

Date: 21.09.01

CHAPTER 1

OVERVIEW OF THE STUDY

1.1 Introduction

This dissertation reports on a research study that examined nurses' perceptions of quality and factors that affect quality nursing care provided to elective Percutaneous Transluminal Coronary Angioplasty (PTCA) patients in a large Metropolitan Hospital, in Queensland, Australia. The study examined existing literature concerned with quality of nursing care provided to patients following PTCA, challenged the definitions of nursing quality, and reflected on the factors that affect the quality nursing care practices as implemented by nurses when caring for elective PTCA patients. The findings of this study have resulted in the development of a conceptual framework of quality nursing care and identification of the factors that affect the provision of quality nursing care to elective PTCA patients.

1.2 Purpose of the Study

The purpose of this study was to present a grounded theory which explored and described concepts that shape the nurses' perception of quality nursing care and identified the factors that influenced the provision of quality nursing care for PTCA patients.

The objectives that directed this study were:

1. To explore and describe the nurses' perceptions of the meaning of quality nursing care for the PTCA patient.

2. To identify the factors that affect the provision of quality nursing care for the PTCA patient.
3. To develop a conceptual framework which outlines the concepts related to the provision of quality nursing care for the PTCA patient, as defined by the nurses who provide the care.

1.3 Research Questions

Two research questions were addressed by this study:

1. How do nurses who provide care to PTCA patients define quality nursing care?
2. What factors affect the provision of quality nursing care for the PTCA patient?

1.4 Rationale and Significance of the Study

It is important to answer these research questions because the nursing care and management of the PTCA has undergone considerable change over the last decade (Myler 1989; Ruygrok & Surruys 1996; Apple & Lindsay 2000; Higgins, Dunn & Theobald 2000; Woods, Froelicher & Motzer 2000). Innovations in both the technique of the procedure and improved technology have ensured that this once complex procedure is now considered routine (Myler 1989; Ruygrok & Surruys 1996; Meluch & Mitchell 1997; Kimble, & King 1998; Tooth, McKenna & Maas 1999; Apple & Lindsay 2000; Cronin, Freeman, Ryan & Drake 2000; Higgins et al. 2000). The length of hospitalisation for the elective PTCA patient has been markedly reduced, from four days to approximately twenty four hours, with some hospitals now undertaking the procedure in a day case outpatient setting (Ruygrok & Surruys 1996; Meluch & Mitchell 1997; Kimble & King 1998; Tooth et al. 1999; Apple & Lindsay 2000; Cronin

et al. 2000; Higgins et al. 2000). This evident reduction in hospitalisation time reflected current health care initiatives based on economic constraints and consideration of the decreases in post procedure complications (Kimble & King 1998; Higgins et al. 2000). The impact of these changes on the relationship between the elective PTCA patients and the quality of the nursing care provided has not been examined in nursing literature.

It is essential that the objectives set for this project be addressed as the outcome from the results of this study will challenge the existing nursing practice for caring for elective PTCA patients. Knowledge gained will guide development of new hospital units designed for the future care of PTCA patients. Although the theory was derived by examining the perceptions of nurses providing care to a subset of patients (elective PTCA), some concepts that emerged will add support to other researchers who attempt to understand the complexity of quality nursing care (Williams 1998; Irurita 1999; Redfern & Norman 1999).

1.5 Outline of the Thesis.

There are seven chapters presented in this thesis. The next chapter, Chapter 2 presents the study background and literature examined prior to the study that offered an overview definition of what is known about care of the PTCA patient and quality. Chapter 3 describes the methodology used in this study, outlines reasons for applying selected data collection and analysis methods. It will explain the strategies used to ensure that the data collection and data analysis used remained faithful to the purpose of the study.

Chapter 4 explains the development of the conceptual framework indicating the emergence of the three core concepts of quality. The three core concepts that nurses

perceived as defining quality nursing care: basic standards, personal standards and application standards, are then discussed in depth. Comparisons are then drawn with existing literature.

Chapter 5 identifies the three categories of conditions that affect the provision of quality nursing care for the PTCA patients: structure, process and culture. The impact of these conditions on the core concepts that define the nurses perception of quality nursing care will be examined and comparisons will be made with existing literature.

Chapter 6 presents the discussion of the findings of this study. The theory of quality will be examined in light of current literature available on quality nursing care and the care of the PTCA patient.

Chapter 7 summarises the conceptual framework developed and gives final conclusions. Recommendations are then made. Limitations of the study are identified. The application of research results to strategies which may improve future nursing care of the PTCA patient are discussed. Potential further research are suggested.

CHAPTER 2

BACKGROUND OF THE STUDY

2.1 Introduction

This chapter examines the factors that influenced the decision to pursue this study. In keeping with the grounded theory methodology, only literature related to the definitions of PTCA and quality were examined prior to the study. The following sections are an overview of what is currently known about the topic areas and definitions: the PTCA procedure, care of PTCA patients, care of PTCA patients at the study hospital and examination of quality.

2.2 The PTCA Procedure

PTCA is a non surgical treatment modality available to patients with coronary artery disease, as an alternative to medical treatment or coronary artery bypass surgery (Ott 1982; Partridge 1982; Bredlau, Roubin, Leimgruber, Douglas, King III, & Gruentzig 1984; Gershan & Jiricka 1984; Myler 1989; McKenna 1992; Woods et al. 2000). The aim of PTCA is to increase the arterial lumen size, utilising a balloon tipped catheter that splits and reshapes the atheromatous material pushing it to the wall of the artery, thus allowing greater blood flow. Revascularisation of the myocardium assists in the reduction of angina incidence and increasing the survival rate of patients with ischaemic heart disease (Ott 1982; Partridge 1982; Gershan & Jiricka 1984; McKenna 1992). Since the first PTCA was successfully performed in 1977 by Dr Andreas Gruentzig in Zurich, Switzerland (Ott 1982; Gershan & Jiricka 1984; Myler 1989; McKenna 1992; Ryan, Bauman, Kennedy, Kereiakes, King III,

McCallister, Smith, & Ulliyot 1993), the procedure and equipment used to perform PTCA have significantly developed ensuring a safer technique (Myler 1989; Bredlau et al, 1984; McKenna 1992; Ryan et al. 1993; Woods et al. 2000). One important development was the introduction of the coronary stent, a metallic scaffolding device that was developed to overcome two complications of PTCA alone: restenosis and arterial dissection (Colombo, Hall, Nakamura, Almagor, Maiello, Martini, Gaglione, Goldberg & Tobis 1995; Ruygrok & Surruys 1996). The introduction and use of intracoronary stent impacted positively on the management of the PTCA patient, as it reduced complications associated with acute coronary artery closure resulting from dissection of the coronary artery (Ryan et al. 1993; Gardner, Joyce, Iyer, Mowery, Olsen & Piontek 1996; Woods et al. 2000).

This evolution in the PTCA procedure has influenced the provision of nursing care for this group of patients (Partridge 1982; McKenna 1992; Drew & Tisdale 1993; Woods et al. 2000). Historically nursing care of PTCA patients after the procedure was undertaken in a high dependency area such as a Coronary Care Unit (Ott 1982; Partridge 1982; Gershan & Jiricka 1984; Halfman-Franey, Tukan, Bergstrom & Hoffman 1991; McKenna 1992; Shaffer & Ruiz, 1992; Gardner et al. 1996; Meluch & Mitchell 1997). High dependency areas were used as they provide continuous electrocardiograph (ECG) monitoring and nursing staff considered to have advanced skills and knowledge, who would promptly identify early signs of acute vessel closure and vascular access site complications (Ott 1982; Partridge 1982; Gershan & Jiricka 1984; Halfman-Franey et al. 1991; McKenna 1992; Shaffer & Ruiz 1992; Gardner et al. 1996; Meluch & Mitchell 1997; Woods et al. 2000).

2.3 Care of PTCA Patients

A number of nursing studies related to the care of PTCA patients have been conducted to examine specific aspects of nursing care, these included: the most appropriate lead configurations of a continuous ECG monitoring system (Drew & Tisdale 1993), the most effective time and methods of achieving haemostasis following the removal of the femoral arterial sheath (Schickel, Cronin, Mize & Voelker 1996; Homes & Hollabaugh 1997; Rudisill, Williams, Craig & Schoop 1997; Walker, Cleary & Higgins 2001), and the correct time to commence ambulation following the PTCA procedure (Price & Fowlow 1994; Keeling, Fisher, Haugh, Powers, & Turner 2000). A few qualitative nursing studies focussed on the patients' experience and perceptions of the PTCA procedure (Gulanick, Bliley, Perino & Keough 1997, 1998; Higgins et al. 2000), although these studies did not specifically examine the perceptions of nursing care provided. There were no published studies which examined the constituents of quality nursing care and factors that may affect the provision of quality nursing care for PTCA patients.

2.4 Care of PTCA Patients in the Study Hospital

The major reason which influenced the conduct of this study in the selected study hospital, was that it was the only hospital that provided nursing care to post procedure PTCA patients in an environment without continuous ECG monitoring at the time of investigation. The practice of post procedure nursing care for elective PTCA patients in an environment without continuous ECG monitoring was initiated at the study hospital in 1993. As practiced elsewhere, prior to 1993 all PTCA patients received post procedure nursing care in the Coronary Care Unit (CCU). The decision to initiate the practice of caring for post procedure PTCA patients in an environment with no facility to provide continuous ECG monitoring, was influenced by a number of factors. The most pertinent factor was the need to meet the demand and increase the number of PTCA patients (Dr McEniery, P., 1997 pers. comm., 7 March). However, the number of CCU beds available to PTCA patients was transient depending on acute myocardial infarction and arrhythmia patients who had a higher priority and required admission in the same unit (Cleary, Dahl & Paine 1999).

At the study hospital nursing care of patients who have undergone elective PTCA procedures was provided in two locations: a Cardiac Investigations Unit (CIU) and Coronary Care Unit (CCU). The underlying factor that determined the location of post procedure care of the PTCA patient depended primarily on the availability of beds and staff in CIU (Cleary et al.1999). The notable difference in nursing practices between the CIU and CCU was that the patients in the CCU were attached to continuous ECG monitoring, while the CIU had no facilities for continuous ECG monitoring. At the time of this study nursing PTCA patients in an area without continuous ECG monitoring was a new practice not

undertaken at other hospitals in Queensland. This innovative change to the care of post PTCA patients required research to be undertaken to examine the quality of nursing care provided to PTCA patients. This study aimed to explore and describe nurses perceptions of the quality of nursing care provided to patients following PTCA, in order to understand the impact of this practice and other issues related to the care of PTCA patients.

2.5 Examination of Quality

What is quality? From the examination of the meaning of quality and quality nursing care in published literature it was difficult to uncover a universal definition (Donabedian 1988; Jackson-Frankl 1990; Redfern & Norman 1990; Fitzpatrick, While & Roberts 1992; Katz & Green 1992; O 'Leary 1992; Nielsen 1992; Attree 1993; Hogston 1995; Al-Kandari & Ogundeyin 1998; Williams 1998). Norman and Redfern (1993) noted that there was a lack of congruence when common terms related to quality were used. Jackson-Frankl (1990, p.52) asserted that "to base ones actions on the assumption that everyone shares the same definition for the word quality is not logical." According to Hogston (1995) quality is an elusive concept bound in subjective meaning. Koch (1992, p.785) believed that attempting to define quality was a fruitless debate because "quality itself is a social construct." Donabedian (1980, p.3) demonstrated great insight into the difficulty in defining quality when he stated that he was, unsure "whether quality is a single attribute, a class of functionally related attributes, or a heterogeneous assortment gathered into a bundle by established usage, administrative fiat, or personal preference." Buchan, Grey, and Hill (1990) affirmed that there is no single measure to define quality but that it was in essence a function of many variables. In the examination of the concept of quality, Attree (1993 p.

356) acknowledged that the lack of a collective interpretation of 'quality of care' led to confusion and misunderstanding. In an attempt to examine the concept 'quality' and its relation to nursing care, Attree (1993 p.335) recognised that the term quality was “extensively used, but seldom defined”. In data generated from literature in an inductive study, Attree (1993) examined the attributes or characteristics of the concept of quality and its association with health care. Atree's (1993) study identified that over time nurses have used different themes to identify and define quality. Conclusions drawn from Atree's (1993) study suggested that there was no clear application or definition of the term 'quality' that emerged from the literature. However, common themes of use and meaning of quality were recognised (Attree 1993). Norman and Redfern (1993) also mentioned that some terms related to quality changed in their usage and meaning over time or according to the context in which they were used.

In the 1960's and 70's nurses were predominantly concerned with conformance to standards as a way to determine quality (Norman & Redfern 1993). The 1980's nurses focused on the theory of quality assurance, while the current trend influencing contemporary managers and nursing quality theory has focussed on “consumer satisfaction and satisfying customer expectations”(Attree 1993, p. 360). Attree (1993) concluded that the interpretations and application of the concept ‘quality’ altered significantly depending on the perspective of the observer, and the context of time and place. The perspective's identified by Attree's study included: patients, health professionals, provider/producer, purchaser/payer, and public/society. Attree (1993, p.367) acknowledged that “whose perspective should be adopted” was an important concern which required further investigations.

Similar to other researchers Hogston (1995) identified that a disparity existed when defining quality, despite the wealth of literature published on quality nursing care. Hogston (1995) using grounded theory analysis attempted to find a definition as described by practicing nurses. Hogston (1995) postulated that structure, process and outcome criteria, formally used to evaluate 'quality' could also be used to define quality nursing care. It is unclear if the categories of structure, process and outcome, emerged from the data, or were present at the onset and the data merged to support these categories. Strauss and Corbin (1990) cautioned against the use of preconceived concepts in any grounded theory approach. By beginning with a list of already identified variables, for example structure process and outcome, "they may - and are indeed very likely to - get in the way of discovery" (Strauss & Corbin 1990, p. 49). Hogston (1995) concluded that quality was comprised of three distinct but linked criteria (structure, process and outcome criteria) and that quality could not be said to exist if any of these criteria were absent. It was acknowledged however, that many of the nurses interviewed cited quality in terms of process and outcome rather than of structure. By examining Hogston's (1995) study results, it was noted that only half of the nurses identified all three categories, despite Hogston's argument that quality did not exist without all three criteria. It seemed then that practising nurses did not define quality including all the terms: structure, process and outcome.

The Hogston study (1995) supported the use of the most common unifying framework proposed by Donabedian's structure, process and outcome criteria. The framework was used by many nursing researchers to examine and categorise the characteristics of quality care. However, Donabedian (1980) clearly stated that his theory was not offered to be the key to attributes of quality, but a philosophy to assist in acquiring information regarding the presence or absence of quality. Nielsen (1992) believed that although structure, process and

outcome are characterised in the general literature to represent quality, there were other essential components of quality in health care, namely caring and moral practice. Nielsen (1992 p.64) argued that the relationships between human beings, environment and health should have been correlated to components of quality care. Without developing her definition of quality further, Nielsen (1992) then examined quality measurement with fifteen defined concepts that included structure, process and outcome. Other factors were environment, context, processes - costed, processes - organisational, a customer, subset of all customers, content quality, delivery quality, types of outcomes, cost, caring and value. Nielsen (1992) admitted that the modified practice theory she developed was multifaceted with elements woven together in a complex pattern and conceded it has yet to be re-modelled. However, Nielsen (1992) believed that her model lends itself well to further research using both quantitative and qualitative methods. The weakness of Nielsen's (1992) model was the lack of a conceptual map explaining the relationship of each concept. Nielsen (1992) discussed components and relationship of the proposed model in an ambiguous manner, providing practical examples. However, the examples were insufficient to clearly support current nursing activities and explain how they could fit in the model.

Adaptation of Donabedian's framework of quality assessment had its greatest impact in the area of quality assurance. Donabedian's work was the first framework used to organise quality assurance activity (Koch 1992). According to Koch (1992) many later developed frameworks influenced quality assurance activity which included Lang's eight step quality assurance process, the Marker umbrella for quality assurance and Green and Lewis' six approaches to quality assurance. Koch (1992 p.792) acknowledged that these frameworks of quality assurance activity were influenced by scientific or quantitative approaches dominated by empirical-analytical paradigms. Current nursing quality assurance activity has been

preoccupied with measurements and scientific methods. Koch (1992 p.792) believed that at present we would be unable to define quality nursing “by the quality indicators and standards we have developed” as “nursing is complex, contextual and beyond measurement.” Koch (1992) however, concluded that the scientific approach of quality assurance has had a role. It would be best used when considering resource management, the assessment of unit acuity in hospitals, developing patient classification systems, providing product evaluation, and investigating specific nursing phenomena, such as wound healing.

Kitson (1986) advocated an approach to identifying quality, which was to examine key components, using a conceptual framework or a model of nursing. Kitson (1986 p.135) recommended that prior to assessing quality and ongoing practices in the workplace, a group of concepts should be defined to set out propositions and to help understand the relationships between the described concepts. Once this step has been formalised, Kitson (1986) suggested that nurses should devise measures which operationalise the concepts. This approach would investigate the accuracy of the postulated relationships.

2.6 Summary

In summary there were no published studies that examined quality nursing care for elective PTCA patients, utilising existing conceptual frameworks. Therefore examining quality of care in the manner recommended by Kitson (1986) would be difficult. In addition, it would be considered important to develop concepts related to 'quality of nursing' using the subjective meaning of nurses who currently provide care (Kitson 1986). Thus, the aim of this study was to use a grounded theory methodology to examine the nurses' perceptions of the quality of nursing care and factors that affect the provision of quality nursing care for elective PTCA patients.

CHAPTER 3

METHODOLOGY AND THE STUDY METHODS

3.1 Introduction

In order to address the research questions posed by this study, a grounded theory research study was undertaken. The data collection methods chosen included focus group interviews, participant observations and individual participant interviews. Concepts were drawn from the data using a constant comparison method. Literature was utilised as data in the final stages of the study to validate and provide comparisons to emerged concepts. Illustrated in this chapter are the important decisions made in the data collection and analysis process, that ensured strategies adopted remained faithful to the methodology applied and the purpose of the study.

3.2 Methodology

3.2.1 Development of Grounded Theory Research Method

Grounded theory is a research method used by qualitative researchers to generate explanatory or substantive theory that conveys understanding of a social or psychological phenomena (Field & Morse 1985; Chenitz & Swanson 1986; Strauss & Corbin 1990; Smith & Biley 1997). Grounded theory was first developed in 1967 by collaboration of Glaser and Strauss. Although both were social scientists their research experience evolved from different settings (Strauss & Corbin 1990; DeLaine 1997; Smith & Biley 1997). Glaser was known for utilising and developing quantitative methods, while Strauss was strongly

influenced in qualitative research methods (De Laine 1997). During collaboration of a qualitative research project that involved exploring the perceptions of those dying, Glaser saw that there was no particular systematic set of procedures for testing and coding hypothesis during the research process. Glaser and Strauss later developed a new qualitative approach called grounded theory (Strauss & Corbin 1990; DeLaine 1997; Smith & Biley 1997). The impetus for development of this method was to gain scientific respectability for qualitative research (Smith & Biley 1997). Since its introduction, grounded theory has been developed and utilised by different disciplines including nursing. However, the basic tenants prescribed by Glaser and Strauss remain.

3.2.2 Why Grounded Theory was Chosen.

Grounded theory was chosen for this project, as no theory or measuring tool was found in the literature to assist with examining nurses' perceptions of quality nursing care provided to PTCA patients. Many writers suggested that grounded theory would make its greatest contribution when used to investigate areas where little research was conducted or to gain a new perspective to existing research or topic area (Chenitz & Swanson 1986; Burns & Grove 1995; De Laine 1997).

Thus to examine and identify the concepts that make up a theoretical framework that describes 'quality nursing', a grounded theory approach was chosen. The object of grounded theory method is to discover a conceptual framework that explains the scene being investigated (Baker, Wuest & Stern 1992). Using a grounded theory technique, the researcher can characterise the processes operating within the phenomena of 'quality

nursing', directly drawn from the data obtained from the nurses involved in the care of post procedural PTCA patients (Chenitz & Swanson 1986; Baker et al. 1992; Burns & Grove 1995; Polit & Hungler 1995).

The most important factor when using a grounded theory approach is to acknowledge that the process of data collection, analysis and theory formulation all occur simultaneously (Marshall & Rossman 1989; Baker et al 1992; Burns & Grove 1995; Polit & Hungler 1995). Evolution of the theory is facilitated by a 'constant comparison' of newly developed concepts and new data coming in (Baker et al. 1992; De Laine 1997). Comparative analysis includes consideration of different groups or settings in which the phenomena is studied (De Laine 1997). Thus for this research it was important to compare and include data collected in the two settings in which elective PTCA patients received nursing care: the Cardiac Investigation Unit (CIU) and the Coronary Care Unit (CCU).

3.3 Method

3.3.1 Selection of the Sample - Using Grounded Theory Methodology

The objective for sampling while using a grounded theory approach is to seek rich data that will provide the basis to develop emergent concepts, categories and eventually the theory itself (Baker et al. 1992). Theoretical sampling such as that undertaken for this study is the sampling method recommended for those seeking to use a grounded theory approach (Baker et al. 1992; De Laine 1997; Smith & Biley 1997). The aim of theoretical sampling was to choose informants who would adequately represent the important themes sought. Strauss

and Corbin (1990) describe theoretical sampling as the process by which a researcher applies regular consideration of the concepts that have been identified to have theoretical relevance to the emerging theory. Theoretical sampling progresses through logical stages, and the stages are structured to support what is learnt and coded from previous sources (DeLaine 1997). Strauss and Corbin (1990) have named these logical steps in accordance with levels of coding that occur in a grounded theory method. Open sampling is associated with open coding, relational and variational sampling is associated with axial coding and discriminate sampling is associated with selective coding. During the open sampling phase, it is important to create opportunities to uncover as much information about the phenomena as possible.

Registered nurses from the CIU and CCU of a large metropolitan hospital in Queensland, Australia, were invited to participate in the study. These nurses from the CIU and CCU were chosen because they routinely cared for PTCA patients following their procedure. The main focus of the CIU, was to provide care to patients before and after their cardiac investigations and some cardiac intervention procedures (see Definition of Terms Appendix H). Cardiac investigations included angiography, electrophysiology and echocardiography, while interventions included elective PTCA. Elective PTCA patients were cared for in a four-bed room, set aside for their care. Patients who required continuous ECG monitoring would not return from the cardiac catheter laboratory to the CIU, as the environment did not have the capacity to provide continuous ECG monitoring. The CIU also did not accept PTCA patients who returned in the late afternoon as the number of night duty nurses was insufficient to care for PTCA patients with a femoral arterial sheath insitu. Although most elective PTCA patients returned to the CIU (up to four a day), a small number, one to two patients would return to the CCU. With this in mind, the CIU registered nurses were invited

to participate in focus group interviews. Early focus group interviews (Focus Groups one-three) with the CIU staff allowed the opportunity to keep the discussion broad, teasing out the definition of the most relevant terms relating to quality and standards.

The point where relational and variational sampling occurred was not finite. In accordance with the goals of grounded theory, this occurred somewhat simultaneously with the end stages of open sampling (De Laine 1997; Smith & Biley 1997). The next stage of sampling focused on the need to uncover and validate emerging relationships (Strauss & Corbin 1990). Nurses from the CCU were invited to participate in focus groups four and five. The researcher was keen to explore whether the relationships described in the CIU translated to the CCU. Including the nurses in the CCU was variational sampling (Polit & Hungler 1995). The CCU was used to care for elective PTCA patients in the following circumstances: patients having complex procedures requiring continuous ECG monitoring in an acute area and when the number of scheduled PTCA patients exceeded the number of beds available in the CIU for PTCA patients. All elective PTCA patients admitted or transferred to the CCU were placed on continuous ECG monitoring. Whether the definitions of quality and the factors that affect quality are universal from one nursing population to another, were questions that needed to be answered. Given that elective PTCA patients were nursed in these two separate environments, the need to explore this was deemed essential. The variation of working environments and types of patients from both settings would allow the opportunity to explore nurses' perceived definition of quality and factors which affect quality.

Strauss and Corbin (1990) described discriminate sampling as the testing phase. It is important that developed concepts are repeatedly found in reality, before they are built into the theory (Strauss & Corbin 1990). After consideration of what emerged in the focus groups it became important to interview the nurses caring for the PTCA patients at the end of their shift. As the theory developed, it became apparent that this sampling strategy was the only way to gain access to nurses reflecting on their practice. These nurses' reflections would confirm the concepts developed in the focus groups. A combination of participant observation associated with an in depth individual interview at the end of the nursing shift was undertaken to provide different sources of data.

Fifteen registered nurses from the CIU and 20 registered nurses from the CCU responded to the information flyer and agreed to participate in the study. The right to privacy was assured for the participants by careful consideration of the venue that the focus group and interview data were conducted. All participants were provided with an information sheet outlining the nature of research (Appendix A) and invited to ask any questions about the research prior to the commencement of the study. All participants were informed that they had the right to withdraw from the study at anytime and without penalty. This was reinforced in writing on the consent form. Those participants who did withdraw, cited unit commitments, however they expressed interest in inclusion at another time if this was appropriate. The participant codes, level of participation and time each participant had been working in the unit is outlined in Appendix B.

To ensure anonymity and confidentiality the participant's demographic data collected on the informed consent form was issued with a participant code, for example (A). This code was

then used for all the data collected and stored. The consent forms were locked in a cabinet stored in a separate location to ensure no comparison with the data. The participants were assured that in the transcribed data, the written research report or any publication they would not be identified by name but only by the nominated code. All the data, including audio tapes were stored in a locked cabinet with restricted access available only to the researcher. The measures used to undertake this were outlined in the informed consent form completed by all participants. The consent forms can be viewed in appendices C-E. Prior to the participant observation sessions the nurses were provided with a participant observation consent form outlining the nature of the observation, indication that their patients were aware of the research being undertaken and informing of their right to withdraw from the study.

Finally ethical approval to conduct the study was received from study hospital and Central Queensland University Ethics Committees which function in accordance with the National Health and Medical Research Council (NHMRC) guideline (NHMRC, 1999).

3.4 Design of the Research Method

Data was collected for this grounded theory study using focus group interviews, participant observation and individual interview sessions (performed at the conclusion of a participant observation session). In accordance with the methodology, the literature was examined as data in the later stages of the study to validate the emerging concepts. The decision to apply these data collection strategies were shaped by the following research methods.

3.4.1 Focus Group Interviews

To begin the study, five focus groups with the nurses from the CIU and CCU were undertaken. There were a number of advantages to holding focus groups at the onset of the study. These included: generating many points of view in a short time, orientating the researcher to a new topic, generation of hypothesis from the participants' experiences, and an opportunity to arrange further interviews or participant observation (Morgan 1988; Polit & Hungler 1995). Group dynamics and interaction played a crucial part in obtaining rich sources of data. The focus group provided the opportunity for each participant to react to what was said, and after reflection, building on the voiced responses. According to De Laine (1997) the interaction between the research participants is what distinguishes focus groups from other sources of qualitative data collection methods. Each participant in the focus group was an audience member as well as a participant, providing an environment to initiate a greater variety of communication. During the focus group interviews, sources of data did not come from the participant's words alone. When holding the focus group interviews a dimension of understanding emerged regarding what was commonly accepted belief and

what had not previously been explored before. This insight came from examining the interplay and freeness of communication between the participants. For example the time lapse between the question asked and the participants' answer. Morgan (1988) identified that observation of interaction on a specific topic was the comparative advantage of this method over other qualitative data collection methods, particularly an individual interview. During the focus groups the nurses identified their perceptions of quality nursing care and factors that affect the provision of quality nursing care.

3.4.2 Participant Observation

The primary goal of participant observation in this study was not to develop new data categories but to validate the factors identified in the focus groups. Dane (1990, p. 158) describes participant observation as a "research method in which the researcher becomes part of the events being observed". One of the key concepts to acknowledge when considering participant observation is that it involves two diverse roles, that of observing and participating (Delaine 1997). The level of participation and observation by the researcher is recognised by many authors as an important factor when considering participant observation (Dane 1990; Polit & Hungler 1995; DeLaine 1997; Kennedy 1999; Savage 2000).

The role undertaken by this researcher was one described by Gold (in Dane 1990, p. 159) as participant-as-observer. The important component associated with this level of activity was that the researcher fully participates in the activities, but their research status was known by the subjects under study (Dane 1990). The role played by the researcher while undertaking

participant observation will be discussed later in this chapter. Kennedy (1999) proposes that one of the advantages to using participant observation when examining nursing and nursing practice is the ability to view interaction between the patient and nurse. This process adds enriched data that would not be available from interview method. Polit and Hungler (1995) outline some of the typical information collected by participant observation such as structural features of the setting, frequency and duration of activities and interaction, as well as less tangible factors. Polit and Hungler (1995) suggested that participant observation can improve the basis for understanding the meaning of the data.

3.4.3 Individual Interviews (at the end of the participant observation session)

Individual interviews of this study were undertaken following some participant observation sessions. Polit and Hungler (1995) recommend individual interview as a method to generate information regarding a specific set of topics. Swanson (in Chenitz & Swanson 1986) suggested that formal qualitative interviews for generating grounded theory are often done in conjunction with participant observation and informal interviewing, as there may be a need to clarify emerging categories. Sorrell and Redmond (1995) acknowledged that the type of interview used, as a data collection method, should reflect the methodology adopted for the research. For the purpose of this study the interview style and application as a data collection tool reflected the desire to validate and further explore themes and categories that emerged from the focus group interviews and participant observation sessions.

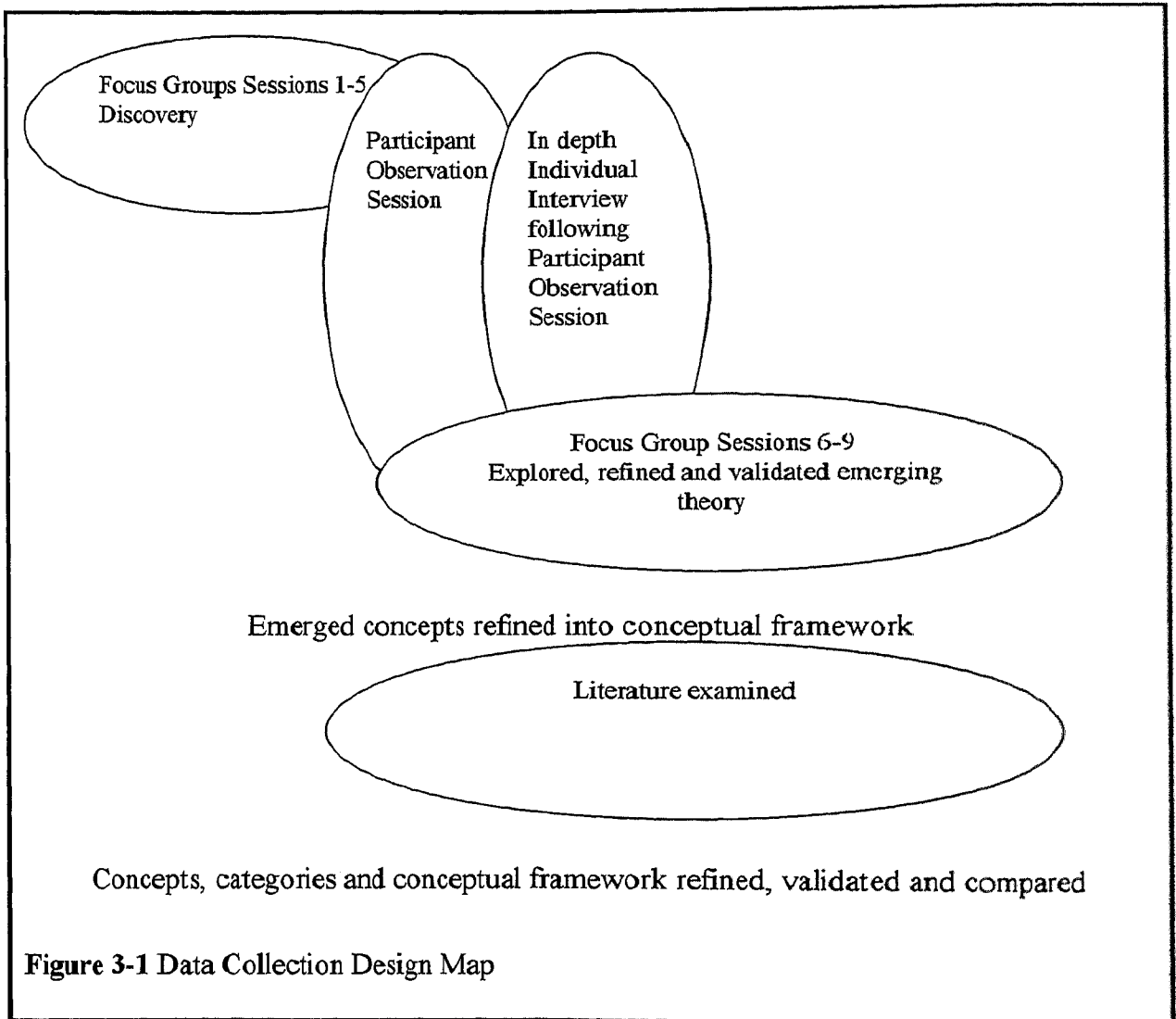
3.4.4 Literature as Data

Literature as a data source was not used in the early stages of this study. The researcher decided not to explore existing literature regarding the definition of quality nursing care and the factors that affect the provision of quality nursing care until concepts emerged and were validated by the participants involved in this study. This decision was guided by Field and Morse (1985 p.7) who suggested that ideas and models that come from other sources "are used as explanations after preliminary theories are derived". Examination of literature prior to the study is considered disadvantageous in grounded theory as it may cloud judgement, lead to premature closure of emerging concepts, or change the direction of the study (Stern 1985; Strauss & Corbin 1990; Smith & Biley 1997). To ensure that the preliminary concept development was not influenced by themes developed by other researchers, literature was sought and examined in the direct theoretical sampling stage of this project. Literature acted as a supplementary validation source to provide increased accuracy and comparison to the emerged findings (Field & Morse 1985; Morse 1991; Strauss & Corbin 1990). In order to guide the reader with a brief summary of the literature used in the comparative stages of this study, a literature table that outlines the categories and themes within the categories is provided in the Appendix I.

Using more than one data collection method was described in the literature as method triangulation. Begley (1996) defined method triangulation as the use of more than one similar data collection approach in the one study. According to Polit and Hungler (1995) method triangulation enables the researcher to identify and sort true information from error information. The researcher in this study utilised a combination of data collection methods at different times of the study to develop the theory that answered the two research questions.

3.5 Data Collection Design - Map and discussion

The following section of this chapter will examine the manner in which data was collected for this study. It is important to note that the data collection phases overlapped in accordance with the emerging concepts. See figure 3-1.



Initial data collection strategies used for this project were focus group interviews and participant observation. The participant observation phase included an in depth interview at the end of the nursing shift and fieldnotes. The use of focus group interviews, participant observation and individual interviews occurred in three synchronous stages. Literature as data was not applied to this project until the late stages of analysis and as supplementary validation of emerged concepts and relationships. The inclusion of more than one data collection method, facilitated the ability to gain rich data that provided an understanding into the world of the cardiac nurse and uncover their philosophy of ‘quality nursing care’. Each data collection method used will be explored in depth.

3.5.1 Focus Group Interviews

A total of nine focus group interviews were undertaken. Five groups with a total of 12 participants from the CIU, and four groups with a total of 20 participants from the CCU (see Participant Table in Appendix B). All participants in each focus group knew each other and had been working together for some time in their respective clinical units. In accordance with emerging data and theory development the focus groups were arranged to best gain the data required. On reflection, the focus groups can be divided into those that were primarily used for discovery and those that explored, refined and validated emerging theory. In the first five focus groups each participant was new to the research topic, so initial themes were introduced and explored. During the subsequent focus groups, the researcher introduced concepts and fledgling theory to the participants in order to further develop and explore concepts. Some participants who attended earlier sessions were able to lead the discussion and provide feedback and comment regarding proposed concepts and theory.

The initial three focus groups one to three were undertaken on the CIU (see participant table in Appendix B). One hour was allocated and the nurses met in a comfortable and informal interview room. The number of participants in these groups ranged from three to five. The availability of participants depended on the workload requirements of the unit. Each focus group was scheduled during a period of increased staff number, when nursing shifts overlapped between 2.30pm and 3.30pm. This ensured that the staff allocated to attend the focus group interview would not be required to leave, to attend patients. There were four planned focus groups that required rescheduling related to staff workload demands. The participants provided rich data to analyse and examine for beginning categories, which then were further explored during subsequent focus group interviews. Sampling considerations at this point included assessment and acceptance of nursing rosters and the commitments nurses faced in regard to patient care in their unit environment. These two factors impacted on the availability of staff to attend focus group sessions. Thus careful planning strategies were put in place to ensure that at least three to four nurses could attend the focus group sessions. The focus group sessions facilitated at this stage went for approximately one hour.

As this project explored quality, a definition of quality was required. To achieve this objective and to develop a theory to represent quality nursing care, the participants in the early focus groups were invited to express their views relating to the essence of the nursing care which they believe they provided to patients. Grounded theory methodology requires the researcher to keep an open mind regarding the phenomenon studied (Strauss and Corbin 1990).

In keeping with this directive the questions posed to the early focus group participants began broadly with the following:

1. What is quality?
2. What is quality nursing?

The focus group interview rooms chosen had solid doors, closed during the sessions. The interview room was chosen, with the aim to make the participants feel comfortable to share private information. It gave privacy to the participants. The participants were assured that any information provided during the session would be kept in strictest confidence (Polit & Hungler 1995). The participants were assured that any comments made relating to the management style or culture of the unit would not be given to those in management or power positions. At the commencement of the focus group session all the members were asked not to disclose any sensitive information that would emerge and to respect the generated opinions.

Focus groups four and five were conducted in the CCU (see Participant Table in Appendix B). The participant number in these focus groups were greater than in the CIU. However some participants were transient in their attendance, joining the group later in the session, or leaving early to attend patients. This occurred because the focus group interviews were held in the CCU tearoom. The transient participation of some members did not influence the free and cohesive flow of discussion. A new member to the group would listen for a short period to gain insight into the topic of discussion. At times discussion at the early stages of the session were reintroduced to gain insight from the newest member. Difficulties experienced with data collection involved operational factors such as changing the time frame initially set aside to interview the CCU nurses. The planned strategy to hold one hour focus group

sessions had to be altered to meet the CCU nursing staff workload requirements. The interview period ranged between 40-50 minutes. The shorter time frame was not considered a limitation, as the questions asked were refined after examination of data from the first three focus group interviews. As the focus groups progressed the questions asked became more focussed to explore the concepts that emerged through constant analysis. This strategy followed recommendations made by Chenitz & Swanson (1986).

Focus groups six to nine were used to introduce the emerging theory to the participants generated from earlier focus groups. The aim of this was to validate the relationships between the concepts that emerged in the exploration focus groups. Discussion focussed on concepts previously explored in the earlier focus groups, clarification of some concepts previously having disagreement between and within the different groups. The researcher explained and displayed previous coding and concept mapping and obtained agreement from the participants on the derived interpretations. This will be examined further when discussing credibility of the research.

All the focus group interviews were recorded on audio tape. All participants were made aware that their conversations were taped before the commencement of the focus group interview. The participants were also required to provide written consent, to affirm that they were aware of the audio taping, and confidentiality of the information provided. A small hand held dictaphone tape recorder with in built microphone was used. This was placed in the centre of the room usually on a small table. The use of the tape recording of all conversation data, frees the researcher to observe the interaction between and within the

group members (Folch-Lyon & Trost 1981; DeLaine 1997). Notes were taken at the end of the group session detailing first impressions of the depth of interaction. These were added to the transcribed tapes for analysis.

3.5.2 Participant Observation

Following data analysis of focus groups one to five the participant observation phase of the study commenced. Nine participant observation sessions were undertaken, seven in the CIU and two in the CCU. The duration of the sessions ranged from 90 minutes to four hours. According to literature examined, one of the initial concerns related to participant observation was entry to the research environment (Davis in Chenitz & Swanson 1986). The researcher's role as the Angioplasty Nurse allowed direct access and entry to undertake participant observation in the research environment. One of the Angioplasty Nurse roles was to support nurses who cared for PTCA patients after their procedure. One key responsibility of the Angioplasty Nurse was the removal of the femoral arterial sheath (see Definition of Terms Appendix H) that remains in the patient's femoral artery for three to four hours after return to the unit environment. As the Angioplasty Nurse had this task to perform, the researcher was directly working in the environment where post procedure PTCA patients received nursing care. Prior to commencement of this research, staff working in the CIU and in the CCU were familiar and comfortable with the researcher's role as the Angioplasty Nurse, as the researcher had been employed in this position for over two years. An extension of the Angioplasty Nurse role as the participant observer was explained to all the participants. All participants involved in the participant observation sessions signed the appropriate consent form (Appendix D). All patients that were observed during the

participant observation sessions were provided with an information sheet during their admission to hospital outlining the nature of the research (Appendix F).

During the participant observation session, field notes were made of the structural factors that affected quality identified during the focus groups. Field notes included: the number of PTCA patients, number and skill mix of staff allocated to care for them, and resources available. Observable process factors such as unforeseen complications were also noted. Other process factors were explored further during personal interview with the participants following the shift. The primary goal of participant observation was not to develop new data categories, but to validate the factors identified in the focus groups. The data obtained and examined from the focus group interviews enabled the evolution of the theory of quality nursing care. The participant observation stage was primarily focussed on examining the emerging concepts in the light of the nurse providing care.

Participant observation provided the opportunity for the researcher to field note some of the features of the setting identified by the participants in the focus group sessions. The two settings chosen for this study had unique features. The CIU was a 24 bed unit that provided care for patients undergoing cardiac investigations (angiography, electrophysiology, echocardiography) and some cardiac interventions (see Definition of Terms Appendix H). The unit also provided pre procedure care and preparation for pacemaker insertion and some cardiac surgery. The care of PTCA patients was undertaken in a four bed room, near the entrance of the unit. All post procedure PTCA patients returned to this room, both male and female. Prior to the procedure the patient may have been allocated a bed in another room

within the unit to await a procedure time in the cardiac catheter laboratory. The PTCA patient's belongings would be transferred to the PTCA room once the patient was transferred on their bed to the catheter laboratory. During the course of this study only experienced nurses were allocated to care for post procedure PTCA patients. The unit did not have air conditioning, and on hot evenings the curtains used to ensure patient privacy hampered the breeze from the windows. There were no facilities for continuous ECG monitoring on the CIU and any patients that developed complications requiring continuous ECG monitoring were transferred out of the unit to the CCU. The CIU had the closest proximity to the catheter laboratory than any other ward or unit within the hospital.

The CCU was a 16 bed unit divided into two sides each with 8 beds. The CCU provided high dependency nursing care for patients with cardiovascular disease including myocardial infarction, unstable angina - acute coronary syndrome, cardiac arrhythmias, heart failure, and endocarditis. It also provided post procedure care for cardiac interventions such as insertion of permanent pacemaker, implantable cardiac defibrillators, cardioversion, radiofrequency ablation, intra aortic balloon pump insertion and PTCA. The CCU was located in the cardiac intensive care wing that included the operating theatres, post operative Intensive Care Unit (ICU) and general ICU. During the course of this study all patients admitted to the CCU were connected to continuous ECG monitoring, including the elective PTCA patients that were unable to return to CIU due to the lack of staff or beds available. All elective PTCA patients who returned to the CCU following their PTCA procedure were admitted and had pre procedure care provided by another ward or unit prior to their procedure. The CCU unit was air-conditioned.

During the course of this study participants from both the CIU and CCU approached the researcher at different times of the day with new ideas and perceptions related to what was discussed in the focus groups or individual interview. These comments were recorded in the field notes. This action by the participants demonstrated ongoing consideration of the emerging concepts and relationships.

3.5.3 Interview at the End of Participant Observation.

Following the analysis of the focus group interview data, it became apparent that the participants believed that in order to achieve quality they used personal standards. According to the participants these standards could not be measured or observed, but could be expressed in terms of feelings by nurses who provided the care. Determining whether personal standards were achieved could only be examined by discussions with the nurses themselves. An interview at the end of the participant observation session was identified by the researcher as a method to achieve this outcome. A personal interview at the end of the shift with the participant of the participant observation session was deemed important to discuss quality of care and the factors that affected the provision of that care. Eight individual interviews with nurse participants were undertaken. The individual interview was facilitated in a small private office. All participants interviewed signed a consent form outlining the nature of the interview and their right to withdraw from the study (Appendix E). One participant observed in the CCU refused participation in the individual interview at the end of the participant observation phase, the refusal related to available time, rather than reluctance to participate. No opportunity was available before the end of the shift to preform the interview as the CCU nursing staff workload requirements did not allow the participant

to leave the unit. In this circumstance the in-depth interview was not undertaken at another stage as recency of memory was required.

Open ended questions were used to prompt the participant to express feelings related to whether quality nursing was achieved. If the opinion expressed was negative, further exploration was made to allow the participant to explain why quality was not achieved and what factors affected this. Hand written notes were taken and later added to the preliminary data obtained during the observation. This interview also provided an opportunity to establish if the participant had any concerns related to the evolving theory. The length of this interview varied depending on the issues discussed, it ranged from 30-90 minutes. No new data emerged. However, this process was valuable for analysing and developing the relationships between the key concepts. While the initial data from the focus groups seemed one dimensional, its depth and character were developed from this individual interview. The emerging theory was strengthened and supported by all three methods of data collection.

3.6 Ethical Considerations

In order to ensure ethical implications for the research, participants had the following rights: right to self determination, right to privacy, right to anonymity and confidentiality and the right to protection from harm (Burns & Grove 1995).

In order to protect the right to self determination the researcher acknowledged that “humans are capable of controlling our own destiny” (Burns & Grove 1995, p. 368). Levine (in Burns and Grove 1995) suggests the following strategies to ensure self determination : informing the participant about the study, allowing the participant to choose to partake or not partake in the study, and providing the opportunity for the participant to withdraw from the study at any time without any penalty incurred. Prior to commencement of the data collection the participants were given the opportunity to ask any questions regarding the research project, the process of data collection and time involved. After they agreed to participate, the participants were assured that they could withdraw from the study at any time without penalty. This message was reinforced by the consent forms (Appendices C-E).

The right to privacy was assured by precise planning and contemplation of the venue where the focus groups and interviews were undertaken (Burns & Grove 1995). As previously discussed the rooms chosen provided privacy, as they were not in close proximity to patient care areas. There was no interruptions made by patients or other staff not included during each session. The rooms had doors that were closed during the sessions, with a sign indicating that an interview was in progress and instructions not to be disturbed. The participants of each session were informed that discussions shared in the interview would

not be divulged by the researcher to other groups or staff members within the unit. The participants were asked to show the same respect for the rights of privacy for all members. Thus all participants were encouraged not to disclose comments made during discussion with others outside of the data collection sessions. Within this private setting, information regarding the culture and organisation of each unit were discussed. This information might not have been shared freely if the privacy was not addressed prior to the commencement of the focus group or an individual interview.

The right to anonymity and confidentiality was ensured by the participants' identity not being linked in any way to data collected. The data collected was kept in a restricted manner, accessed only by the researcher (Burns & Grove 1995). As outlined in the selection section, each participant's consent form was given a participant code. Participant coding was applied to all relevant data collected and stored. The storage of the demographic data on consent forms and original audio tapes were stored in a separate locked cabinet from other data such as transcriptions of tapes and field notes.

When considering the right to protection from harm, the researcher was aware of a power relationship between the researcher and the participant (NHMRC 1994; Archbold in Chenitz & Swanson 1986). Archbold (in Chenitz & Swanson 1986) and the National Health and Medical Research Council (1994) described the relationship of power between the researcher and participant in qualitative research as 'ambiguous'. In order to overcome the ambiguity of the relationship, reflection was required regarding the impact of the researcher on the participant. As a peer, the researcher was known by the participants as a member of

the health care team in the study settings. The pre existing rapport with the staff was an advantage. In addition the participants were assured that, while in the research role, the researcher would not assume the power relationship afforded to the role of a clinical nurse. This was particularly important for the participant observation stage of data collection. Other more traditional methods used to equalise power included obtaining consent and providing explanations to the participants of specific requirements for each data collection session (Archbold in Chenitz & Swanson 1986).

Finally approval for this project by the study hospital and Central Queensland University Ethics Committees endorsed the ethical considerations of this project.

3.7 Data Analysis

Analysis of the data occurred in developmental stages related to specific coding guidelines. According to Strauss and Corbin (1990) there are three types of coding used by the analyst, these include: open coding, axial coding and selective coding. Axial and selective coding have been identified by other authors as theoretical coding (Glaser 1978; Swanson in Chenitz & Swanson 1986). Coding the data is the process by which the analyst breaks down the data, conceptualises it and puts it back together (Strauss & Corbin 1990). The ultimate aim being to develop a theory that explains the phenomena under study. Other guides employed in this analysis process included the use of memos and diagramming (Glaser 1978; Strauss & Corbin 1990).

3.7.1 Open Coding

Open coding was facilitated by breaking down the data line by line, paragraph by paragraph, looking for incidents and facts (Glaser 1978; Corbin in Chenitz & Swanson 1986; Strass & Corbin 1990). These were then coded as a concept or abstract of the data (Corbin in Chenitz & Swanson 1996). These codes were written directly in the margins of the printed transcript. Often these were labelled directly as the words spoken by the participants, for other parts of the text, a summary word was used highlighting the general point expressed. This process provided a large and rich source of codes to be used for category development. Corbin (in Chenitz & Swanson 1986) described this phase of the data analysis process as intricate, as the raw data is reduced into concepts that are then designated as categories. To assist in category development questions were asked of the newly formed codes. What is this? What does it mean? What category will it fit into? Does it compare to other codes and can it be represented in the same category? (Glaser 1978, Strass & Corbin 1990). Glaser (1978) recommended continual questioning, to keep from getting lost in the data and forcing the analyst to identify related codes. The questioning process also highlighted points to explore in subsequent sessions, assisting in theoretical sampling (Glaser 1978). For example the initial code of 'standard' was subjected to questioning that prompted further examination during subsequent focus groups in order to explore the depth of its meaning. New directions related to the emerged codes were explored during the subsequent focus groups (Glaser 1978; Baker et al. 1992). Similar codes then were merged into a category that represented them. The name of the category developed from the codes it represented, at times one of the original codes became the category name. Once named the categories were colour coded with separate highlighter or coloured pens. The codes were then highlighted in the colour that represented category, this ensured easy identification when scanning the long transcripts

of text. The names of the categories were typed on one page, and highlighted and taken to the later focus groups. This acted as a reminder of the categories that needed further exploration.

As this project explored quality, a definition of quality and the development of a theory to represent quality nursing care was required. To achieve this aim the participants were invited to express their views relating to the essence of the nursing care which they believe they provide to patients. The language used to describe quality was explored in detail in the initial steps of data collection and data analysis.

Collected data indicated that language and meanings associated with quality and standards required further exploration and clarification. The researcher used the work by Coffey and Atkinson (1996) as a guide to conduct narrative analysis as a tool to examine meaning of language from the collected data. This analysis required the researcher to study the form and context of the data simultaneously. This assisted in understanding how the participants used language to convey particular meanings and experiences (Coffey and Atkinson 1996). The narrative analysis helped the researcher to uncover research problems and themes which coding and content analysis were unable to reveal. This narrative analysis indicated that the word 'standard' was used by the participants in two different ways. The participants used 'standard' either as a metaphor of 'quality' or to describe component parts of quality. This will be described and discussed further in chapter four.

3.7.2 Axial Coding

Axial coding is the process by which data is put back together in new ways after open coding. This would make connections between the derived categories (Strauss and Corbin 1990). Open and axial coding are both analytical processes which the researcher used alternately while new data were collected. These two modes of data analysis were not used in isolation of one another (Strauss & Corbin 1990). Axial coding aimed to identify the salient properties, the dimensions, density, and relationships between your named categories (Strauss & Corbin 1990).

The objective of this axial coding was to identify the causal factors relating to the categories identified during the open coding process. Axial coding included examining the data and emerged codes for clues to events or incidents that would lead to the development of a phenomenon (Strauss & Corbin 1990). For example under the newly formed category of 'personal standards', codes represented the participants identified development of their own personal standard. These included past experiences, interactions, role models and upbringing. This wide range of information was then identified as the causal codes of the category 'personal standard'. The next step was the identification of the context properties of the category. Strauss and Corbin (1990) state that context contains the specific properties and the action/interaction of the category or specific phenomenon. Empathy, responsibility, attitude, commitment, beliefs and morals were later found to be the properties that represent the phenomenon of 'personal standard' category. 'Acting above and beyond' was identified as the action/interaction property of the category.

The intervening conditions that relate to the category or phenomenon under study were those that “either facilitate or constrain action/interaction” (Strauss & Corbin 1990 p.104). Identifying the intervening conditions was an important part of the axial coding analysis process. Questions asked of the category ‘personal standard’ then included: What were the intervening conditions that prevented a nurse from operating at a level where they could provide care above and beyond? What were the consequences of this? These consequences were the outcomes of the action/interaction taken to manage the phenomenon (Strauss & Corbin 1990). This part of the analysis process helped identify relationships between designated categories and subcategories, particularly the subcategories representing factors that affect the standards.

3.7.3 Selective Coding

Selective coding is a data analysis method which helps formulate a conception of the research (Strauss & Corbin 1990). One of the key functions of this coding is selecting a core category (Glaser 1978). After progressing from open to axial coding more than one category could have become a core category which represented quality. Choosing a core category from these categories was difficult, but essential so that the dense development of the category could be achieved (Strauss & Corbin 1990). The researcher examined data to identify the relationships between the categories and subcategories. The core category reflected quality and linked all categories and subcategories. The selection of the core category was achieved late during the data analysing process. The chosen core category was named '*application standard*'. The other categories basic and personal were subcategories, supported the core category, depending on their relationships to the core category. In order

to assist in developing the order of these subcategories around the core category Strauss and Corbin (1990) suggested a strategy of storytelling be used. This storytelling process required an explanation of an overall description of a situation that represented the phenomenon. The subcategories were arranged and rearranged around the core category until they reflected the story (Strauss & Corbin 1990).

The process of building, densifying, and saturating the categories occurred throughout the axial and selective coding phases. While each new category was formulated, and a relationship between categories was proposed, the participants were asked to respond to new questions. This process directed the selective sampling methods and was applied until no new data emerged to reflect the derived categories (Baker et al. 1992).

3.7.4 Memos and Diagramming

Throughout the analysis process memos and diagramming were essential tools used to formalise and order ideas. Ideas about the data, the codes, the categories, and the theory were based on memos and diagramming. Glaser (1978) stated that memos are the writing up of ideas about codes and their relationships as the researcher identified while coding. The use of these tools began at the beginning of the research project and continued until final writing. All ideas from simple to complex were recorded as memos during the data collection and analysis process. Recorded information was feelings, beliefs and reflections about what was found and expected to be found. Identifying this information assisted in gaining personal perspective to ensure that the researcher's opinions be recognised and the effects on the participants' responses would be minimal. Later when examining the codes and

developing the categories, memos written were colour coded to their affiliate category. The categories and the data related to that category were coded with coloured highlighter pens, which linked with the colour coded memos. A unique referencing system was established. The memos were useful to help review the decision making process of the researcher (Smith & Biley 1997). Diagramming provided the visual representation of the abstract relationships of the emerged concepts or categories (Corbin in Chenitz & Swanson 1986). Diagramming was useful when arranging the subcategories around the core category, which subsequently gave depth to the emerging theory.

3.8 Research Considerations - The Importance of the Study

Many authors, when examining qualitative research, state that using validity and reliability to measure the importance of qualitative research refutes the philosophy of these studies (Lincoln & Guba 1985; Stern in Leininger 1985; Sandelowski 1986; Appleton 1995; DeLaine 1997). The reason is that the criteria used to assess validity and reliability of quantitative methods originated from a logical positivists' philosophical framework (DeLaine 1997). After three decades of development, qualitative researchers redefined and applied criteria which were more appropriate for examining the importance of qualitative research (DeLaine 1997). According to DeLaine (1997) these criteria used for the evaluation of the importance of qualitative research include credibility, trustworthiness and dependability. Another consideration regarding the worth of the study would be the impact of the researcher's personal role in the study process. This will be examined first and discussed in the next section.

3.8.1 Researcher as an Instrument

It is important to discuss the implications of the personal role of the researcher on the study process. Field and Morse (1985) identified that the quality and depth of analysis of the data elicited for a project is reliant on the abilities of the researcher. They described the need for the researcher to establish rapport and gain trust of the informants. Strategies and ongoing relationships between the researcher and nursing staff of both study settings helped establish rapport and gained a trust relationship. This facilitated the quality and depth of data. The researcher was able to draw upon experiences and expertise developed in the registered nurse role in the study settings. Past experience as a registered nurse provided the researcher with opportunities to analyse subjective data in face to face interactions with participants. Experience in nursing allowed the researcher to refine skills, which enabled discrimination of incoming information and identification of underlying explanations of the information. The researcher viewed this experience as being invaluable for the purposes of this project. According to Field and Morse (1985, P.115) data analysis will depend on the “researchers’ sensitivity, perceptivity, informed value judgements, insight and knowledge”. Sensitivity and perceptiveness were ensured by the researcher by self reflection, journaling, and discussions with research supervisors and participants of the study. Insight and knowledge were enhanced by previous employment in the area for 3.5 years.

3.8.2 Credibility

A number of methods were used to promote credibility of this study. These methods were a reflective process recommended by Lincoln and Guba (1985). Firstly prolonged engagement would ensure sufficient time was spent during data collection in order to understand and

learn the culture of the studied group. As the researcher had previous experience providing care for elective PTCA patients working in the study environment, the time spent was sufficient to reflect the needs of the project. An outside researcher would have encountered limitations to the amount of time spent. The prolonged engagement provided the opportunity to the researcher to select and modify data collection methods to support and challenge the emerging concepts, categories and theory.

The second strategy, triangulation, was used to improve the likelihood of gaining confirmation and completeness of the information provided by the participants (Lincoln & Guba 1985; Begley 1996). As previously discussed in the data collection section more than one data collection method was used: focus group interviews, participant observation and in-depth individual interview. Two sites were chosen to collect data from, the CIU and the CCU.

The third strategy proposed by Lincoln and Guba (1985) and used to improve credibility was a member checking method. This method required the researcher to take the data and analysis results back to the participants to gain their comments. This was undertaken on three different occasions. The first was taking the raw data from the nine transcribed focus groups back to the participants. All the focus group participants received a copy of the transcribed discussions of their session. Accompanying the transcript was an acknowledgment form to indicate that the participant read the transcript and that it accurately reflected the conversations of the session (Appendix G). The second and third member checking were less formal. These included discussions between the researcher and

the participants relating to emerged concepts and categories and relationships between the categories. These occurred in the later focus group sessions six to nine and during the individual interviews after participant observation.

Another strategy used to ensure credibility was the use of notes to reflect self awareness. Koch (1994) recommended self awareness as an essential step of this grounded theory research to promote credibility. As previously discussed, memos helped separate personal beliefs of the research and the emerging concepts and theory.

Finally the last strategy applied was that, during the thesis writing results were presented in a non-biased manner so that readers will be able to understand and identify with the experience when reading it for the first time (Sandelowski 1986).

3.8.3 Auditability

Auditability is a method to establish trustworthiness (DeLaine 1997). Polit and Hungler (1995) and Sandelowski (1983) suggest that auditability are important parts of dependability and conformability of qualitative research. Lincoln and Guba (1985) present auditability as an essential part of establishing rigour. Sandelowski (1983) states that the findings of a study are auditable when another researcher can clearly follow the decision trail used by the investigator of the study. This study sought input from academic colleagues to check the progression of the concept analysis.

3.9 Limitations of the Method

The data collection methods were chosen so that data would answer the research question and meet the requirements of generating data suitable to grounded theory. Reflection of the path chosen highlighted some limitations. The use of focus group interviews as such a large component of the data collection strategy could be viewed as a limitation of the method.

Some participants in these focus group interviews may have been reluctant to express their views in front of other members of the group (Polit & Hungler 1995). This particularly applied when sensitive issues regarding personal standards were discussed. At times when a dominating participant provided a strong view regarding the standard of care, others were reluctant to provide contrary opinions. The effects of this problem were reduced by using a personal interview method. This method gained information from those participants who were reluctant to provide information during the focus group interview exploring sensitive issues.

Another limitation to the study methods was the time limit for participant observation. The opportunity for a long period of participant observation was reduced by the researcher's simultaneous roles as an Angioplasty Nurse. Although the Angioplasty Nurse role allowed access to all post procedure PTCA patients, the participant observation was limited to a few hours at the time of femoral arterial sheath removal (see Definition of Terms Appendix H).

Most post procedure PTCA patient care was provided in the evening which affected the researcher's opportunity to observe and undertake the individual interview session. The researcher and participants were tired from their nurses' work at the end of a late evening

shift at 2300hrs. The participant observations conducted during early shift meant that the conditions that were the factors affecting quality nursing gathered from the focus groups discussions were not evident.

3.10 Summary

This chapter presented the methodology and methods used to answer the research questions. A description was made of the development of grounded theory as a method of qualitative research, indicating reasons for its application in this study. Selection of the participants was outlined and the two study settings were described. Details of the data collection methods were presented and the advantages of each method were offered. Data collection and analysis were presented describing steps and signposting decisions used to apply each method systematically. Ethical considerations were explained. The steps to ensure the importance of the study were described.

CHAPTER 4

QUALITY NURSING CARE

4.1 Introduction

This chapter presents the results that answer the first research question of this study, namely how nurses who provide care to PTCA patients define quality nursing care. The three core concepts that nurses perceived as defining quality nursing care are basic standards, personal standards and application standards. The early stages of category development and naming are explained. The three core categories are then discussed in depth, and finally comparisons are drawn with existing literature.

4.2 Development of the Conceptual Framework

This first section of this chapter presents the early stages of conceptual framework development and signposting of decisions made in identifying the specific three core categories that described quality nursing care. Early examination of language used by the participants to help define quality is presented with explanations of the type of analysis applied.

4.2.1 Standards and Quality - Examination of Language

Examination of the language used by participants in the first focus group to describe quality were made using strategies outlined by Coffey and Atkinson (1996). The results of this analysis highlighted standards and quality as key words used by these participants.

Standard the Metaphor

During initial examination of the data gathered from the first focus group interview, the participants used ‘standard’ synonymously with ‘quality’. To assist the development and understanding of this issue, the transcript of the interviews were examined to determine if the word standard was used metaphorically to describe quality. According to Coffey and Atkinson (1996) a metaphor is used to illustrate a likeness. Coffey and Atkinson (1996 p. 85) described a metaphorical statement as one that “reduces two terms to their shared characteristic, thus enabling linguistic transference of one to another”. If the definition provided by Coffey and Atkinson (1996) is to be accepted one can conclude from the data that the term ‘standard’ was used by the nurse participants to metaphorically describe quality, as demonstrated by the following excerpts

“The amount of time involved looking after one [patient] is different than the other. But at the same time your standards or quality of care remain the same.” (FG1)(D)

“It is general, like your quality of care, I think it is just a very general thing. I mean just because angioplasty patients need just a few extra obs or they need a little bit different care to somebody else, I think the standard or the quality of care is exactly the same.” (FG1) (A)

These statements led to the conclusion that these participants believed that quality and standards have shared meaning, and thus could be used interchangeably.

During a discussion that examined if outcomes were a measurement of quality, a participant from focus group one stated,

“Well I think like if they [patients] develop a haematoma for instance, that’s not anything to do with the standard of care, but that is something that has happened.” (FG1)(B)

This participant used the term ‘standard’ to refer to ‘quality’. In the context of the above sentence ‘standard’ and ‘quality’ clearly had shared meaning.

These examples demonstrated the participant’s views and their acceptance of the shared meaning of 'standard' and 'quality'. The data showed that the participants accepted that standards meant quality in the context of some statements.

Standards are Component Parts of Quality

The terms 'quality' and 'standard' was further explored to clarify their concepts in the later stages of focus group one and in the early stages of the subsequent focus groups. The perception of the participants were sought to determine differences between the terms ‘quality’ and ‘standard’. Data generated from the focus groups identified that standards were part of quality.

The nurses from focus group one shared the following beliefs when challenged whether quality and standards were the same,

“Well I think they interlink,....” (A)

“I think one is part of the other” (D)

“I think it is a standard, your standards are part of your quality I think.” (B)

“I think quality is more about holistic things, rather than a standard which is more segmented.” (A)

This view was supported in further focus group interviews where participants discussed their views relating to the meanings of standards.

As expressed by one registered nurse,

“But people are individuals and what is set down as standards and policies and procedures may not be applicable to some people and other people need more, some people need something different. I mean if their communications skills, if their, if English is not their first language, a whole range of things. You can’t encompass everything in just written standards. Of what the patients needs are for their personal quality care.” (FG5)(R)

Another identified,

“...standards are only part of it, there are things like commitment. Like you can go through the motions of doing something but not really deliver...” (FG7)(X)

Thus a pattern emerged, and remained consistent throughout the focus groups interviews, that standards are a part of quality.

4.2.2 Development of the Three Standards that Define Quality

The view held by participants that standards are a part of quality, or that standards make up quality, assisted in the development of the three central core categories that define quality. While examining the language used in the transcripts using techniques described by Coffey and Atkinson (1996), themes emerged that helped align and support the grouping of substantive codes. These themes provided the names of three core concepts representing quality. The naming of these three core ‘standards’ categories was assisted by the expressions made by the participants when they attempted to describe a definition of quality.

The following examples of the participants' responses illustrate how the process of data examination assisted in the conclusion that standards make up quality.

“It comes from a variety of things. From what my beliefs, My... well you have always got your basic standards of care set up in the nursing council where ever, but I think most of the nurses who have gone above and beyond that, and that’s something you bring along personally”
(FG1) (D).

“I think a lot of quality comes from your upbringing, the way you are brought up, it is something within you, you have your own standards that you expect to live up to. You carry that throughout life regardless of being in hospital, when you are working as a nurse you’ve got this other information that you are caring for people and all that, so your basic standards and qualities are from there....from your upbringing and then....” (FG1) (B).

“Well I think everyone has their own standard, and I guess once they are aware what standards are expected of them, well they have got their own standard and maybe they realise that it had to be lifted up a wee bit, to what is expected of them. What is expected to be delivered to the patient.” (FG3)(L).

The existence of *basic standards* was clearly evident in the data, but what also emerged was that this alone did not represent quality. There were other standards described by the participants in ownership terms that represented quality nursing care. This care was described as 'above and beyond' basic standards.

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The existence of *basic standards* was clearly evident in the data, but what also emerged was that this alone did not represent quality. There were other standards described by the participants in ownership terms that represented quality nursing care. This care was described as 'above and beyond' basic standards.

To the nurse participants the essence of quality was acknowledgment of the basic standard and then operating beyond that basic standard. This view was evident within both environments studied, CIU and the CCU. To support this view, the following excerpts were derived from the focus groups. Participant A who worked in the CIU articulated,

“I mean you’ve always got guidelines, you know no matter which way you turn, no matter where you are in life, where you are, where you work, what kind of work you do. You always have a basic standard or guideline to work with, and it is what you do with that guideline and how you achieve what you think, is quality” (FG1)(A).

Participant W from the CCU explained,

“The majority of people have reached a standard and then it is up to the individual whether they go above it or not” (FG5)(W).

The participants expressed a need to provide care at a level beyond what is expected within basic standards. They elaborated that nursing was not only about performing tasks but involved interaction with people who had unique needs.

The following statement by participant R from focus group five supported the view that nursing care goes beyond basic standards.

“...people [patients] are individuals and what is set down as standards and policies and procedures may not be applicable to some people and other people need more, some people need something different. I mean if their communication skills, if their, if English is not their first language, a whole range of things. You can’t encompass everything in just written standards. Of what the patients needs are for their personal quality care” (FG5) (R).

From the words and expressions of the participants the category *personal standards* emerged.

A third category *application standards* emerged from the process of coding data. They included codes not represented by basic or personal standards. These codes represented action and interaction or application of quality and were perceived as a very important standard of quality by the participants. Later in the analysis process, these substantive codes were refined and grouped under the core category *application standards*.

An early map (figure 4-1) demonstrates a diagram of the early category development. It shows the relationship of basic standards and personal standards combining to form the core category application standards. Some of the properties of each category are also shown in the figure. In figure 4-1 are notes by the researcher in *italics*, these represent the early ideas regarding the relationships of each theme. The final figure reflecting the final interpretations and results of this study are presented in depth later in this chapter.

Personal standard

Above and beyond - little bit extra
empathy - treating others like we would like to be treated
or a family member *property*
commitment, responsibility, attitude, beliefs and morals
property
Comes from role models *Causal*
upbringing *Causal*
past experiences *Causal*
These are developmental, never static. Life experience
develop personal standards
As nurses we know this is what we need to give.
That is why on reflection we 'feel bad' when we are
unable to

EARLY MAP OF DEVELOPING CATEGORIES



Basic + above and beyond or that little bit extra
Equate to what nurses really provide

Basic Standard

Written policy and procedure
Elements of pathway completed
Observation sheet guidelines
Competency tests in haemachron,
doing ECG, administration of drugs
These are testable standards, standing alone they do not
represent quality.
Not interactive but static
You can do this without reflective thinking,
without acknowledgment of your patients needs
and at times you go back to this level because quality is
affected by all the things mentioned

Application Standard

Quality is a marriage of personal and basic standards
Occurs during application
Individual orientated Care *context property*
Assessment *action / interaction*

Acknowledgment of patients perception of what Quality is,
responding to patients feedback
Quality is a marriage between patient and nurses'
perception of what quality is

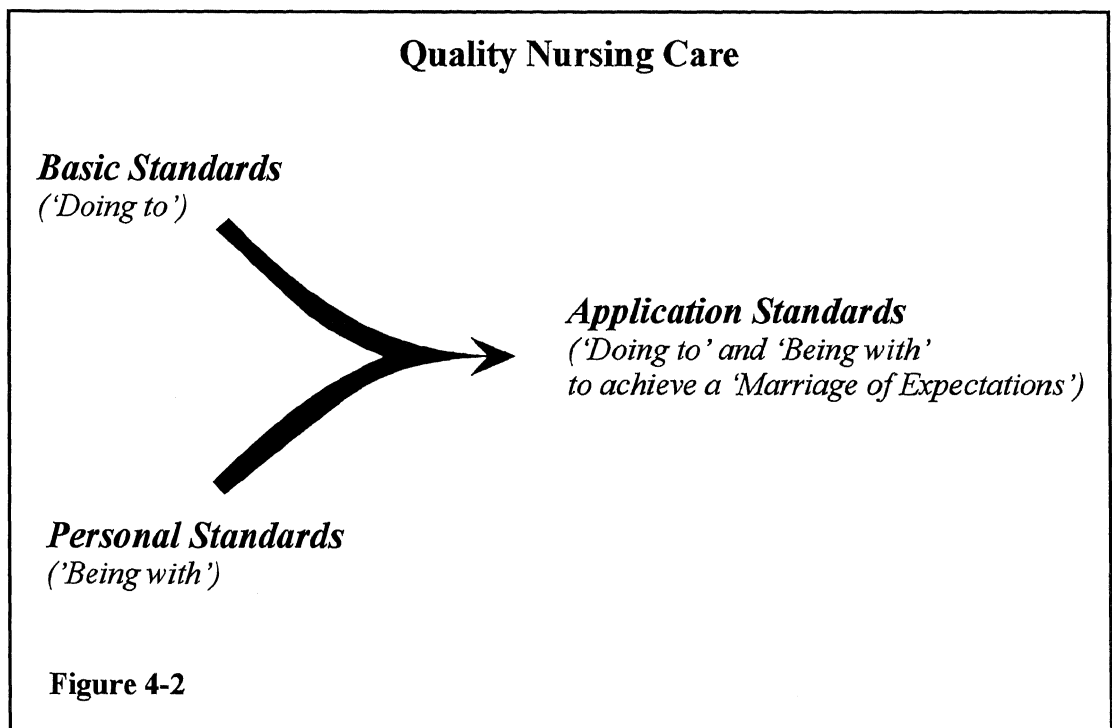
Knowledge and experience
Acknowledgment of own limitations
Lateral or intuitive thinking

These are all interactive and complex

Figure 4-1 Early Map of Developing Categories

4.3 The Conceptual Framework of Quality Nursing Care

One of the core objectives for this project was to obtain a description and definition of the quality nursing care phenomenon from nurses involved in the care of PTCA patients. A conceptual framework would be generated from the data utilising the core concepts that reflect quality nursing care. The core concepts were identified from the data included: basic standards, personal standards and application standards. Figure 4-2 illustrated the three categories that define quality nursing care.

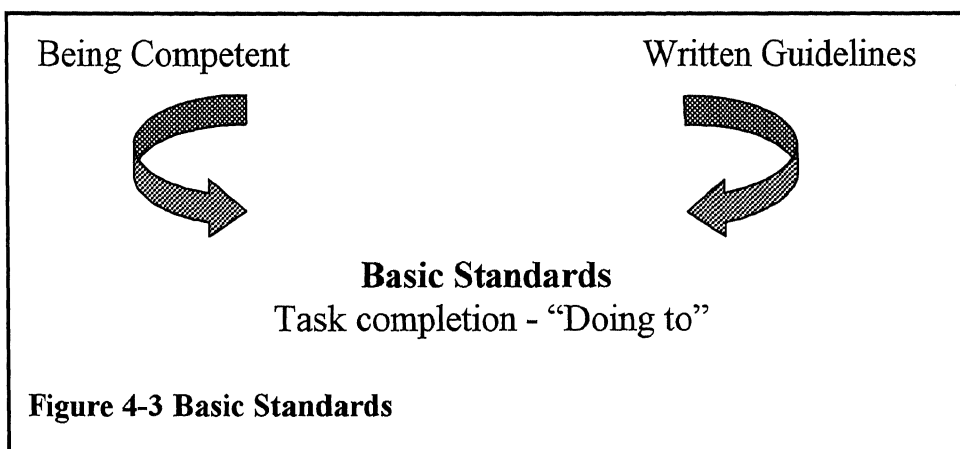


4.4 Basic Standards

4.4.1 Overview of Basic Standards

The participants of this study identified basic standards as written guidelines available to the nurses, which assisted them to complete tasks. These guidelines were procedure specific. They outlined the routine tasks, which were performed as part of nursing care for PTCA patients. Similar guidelines were used for additional procedures or situations which nurses may have to undertake.

These basic nursing standards were measurable and testable. The participants identified that an important measurement to achieving these basic standards was competence. According to the participants if the tasks outlined in the policy guidelines were completed, then basic nursing standards were achieved. The nurse providing the basic requirements of nursing care, as stipulated by the written guidelines, reflected the action / interaction of the category basic standards. Written guidelines and being competent were the substantive codes identified to represent basic standards. Figure 4-3 shows the relationship of these substantive codes to the category basic standards.



4.4.2 Written Guidelines

A number of written resources were described by the participants both from the CIU and CCU that helped identify the basic standards of nursing care. These written resources included the nursing policy and procedure manual, clinical pathway or care plan, and an observation proforma (see Appendix H Definition of Terms). Another resource was the information provided to newly appointed nurses during a formal orientation process. The participants from the CIU and the CCU referred to the written guidelines as the indicators of basic standards. This was particularly important if a nurse was new to the working environment and had never cared for a PTCA patient. Many nurses commented upon these resources during the focus group discussions. A nurse from the CCU reflected that,

“There are certain procedures for angioplasty patients and if someone hasn’t nursed them before, that affects their quality care mentally and physically” (FG7)(CC).

According to the participants the written guidelines for “certain procedures” to aide new staff were available in the policy and procedure manual. As participant M stated, “...you have got the procedural manual to guide you, if you have any doubts” (FG4)(M).

The nurses from the CIU had developed a small protocol pamphlet to assist relieving nurses to identify the basic standard of nursing care. This pamphlet included a list of all the procedures undertaken on the CIU. Participant L referred to this in the following comment,

“These people [relief staff] follow their protocol pamphlets closely when they first get in there. Well they should refer to that” (FG3)(L).

To ensure that new nurses were aware of the basic standards, participant N stated her role when orientating new staff was,

“making sure they [the new staff member] follow hospital competencies, policies and procedures, that they maintain a certain standard already”

(FG4) (N)

Thus written guidelines were an important component which identified whether the basic standard provided to an elective PTCA patient was met or not.

4.4.3 Being Competent

‘Being competent’ was identified by the participants as a key component for nurses to achieve a basic standard of care. The participants identified competence in two forms: a current nursing registration as a document supporting nurses of their basic level of competence, which were accepted and recognised by a professional body and continued skill tests of specific tasks deemed necessary for the care for PTCA patients. Skill testing was conducted by experienced nurses within the unit.

It emerged from the comments generated in discussion of basic standards that competency occurred when the nurse achieved all the written steps of the task involved, thus a basic standard had been met. Some of these tasks identified by the participants that required demonstrated competency for caring for the PTCA patient were recording an ECG basic interpretation of the ECG tracing, taking blood to perform an activated clotting time (ACT), medication administration, and basic and advanced life support.

As described by participant D from the CIU who stated,

“...there are certainly more things you need to know, so the standards for looking after a plasty [PTCA] patient would be like looking at a basic reading of ECG, knowing how to do an ACT reading, just that little bit more above and beyond an angio [Angiogram]” (FG1)(D).

The participants of the focus groups acknowledged that completing tasks at a competent level might reflect a basic standard of care. However, it did not represent an overall definition of quality nursing care. A reflection of this was demonstrated when the participants involved in focus group one agreed with participant A when she stated,

“I think if you weren't competent in an area, you know if you weren't competent in doing a haemachron [ACT], well then, yes I think your quality of care would not be as high. But quality encompasses a lot more other things...” (FG1)(A).

This early reflection clearly described that being competent in performing tasks included in the basic standard did not represent quality of nursing care. The participants explained that basic standards were important to the provision of quality nursing care. However, there were other less tangible components also required to achieve quality care.

During the stage of exploring the importance of competence, the participants described that task competence was a means of ensuring safety. The participants believed that in order to ensure safety, nurses must demonstrate competence. As participant E explained,

“Making sure that the care that you actually deliver is going to be safe and practical and, that the staff delivering the care have all had their appropriate competencies.” (FG2)(E).

The relationship between basic nursing standards and the completion of formal education to attain nursing registration was evident during a focus group discussion on the topic of the achievement of basic standards. The participants made an assumption that current nursing registration was an indicator of the completion of formal nursing education and achieving a basic standard of care. Participant W said,

“I mean as far as quality care, to get a job in a hospital... there is some sort of standard or quality in your training [formal nursing education], or courses, whatever you have done to put through to interview and started to work” (FG5)(W).

Participant W later in the focus group discussion revisited this assumption when he stated,

“So your basic standard or quality has already been met because you have obviously got a job in there... whatever standard that has been set by a unit, has been met by you just working there” (FG5)(W).

4.4.4 Causal Categories of Basic Standards

An important issue examined in the focus group interviews related to identifying when the participants became aware of the existence of basic standards. The participants identified orientation to the work place as the first time they were made aware of basic standards. A new staff member was usually shown the guidelines for the provision of the care of PTCA patients during a formal orientation process.

Participant J comments on the orientation process,

“You wouldn’t think of all those things being new on the ward [CIU] and going in there, would you? You would have to have been referred to the protocol... or like when you are being orientated with a second person, who

has been there a long time. They make you aware of those things [protocols and guidelines]" (FG3)(J).

Participant D who had worked in the CIU for three months commented on methods she used to identify basic standards,

"Actually from a few people who I went in there and got orientated in there, by reading the literature in there, by talking to you [researcher], it wasn't just one single thing or piece of information, it was listening to everyone that has worked in there, and I pulled them all together" (FG1)(D).

Sources of Written Documents as a Part of Basic Standards

The following section will describe the participants' perceptions of the source of these guidelines and their development process. The following question was put to gain information relating to the sources of guidelines, "who sets the procedure guidelines?" The participants identified a number of sources. These included results of a series of discussions among nurses working in the unit, opinions from medical personnel involved in providing care to PTCA patients and opinions from the nurse manager.

The CCU participants recognised that guidelines were set following input of all registered nurses working in the unit. This was demonstrated by the following explanation by participant N, *"We all do, all the nurses"* (FG4)(N). Supporting this was participant O who reflected,

"No individually we have control over it. We are involved with policies and have meetings every so often. We get together and sort out what the problems are and the right policies" (FG4)(O).

Nursing involvement in developing guidelines used in the CCU included providing input and taking an active role in a decision making process.

The nurses from the CIU recognised other factors that influenced the development of guidelines, which were perceived as setting the minimum of care to a PTCA patient. These included medical staff and the nurse manager of the unit. As participant H described,

“There are standards like the haemachron has to be a certain level. And the expectation that the nurse will encourage or do the obs [observations] on the right time. They are set by probably the medical staff in collaboration with the nurse manager and us to a certain degree, we have some sort of input as to what we are going to do” (FG2)(H).

Participant C from focus group one confirmed this description and recognised the nurse manager's decision making process, which subsequently influenced standard setting. She said,

“I think it has got to be set by someone... the nurse manager put down some guidelines and you have to stick to those guidelines” (FG1)(C).

The participants working in the CCU voiced their beliefs that a policy was developed by nurses working within the unit. This was contrasted to the participants from the CIU who identified other influencing factors which included nursing management and medical staff.

4.4.5 Summary of Basic Standards and Review of the Literature

The results of this study showed that the participants believed that basic standards were a component of quality nursing care. The participants identified factors, which were parts of basic standards. These included written guidelines and being competent. Basic standards reflected the completion of tasks stipulated by written guidelines by a nurse who was deemed competent. However, the participants also argued that the achievement of basic standards did not represent the overall quality nursing care.

A link between 'being competent' and quality nursing care was described by other nurse researchers (Fitzpatrick et al 1992; Norman, Redfern, Tomalin, & Oliver 1992; Hogston 1995; Dozier 1998). Nevertheless, While (1994) mentioned that congruence of the concept competence was difficult to find when examining literature (While 1994). While's (1994) extensive literature review included 83 papers examining competence and performance. While (1994) suggested that some authors regarded competence as a behavioural objective, while others described it as an interaction between knowledge and skill. Fitzpatrick and her colleagues (1992) reviewed literature relating to nurses' role in providing high quality patient care and suggested that the provision of high quality care relied on nurses' ability to demonstrate their competence in the application of both theory and skills in clinical situations. The term 'competence' used by Fitzpatrick and others (1992) was broadly defined and can be applied to the concept explained by the participants of this study. Fitzpatrick and her colleagues (1992) defined 'competence' as the knowledge, skills, values and attitudes required to successfully complete activities. Competence was a capability of an individual in undertaking an activity or a task (Fitzpatrick et al. 1992). Dozier (1998) supported the results of this study as she described that competency was expected of a nurse to be able to use his or her knowledge, skills and abilities in providing care to ensure safe practice in a

specific area. The participants in this study identified specific activities perceived to be important for the care of PTCA patients. An assessment of the competence of these activities was important to the provision of basic standards of care and ensuring safety.

Using written guidelines, an important component of basic standards described by the participants, reflected the notion proposed by Nielsen (1992). She suggested that quality was compliance to specifications. Adherence to specifications or written guidelines demonstrated nurses' conformance to explicitly established standards. Katz and Green (1992) described that standards defined quality and that standards were a written set of rules sanctioned by an appropriate authority recognised in the organisation.

The participants in this study believed that conforming to written guidelines demonstrated nurses' competence and their ability to complete tasks and it showed basic standards of nursing care. However, this conformance did not sufficiently represent the whole component of quality nursing care. This view was supported by a number of nurse researchers (Kitson 1987; Jackson-Frankl 1990; While, Taylor & Haussmann 1988). Kitson (1987) examined quality of nursing care in geriatric wards in the United Kingdom argued that quality care could not be viewed merely as the completion of a set of pre-planned activities. Jackson-Frankl's (1990) conducted a qualitative study that examined the language used by 15 participants to define quality. Her results indicated that the achievement of tasks stipulated in the written guidelines did not indicate quality nursing care. According to Jackson-Frankl (1990), an American researcher, quality was described as tangible and intangible components. Tangible components were somewhat similar to basic standards as found in this study. Jackson-Frankl (1990) interpreted that nurse managers who participated in her study viewed tangible quality as completion of tasks based on medical and nursing prescriptions.

While, Taylor and Haussmann (1988) identified references to intangible components of quality nursing based on review of literature between 1980 and 1986. Previous research and literature reviewed by While and colleagues supported the opinion described by the participants of this study that basic standards and other standards provided complete components of quality nursing care.

4.5 Personal Standards

4.5.1 Overview of Personal Standards

Personal Standards were clearly identified as essential to the provision of quality nursing care by the participants. The concept of personal standards and their influence on the provision of quality care were presented regularly throughout the focus group interviews. The action of personal standards on the provision of quality nursing care helped nurses to provide care 'above and beyond' the minimum expectations outlined in the basic standards. Personal standards were perceived as an important constituent in the overall framework of quality. Substantive codes were identified, based on focus group transcripts, which represented personal standards. These substantive codes were empathy, commitment, responsibility, attitude, beliefs and morals. The causal categories that supported these personal standards were past experience, upbringing and role models. Figure 4-4 shows a relationship between the contextual properties and causal categories and personal standards.

Participant L linked personal standards with the provision of care, which meets an individual's needs. She provided an example as described below,

“I think there is a difference, like quality you are going to administer the very highest not just what is expected, you are probably going to do extra, and it is also individual. I think you do have to look at the individual patient like the older one, frail person is going to need that little bit extra, compared to the young fit healthy person” (FG3)(L).

Participant B recognised that personal standards were extended to all her patients.

“Above and beyond and hopefully it extends to every patient I look after. It's not that my quality is any different because I have more knowledge... My quality is the care, it is the personal part of me” (FG1)(B).

Data regarding personal standards showed a relationship between “*above and beyond*” and “*doing extra*” and ‘*being with*’ a patient. The participants identified basic standards with ‘*doing to*’ and task completion as shown in figure 4-3. They also recognised a relationship between personal standards and ‘*being with*’ their patients. A comment by participant J summarised this relationship,

“I think with quality, I think you probably give a little bit more of yourself and personal experience, and you are much more than just, providing care on a physical basis. I think you are also providing emotional support and even just being, just having a general conversation, to make people feel at home and things like that” (FG3)(J).

Personal standards were those that the nurses chose to provide beyond which was described previously as the basic standard of care. Nurses who utilised personal standards would provide individualised care and took time to be with their patients.

4.5.3 Contextual Properties of Personal Standards

The participants described a number of contextual properties that were characteristics of personal standards. These characteristics of personal standards were identified during an open coding stage. Later they were reduced and merged during an axial coding stage to be the subcategories that reflected the completed picture of personal standards. The participants explained that in order to provide care above and beyond the basic standard, nurses should have personal standards. They should have the following personal traits: empathy, attitude, commitment, responsibility, beliefs and morals. These traits or contextual properties contributed to the definition of personal standards.

Empathy for patients was described as an important property of personal standards. In order to apply care 'above and beyond' the basic standards, the nurses needed to develop a level of care that reflected on the type of care that they would expect, if they were to undergo the same procedure as the patient. As illustrated by a statement made by participant B

"For me it's a case of, I try to put myself in their [patients'] position and imagine how I would like to be treated. Hopefully I would then, treat that person in the same manner"(FG1)(B).

Participant B used this criteria on which to base her personal standards. This criteria was described by participant B,

“We should be using the same quality of standard treatment, treating each patient as an individual with the same care that we would expect for ourselves” (FG1)(B).

This view was shared by other members of her focus group. The following statement by made participant C,

“I wouldn’t treat anyone differently than how I would expect to be treated”(FG1)(C).

Another criteria that enabled participant C to provide quality nursing care according to her personal standards was imagining the patient was one of her parents. Here participant C reflected,

“No my quality of nursing is me, like I treat my patients like I would like my mum and dad treated”(FG1)(C).

Participant E clearly summarised the importance of empathy as an essential part of personal standards,

“Some of it is personal. You have a certain expectation yourself of what you [yourself] would expect to receive, as a patient in that the role swapping situation. You would set a lot of those standards yourself as to how you, considering your delivering of health care at a quality level” (FG2)(E).

Commitment to the nurses' role and a sense of responsibility allowed nurses to deliver care that exceeded the basic standards required for each patient. Personal standards as described by participant I *“comes from a sense of morals and obligations, and a sense of responsibility and commitment” (FG2)(I).* Having a sense of commitment to their role and

responsibility was directly related to the nurses' *"attitude to it"*, or *"the mental side of things"* (FG1)(B).

The participants described that attitude directly affected how nurses delivered their care. As participant B explained,

"It is the personal part of me, the personality that comes out I think. The qualities and the things that you do, and do well, you want to do them, your attitude to it. I think your standards are your knowledge that you're aware of certain things... That you can look out for... it is all education. It's your knowledge that you are making sure that that patient is safe and everything. I think that's your standards and your quality to me is something more personal. It is the way you come across as well and do your work"
(FG1)(B).

Participant X supported the above statement and said that basic standards are only part of the interaction with the patient. She added

"...there are things like commitment. Like you can go through the motions of doing something but not really deliver..." (FG7)(X).

Having a sense of commitment to the nurses' role and responsibility were identified as a part of the attitude which they brought to complete their tasks and interacted with patients.

Beliefs and morals were acknowledged by the participants as other properties of personal standards. These properties influenced care, which they provided and ensured ethical nursing

practices. Participant H indicated that morals, an integral part of personal standards, guided nurses' actions to provide care above basic standards,

"We all have our own set of standards, moral standards, as far as what we think is right. I mean there are certain set standards or policies about plasties [PTCA] and that sort of thing. But you do extra things, like when the curtain doesn't close, some people clip their badges on it to hold it together and that sort of thing..." (FG2)(H).

Participant H identified the activities indicating the connection between moral standards and ensuring privacy and dignity for a patient. Reflection of the comments made by the participants led to the assumption that personal standards based on personal beliefs and morals influenced nurses' respect for patients. Although there were written ethical guidelines to be observed by nurses, application of these guidelines while providing care was directly related to personal standards. As participants D put it,

"I think it very much comes back to a personal... I had my own set of beliefs and I believe everyone should be treated to that standard whether they be public, private, black, white..." (FG1)(D).

Another participant described

"There shouldn't be a difference[in quality of care]. We shouldn't treat anyone different than somebody else.... We should be using the same quality of standard treatment, treat each patient as an individual with the same care that we would expect for ourselves" (FG1)(B).

4.5.4 Causal Categories of Personal Standards

Personal standards originated from an individual's attitude, beliefs and life experiences.

According to the participants a nurse's personal standards were developed from their upbringing, past experiences and role models within a family and a workplace. Personal standards developed throughout an individual's lifetime. Previous life experiences and interactions between the nurse and others helped personal standards to develop. Each life experience episode added to the fabric of personal standards.

The participants described that the causal factors guided the development of personal standards. These factors influenced the nurses' attitude, their level of commitment to their roles and their sense of responsibility. They affected a nurse's morals, which influenced the ethical nursing practice. Role models were identified as an essential part of the development of a nurse's personal standards. Information from focus group one revealed that role models identified in a work environment and family context played an important part in the development of personal standards.

Comments made by participant C,

"I think role models, in the hospital and in the ward itself, like you've got your role models like you (participant A). I mean everyone in this room, everyone has got things, qualities they can contribute. They're the ones that you look up to as your role models. Like (participant B) said it comes from your family, I think it comes from your colleagues as well" (FG1)(C).

Participant B elaborated,

“...you do see role models, and you kind of like, especially when you are training. You think I like the way that person does this and gets on well with the patients. She gets on well with her colleagues and her care is good. That’s the sort of standards I want to do too. That’s my aim, my goal”
(FG1)(B).

The concept that the role models helped shape nurses' personal standards was shared by other focus groups.

Past life experiences and upbringing were perceived by the participants as factors which helped nurses develop their personal standards. This view was demonstrated by the following comments made by participant B,

“I think a lot of quality comes from your upbringing. The way you are brought up. It is something within you. You have your own standards that you expect to live up to. You carry that throughout life regardless of being [working] in hospital...” (FG1)(B).

Previous experiences and upbringing were important factors which influenced nurses' ability to provide personal standards as part of quality nursing care. Personal standards were developed and changed over time as the results of nurses' interaction with others and their life experiences.

4.5.5 Summary of Personal Standards and Review of the Literature

Personal standards were perceived as an important component of quality nursing care. The participants described qualities, which influenced personal standards as empathy, commitment to the nurses' role, responsibility, attitude, beliefs and morals. Personal standards reflected *'being with'* a patient and providing care above and beyond what was considered basic. The personal qualities listed above were developmental and were shaped by past experiences, the nurses' upbringing and role models. The participants in this study concluded that personal standards were reflected in their ability to provide quality nursing care.

The theme 'above and beyond' basic standards identified by the participants in this study, featured in other research studies that qualitatively examined nurses' or patients' perceptions of quality (Jackson-Frankl 1990; Fosbinder 1994; Frank, Eckrich & Rohr 1997; Williams 1998; Irurita 1999). Williams (1998 p.810) described this additional nursing care as "over and beyond". Similarly Frank, Eckrich and Rohr (1997 p.13) explained this phenomenon as "going beyond", and compared nurses' roles with musicians who played more than written notes. Fosbinder (1994 p.1087) perceived this care as beyond minimal expectations, as "going the extra mile". Jackson-Frankl (1990 p.62) recorded "does more than required" under her list of intangible quality. She also cited an example of intangible quality using a quote from one of her participants; "being there for the patient" (Jackson-Frankl 1990 p.60). 'Being there' for patients also featured as an aspect of Irurita's (1999 p. 87) "soft-hand care", one of four levels of care described by patients from an acute hospital in Western Australia. Thus the theme based on the response of the participants of this study that 'being with' was

related to personal standards and quality nursing care was supported by many researchers as described earlier.

The contextual properties of personal standards identified by the participants were supported by many researchers who examined quality nursing care. Examples were empathy (Attree 1996; Coulon, Mok, Krause & Anderson 1996; Irurita 1999), commitment (Coulon et al. 1996; Redfern & Norman 1999), responsibility (Idvall & Rooke 1998), attitude (Idvall & Rooke 1998; Redfern & Norman 1999) and beliefs and morals (Hogston 1995; Attree 1996; Coulon et al. 1996). These properties and personal standards were characteristics of an individual during his or her early developmental process. It also was related to upbringing, past experience and role modelling, and supported the researchers as mentioned. Smyth (1996) explained that nurses' past personal experiences may contribute to their ability to empathise. While Coulon and others (1996) suggested that nursing care was also influenced by nurses' attitudes, values and previous behaviour which they had with patients, patients' family or significant others and their work colleagues. The participants in this current study described that the traits associated with personal standards could be developed from forces outside a work environment. These personal standards were an important constituent of quality nursing care. Its relevance to quality nursing care could be summarised by a statement made by Jackson-Frankl (1990 p. 59) that "Quality, then, is an internal value personified through the attitude and approach of the nurse".

4.6 Application standards

4.6.1 Overview of Application Standards

Application standards represented the action and interaction that nurses undertook to provide quality nursing care. The action and interaction was highly influenced by the two standards previously described as basic standards and personal standards. The participants believed that there were certain actions and interactions that were required to ensure provision of quality care. The action was the ability to assess patients using a nurse's knowledge, experience and ability to recognise their own limitations. An interaction was the provision of individualised orientated care facilitated by acknowledgment of patients' perceptions of quality and promptly responding to patients' feedback about the care received. Figure 4-5 shows a relationship between the contextual properties and action and interaction of application standards.

See figure 4-5

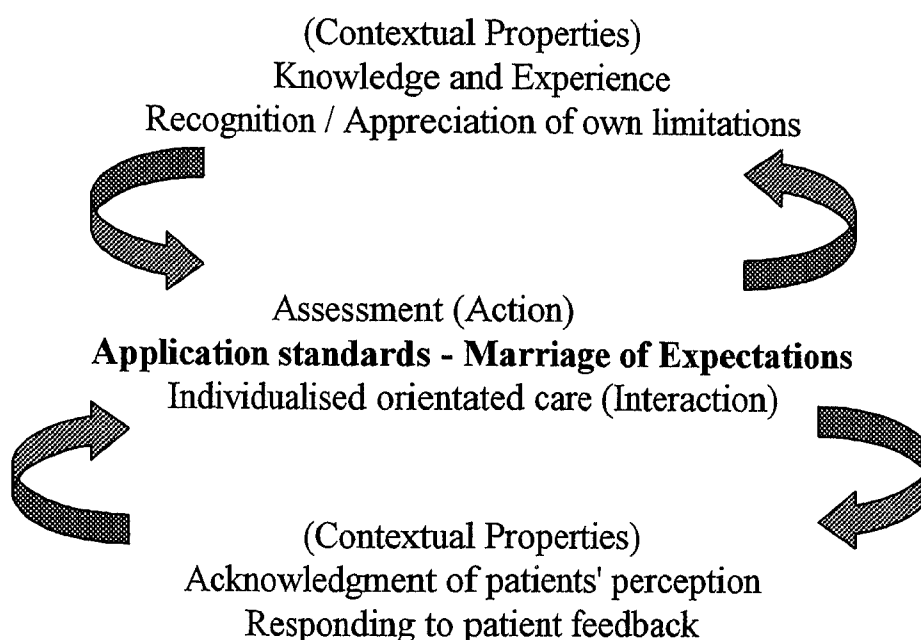


Figure 4-5 Application Standards

4.6.2 Assessment

The participants described assessment of a patient as an important component of quality nursing care. This assessment was expressed by participant B *"You are assessing all the time, you are assessing your patient all the time"* (FG1)(B). The theme of assessment was identified in all focus group sessions as an essential concept for the provision of quality nursing care. According to the participants the assessment of a patient was not an isolated action, but it was an ongoing process. The concept of an ongoing assessment was summarised by participant E with this practice example,

"I mean that makes the assessment ongoing then, throughout their whole episode of their care here. I mean they might not have a backache when they come in, and they might not have a history of back pain. But by the time the

next morning comes they are probably excruciating. So you can't you know once the procedure is over and done with and the sheath is out, you can't sort of stop there. You have to continue with your care. So that it does include ongoing assessment of your patients" (FG2)(E).

This view was supported by participant R who stated *"Ongoing assessment as you do it, not just assessment at the start" (FG5)(R).*

Another concept was that a patient assessment could be undertaken by a nurse subconsciously. This view was expressed by participant J who said,

"You just automatically do it yourself without realising it half the time. Like [participant K] said if somebody [patient] needs more attention than somebody else. Or you know for what ever reason that might be. I mean when you first meet them [patient], you assess them don't you? You may do it subconsciously, but you are, you are noticing if they need help" (FG3)(J).

It could be summarised that assessment both formally and subconsciously were identified as important properties of applying quality nursing care by the participants.

4.6.3 Knowledge and Experience

The participants described two concepts: knowledge and experience as contextual properties. These factors influenced nurses' ability to perform the assessment action. The following comments made by participant L represented general opinion of all participants.

“It [assessment] comes with experience too. You automatically assess your patients on your own experience. When you first start nursing angioplasty patients, say to a year down the track you are going to be more experienced in assessing your patients' needs” (FG3).

The connection between knowledge, experience and the assessment of the patient was demonstrated during participant observation sessions. Participant II who had four years part time experience in the CIU, was observed by the researcher during interactions with four PTCA patients. Following a particularly busy evening shift participant II reflected on the influence of experience on her ability to assess her patients.

“It was a fairly routine night, and it is much easier for me because I know the doctors' routine. I know what meds [medications] need to be written up and it is through my experience that things are plain sailing and will be attended to. We have got new RMO 's.[routine medical officers]. I mean I can make sure that things need to be done, that I get them done, further ECG's and all that type of thing. It is just purely experience. An experienced person and someone who is comfortable in that environment is really quite essential”(observation session no.4).

Participant C concluded that experiences and knowledge gained since she took her position in the CIU had enhanced her assessment ability. She commented:

“Oh Yeah I'm still giving them the sponges and stuff like that, but like when I assess their groins, I have a better understanding. I look at their history. I look if they have diabetes. I understand that they might bleed more or high

pressure.... stuff that I don't want to get into. But I just understand now that if something was to go wrong, I would now know why." (FG1)(C).

Knowledge gained during their work helped the participants to understand the cardiovascular disease process, signs and symptoms that required prompt care and anticipated medical intervention. This knowledge affected their ability to assess patients and identify risks, which might occur. As participant Z stated,

"You can't give quality care if you don't understand or have that knowledge base." (FG7)(Z).

Participant E who acknowledged that,

"A knowledge base can be extended there too... I mean assessing to make sure if bleeding is occurring and treating it immediately, rather than letting it get extensive" (FG2)(E).

Knowledge of post procedural complications enabled the nurse to include this in the process of assessment. As discussed by nurse participant BB

"If you don't know what you are looking for then you will compromise their care probably" (FG7)(BB).

According to the participants, assessment, knowledge and experience were important features for the provision of quality. Nurses who provided quality nursing care to PTCA patients would recognise the procedure complications and the patient's individual needs utilising their knowledge and experience.

4.6.4 Appreciation of Own Limitations

Another contextual property identified by the participants as important to the action of nurses' assessment of patients was their appreciation of their 'own' limitations. This characteristic although related to knowledge and experience, emerged as a separate substantive code. The participants in focus group seven recognised this property and agreed with the following conversation,

"And insight into your limitations is a big thing" (FG7)(X).

"That's right" (FG7)(a).

"Insight into the fact that I haven't done everything that I could have done"
(FG7)(X).

The participants believed that insight into their own limitations was essential for providing quality nursing care. Insight prompted nurses to access other resources and consult their nursing colleagues and health care team members in order to provide appropriate care, which met the needs of a patient. This was essential, particularly when the nurses were unable to fulfil their patient's expectations. Participant H referred to this insight as 'nous', or to ask another person when their level of knowledge or skill was not sufficient to meet the needs of the patient. As she put it:

"The person's own nous I suppose, to go and ask someone when they don't know, ... you trust that they will ask someone if they don't know" (FG2)(H).

This insight phenomenon of recognising their own limitations was addressed again following a participant observation session. Participant II reflected on actions she would take, if her patients' needs exceeded her abilities to provide care.

"My care was not compromised because I was there the whole time and they [patients] could see that. I was just continuously doing one thing after another. So they knew that I couldn't do anything more. They were very pleasant bunch. They were lucky as there were no problems. If there were complications then I would have demanded that the staff were in there and get things sorted out. I mean I would never work in an environment where I think that it is dangerous. Not on my own." (Observation session no.4)

Participant II described an awareness of her own limitations. She explained her limitation in caring for four patients who had a short hospital stay after an elective PTCA procedure. The level of care, which was required within a short period of time, made her doubtful of meeting the needs of all patients. This was particularly important when all patients were newly transferred from the catheter laboratory and being cared for by the same nurse.

Participant H reflected on the limitations that short stay presents when she stated,

"Then you have to ask yourself if they [PTCA patients] are only coming in for a day procedure. Are we the right people to be doing all of that [care] anyway? Are we going to be able to make any difference with our care within a short time..." (FG2)(H).

This insight led nurses to refer patients to other health care members, alternate services both within the hospital and in the community, so that patients' needs could be met and quality nursing care would be provided.

Insight or appreciation of nurses' own limitations was perceived by the participants as important to the provision of quality nursing care. This property complimented the nurses' ability to assess patient.

4.6.5 Individualised Nursing Care

According to the participants, planning individualised nursing care was the interaction to application standards of quality nursing care. Planning the individualised care was a complex process that required many steps. Data indicated two concepts as important steps used to provide individualised care. These were the ability of nurses to acknowledge a patient's perception of quality care and their ability to respond to a patient's feedback on the care currently received. Both steps required nurses to have good verbal and nonverbal communication skills, in order to read and interpret patient cues. The contextual properties of acknowledgment of patient perceptions and responding to patient feedback were then reduced into the individual orientated care category (See Figure 4-5). A comment made by participant FF clearly summarised the individual orientated care category as,

“Nursing care that is planned in conjunction with the patient. So that nursing care is best for the individual” (FG9)(FF).

This nursing care planned in conjunction with a patient was the result of an interactive relationship, which helped identify the patient's needs. Nurses needed to be open and receptive to the patient's expectations of quality nursing care. Nurses were expected to be able to modify their plan of care and satisfy the patient. All these properties were categorised as application standards.

Participant B explained that individual orientated care occurred when,

“...it is tailored to the individual. We need to treat each individual as what they perceive as the standard as well. Their expectations from you, and your expectations” (FG1)(B).

The ability of nurses to modify their care to meet their patients' expectations was supported and clearly evident during a participant observation session. Participant K explained that one of her patients was extremely agitated because her husband did not visit her at an expected time. Participant K recognised that the patient's anxiety would affect her recovery process following the PTCA procedure. The participant investigated reasons of the absence of this expected visit. Later she was able to explain to the patient that her husband was delayed due to a medical procedure he was seeking at a clinic. This information helped the patient to be receptive to post procedure instructions given by the participant. The participant was able to recognise her patient's needs and respond to it appropriately, demonstrating that responding to a patient's individual needs was an important feature of providing quality nursing care.

4.6.6 Marriage of Expectations

Patients' expectations and their perceptions of quality nursing care was the theme which emerged during the first focus group as an important factor of application standards. Similarly nurses had basic standards of care and personal expectations in providing care to their patients. Once the nurses identified the difference of their patients' expectations and their own expectations an adjustment was required. As mentioned previously, individualised nursing care was planned and provided if the patients' expectations were appropriate to their current situation. If the patients' expectations needed to be modified, 'a marriage of expectations ' between the nurse and the patient needed to be arranged. This could be achieved through their interaction to reach a mutual agreed expectation. The process of reaching such a mutual agreement could be demonstrated by the following data from various interviews.

Participant X responded to the question regarding whether the patients had different expectations of care to what was currently provided.

“They probably do, but that’s why it is such a blend between the two.

Between objective standards [by a nurse] and the perception of the person [patient] who is receiving all this care” (FG7)(X).

Participant N considered the outcome of a difference between a patient's perceived quality care and a nurse's perceived quality care and she suggested,

“Well then you have just got a communication problem I suppose. Which you need to sort out with them [patients], and then that should, their expectations and yours should change to come together in some way” (FG4)(N).

Participant T explained a strategy she used to achieve the marriage of expectations.

“If you perceive that they are perceiving it something differently, you spend more time, sorting the problem out” (FG5)(T).

If a patient’s expectations exceeded care that nurses were able to provide and there was no marriage of expectations quality nursing care was affected. Focus group data and observation sessions notes concluded that these patients would be labelled as difficult patients. This labelling affected subsequent care. Responses from focus group nine relating to nurses' behaviour towards patients who had high level of expectations was,

“You know if a patient is sort of difficult, either it has a negative or a positive thing. Either you don’t go back to them or if they...You make sure you dot every 'I' and cross every 'T” (FG9)(R).

Nurses would be cautious in their care, with behaviour that showed over compensation or avoidance. Both behaviours influenced the quality of nursing care. Participant L gave an example of her relationship with one of her patients who had high expectations. In turn it affected her care provided to other patients.

“I think some patients demand more of your attention. They [patient] want constant attention, reassurance. They think they will get it one way or another... It is the other patients then that suffer. Because if you have got a demanding patient, you are naturally going to spend more time with that patient. What ever they might want and it is continual. So you have to be there for them. That means you are not spending that time with others”
(FG3)(L).

Application standards could be achieved by action and interaction taken by nurses in order to provide quality nursing care. Nurses should be able to conduct an ongoing assessment of their patients using knowledge, experience and appreciating their own limitations. If needed, nurses should develop a relationship that reflected 'a marriage of expectations', and provide individualised nursing care by their acknowledgment of the patients' perceptions of quality and responding to patients' comments on current care.

4.6.7 Summary of Application Standards and Review of the Literature

The participants of this study described application standards as the results of nurses' action and interaction with patients and other health care members relating to the provision of quality nursing care. The properties of action included the nurses' ability to assess patients utilising their knowledge, experience and appreciation of their own limitations. The properties of interaction included the provision of individualised orientated care which was facilitated by their acknowledgment of patients' perception of quality and their ability to respond to their patients' feedback on care currently received. The participants believed that quality nursing care could be achieved by establishing negotiation with their patients that reflected a marriage of expectations.

The action and interaction properties of the core application standard category might be similar to the constituents of performance or the process factors of nursing care described by Idvall and Rooke (1998) and Redfern and Norman (1999). Idvall and Rooke (1998 p.517) explained two dimensions of care, which were starting points for quality indicators. One of these dimensions was the 'elements of performance'. They further elaborated that these elements of performance were characteristics and activities between nurses and their patients. Redfern and Norman (1999) applied a critical incident technique (Norman et al.1992) in their research to formulate indicators of high and low quality of nursing care. They stated that most theories affirmed the process factors or what nurses were doing for and with their patients, were important factors of quality nursing care (Redfern & Norman). Another qualitative ethnographic study conducted by Fosbinder (1994) suggested that a nurse-patient interaction was a critical determinant of patients' perceptions of quality nursing care. Williams (1998) suggested that the participants of her grounded theory study

undertaken in acute care settings, Western Australia, viewed the delivery of quality nursing care as determined by the context in which interactions occurred between patients and nurses. Many researchers examined and supported a nurse-patient relationship as a central issue relating to quality nursing care (Parish 1986; Kitson 1987; Jackson-Frankl 1990; Astedt-Kurki & Haggmann-Laitila 1992; Fitzpatrick et al. 1992; Norman et al. 1992; Fosbinder 1994; Coulon et al. 1996; Idvall & Rooke 1998; Redfern & Norman 1999; Williams 1998; Gay 1999; Irurita 1999).

The marriage of expectations concept based on the results of this study was supported by various researchers who explored the quality nursing care issue (Parish 1986; Kitson 1987; Astedt-Kurki & Haggman-Laitila 1992; Nielsen 1992; Nash, Blackwood, Boone, Klar, Lewis, MacInnis, McKay, Okress, Richer & Tannas 1994; Lin 1996).

Kitson (1987 p. 321) suggested that nurses' ability to know or identify what was best for their patients "must emanate from the meeting of two minds and two hearts - the helper and the helped". Parish (1986) stated that nurses should rely on patients to confirm success or failure of their care as an indicator of quality nursing care. To achieve the marriage of expectations, the value systems of nurses and patients were taken into consideration during nurse-patient interactions. It was essential that both value holders were aware of the other's value system (Nielsen 1992). Nielsen (1992) suggested that nurses should spend time to appreciate their patient's beliefs and understand the patient's current situation and expectations. Astedt-Kurki and Haggman-Laitila (1992) conducted a qualitative study in Finland, their results supported the marriage of expectations concept. They suggested that patient centred nursing care would not be achieved unless the nurse evaluated patient's expectations, undertaken at the beginning of the shift (Astedt-Kurki & Haggman-Laitila

1992). Nash and colleagues. (1994 p. 52) formulated a model, which helped manage expectations of both a patient and a nurse. One important outcome after the expectations of the nurse and patient were matched was quality nursing care. Other outcomes included patient satisfaction with nursing care, financial viability, nurse satisfaction, physical satisfaction and positive community image (Nash et al. 1994). Lin (1996), who evaluated studies relating to patient satisfaction, quality assurance and quality of care concluded that the process of quality nursing care depended on the nurses' ability to demonstrate their knowledge to patients and the degree to which they conform to the patients and their own expectations. It could be concluded that the marriage of expectations concept derived from the data of this study was supported by many researchers in this area.

The properties of application standards as an important characteristic of quality nursing care were also supported by other studies. These properties included the assessment ability of nurses (Nash et al. 1994; Idvall & Rooke 1998; Redfern & Norman 1999) and individualised care (Parish 1986; Astedt-Kurki & Haggman-Laitila 1992; Atree 1993, 1996; Hogston 1995; Irurita 1996; Frank et al. 1997; Redfern & Norman 1999; Waters & Easton 1999). No published articles mentioned nurses' awareness of their own limitations. However, knowledge and experience of nurses was acknowledged by a number of researchers (Jackson-Frankl 1990; Neilsen 1992; Atree 1993, Redfern & Norman 1990, 1999; Dozier 1998; Irurita 1999).

In conclusion three categories that represented nurses' perceived quality nursing care were: basic standards, personal standards and application standards. These findings were supported by other studies that have examined quality nursing care.

4.7 Conclusion

The participants of this study provided rich descriptive data, which defined quality nursing care. Three core categories that represented quality nursing care were identified and they were basic standards, personal standards and applications standards. 'Doing to' and 'being with' the patient to ensure a marriage of expectations were the important themes that represented the three core categories.

CHAPTER 5

FACTORS THAT AFFECT THE PROVISION OF QUALITY NURSING CARE

5.1 Introduction

Chapter 4 described and discussed the definition of quality nursing care. It was noted that the three major standards: basic standards, personal standards and application standards were contributed mainly from an individual nurse's characteristics. Nonetheless, the ability of a nurse to provide quality nursing care was influenced by other factors. This chapter will describe the results which answered the second research question of what factors influenced the provision of quality nursing care as defined by the participants and presented in chapter four. Three categories of structure, process and culture were described by the participants as factors which affect the provision of quality nursing care for PTCA patients. The properties within structure, process and culture will be explained. Finally comparisons will be made with literature.

5.2 Structure

The participants perceived human and material resources as two separate structural properties that affected the provision of quality nursing care caring for PTCA patients. Structural conditions were stable physical and organisational resources of an environment where nursing care was provided to PTCA patients (Donabedian 1980). The human and material resources described by the participants were similar to some of the properties described by Donabedian (1980). This similarity helped focus the category name to be called 'structure'. Two types of these structural resources and their

substantive codes that the participants of this study described will be explained in the following sections:

5.2.1 Human resources with the substantive codes of staff allocation and skill mix

5.2.2 Material resources with the substantive codes of environment design and equipment resources.

5.2.1 Human resources

Staff allocation was the first condition identified by the participants of this study, which affected nurses' ability to provide quality nursing care. Staff allocation was the number of patients allocated to be cared for by a nurse.

The participants from the CIU described that the provision of quality nursing care could be achieved by the current allocated patient-staff ratio. In the CIU the patients per staff ratio was four patients with high dependency requirements per one nurse with additional support from the second nurse. However, four participants (FG1 A; FG1 C; FG 2 E; FG3 L) expressed their dissatisfaction with this patient-staff ratio, in the following situation. When providing care for four patients following the PTCA procedure, one patient developed complications including angina pain, nausea, vomiting and urinary retention. This dissatisfaction was caused by their inability to provide care at their expected level. As participant II described during a participant observation session,

“Unfortunately the one to three [one nurse to care for three PTCA] patients was my doing, or undoing as it may be. Because of most probably, my experience. One to three I can do and make sure they do get their cup of tea and toast and you know a good chat and provided with education and provide what is expected. But four[PTCA patients] in there[PTCA room]

you just can't do it. Even if you get two sickies and there are only two[patients] in there. I have had two [patients]where it wasn't enough because I have had problems." (II)(Interview following observation session no.4)

Other participants from the CIU supported the above opinion, relating insufficient time to care for patients. The participants from the CIU agreed that the quality of nursing care could be affected by unforeseen patient complications. It might affect a nurse's ability to care for other less complicated patients without support from their colleagues. Such conclusions were supported by the following comments received by participants,

"Four to one with no help [from other nursing colleagues] is pushing it sometimes" (FG1)(D)

"That pushes you to extreme, ...I mean I think you are even pushing the basics then, of quality" (FG1)(A)

"Especially if you have got someone who has got to have an IDC [indwelling catheter] in and that poor person..." (FG1)(C)

"Well that's tends to be a needed extra, the others miss out on obs..." (FG1)(D)

The number of patients being cared for by a nurse had a direct effect on the provision of quality nursing care. The nurses would be able to provide only basic standards of care if she/he had to care for four patients without the support of a second nurse. This opinion was confirmed during a post observation session interview, when participant A

described how the lack of support from her colleagues affected her ability to provide quality nursing care.

“If I was there by myself I would perceive that [I gave] a low quality standard because I wouldn’t be able to give all of my time. Like do all the routine things as well as doing the personal ones. If you didn’t get that support [from your colleagues], you would be flat strapped and you would just do the very basics of what you had to do, just get the work done. But I was able to have conversation with all of them [PTCA patients] tonight” (A) (Interview following observation session no.3)

The participants from the CCU agreed with the participants from the CIU, that patient-staff allocations might affect the provision of quality nursing care. However, they expressed satisfaction with the current levels of staff allocated to elective PTCA patients. During the period of this study an observed patient-staff allocation in the CCU was one nurse per one to two patients. As participant M explained,

“In coronary care you have only got one or two patients, so you have got plenty of time to stay with the patient. Yeah you see, not like in the ward [CIU] where you have got so many patients to look after. So here there is always someone around.” (FG4) (M)

When asked if the allocation of staff was considered a factor that affected quality nursing care in the CCU, participant N reflected,

“No. Not as big as it would be on the ward [CIU]. They could be denied a nurse when they need one. It is different, they [nurses from the CIU] have got greater pressure in that respect. I think they [nurses from the CIU] have four [PTCA patients] in their plasty room haven’t they? Yeah that would

make things that much more difficult. Here [CCU] you only probably have one plasty [PTCA] patient to yourself.(FG4)(N)

The PTCA patient-nurse ratio was a factor that affected the provision of quality nursing described by the participants from both the CIU and the CCU. The participants felt that the current ratio of one nurse per four post PTCA patients was high and led to poor quality nursing care. The ratio of one nurse per three patients was considered by the participants as a favourable ratio. However, this could be changed if patients developed complications.

Skill mix was identified by the participants as a condition that affected quality nursing care. Skill mix was defined as considering the knowledge and experiences of the team of nurses working on any given shift. As mentioned in chapter 4, participants believed that their knowledge and their work experiences in caring for PTCA patients were contextual properties of quality nursing care. The participants further explained that skill mix of the nurses rostered influenced quality of care. The participants acknowledged that the team of nurses who had different levels of knowledge and skills working in the same shift affected the quality of care. Quality nursing care was compromised if there were few nurses with long term experiences working in a shift. As participant H described,

“I tend to think that on the ward [CIU], the skill mix definitely affects the quality of care. Because if the place is only being, the most senior nurse on the ward has only been there a couple of months, and you have a lot of pool [relief] staff you soon notice the difference. And they [the team leader of the shift] would never put a pool nurse in to care for the plasties [PTCA patient], because of that. So you would have to say yes.” (FG2)(H)

When regular nursing staff from the CIU and CCU reported in sick, relief staff were rostered to the unit. The participants from the CIU expressed concern that relief nurses did not have prior experience for caring for the PTCA patient. These concerns led to the practice of not allocating relief nurses to care for PTCA patients.

Considering the impact relief nurses had on the quality of care provided to the PTCA patient nurse R reported,

"It is a big factor, if anyone is off sick or regular staff are off sick." (FG5)(R)

and nurse Q

*"That is a problem on night duty, when there is less staff in the first place and if you have two people off sick, it becomes a bit of a push on your staff."
(FG4)(Q)*

The results of this study suggested that the knowledge and skills of nurses in a team working together was an important factor influencing quality nursing care. The participants considered that in order to provide quality nursing care to PTCA patients the staff compliment should include nurses who had experience working with PTCA patients.

5.2.2 Summary of Human Resources and Review of Literature

The results of this study showed that human resources, the patient-staff ratio and skill mix of nurses, in the CIU or CCU, affected the care they provided to PTCA patients. Their ability to provide quality nursing care required a satisfactory number of staff who had experience in caring for PTCA patients. If the number of experienced nurses was inadequate in a team during a shift, nursing care would only achieve basic standards but not quality nursing care (observations sessions 3&4; FG1). Inadequate human resources

decreased the length of time that a nurse could use to develop a relationship with their patients, as expected in application standards and to gain the marriage of expectations. A study by Meluch and Mitchell (1997) suggested a ratio of one nurse per three patients as appropriate to the care for PTCA patients. This suggestion was based on a working environment at a specialised interventional unit at the University of Alabama at Birmingham Hospital, not on a researcher's results. No specific recommendations were made relating to this patient-staff ratio by other authors (Ott 1982; Partridge 1982; Gershan & Jiricka 1984; Halfman-Franey et al. 1991; Shaffer & Ruiz 1992; McKenna 1992; Gardner et al. 1996). However, many authors suggested that nurses who had advanced skills and had specific knowledge relating to caring for critically ill patients, would assist in identification and early detection of vessel closure and vascular access site complications among PTCA patients (Ott 1982; Partridge 1982; Gershan & Jiricka 1984; Halfman-Franey et al. 1991; McKenna 1992; Shaffer & Ruiz 1992; Gardiner et al. 1996; Meluch & Mitchell 1997; Woods et al. 2000).

Donabedian (1980) included the human, physical and financial resources in his concept structure. The Donabedian (1980) model mentioned that human resources included the number, distribution and qualifications of personnel. This model and other researchers supported the results of this study which, identified number and skill mix of nurses as factors influencing quality nursing care (Gibbs, McCaughan & Griffiths 1991; Hogston 1995; McKenna 1995; Wynne 1995; Idvall & Rooke 1998; Williams 1998; Taylor, White & Muncer 1999; Waters & Easton 1999).

Caution needed to be taken when the participants assumed that nurses with long term employment history would be more experienced than nurses with a shorter employment period. Gibbs and colleagues (1991) argued that employment period did not necessarily

equate with an increase in skill. They suggested that the relationship between the length of employment and increasing skill could actually be curvilinear. Skills would increase at the beginning of their employment but later decline or remain steady once reaching a certain level (Gibbs et al. 1991). The participants of this study did not consider such a relationship described by Gibbs and his colleagues (1991). Probably the participants' perceptions related to this issue were influenced by their experiences in working with relief nursing staff who had limited knowledge and understanding of the unit and care provided to PTCA patients. However, the participants' opinion that basic physical needs of patients would only be met when the proportion of qualified staff and overall staffing levels were low were supported by other researchers (Gibbs et al. 1991; Hogston 1995; Idvall & Rooke 1998; Taylor, White & Muncer 1999).

5.2.3 Material Resources

Other factors which affected quality nursing care were environmental conditions such as material resources and building design. The material resources described by the participants were equipment used to assess PTCA patients. Other environmental conditions were the size of the room and inadequate air-conditioning. The environmental conditions delayed nurses' ability to complete their tasks. The availability of material resources influenced their ability to assess patients. Environmental designs affected the nurses' feelings and could make them feel frustrated and stressed which indirectly reduced their ability to communicate with patients.

Inability to assess patients was perceived as the lack of nurses' ability to reach application standards. Inadequate resources used in the assessment of PTCA patients was a factor which influenced quality nursing care.

Participant E explained the importance of material resources,

“...you need resources, without your equipment and things like that you can’t function properly. So you need to make sure what you have got is maintained up to a certain quota. So that you know that you are not going to run out of stocks and things like that. They are accessible if you do need things in a hurry, and if you need an ACT [activated clotting time] and the machine [testing device] is loaned elsewhere, the ACT is delayed. You have got to get the machine back and you can’t take the blood test and things like that.” (FG2)(E)

Maintenance of machines at working condition was perceived as another factor, which influenced nurses' ability to provide quality nursing care.

Participant H shared her opinion about unreliable equipment,

“I think that it [working condition and availability of equipment] the patient you’ve got. It makes them a bit anxious, if you say that machine is not working properly and that was the third time you had done a haemachron [ACT test]. It [the result] was still higher than it was before. I think they [patients] get anxious and it affects quality of care.” (FG2)(H)

The room design and its size were perceived as factors which affected quality nursing care. This was evident in the CIU. Limited space between patients' beds and curtains to ensure privacy of patients were raised as material resources inhibiting nurses in the CIU to provide quality nursing care. Another factor was the lack of air-conditioning facilities. The CIU did not have air-conditioning facilities, while the CCU was fully air-conditioned. Participant J described how the current design of the CIU influenced her care.

“...the room is so little too, maybe if it was bigger we could care better. If we had different partitions, not just curtains but maybe something a little bit

more solid, maybe we could filter out the light. You know how late at night, when you are pulling sheaths and some of them [other patients in the room] are just trying to get rest and they just can't." (FG3)(J)

Participant K elaborated how limited space affected her care,

"I mean it might affect our quality care a little, with trying to manoeuvre all the furniture, trolleys, and bed tables and stuff in that small space.. And if there are relatives at the next bed you just can't fit." (FG3)(K)

Participant E summarise her needed material resources,

"I mean once you have got a pleasant atmosphere and an environment that is conducive [it helps your work]. One if you had a bigger area your male and female patients could be a bit further apart. You would have better privacy, screens, you would be able to get in and out of curtains without exposing them too much, and climbing around the beds and things like that. I mean once you bump a bed you hurt your leg and you get cross, you bump the patients and they get fright. You shouldn't have to squeeze past lockers to get at drip poles." (FG2)(E)

The poorly designed working environment caused stressful working conditions and influenced quality nursing care. As described by participant L,

"Well I think it goes back to stress, if you get stressed out, quality of care is not going to be as great as when you are happy and relaxed." (FG3)(L)

5.2.4 Summary of Material Resources and Review of Literature

The availability of material resources was perceived by participants as an important factor that influenced quality of care provided to PTCA patients. They identified the following environmental properties: the design of the unit and the equipment used to facilitate assessment and care of the PTCA patient.

The importance of these material resources on nurses' ability to provide quality nursing care was supported by many researchers (Williams 1998; Redfern & Norman 1999; Taylor et al. 1999). Other researchers suggested them as a prerequisite of quality nursing care (Jackson- Frankl 1990; Hogston 1995; Atree 1996; Idvall & Rooke 1998). While Donabedian (1980) suggested structure represented all stable features of physical and organisational resources within a unit where staff were working. Idvall and Rooke (1998) conducted a qualitative study using focus group interviews to explore clinical nurses' perceptions of important aspects of nursing care. They indicated that environment and equipment was the prerequisite of quality of care provided to patients in surgical wards at four hospitals in Sweden. These were similar to the opinions made by upper nursing administrators who participated in a study by Jackson-Frankl (1990). The participants of Jackson-Fankl's (1990) study identified that environmental factors and material resources were a precondition for quality. Another study conducted by Hogston (1995 p. 120) clearly specified material resources as supplies, equipment and 'having the goods you need'. A qualitative study conducted by Redfern and Norman (1999) described the facilities, resources and equipment as properties of therapeutic context for quality care. Williams (1998) conducted a grounded theory study in Australia and indicated that both human and physical resources affected time available for to nurses to deliver quality care. Williams (1998) also proposed that there was a reverse relationship between stress and the nurses' positive attributes and their ability to

provide therapeutically effective care. This relationship supported the results of this current study.

The current study also differentiated human and material resources as two separate structural properties that affected the nurses' ability to provide quality nursing care to PTCA patients. Other studies supported these findings. However, other studies did not specifically focus on a certain group of patients.

5.3 Process

The second category of conditions selected were based on their effect on the interaction between the nurse and their patients. The conditions included: time, critical incidents, and the nurses' health status. These conditions influenced the care delivery process. The category name 'process' was similar to the Donabedian (1980, p.79) definition of 'process of care' which included all the "activities that go on within and between practitioners and patients".

Time was generally accepted by the participants as a condition that affected the provision of quality care. Time affected interaction between patients and a nurse. Relationships between time, and critical incidents emerged as a theme. Participant A identified the effect of limited time on quality nursing care as following,

"... time limitations, that's a big area. You feel like you have let yourself and the patient down. Time restrictions or emergencies that take you away from the area, so you can't spend enough time or as much quality time as you would like to." (FG1)(A)

Limited time did not allow nurses to establish relationships with their patients to achieve the marriage of expectation, which was earlier identified as an important property of application standards. As participant J said,

“I think a lot of the time we don’t get enough time to sit down and chat, I don’t think their [PTCA patients] mental or psychological aspect of their nursing care is being met.” (FG6)(J)

Another result of time limitations was that nurses were unable to provide individualised nursing care. Participants expressed their frustration due to their inability to provide care which addressed the individual needs of their patients. As stated by participant B, who felt that she was *“just getting the bare necessities done, for one patient then you are rushing off to the next” (FG1)(B)*

Participant G supported this,

“I think that you would also be affected if you were flat strapped as you haven’t got the time that you should have. Which is also going to cause you frustration. Because you cant deliver whatever you are trying to do.” (FG2)(G)

It could be concluded that time spent with PTCA patients should be adequate to allow a relationship between the patients and nurses and to ensure the marriage of expectations to provide individualised nursing care.

According to the participants unexpected critical incidents which might occur during a nurse's shift had a significant influence on time which they could spend with other patients. These incidents represented all events which could happen in a unit that required human resources exceeding those available. Some of the critical incidents, which could develop relating to PTCA patients included: nausea, vomiting, angina pain, urine retention which required an in dwelling urethral catheter (IDC), bleeding and

hypertension. If a critical incident occurred, a nurse might spend most of her/his time caring for one patient, which limited time to care for other patients. Participant L from the CIU gave an example,

“I think when you[patients] get complications, say you get two patients back [to the unit] and they both get chest pain and nausea. Possibly we feel that little bit of stress coming through then. You have to decide which one you going to give the most attention too. You are dividing your time between two people that are actually requiring your undivided attention at that stage. And that’s when stress comes in.” (FG3)(L)

Participant R from the CCU described the effects of critical incidents on the available time to be spent by a nurse with other angioplasty patients,

“You are right in that shift by shift, is different depending on how busy the rest of the unit is and how sick the patients in the unit are. That definitely reflects the amount of time you spend with your angioplasty patient.” (FG9)(R)

Participant A who described that her shift “went off pretty good” had the following critical incidents observed during her participant observation session: a late sheath removal for one patient, while another patient required an IDC. These incidents reduced the time she was able to spend with other patients. She reflected during the post shift interview,

“I suppose if it had been a bit quieter, I mean you could probably have put in that bit of extra, extra bit of personality in it.”

Nurses' health status was another factor, which influenced the interaction between nurses and their patients. The participants recalled their personal poor physical or psychological health that affected their interactions with their patients. Their poor health

was described by the participants as, *"feeling a little bit off colour yourself"* (FG1)(B) or psychological factors like *"something that is quite major outside in your life"* (FG1)(B), and *"like a family member dying"* (FG1)(D). The change in health status affected their ability to establish rapport with their patients as participant B described,

"It is also your emotional level, You are upset and depressed and something is going on, you don't give as much as you should do [to patients]. You can't block a lot of things, which will keep you unhappy all day. You know serious stuff is going on in your life and keeps you unhappy. You can't block it and you become a bit more robotic." (FG2)(I)

Participant H described how her physical illness affected her tolerance while caring for PTCA patients.

"Tolerance level I think [decreases]. When you are not feeling well, it is very hard to care for others, when you're the one that needs to be cared for." (FG2)(H)

Another participant believed that emotional stress caused her to be unable to provide individualised nursing care:

"I think you possibly, your concentration on your individual [the patient] is not as great as if you are not under stress, a workload or emotional stress." (FG3)(L)

It could be summarised that nurses' health status affected their ability to undertake their responsibilities including establishing relationships or communication with their patients. Lack of tolerance and inability to focus on patients' needs were the result of poor health. All these outcomes reduced the quality of nursing care.

5.2.1 Summary of Process and Review of Literature

Availability of time to care for patients, unexpected critical incidents, and the nurses' health status were factors, which influenced nurses' ability to provide quality nursing care. These concepts in the 'process' category had direct effects on the interactions between the nurse and their patients.

The effect of the amount of time available to care for patients on quality nursing care was supported by many authors (Jackson-Frankl 1990; Attree 1993; Hogston 1995; Mahon 1996; Chang 1997; Shindul-Rothschild, Long-Middleton & Berry 1997; Williams 1998; Irurita 1999; Waters & Easton 1999). Williams (1998 p.811) formulated the concept of 'time available' into four contexts of time: abundant, sufficient, minimal and insufficient. She related these to her model of quality of nursing care (Williams 1998). The concept map of the relationship indicated that abundant time would enable nurses to be therapeutically effective and produced exemplary care. Insufficient time would cause therapeutically ineffective nursing care as demonstrated by low quality care. Irurita (1999) conducted a grounded theory study, which explored factors affecting quality nursing care from the patients perspective. These study results also supported the model proposed by Williams, relating effective nurse-patient relationships with time nurses spent to care for them (Irurita 1999). Both Williams (1998) and Irurita's (1999) studies were undertaken concurrently in the same settings of acute care hospitals in Western Australia (Irurita 1996). The model developed by Williams (1998) and supported by Irurita (1999) lend support to the opinions of the participants in this study. The participants related time available to their ability to provide individualised nursing care. Lack of time resulted in the psychological needs of their PTCA patients not being met. Results of an ethnographic study conducted by Waters and Easton (1999) suggested that insufficient time spent with patients, inappropriate skill mix and lack of

support staff were negative properties influencing the delivery of individualised nursing care. Shindul-Rothschild and colleagues (1997) reviewed the results of a Patient Care Survey by the American Journal of Nursing in 1996. There were 7,335 nurses who responded to the questionnaires. Results showed that 90% of nurses perceived "poor or very poor" quality care. These participants also stated that they had less time to perform basic nursing care (Shindul-Rothschild et al. 1997, p.38).

Issues relating to unplanned critical incidents limiting time spent on other patients were not found in other studies. However, many authors acknowledged complications after PTCA procedures including angina pain, bleeding and hypertension (Ott 1982; Gershan & Jiricka 1984; McKenna 1992; Meluch & Mitchell 1997; Woods et al. 2000). Waters and Easton (1999) mentioned broadly that unexpected events in a unit might affect nurses' ability to provide individualised care during a shift. One reason for the clear link between critical incidents and less time with patients in this study would be explained by the nature of post PTCA procedure complications, which were not investigated by other researchers.

The health status of nurses, as an influencing factor on quality nursing care, was not mentioned by other researchers (Parish 1986; Kitson 1987; Jackson-Frankl 1990; Astedt-Kurki & Haggmann-Laitila 1992; Fitzpatrick et al. 1992; Norman et al. 1992; Fosbinder 1994; Coulon et al. 1996; Idvall & Rooke 1998; Redfern & Norman 1999; Gay 1999; Irurita 1999). A study by Williams (1998) had linked nurses' levels of high stress with the limited time nurses spent caring for their patients. However, the current study clearly showed that nurses' physical or psychological health could directly effect the quality of care.

5.4 Culture

The third category of conditions which affected the provision of quality nursing care was culture. These culture conditions were perceived as characteristics that specifically existed in both study settings, not in other units of the hospital. The factors applied to the CIU were throughput and the turnover rate of patients. Only one factor applied to the CCU, the use of continuous ECG monitoring of patients. Culture has been defined as a set of shared values, goals, attitudes, rituals and practices that characterise a specific group or organisation (Merriam -Webster's Collegiate Dictionary 2000; Sleutel 2000). The cultural conditions identified by the participants from the CIU were different to the property described by participants from the CCU. Which made them to be specific characteristics of each study unit.

5.4.1 Development of the Category - Culture

The transcript discussions from the focus group interviews and the field notes based on participant observations gave the 'culture' code as another category that affected quality nursing care. During an open coding process many factors were grouped into this category. The factors such as staff allocation and availability of resources were initially thought to be reflective of each unit's culture. However, later they were re-coded, as they could be applied to all units in a health organisation. The culture category was used for conditions which were specifically found in only CIU or CCU environments. These cultural factors identified by the participants from the CIU would not be described by the participants from the CCU. The effect of throughput, turnover and the use of continuous ECG monitoring on quality care will be presented in the following sections.

5.4.2 Cardiac Investigations Unit - Throughput and Turnover

Culture of the unit was mentioned during an early data collection stage, by the CIU participants as a factor affecting the provision of quality nursing care. They perceived it as a unique property in their working environment, as stated by participant G,

"Because it is different to any other sort of area. Than any of us has worked with in the past" (FG2).

What was apparent when examining the data for themes related to culture was that turnover and throughput was perceived as important to the nurses on the CIU. The nurse participants felt that this situation was directed by hospital and ward management and the medical care of the PTCA patients. A response to the question of what is quality care by nurse participant L demonstrated this belief.

"Well I would think to administer good acute nursing care, that the patient stays in hospital as little time as possible. So you bring the patient in as quick as possible and get them out again." (FG3)(L)

Subsequent data analysis suggested turnover and throughput were two themes specifically related to the CIU participants. According to the participants the throughput and speedy turn over rate of patients required by the CIU affected their provision of quality nursing care. Throughput reduced the time available that nurses could spend with their patients and limited their ability to develop a relationship that enabled the marriage of expectations. As demonstrated by participant I's following comment,

"Sometimes because on other occasions you know that the ward [CIU] culture dominates, and the ward culture from the top is probably a 'throughput' rather than nurturing sort of an atmosphere. You probably

tend to do more of the through putting than the nurturing. I know I do.”

(FG2)(I)

There was an underlying expectation that patients would not have any complications after the PTCA procedure, so that they would be discharged early and enable another patient to occupy the bed. However, this expectation did not always happen. The consequence to quality nursing care in these circumstances was discussed by participant E,

“The time that we have here, the turnover that we support in this ward [CIU] doesn’t work. Even if we allow time for that nurturing, comforting, caring role, something else goes amiss.” (FG2)(E)

Participant E perceived that meeting the turnover rate required in the CIU resulted in her not being able to provide individualised nursing. As she explained,

“It [turnover rate] does, so sometimes I guess it is easier not to do it for one and make it across the board thing. If you have time then you sort of approach it [individualised care], but otherwise it’s ‘Strictly Business’.” (FG2)(E)

The CIU participants described that culture of ‘throughput and turnover’ would sometimes directly affect their attempts to provide individualised nursing care, an important standard of the definition of quality nursing care.

5.4.3 Coronary Care Unit - The Use of Continuous ECG Monitoring

The throughput and turnover factors were clearly identified by the CIU participants as having detrimental effects on the quality care of post PTCA procedure patients, the effect of the use of continuous ECG monitoring on the care in a CCU environment was

less evident. The use of continuous ECG monitoring to elective PTCA patients would only occur in the CCU, as the infrastructure to provide this monitoring was unavailable in the CIU. After the PTCA procedure, patients' cardiac functions would be assessed using continuous ECG monitoring in the CCU. Patients who had an emergency PTCA or patients who had procedural complications would be routinely returned to the CCU as ordered by the Cardiologist. PTCA patients would then be assessed by continuous ECG monitoring. However, a few elective PTCA patients who were not transferred to the CIU due to a lack of beds, were also admitted to the CCU. These patients were also assessed by continuous ECG monitoring. The use of continuous ECG monitoring and nurses' attitude towards its function relating to quality nursing care made it a cultural factor specific to the CCU.

There were mixed responses to the impact of continuous ECG monitoring on the provision of quality nursing care. Most participants initially agreed that continuous ECG monitoring certainly improved quality. As stated by participant CC,

“It enhances quality, because you can see at a glance what is happening [to the patient]. And then you act on that by feeling pulses. You have got a better understanding of what is happening at the time, and you can act on it. Improving quality by efficiency or speed, of your reactions.” (FG7)(CC)

However, some participants disagreed on the achievement of quality of care due to the continuous ECG monitoring. Participant W said,

“I think it is just habit, more than quality of care.” (FG5)(W)

Establishing the rationale for providing this monitoring facility produced a number of responses from the participants such as: observing S-T segment changes on the ECG

trace (see Appendix H), an ability to print and interpret a history of the ECG waveform, earlier nurses' responses to ECG changes that may indicate vessel closure and not having to perform a 12 lead ECG (FG 9 O; FG 4 O; FG 5 T).

The participants were asked to explain whether the continuous ECG monitoring affected the time spent or interaction with patients, a range of responses were given. The effect of the continuous monitoring in the CCU on the quality of nursing care could be explained by the reduction of the frequency of patient evaluations conducted by a nurse. During the early post PTCA procedure phase, patients needed to be routinely observed by a number of observation assessments including checking blood pressure, bleeding from an arterial sheath at the access site, peripheral arterial pulse, and pain. As the continuous ECG monitoring provided information of heart rate, rhythm and blood pressure, this could reduce the number of personal observations, which should be conducted regularly in person by some nurses. The reduction of frequency of these assessments was perceived by the participants as having a direct effect on the number opportunities for nurses to have interactions with their patients.

The following comments made by participants S and T supported the above opinion,

"I think with the obs [observations] that we do here as you say there are always... They [patients] are on the monitor and you tend to rely on the monitor in a lot of instances if you are busy and you can't get to do your fifteen minutely obs. You know your monitor is a pretty good indicator if there is anything happening. You know if there is a bradycardia or if there.... The only thing they[continuous ECG monitoring] can't tell you is if there is a bleed basically." (FG5)(S)

“But I mean we don’t do a lot of obs, probably because they are monitored until the sheath comes out, we wouldn’t be doing them probably as frequently as the ward [CIU].” (FG5)(T)

However, some CCU participants did not perceive this problem, as patients were informed to call the nurse using a call buzzer when they needed help. As stated by participant R,

“The monitors are set and they [PTCA patients] will call us if there is something drastically wrong. We usually tell our patients that if it starts to feel sticky [due to bleeding] give us a buzz and let us know, so they are not likely to [have more blood] ooze much.” (FG5)(R)

Participant DD supported this view with the following,

“The other thing of course is that monitoring doesn’t tell you everything, certainly they can have pain and as long as they have got a buzzer to let you know, that’s the important thing.” (FG7)(DD)

The participants demonstrated their awareness of limitations of continuous ECG monitoring in the assessment of patients after the PTCA procedure as demonstrated by the comments by participant R,

“The monitoring is only part of the picture. You are not observing if patients are bleeding. You just know that you have got a heart rate of a satisfactory rate. I think post plasty [PTCA] the biggest risks is bleeding...But when you are talking about going away from the patients, you are not going to notice as quickly that they are oozing. Just simply because they have got a good heart rate. Conversely if you don’t have them on a monitor you are not seeing the ST segment changes. (FG9)(R)

Continuous ECG monitoring was perceived by the CCU participants as an added assessment tool to be used for PTCA patients. They believed that continuous ECG monitoring improved nurses' response time to heart rhythm abnormalities and vessel closure evidenced by S-T changes on the ECG trace. In chapter 4 the nurses' ability to assess patients was an important property of application standards, continuous ECG monitoring could be considered as another measure to improve quality nursing care. However, continuous ECG monitoring could decrease the contact time nurses spent with patients, if they believed their patients were 'safe' based on the results of monitoring, but not on an interaction with the patients

5.4.4 Summary of Culture and Review of Literature

The conditions which affected the provision of quality nursing care that were perceived by the participants were throughput and turnover by the CIU participants and the use of continuous ECG monitoring by the CCU participants. Throughput and turnover of patients affected time available to care for PTCA patients. The CIU participants explained the link between the lack of time and inability to achieve the marriage of expectations and to provide individualised care. These resulted in inadequate quality nursing care. The CCU participants identified the use of continuous ECG monitoring as having an effect on the provision of quality nursing care. The effect would be either positive or negative, dependent on how it was utilised in the patient assessment. If it was used to enhance the assessment process, this would improve quality nursing care. If it was used to allow a remote assessment by nurses, without direct interaction with PTCA patients, this probably could reduce the quality nursing care. As these properties were unique to the study settings the category 'culture' was developed.

The high patient turnover rate within a unit which limited time available for patients and affected the provision of nursing care were mentioned by other authors (Beckerman, Grossman & Marquez 1995; Foulger 1997; Gulanick et al. 1997; Irurita 1999; Higgins et al. 2000). Results of a grounded theory study conducted by Australian researchers (Higgins et al. 2000) showed patients' perceptions of a high turnover rate resulted in their negative responses and behaviours such as frustration at their lack of decision control regarding their own health and feelings of being treated in dehumanised fashion. The identification of throughput and turnover as cultural factors influencing the provision of quality nursing care were not previously identified in any published literature. However, Sleutel (2000) argued that no studies have been found that analysed the relationship between unit culture/climate and specific nursing practices.

No published literature was found about the effect of continuous ECG monitoring on the provision of quality nursing care for PTCA patients. However, many authors suggested the use of continuous ECG monitoring as a means to provide quality nursing care to PTCA patients (Ott 1982; Partridge 1982; Gershan & Jiricka 1984; Galan, Gruentzig & Hollmann 1985; Halfman-Franey et al. 1991; McKenna 1992; Shaffer & Ruiz, 1992; Drew & Tisdale 1993; Gardner et al. 1996; Meluch & Mitchell 1997; Woods et al. 2000). The effect of this monitoring on nurses' assessment behaviour and their interactions with PTCA patients were not mentioned by any of these authors.

5.5 Conclusion

The participants identified a number of conditions as factors affecting quality nursing care. These conditions were grouped into three categories: structure, process and culture. Some of these conditions such as the lack of human, material resources and time were mentioned and supported by many researchers. Some conditions such as, the use of continuous ECG monitoring, the health status of nurses and unforeseen critical incidents were not mentioned by any researchers in this field. The results of this study addressed the second research question and provided in-depth information relating to the factors affecting quality nursing care delivered to PTCA patients. Three categories: structure, process and culture were identified and further discussed. Their relationship with the definition of quality was also elaborated. Comparisons to published literature provided support to some of the conditions while other conditions were not presented in any previous studies.

CHAPTER 6

DISCUSSION

6.1 Introduction

This chapter will discuss the overall findings of this study. The conceptualisation of quality will be examined with the support of relevant literature including quality nursing care and care of PTCA patients.

6.2 Quality Nursing Care

The conceptual framework of quality was complex. Quality of nursing care was best presented by the core concept of 'application standards' representing the nurse-patient relationship and the marriage of expectations. However, the core concept of application standards was an integration of basic standards and personal standards.

6.2.1 Basic Standards

Basic standards were explained by the participants as 'doing to' the patients. Examples were described as written guidelines, which assisted nurses to complete their tasks.

Another important aspect of basic standards was nurses' level of competence. The participants considered basic standards as a contributing factor to quality nursing care.

However, basic standards alone did not represent the overall definition of quality. The

participants believed that quality nursing care was demonstrated by acknowledgment of basic standards and then operating above and beyond this basic standard.

Basic standards were described by the participants as 'doing to' the patient to complete tasks. The link between basic standards of care and completion of tasks were mentioned by other researchers who examined nurses' perceptions of quality nursing care (Jackson-Frankl 1990; Williams 1998). Jackson-Frankl (1990) explained that tangible quality consisted of nursing actions, nursing processes, completion of tasks and efficient use of resources. The belief that task completion was an important indicator of quality nursing care was emphasised by some participants who were nurses in an American hospital (Jackson-Frankl 1990). Jackson-Frankl (1990) examined the language used by nurses and found a disparity of beliefs held by novice nurses and more experienced nurses regarding the importance of task completion. The novice nurses (less than 18 months work experience) focussed on having sufficient time to complete tasks. This could be compared with nurses with longer experiences (three or more years) who described having sufficient time to achieve the best that they could. Another group of nurse administrators described quality nursing care as "more than tasks" (Jackson Frankl 1990 p.59). Jackson-Frankl (1990) concluded that quality nursing care was a developmental process that occurred during nurses' working experiences. It was not merely task completion. The results of this current study supported the opinions of nurse administrators who participated in the Jackson-Frankl's (1990) study.

Results of a grounded theory study conducted by Williams (1998) showed that basic nursing care occurred when nurses had insufficient time to meet all the identified needs of their patients. In this circumstance only the patient's physical needs were met. Williams (1998) suggested that basic nursing care was a level of care that occurred when nurses had minimal time to devote to patient care. This level of care was considered therapeutically ineffective (Williams 1998). This could be compared with

the results of this study, which described that limited time and resources would only allow basic standards of the care to be met, but not all standards of quality nursing care.

The link between 'being competent' and quality nursing care was described in a qualitative study undertaken by an English researcher (Hogston 1995). Hogston (1995) interviewed 18 nurses from a medical unit at a large hospital in England. The results were used to develop a definition of quality. Structure, process and outcome were the core categories used to define quality. Being competent was an important code in the process category. Hogston (1995) indicated that the following codes were part of being competent: professional expertise, education, knowledge and skills. Being competent had broader characteristics than that described by the participants of this current study. Being competent was seen as the completion of formal education in order to gain nursing registration combined with passing a test of specific skills required to care for PTCA patients. Being competent was perceived as an indicator ensuring safety in the provision of basic standards of care. Knowledge and experience were properties of application standards and separated from competence in basic standards. Comparisons of Hogston's (1995) results with the constituents of competence described in this current study suggest that further studies are required to explore linkages between knowledge, experiences, employment periods and being competent.

6.2.2 Personal Standards

Personal standards were fundamental to the overall definition of quality nursing care. The action of personal standards were nurses' abilities to provide care 'above and beyond' the expected level of basic standards. 'Being with' patients represented personal standards which were more than task completion or 'doing to' patients as mentioned in basic standards. The substantive codes representing personal standards and their

relationship to quality nursing care were: empathy, commitment, responsibility, attitude, beliefs and morals. These properties of personal standards changed over time with nurses' interaction with their patients in a given situation and their life experiences.

The action of operating above and beyond basic standards described by the participants were similar to findings in other studies which examined nurses' or patients' perceptions of quality (Jackson-Frankl 1990; Fosbinder 1994; Frank et al. 1997; Williams 1998; Irurita 1999). Williams (1998 p.810) described this characteristic of nursing care as "over and beyond". In a small qualitative study conducted among seven nurse participants by American researchers (Frank et al. 1997 p.13), the theme "going beyond" minimal standards were activities that nurses provided to achieve quality. The minimal standards described in Frank and colleagues (1997) study were presented descriptively as written notes of a musical score. "Going beyond" meant nurses used their own personal interpretation of these notes to play the musical score. The imagery used by Frank and colleagues (1997) closely reflected the descriptive interpretation of personal standards used by the participants of this current study.

In an American ethnographic study, Fosbinder (1994) examined nurse-patient interactions by observation and interviewing forty patients and twelve nurses. The elements of interpersonal competence were described. "Going the extra mile" was used by the patients to describe nurses' activities beyond minimal expectations and nurses who provided care beyond their actual work requirements (Fosbinder 1994 p.1087). "Going the extra mile" was used to describe nurses who were prepared to spend time and share personal characteristics with patients (Fosbinder 1994 p.1087). Irurita (1999) supported the findings of Fosbinder (1994) and based her results on patients in acute care hospitals, Western Australia. "Being there" and doing more than required were descriptive themes used by patients in Irurita's (1999) study and reflected quality nursing care described as "soft-hand care" (Irurita 1999 p.87). The congruence of the

themes 'above and beyond' minimal expectations or basic standards and 'being with' the patient as described, indicated the importance of incorporating personal standards into an overall definition of quality nursing care. This conclusion was based on nurses' and patients' opinions and studies conducted in various settings.

6.2.3 Application Standards

Application standards was the core concept which was highly influenced by basic standards and personal standards. Application standards represented the action and interaction undertaken by nurses while providing quality nursing care. The actions of application standard included the assessment of patients utilising nurses' knowledge, experience and their ability to appreciate their own limitations. Interaction was providing individualised orientated care facilitated by the nurses' acknowledgment of their patients' perception of quality and ability to respond to patients' feedback about the care currently received. Application standards was the core concept representing the provision of quality nursing care and merging 'doing to' and 'being with' patients to achieve a 'marriage of expectations'.

The relationship between the nurse and patient described in application standards was central to quality nursing care. The participants of this study supported the results of many researchers that the development of a therapeutic nurse-patient relationship was important to ensure quality patient care (Williams 1998; Irurita 1999; Redfern & Norman 1999; McQueen 2000). However, the term 'a marriage of expectations' used in this study to describe the patient-nurse relationship was not seen in other studies. Other researchers have described the results of the nurse-patient relationship as therapeutic effectiveness (Williams 1998), therapeutic relationship (Redfern & Norman 1999), and soft hand care (Irurita 1999). McQueen (2000) discussed the nurse-patient relationship

as a partnership. While the therapeutic relationship would allow nursing requirements to be met at the shared satisfaction of both patients and nurses (McQueen 2000).

Implications made from these studies were that in order to provide an environment conducive to quality nursing care, a careful examination of barriers to relationship development must be made. The most significant barrier to the nurse-patient relationship and the provision of quality nursing care for PTCA patients identified by this study was time limitation.

6.3 Conditions that Affect Quality Nursing Care for PTCA Patients

Three categories of conditions affected the provision of quality nursing care for PTCA patients. They were structure, process and culture. Structure included stable physical and organisational resources of the environment where nursing care was provided to PTCA patients. Process included conditions that altered the interaction between the nurse and PTCA patients. Culture included conditions, which were unique to the environment in which the care of PTCA patients took place.

6.3.1 Structure

Human and material resources were two structural conditions that affected the provision of quality nursing care. Human resources included the number and skill mix of the nurses, while material resources included environment design and equipment resources. The participants concluded that the provision of quality nursing care required a satisfactory number of staff with past experiences caring for PTCA patients. The effect of the lack of human resources would decrease the time available for a nurse to develop the kind of relationship identified in application standards. The relationship reflected a

marriage of expectations, acknowledgment of the patient's perceptions of quality and responding to patients' feedback. The participants further concluded that if adequate numbers of nurses were not available, the provision of quality nursing care reflected basic standards of care rather than quality nursing care. The participants in this study viewed the lack of material resources as reducing their ability to assess their PTCA patients, while environmental design faults elicited feelings of frustration and stress. Subsequently these altered interaction with patients. Assessment and the relationship with the patient were deemed by the participants as important properties of application standards and thus the provision of quality nursing care.

The link between having adequate human and physical resources and the ability of the nurses to provide quality nursing care has been identified by other researchers who examined quality nursing care (Jackson-Frankl 1990; Gibbs et al. 1991; Hogston 1995; McKenna 1995; Wynne 1995; Atree 1996; Williams 1998; Irurita 1999; Redfern & Norman 1999; Taylor et al. 1999; Waters & Easton 1999). Inadequate human resources included both the number and skill mix of available nurses, equate with the lack of time to develop therapeutic relationships and stress (Williams 1998; Steven 1999; Taylor et al. 1999). The results of this study supported the view that in circumstances where adequate numbers of nurses with a range of skills were not available quality nursing care was not achieved. In these situations nurses provided only basic standards of care that reflected 'doing to' the patient. Results from two other Australian studies by Williams (1998) and Irurita (1999), that examined quality nursing care in the context of general hospitals in Western Australia also identified this phenomenon. Williams (1998) showed that nurses provided therapeutically ineffective or basic nursing care with insufficient human resources, and only patients' physical needs were met. Irurita's (1999 p.87) study described "hard hand care" (a level of care identified by patients), when the

nurses delivered care described as "being mechanical; doing the minimum required". This phenomenon was not discussed by other researchers who examined PTCA patients' reflections of care (Gulanick et al. 1997; Higgins et al. 2000). However, Gentz (2000) who undertook an integrative review of research conducted with PTCA patients, concluded that patients' physical needs were generally being met, but further improvement was needed by nurses to address the psychosocial needs of PTCA patients to lessen the feelings of dehumanisation. Further studies which examine the impact of the lack human and material resources on the care of the PTCA patients are required before final conclusions and assumptions about a relationship between time, staff and quality of care can be made. Also required are investigations relating to the level of staffing number and skill mix to ensure nurses can provide therapeutic effective or quality nursing care to PTCA patients.

6.3.2 Process

Factors identified by the participants that altered the interaction between the nurse and the patient and thus affected the provision of quality nursing care were grouped under the category 'process'. The results showed that the conditions of this category included: time, critical incidents, and the health status of the nurse. The participants indicated that conditions such as time available to spend with patients, in certain circumstances altered by the occurrence of critical incidents, directly impacted on nurses' relationship with PTCA patients. Time limitations decreased the probability of the marriage of expectations. The participants also reflected that any physical or psychological alterations of their health impaired their ability to interact with PTCA patients. Their lack of tolerance and inability to focus on the needs of the individual resulted from alterations to their health status. The relationship with the patient and individualised care were core conditions of application standards.

Over the last five years the length of hospitalisation of elective PTCA patients has been reduced from four days to approximately 24 hours. Some hospitals undertake this PTCA procedure in day case outpatient settings (Ruygrok, & Surruys 1996; Meluch & Mitchell 1997; Kimble & King 1998; Tooth et al. 1999; Apple & Lindsay 2000; Cronin et al. 2000; Higgins et al. 2000). According to Kimble and King (1998) and Higgins and colleagues (2000) the reduction in hospitalisation time reflected current health care initiatives that were based on economic constraints and increasingly improved safety of the PTCA procedure. The impact of a shortened hospital stay for PTCA patients and time available for the development of a nurse-patient therapeutic relationship has not yet been examined and published in current nursing literature. However, the participants in this current study indicated a clear link between limitations in time available and inability to develop a therapeutic relationship reflected by the lack of the marriage of expectations. Although a direct link was made by the participants in this study regarding time available and quality nursing care, they also identified that other conditions such as unforeseen critical incidents and insufficient resources would impact on time available for the relationship with PTCA patients. Therefore further studies are required to examine the complexity of the link between shortened hospital length of stay and the nurse-patient relationship. McQueen (2000), in her critique of literature related to nurse-patient relationships in the context of hospital care under the United Kingdom National Health Service, argued that shorter contact time between patients and nurses resulting from rapid hospitalisation reduced the time available for forming good rapport with patients. McQueen (2000) proposed that one outcome of this practice was the potential increase in the patients' need for psychological and emotional support. McQueen's (2000) supposition of an increase in psychological and emotional needs of the patient resulting from reduction of time available with nurses was supported by the results of

this study and Williams' Australian (1998) study of nurses' perceptions of quality nursing care provided in acute care public hospitals. The results of Williams (1998 p. 812) study suggested that in circumstances of insufficient or minimal time the nurses adopted a "needs focusing" strategy. This strategy may preclude nurses from meeting the psychosocial needs of their patients. While utilising this strategy, the nurse's focus of care moved to the provision of physical care only (Williams 1998). The phenomenon described by Williams (1998) was comparable to the views expressed by the participants in this study. The participants described the impact of lack of time and feelings of frustration of their lack of ability to meet the mental or psychological aspects of nursing care but just getting the bare necessities done. The results of this current study showed a clear relationship between time limitations and the provision of quality nursing care. This relationship substantiated the growing concerns that shortened length of hospitalisation for PTCA patients may impair the development of a nurse-patient relationship that is essential for the provision of quality nursing care.

6.3.3 Culture

The third class of conditions that emerged in the results that affected the provision of quality nursing care were labelled 'culture'. The category name of culture was influenced by the themes, which were representative and unique to the two study sites. The themes in the context of nursing care delivered to PTCA patients in the CIU were throughput and turnover. The theme in the CCU was continuous ECG monitoring. In the CIU setting, throughput and turnover of patients affected time available for nurses' ability to develop relationships with PTCA patients. The participants from the CCU suggested that the continuous ECG monitoring might impact on the provision of quality nursing care if it was not used appropriately. The application of continuous ECG monitoring as an extra tool to assess the PTCA patient was perceived by some

participants as improving quality nursing care. However, when continuous ECG monitoring was used as a tool for remote assessment without interaction with the PTCA patients, the participants described the effects as negative to quality nursing care.

The emphasis on throughput and turnover were the results of organisational goals, which were influenced by health care funding in both private and public sectors. They caused a shortened length of hospitalisation for PTCA patients. Irurita (1999) conceded that the patients in her study viewed high patient turnover and early discharge as organisational factors that affected time available for the delivery of nursing care. Other researchers who examined patient perceptions of the PTCA procedure noted the impact of high turnover and they viewed nursing care as mechanistic and dehumanised (Gulanick et al. 1997; Higgins et al. 2000; Gentz 2000). The results of these studies indicated that the theme throughput and turnover might be shared by other hospital units that provided care for PTCA patients. McQueen (2000) in her critique of literature relating to nurse-patient relationships, supported the notion that the nurse-patient relationship and individualised care was affected by the culture of the local environment. McQueen (2000) argued that an environment where management was open to new ideas and permitted a flexible approach to routines would have positive implications for nurses, who would then feel at ease to provide individualised care. However, an environment that favoured rigid routines above the individual needs of the patients would have detrimental effects on the intensity of the nurse-patient relationship and thus quality of nursing care (McQueen 2000). McQueen's (2000) argument had some limitations as it was based upon literature reviewed regarding nurse-patient relationships, but not research undertaken to validate this view. However, the results from this current study provided some support to McQueen's (2000) comments that a unit which valued throughput and turnover above the individualised care of PTCA

patients, would affect the provision of quality nursing care. McQueen (2000) recommended that nurses be pro-active in their attempts to ensure effective nurse patient relationships, as the phenomenon of short stay hospitalisation was here to stay. This recommendation can be applied to nurses who provide care for elective PTCA patients, as the shortened length of stay is now evident and is unlikely to be reversed. Actions suggested by McQueen (2000) included ensuring nurses addressed competency of interpersonal skills as well as technical ones and that interpersonal skills were openly acknowledged by nurses in the preparation of their work. Higgins and colleagues (2000) examined the perceptions of eleven patients' recovery period from an elective PTCA procedure undertaken at a private hospital in Brisbane and suggested that nurses should explore innovative strategies of providing extended nursing support post discharge to meet their patients' needs. The results of this study indicated that quality nursing care will be detrimentally affected when the culture of the unit favoured throughput and turnover of patients over individualised care. This issue clearly has direct effects on the time available to foster a therapeutic nurse-patient relationship and consequently reduces the marriage of expectations.

6.4 Summary

This chapter has related the findings of this study to current literature, which examined the concept of quality nursing care and care of PTCA patients. The results of this study supported issues raised by other researchers regarding the nursing care provided to general patients and PTCA patients. New issues identified by the participants that affected the provision of quality nursing care for PTCA patients, not previously mentioned in published literature were discussed.

CHAPTER 7

RECOMMENDATIONS, LIMITATIONS AND CONCLUSION

7.1 Introduction

This chapter will outline limitations of this study and will conclude the findings of the study. Recommendations will be formulated by applying the findings of this research. Strategies that may improve future practice for the nursing care of PTCA patients will be proposed. Potential areas of further research to further examine the study issues addressed by this project will be suggested.

7.2 Overview of Study

Both research questions of this study, "What is quality nursing care?" and "What factors affect this nursing care?" have been answered. The results of the study showed that personal characteristics of nurses and the importance of the nurse-patient relationship are some of the factors that explain quality nursing care. The study identified factors that affect this relationship and subsequently influence the provision of quality nursing care. The generated concepts have provided some understanding of the complexity of the definition of quality nursing care. Quality nursing care can develop when basic standards and personal standards are merged to be application standards. The exploration of the definition of quality has added further knowledge to the concept quality nursing care. Some of the conditions that affect the provision of quality nursing care identified in this study and supported by other studies were the turnover rate of patients, human resources, material resources and limitations of time. This study identified other conditions that impact on quality nursing care, such as the occurrence of

unforeseen critical incidents, nurses' health status and the manner by which continuous ECG monitoring is utilised.

7.3 Recommendations

Nurses who care for elective PTCA patients have clearly indicated the importance of the nurse-patient relationship in the provision of quality nursing care. Nurses who provide care directly to patients, nurse educators and nurse administrators need to recognise the importance of this aspect and apply it in their work. Development of interpersonal communication skills are required by nurses, so that they can establish rapport in the early stage of interaction when patients when they are admitted to a unit. The improvement of interpersonal communication skills will facilitate the development of relationships between nurses and patients within short periods of time. Systematic investigations are required to identify specific and effective communication methods to be used when patients tend to stay in a hospital for a short period. Nurse administrators and nurse educators should recognise the importance of both interpersonal skills and technical skills of nurses in caring for PTCA patients.

Nurse administrators who are responsible for human resources and material resources can maximise quality of care using various strategies. One of these strategies is the continuity of care provided by the same nurse to the same group of patients, rather than changing patients to be cared for by the nurse during her/his working shifts. Another strategy is maintaining a group of nurses who do relief work in one unit, so that they can develop knowledge and skills to be able to provide quality care and may act as support persons for newly employed nurses.

The culture of the unit is another condition that affects the provision of quality nursing care, particularly the underlying policy of increasing throughput and turnover rate of patients. These results could be applied to both nurses who provide direct care to PTCA patients and nurse administrators. The use of Diagnosis Related Groups (DRG) and the length of hospital stay as determinants of allocated budget of a hospital has put pressure on health care personnel to reduce the period of care that patients can receive in the hospital. This has increased the turnover rate of patients and may compromise nurses' ability to provide individualised care. Discussions between unit administrators and nurses are needed to agree on appropriate methods, which can maximise the quality care to PTCA patients perceived by the nurses.

The use of continuous ECG monitoring can have either negative or positive effects on the quality of care provided to PTCA patients. Nurses are encouraged to combine the monitoring with regular assessment of patients so that personal communications and relationships with the patients can be established. This then will ensure that quality care will be provided while the patients being assessed by the continuous ECG monitoring.

7.4 Limitations of This Study

The results of this study showed that nurses viewed quality nursing care provided to PTCA as complex, at times difficult to achieve due to structural, process or cultural factors. This examination of nurses' perceptions of quality nursing care and the factors that affect quality nursing care for elective PTCA patients was conducted at one major health care organisation only. The findings therefore cannot be generalised to other settings, where there are different resources and protocols used by nurses caring for PTCA patients. However, basic standards, personal standards and application standards

are most likely to be applicable to other health care settings. Patients' perceptions of quality nursing care were not explored in this study, and as such may be considered a limitation.

7.5 Areas for Further Research

The results of this study provided the definition of quality care and factors influencing the care perceived by nurses. Some of these results supported the results of studies previously conducted in other settings and based on different characteristics of participants. There are new issues that were described in earlier chapters that require further investigations to confirm or refute such issues. The following areas of research are suggested:

- PTCA patients' perception of quality nursing care
- Specific physical and psychosocial needs of PTCA patients to better plan care
- Testing three major standards of quality of nursing care and relevant factors in other hospital settings among different groups of nurses
- The direction of a relationship between resources and the quality of nursing care
- Exploring how quality of care can be provided if the length of hospital stay is further reduced

7.6 Conclusion

Quality nursing care is a complex and multi faceted concept. This study has provided information relating to nurses' perceptions of quality nursing care delivered to elective PTCA patients. The results of this study will add to the growing level of knowledge generated by qualitative research, which explain the complexity and facets of quality nursing care. The results will assist nurses to design and develop strategies to overcome the properties that have negative effects on nurse-patient relationships.

7.7 Summary

This chapter has outlined the limitations of this study and concluded the findings of the study. Recommendations were outlined applying the findings of this study in order to improve nursing care provided to PTCA patients. Potential areas of research were listed based on the developed concepts.

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APPENDIX A

Grounded Theory Information Sheet for Participants.

Grounded theory is a qualitative research methodology that allows the researcher to explore new phenomenon or gain a fresh perspective on existing research. There has been little study completed to examine quality of nursing provided to elective PTCA patients, and thus this methodology has been chosen. It is also apparent from literature reviewed that examining quality nursing care is an elusive concept, that is bound in subjective meaning. Thus it is important to discover the subjective meaning of quality nursing care provided to elective angioplasty patients post procedure from those who provide the care.

The key principle governed by a grounded theory approach, is that the process of data collection, analysis and theory formation all occur simultaneously. Data will initially be collected from focus groups, like the one you have been asked to participate. Following each focus group the data will be analysed and coded to reflect the essence of what was said. Further focus groups will provide enough data to cluster codes into categories and relationships between the categories. Focus groups will continue until no new insights or categories are made. The relationship between the categories developed from the focus group will aid in tentative development of a theory or hypothesis. Once a hypothesis or theory has been established regarding 'What is quality nursing care of elective PTCA patients post procedure?', this will be explored by participant observation in the field.

APPENDIX B

Table of Participants

RN - Registered Nurse

CN - Clinical Nurse

CIU - Cardiac Investigations Unit

CCU - Coronary Care Unit

Yr - Year

Mths - Months

FG - Focus group

POS - Participant Observation Session

Int - Interview

Participant Code	Nursing Designation	Year	Full/Part	Time employed on Unit	Participation
A	RN	6	full	CIU 2yrs	FG 1 POS + Int 3
B	RN	3	part	CIU 14mths	FG 1, FG 6
C	RN	4	full	CIU 1 yr	FG 1, FG 8
D	RN		full	CIU 3mths	FG 1, FG 8, POS +Int 2
E	CN	1	part	CIU 3yrs	FG 2
F	RN	8	part	CIU 3yrs	FG 2
G	CN	8+	full	CIU 8.5yrs	FG 2
H	CN	3	full	CIU 3yrs	FG 2, FG8, PO + Int 5
I	RN	8	full	CIU 14mths	FG 2
J	RN	7	full	CIU 1yr	FG 3, FG 6
K	RN	8	part	CIU 2.5 yrs	FG 3
L	RN	8	full	CIU 1yr	FG 3, FG 6, POS + Int 1
M	RN	8	full	CCU 15 mths	FG 4
N	RN	10	part	CCU 5yrs	FG 4
O	CN	13	full	CCU 7yrs	FG 4, FG 9
P	RN	6	full	CCU 5 mths	FG 4
Q	RN	8+	part	CCU 8 yrs	FG 4 POS + Int 6
R	RN	8+	part	CCU 7yrs	FG 5, FG 9
S	RN	7	part	CCU 16mths	FG 5
T	RN	8	part	CCU 2yrs	FG 5, FG9
U	CN	14	full	CCU 7 yrs	FG 5
V	RN	8	part	CCU 18mths	FG 5, FG 9
W	CN	2	full	CCU 4yrs	FG 5
X	RN	8	part	CCU 2 yrs	FG 5, FG7
Y	RN	4	part	CCU 3 mths	FG 5
Z	CN	3	part	CCU 7 years	FG 7
AA	CN	1	full	CCU 3 mths	FG 7
BB	RN	5	part	CCU < 3 yrs	FG 7
CC	RN	23	full	CCU 3 yrs	FG 7, FG 9
DD	RN	8	full	CCU 6 yrs	POS 8 No interview
EE	RN	4	part	CCU 2 yrs	FG 9
FF	RN	7	part	CCU 4 mths	FG 9
GG	CN		part	CIU 6 mths	POS + Int 7
HH	RN		part	CIU 1 yr	POS + Int 9
II	RN		part	CIU 4yrs	POS + Int 4

APPENDIX C

Focus Group Participant Consent Form

Dear Participant,

Using a qualitative grounded theory research approach, I am exploring the quality of nursing care provided to post procedure elective Percutaneous Transluminal Coronary Angioplasty (PTCA) patients. You have been chosen to participate in this study because you have unique knowledge and experience that will be beneficial to explore phenomena related to this area of nursing. The focus group sessions will be audio taped to assist data collection. All personal information collected for this study will be kept confidential. This consent form will be securely kept in a locked filing cabinet in Nursing Administration. Data and audio tapes will be kept in a locked filing cabinet in the CIU Angioplasty Nurse Office. At the end of the study these will be destroyed. On reporting the findings of this study no participant will be identified by name.

Thank-you

Sonja Cleary.

I agree to be involved in this phase of the study

Name: _____

Nursing Designation: _____ **Year:** _____

Full time / Part time: _____

How long have you been working in CIU / CCU: _____

Signature: _____

I am happy to be approached to participate in further data collection stages of this study.

Yes / No

PARTICIPANT CODE ()

APPENDIX D

Participant Observation Consent Form

PARTICIPANT CODE ()

Dear Participant,

Thank you for your participation in the Focus groups of this study. To explore the relevance of the theory developed from the focus groups, it is important to observe the nursing care provided to elective percutaneous coronary angioplasty patients (PTCA). Observation will be carried out on a shift when I am rostered as the Angioplasty Nurse. Some note taking will occur during observation. You will be identified by your participant code throughout the note taking and reporting of findings. All the patients you will be nursing will be aware of the study. All personal information collected for this study will be kept confidential. This consent form will be securely kept in a locked filing cabinet in Nursing Administration. Data will be kept in a locked filing cabinet in CIU Angioplasty Nurse Office, at the end of the study these will be destroyed.

Thank-you

Sonja Cleary

I agree to be involved in the participant observation phase of this study. I have been informed that at any stage I may withdraw from this study.

Name: _____

Signature: _____

APPENDIX E

Individual Interview Consent Form

PARTICIPANT CODE ()

Dear Participant,

Thank you for your participation in the Participant Observation phase of this study. To explore the relevance of the theory developed from the focus groups, it was important to observe the nursing care provided to elective percutaneous coronary angioplasty patients (PTCA). The purpose of the interview is to discuss the quality of care you provided, and the factors that you believe affected the provision of that care. During the interview note taking will occur. You will be identified by your participant code throughout the note taking and reporting of findings. All personal information collected for this study will be kept confidential. This consent form will be securely kept in a locked filing cabinet in Nursing Administration. Data will be kept in a locked filing cabinet in CIU Angioplasty Nurse Office, at the end of the study these will be destroyed.

Thank-you

Sonja Cleary

I agree to be involved in the individual interview phase of this study. I have been informed that at any stage I may withdraw from this study.

Name: _____

Signature: _____

APPENDIX F

Patient Information Sheet

Dear Patient,

You are scheduled to have a Coronary Angioplasty this admission. After your procedure you will be cared for in the Cardiac Investigations Unit or in the Coronary Care Unit. After your angioplasty procedure you will have a small tube called a sheath in your groin. This tube will remain in place for approximately 3-4 hours, before it will be removed. Because of the tube and the nature of the angioplasty procedure the nursing care you will receive after your procedure is specialised. At present a research study is underway to examine the quality of nursing care provided to you the angioplasty patient. The study involves observation of the nursing care provided to you. Observation of the nursing care will take place in the afternoon following your procedure.

If you are not happy to be involved in this study feel free to express your refusal. All nursing staff caring for you are aware of the observation and have agreed to participate.

If you have any further questions about the study or care provided, I would be happy to answer them.

Yours Sincerely

Sonja Cleary
Angioplasty Nurse
Chief Researcher

APPENDIX G

Letter to Participants to Confirm Transcript Accuracy

Sonja Cleary
Angioplasty Nursing Service
C/- Cardiac Investigations Unit

Dear (participant's name typed here),

Thankyou for participating in the focus group examining the quality of nursing care provided to elective PTCA patients. Included is a transcript of the conversations of the focus group you participated in. Please read it carefully. If there is any problems please contact me as soon as possible. If you are happy with the transcript please sign the acknowledgment on the form below. Please return this form to me once it has been completed.

Thank you

Sonja Cleary

.....

I, (participant's name typed here) have read the transcript of the focus group I participated in. I acknowledge that the transcript accurately reflects the conversations that occurred in the focus group I attended.

Signature:

Date:/...../.....

APPENDIX H

Definition of Terms

Activated clotting time (ACT): a test that indicates the rate of clotting time to determine a safe time to remove the femoral arterial sheath. ACT is also referred to by the participants as a heamachron, which is the brand of machine that performs this test in the study hospital

Angioplasty Nurse: clinical nurse employed by the hospital to provide case management and education of the PTCA. Duties included the removal of the femoral arterial sheath.

Application Standards: marriage of expectations, it represents the action and interaction that nurses undertake to provide quality nursing care.

Basic Standards: 'Doing to' the patient, task completion according to written guidelines by competent registered nurses who demonstrated specific skills for caring for the PTCA patient.

Being competent: registered nursing staff with a basic level of competence tested and identified attaining nurse registration, and skill testing of specific tasks deemed necessary for the care for PTCA patients.

Cardiac Investigation Unit (CIU): 24 bed unit that provided pre procedure nursing care for patients undergoing Coronary Artery Bypass Graft surgery, insertion of pacemaker and implantable cardiac defibrillators and radio frequency ablation. Provided pre and post procedure care for the following: Coronary angiograms, PTCA procedures, echocardiography, and electrophysiology.

Care Plan: a written formulated plan developed by the nurse identifying the care need of the patient. Utilised in the CCU.

Complications / Critical incidents: occasions when the PTCA patient or other patients exhibit symptoms not usually expected as a result of their illness or procedure performed.

Continuous ECG monitoring: a bedside monitoring system that provides continuous single or multi lead ECG readings that are transmitted to a bedside monitor and central nurses' station monitor.

Coronary Care Unit (CCU): 16 bed unit that provided high dependency nursing for patients with cardiovascular disease including Myocardial Infarction, Unstable angina - Acute Coronary Syndrome, Cardiac arrhythmia, Heart failure, Endocarditis.

Culture: properties that reflected shared values, goals, attitudes and practices of the specific group.

ECG Electrocardiograph: provides a printed graphic reflection of the electric activity of the heart

Femoral arterial sheath: a tube with valve that provides access into the femoral artery in the patient's groin for all the equipment used for the PTCA procedure.

Nursing care pathway: a written guideline that prescribes expected nursing care for a specific set of patients i.e PTCA patient. Utilised in the CIU.

Nursing policy and procedure manual: manual provided by the organisation identifying the current organisational guidelines and instruction of how to proceed with specific procedures.

Observation proforma: an observation sheet that included instructions for type and frequency of observations to be taken for a subset of patients i.e PTCA patients

Percutaneous Transluminal Coronary Angioplasty (PTCA): is a non surgical procedure performed in a cardiac catheter laboratory. A balloon tipped catheter is used to increase the coronary arterial lumen size, narrowed from atherosclerosis developed as a result of cardiovascular disease. A stent may be used to prevent artery recoil and acute closure.

Personal Standards: 'being with' the patient, using empathy, commitment, responsibility, attitude, beliefs and morals to provide nursing care 'above and beyond' what was expected from basic standards

Pool/ Relief Staff: nursing staff employed by the study hospital allocated to areas where regular staff are on sick leave.

Process: properties that impact on the interaction between the nurse and the patient.

Stent: a small metal scaffolding device that is deployed into the coronary artery to prevent elastic recoil and acute closure.

Structure: the stable physical and organisational properties of the environment in which care is provided to the PTCA patient.

S-T segment: a portion of the ECG waveform. Changes to the S-T segment on an ECG trace indicated ischaemia or lack of oxygen to the heart.

Throughput and turnover: an organisational goal that values the practice of managing the PTCA patient within a short hospitalisation time.

APPENDIX I

<u>Concept</u>	<u>Author</u>	<u>Title</u>	<u>Description of paper / study type</u>
CHAPTER 4			
Basic Standards <i>Being Competent</i>	Fitzpatrick et al 1992	The role of the nurse in high-quality patient care: a review of the literature	Review of literature
	Norman et al. 1992	Developing Flanagan's critical incident technique (CIT) to elicit indicators of high and low quality nursing care from patients and their nurses	Descriptive paper of the development the Flanagan's CIT tool. Discusses the identification of indicators of quality nursing
	Hogston 1995	Quality nursing care: a qualitative enquiry	Modified grounded theory study using 18 informants from a hospital in England to seek practising nurses' perceptions of quality nursing care
	Dozier 1998	Professional Standards: Linking Care, Competence, and Quality	Descriptive paper arguing for the role of professional standards in an evolving health care system
	While 1994	Competence versus performance: which is more important	Extensive literature review of competence and performance
<i>Written Guidelines</i>	Nielsen 1992	Quality of care: Discovering a modified practice theory	Presentation and discussion of a developed theory
	Katz & Green 1992	Managing Quality. A Guide to Monitoring and Evaluating Nursing Services	Text developed to guide nursing management

<u>Concept</u>	<u>Author</u>	<u>Title</u>	<u>Description of paper / study type</u>
<p><i>Basic standards do not define quality</i></p> <p>Personal Standards</p>	Kitson 1986	Indicators of quality in nursing care - an alternative approach	Qualitative research study using a measuring tool called the Therapeutic Nursing Function Indicator that is based on a conceptual framework developed from the respondents. This study examined quality in the context of geriatric nursing care.
	Jackson-Frankl 1990	The language and meaning of quality	An adapted ethnographic/ethnoscience Qualitative research study using Pondy's theory on symbolic interactionism that investigated the presence of shared language and meaning of the following words: quality, care and quality of care. The 15 participants included nurses from upper administration, head nurses and staff nurses.
	Taylor & Haussmann 1988	Meaning and Measurement of Quality Nursing Care	Literature review of measuring and assessing quality from 1980-1986
	Fosbinder 1994	Patient perceptions of nursing care: an emerging theory of interpersonal competence	Qualitative ethnographic study of 40 patients and 12 nurses at a private acute care hospital in the USA
	Frank et al. 1997	Quality Nursing Care - Leadership Makes the Difference	Qualitative phenomenological research study of seven nurses the authors viewed as expert from the top two levels of the clinical ladder from a multi-specialty hospital in the USA
	Williams 1998	The delivery of quality nursing care: a grounded theory study of the nurse's perspective	Qualitative Grounded theory study exploring and describing the delivery of quality nursing care from the perspective of 10 registered nurses and 12 postgraduate nursing students from an acute care public hospital in Western Australia
	Irurita 1999	Factors affecting the quality of nursing care: The patient's perspective	Qualitative Grounded theory study from 23 patients and field notes that sought to discover the adult patient's perspective of quality nursing care in an acute-care hospital setting in Western Australia
	Jackson-Frankl 1990	As above	

<u>Concept</u>	<u>Author</u>	<u>Title</u>	<u>Description of paper / study type</u>
<i>Empathy</i>	Attree 1996	Towards a conceptual model of 'Quality Care'	Construction of a conceptual model of quality care from concept analysis of data generated from a literature review completed by Attree in 1993
	Coulon et al.1996	The pursuit of excellence in nursing care: what does it mean?	Qualitative study using open ended questionnaire that explored the meaning of excellence in nursing care as perceived by 156 pre and post registered nurses in New South Wales Australia
	Idvall & Rooke 1998	Important aspects of nursing care in surgical wards as expressed by nurses	Qualitative study using focus group interviews to explore clinical nurses' perceptions of important aspects of nursing care that impact on quality of care in surgical wards from four hospitals in Sweden
	Redfern & Norman 1999	Quality of nursing care perceived by patients and their nurses: an application of the critical incident technique (CIT)	Qualitative study used the CIT to identify indicators of quality nursing care from the perspective from 96 patients and 80 nurses from four wards caring for elderly patients in three general hospitals in the UK
	Smyth 1996	Reinstating the person in the professional: reflections on empathy and aesthetic experience	Exploratory paper discussing the value of aesthetics and arts to the nursing profession and reflections of the concept empathy
	Irurita 1999	As above	
<i>Commitment</i>	Coulon et al.1996	As above	
	Redfern & Norman 1999		
<i>Responsibility</i>	Idvall & Rooke 1998	As above	
<i>Attitude</i>	Idvall & Rooke 1998	As above	
	Redfern & Norman 1999		
<i>Beliefs and morals</i>	Hogston 1995	As above	
	Attree 1996		
	Coulon et al. 1996		

<u>Concept</u>	<u>Author</u>	<u>Title</u>	<u>Description of paper / study type</u>
Application Standards	Idvall & Rooke 1998	As above	
	Redfern & Norman 1999		
<i>Nurse - patient relationship</i>	Norman et al. 1992	Quality vs Quantity: Which type of nursing do you practice	Reflective paper by the author examining quality and quantity nursing
	Fosbinder 1994		
	Williams 1998	Raising standards of clinical practice - the fundamental issue of effective nursing practice	Reflections, arguments and proposals presented suggesting ways nurses may use intuitions and gut reactions to assure standards in nursing practice.
	Parish 1986		
	Kitson 1987	Good nursing practice as perceived by clients: a starting point for the development of professional nursing	Qualitative study using focused interviews to examine 100 clients experiences of health care and nursing services of the Finnish primary health and hospital system.
	Astedt-Kurki & Haggmann-Laitila 1992		
	Gay 1999	Meeting cardiac patients' expectations of caring	Quantitative study using the Caring Behaviours Assessment tool - Likart scale given to 18 patients from a coronary care setting in a general hospital in the USA to determine nurse caring behaviours desired by patients with cardiovascular disease
	Jackson-Frankl 1990	As above	
	Fitzpatrick et al. 1992		
	Norman et al. 1992		
	Fosbinder 1994		
	Coulon et al. 1996		
	Idvall & Rooke 1998		
	Redfern & Norman 1999		
	Williams 1998		
	Irurita 1999		

<u>Concept</u>	<u>Author</u>	<u>Title</u>	<u>Description of paper / study type</u>
<i>Marriage of expectations</i>	Nash et al. 1994	Managing Expectations between patient and nurse	Descriptive paper that examined the processes that one American hospital undertook to develop a model for managing expectations between patient and nurse that reflected patient satisfaction and a quality model of care
	Lin 1996	Patient satisfaction with nursing care as an outcome variable: Dilemmas for nursing evaluation researchers	Evaluation of literature regarding patient satisfaction, quality assurance and quality of care
	Waters & Easton 1999	Individualised care: is it possible to plan and carry out?	Qualitative ethnographic study that assessed the reality of attempting to deliver individualised nursing care at a general hospital in Manchester UK. 12 nursing staff participated in interviews and observations were made of nurse patient interaction
	Parish 1986 Kitson 1987 Astedt-Kurki & Haggman-Laitila 1992; Nielsen 1992	As above	
<i>Assessment</i>	Nash et al. 1994 Idvall & Rooke 1998 Redfern & Norman 1999	As above	
<i>Individualised care</i>	Parish 1986 Astedt-Kurki & Haggman-Laitila 1992 Atree 1993, 1996 Hogston 1995 Irurita 1996 Frank et al. 1997 Redfern & Norman 1999 Waters & Easton 1999	As above	

<u>Concept</u>	<u>Author</u>	<u>Title</u>	<u>Description of paper / study type</u>
<i>Knowledge and experience</i>	Jackson-Frankl 1990 Neilsen 1992 Atree 1993 Redfern & Norman 1990, 1999 Dozier 1998 Irurita 1999	As above	
CHAPTER 5			
Structure <i>Human resources</i> <i>Nurse patient ratio</i>	Meluch & Mitchell 1997	Decreasing Intracoronary Stent Complications	Proposals provided regarding nursing management and care of post PTCA and stent patient from the perspective of the authors and care provided at a hospital in Birmingham USA
	Ott 1982	Percutaneous transluminal coronary angioplasty and nursing implications	Discussion paper identifying medical and nursing literature pertaining to the PTCA procedure and proposes guidelines for nursing care
	Partridge 1982	The nurse's role in percutaneous transluminal coronary angioplasty	Examination of medical and nursing literature pertaining to the PTCA and stent procedure, Presentation of the nurses role in patient preparation, during the procedure and follow up care
	Gershan & Jiricka 1984	Percutaneous transluminal coronary angioplasty Implications for nursing	Examination of medical and nursing literature pertaining to the PTCA and stent procedure, a nursing care plan for the patient with a coronary stent formulated and discussed
	Halfman-Franey et al. 1991	Using stents in the coronary circulation: Nursing Perspectives	Examination of medical and nursing literature pertaining to the PTCA and stent procedure, a nursing care plan for the patient with a coronary stent formulated and discussed
	Shaffer & Ruiz 1992	Assessing Complications of PTCA	Presentation of a case study and nursing implications while reviewing complications of PTCA as outlined in medical and nursing literature

<u>Concept</u>	<u>Author</u>	<u>Title</u>	<u>Description of paper / study type</u>
<i>Human resources Nurse patient ratio</i>	McKenna 1992	Management of the patient undergoing myocardial revascularization: Percutaneous transluminal coronary angioplasty	Examination of medical literature pertaining to the PTCA procedure, with only a brief outline of nursing care required
	Gardner et al. 1996	Intracoronary Stent Update: Focus of Patient Education	Examination of medical and nursing literature pertaining to the PTCA and stent procedure, presentation of current medical and nursing management practices and various teaching methods. Results from a small survey that asked 13 patients to indicate the most valuable information received during their hospitalisation period was presented
	Woods et al. 2000	Cardiac Nursing	Textbook for Cardiac nurses, Presents and discusses current medical and nursing management of the PTCA patient from examination of medical and nursing literature
	Donabedian 1980	The definition of quality and approaches to its assessment	A textbook that provides conceptual exploration into the definition of Quality from a medical perspective and offers strategies for examining the presence or absence of quality through the assessment of structure, process and outcome.
<i>Skill Mix</i>	Gibbs et al. 1991	Skill mix in nursing: a selective review of the literature	Literature review of research and government policy regarding skill mix in the UK
	McKenna 1995	Nursing skill mix substitutions and quality of care: an exploration of assumptions from the research literature	Review of literature and research undertaken regarding skill mix with unregistered nursing personnel
	Wynne 1995	Skill-mix in nursing : efficiency and quality	Review article regarding literature and government policy regarding skill mix in the UK
	Taylor et al. 1999	Nurses' Cognitive structural models of work-based stress	Mixed method Qualitative/Quantitative study that examined the causes of work based stress experienced by 70 nurses working in the National Health Service in the UK

<u>Concept</u>	<u>Author</u>	<u>Title</u>	<u>Description of paper / study type</u>
<i>Skill Mix</i>	Waters & Easton 1999 Hogston 1995 Idvall & Rooke 1998 Williams 1998	As Above	
<i>Material resources</i>	Donabedian 1980 Williams 1998 Redfern & Norman 1999 Taylor et al. 1999 Jackson- Frankl 1990 Hogston 1995 Atree 1996 Idvall & Rooke 1998	As above	
Process			
<i>Time available</i>	Mahon 1996	An analysis of the concept 'patient satisfaction' as it relates to contemporary nursing care	Concept analysis of patient satisfaction from current literature reviewed
	Chang 1997	Dimensions and Indicators of Patients' Perceived Nursing Care Quality in the Hospital Setting	Review of 53 published studies that examined patient satisfaction with nursing care from 1982 to 1997
	Shindul-Rothschild et al. 1997	10 Keys to Quality Care	Review article that discussed the results of a Quantitative Patient Care Survey undertaken by the American Journal of Nursing (AJN) 1996 where 7,335 nurses responded to a 5 point Likert scale questionnaire.
	Jackson-Frankl 1990 Attree 1993 Hogston 1995 Williams 1998 Irurita 1999 Waters & Easton 1999	As above	

<u>Concept</u>	<u>Author</u>	<u>Title</u>	<u>Description of paper / study type</u>
<i>Unforseen Critical incidents</i>	Ott 1982	As above	
	Gershan & Jiricka 1984		
	McKenna 1992		
	Meluch & Mitchell 1997		
	Woods et al. 2000		
	Waters & Easton 1999		
<i>Health and wellbeing</i>	Williams 1998	As above	
Culture			
<i>High turnover</i>	Beckerman et al. 1995	Cardiac Catheterization: The patient's perspective	Qualitative phenomenologic study examining Cardiac Catheterisation from the perspective of 10 patients in a large teaching hospital in USA
	Foulger 1997	Patients' views of day case cardiac catheterisation.	Mixed method study examining 130 Patients' views and recovery outcomes of day case cardiac catheterisation in the UK
	Gulanick et al. 1997	Patients' responses to the angioplasty experience: A qualitative study	Qualitative study that examined the experience of 45 patients who had undergone a PTCA procedure in a hospital in the USA
	Higgins et al. 2000	The patients' perception of recovery after coronary angioplasty	Qualitative grounded theory study that examined the perceptions of recovery from 11 patients who had undergoing elective PTCA in a metropolitan hospital in Brisbane Australia
	Irurita 1999	As above	
	Sleutel 2000	Climate, Culture, Context, or Work Environment? Organisational Factors that Influence Nursing Practice	Discussion paper that analyses the use of 'climate' and 'culture' in nursing literature and reviews theories of the processes that influence organisational and individual behaviour