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PACU Nurses & Postoperative Pain:
A Focused Ethnography

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STATEMENT

This work contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text.

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ABSTRACT

BACKGROUND: The post-anaesthetic care unit (PACU) is the first place that patients are taken following their operation and it is here that the initial recovery from their anaesthetic and surgery happens. Accordingly a significant proportion of the PACU nurse's time is involved with the assessment and management of pain in the postoperative patient. Despite the implementation of standardised tools such as pain rating scales and medication protocols, the assessment and management of postoperative pain varies markedly from one patient to another in the PACU. Taking this into consideration, the researcher sought to understand how PACU nurses interpret pain assessment and management of the postoperative patient.

AIM: To understand the processes PACU nurses utilise when assessing pain and implementing subsequent pain management in patients following surgery.

METHODOLOGY: The qualitative approach of focused ethnography was used to frame this study. Focused ethnography was considered to best portray the perspectives of PACU nurses, as a culture, regarding the assessment and management of postoperative pain.

METHODS: Ten PACU nurses were recruited from the PACU of a government hospital. The experience of the participants ranged from 3 years to more than 20 years in PACU nursing. James Spradley's ethnographic research cycle was used to frame the research process. The research design employed two methods of data collection: participant observation and individual interviews. Collected data was transcribed and thematic analysis conducted.

FINDINGS: Five themes emerged reflecting the perspectives of PACU nurses on the assessment and management of postoperative pain. These themes are: *With Surgery Comes Pain*; *The Picture Beyond The Wound*; *Knowing*; *The Individual Experience*; and *Bridging Surgical Care*. There are many complexities involved in assessing and managing postoperative pain in the PACU. Underpinning the five themes, communication was seen to be an integral aspect of assessing and managing postoperative pain from the PACU nurse's perspective.

CONCLUSION: This study represents a population of nurses who identify strongly with working in a unique clinical environment. The findings give insight to the multi-dimensional process that PACU nurses employ to be able to provide proficient care of postoperative pain to their patients; and, this study illustrates that the PACU fosters a distinct sense of culture amongst its nurses when considering the assessment and management of pain in the postoperative patient. The significance of this research is that there is no set method of pain assessment and management the PACU that could be taught from a textbook. Postoperative pain assessment and management is a highly individualised process that continuously changes with variables that are introduced by both the PACU nurse and the patient. Further research is required to develop knowledge about this particular environment.

Chapter 1: INTRODUCTION

The experience of postoperative pain is almost invariably an outcome of tissue damage caused by surgery (Taylor & Stanbury 2007). Just as invariably, it is an expectation of patients undergoing surgery that any pain experienced will be alleviated by those caring for them. In a time when evidence-based care is shaping nursing practice, nurses need to possess current knowledge and skills in order to ensure this expectation is met successfully. Gerrish and Lacey (2006) suggested that nursing research allows the development of nursing knowledge. This in turn allows for nurses to be executors of best practice.

The research study presented within this thesis extends the understanding of how nurses working in the post-anaesthetic care unit (PACU) assess and manage pain in the postoperative patient. This chapter will describe the context and significance of the study, state the research problem and question, identify the underlying assumptions, define the key terms used in the study and outline the contents of each chapter.

1.1   Context and Significance of the Study

During anaesthesia, notably general anaesthesia, patients are at their most vulnerable; as such, in the immediate post-anaesthesia phase, the role of patient advocate falls primarily to the PACU nurse. In particular, as the PACU is the stop for patients following their transition from the operating room, it is

imperative that PACU nurses are able to competently recognise and address the pain needs of their patients. For patients who have undergone surgery, pain is a predictable occurrence (Apfelbaum et al. 2003). In order to provide the patient with a positive postoperative experience, the accurate assessment of postoperative pain is crucial to its effective management (Mackintosh 2007).

Despite the PACU setting playing a pivotal role in the process of postoperative care, there remains a history of the PACU being an unrecognised area of nursing, often hidden behind the walls of the operating theatre. As an experienced PACU nurse working in this relatively 'closed' clinical area, the researcher has found that other hospital staff members often have little or no exposure to the PACU. This notion is supported by Prowse and Lyne (2000) who suggested that:

> Post-anaesthesia (PA) nursing is an under-researched area of practice and is not always well understood by nursing and medical colleagues with limited experience of the specialty, or indeed, by patients who, because of anaesthesia, are not in a position to comment on the care they receive (Prowse & Lyne 200, p.1115).

Hence, it is proposed that the culture and work of PACU nurses is a field of nursing practice requiring further research.

1.2   Statement of the Research Problem

Working as a Clinical Nurse in the PACU of a busy government hospital, a significant proportion of the researcher's clinical time is involved with the assessment and management of pain in the postoperative patient. As a senior

PACU nurse, the researcher is aware that postoperative pain presents differently for individual patients. As such, she has frequently observed that the assessment and subsequent management of postoperative pain differs from patient to patient in the PACU. Of interest to the researcher is that this inconsistency exists despite the implementation of standardised pain assessment and management tools in the unit including the numerical 1-10 pain rating scale (Appendix A), the Wong-Baker Faces Scale (Appendix B) and a Pain Protocol (Appendix C).

Taking the above observations into consideration, the researcher finds herself interested in understanding how PACU nurses interpret pain in those for whom they care. This interest has directed the researcher to the chosen field of investigating the perspectives of PACU nurses regarding the assessment and management of pain in the postoperative patient.

1.3   Purpose of the Study

1.3.1 Aim

To understand the processes in which PACU nurses engage when assessing pain and implementing subsequent pain management in patients following surgery.

1.3.2 Objectives

The objectives of the study are:

- To discern the ways in which PACU nurses assess pain in the postoperative patient.

- To uncover the strategies PACU nurses employ to manage pain in the postoperative patient.

- To understand why PACU nurses assess and/or manage pain in the postoperative patient in the way that they do.

1.4   Statement of the Research Question

What are the perspectives of PACU nurses on the assessment and management of pain in the postoperative patient?

1.5   Assumptions

With her background as a PACU Clinical Nurse, the researcher brings to the study the assumption that PACU nurses do not only use standardised tools, but also incorporate intuition, experience and knowledge of the surrounding situation when assessing and managing postoperative pain in their patients.

1.6   Definitions of Terms

Post-Anaesthetic Care Unit (PACU) – The last stop in the patient's perioperative journey, the PACU is located within close proximity of the operating theatres. Following surgery, the patient is transferred to the PACU

to be cared for until deemed fit for transfer to the ward environment. It is also known as the *recovery room*.

PACU Nursing – The specialised care that is delivered by nurses working in the PACU to postoperative patients. This is done by addressing the patients' holistic needs, including wound management, pain and nausea management, reorientation, comfort and stabilisation of vital signs in the immediate postoperative period.

Pain – A physical, mental or emotional sensation that is unpleasant and often distressing to the person experiencing it.

Postoperative Pain – A complex response that is physical, mental or emotional, to the trauma inflicted on someone as a result of surgery.

Pain Assessment – The process of judging the amount and quality of pain being experienced by an individual.

Pain Management – The process of implementing methods to reduce, eliminate or prevent pain in an individual.

Culture – The accumulative customs, beliefs, behaviours and ways of life belonging to the people who make up a particular community or society.

Ethnography – The qualitative study of how the individuals within a specific culture think, behave and interact with one another. The term *ethnography* may be applied to both the research process undertaken and the resulting report that is produced.

Focused Ethnography – An exploration, using an ethnographic approach, of a specific issue or topic within a particular culture, for example pain assessment and management within the PACU.

1.7   Summary of the Thesis

The intention of this thesis is to provide a detailed description of a focused ethnographic study exploring perspectives of PACU nurses regarding assessing and managing postoperative pain in their patients. Chapter One provides an overview of this research study that has been deemed significant by the researcher, and its underlying aims, objectives and assumptions. A set of definitions for key terms used throughout this thesis has been provided. Chapter Two offers a comprehensive review of the available literature pertaining to what is currently known about the key terms defined in the current chapter and the relevance to the purpose of this study.

Chapter Three describes the ethnographic approach upon which this research study has been constructed. In doing so it addresses the development of ethnography as a methodology, what benefits ethnography brings to the arena of qualitative research and why the researcher believes it is the appropriate methodology to support the research question. Chapter Four provides a

detailed description of the individual methods employed by the researcher including identification of ethical considerations, the research design developed and the data collection and analysis techniques used.

Chapter Five explores the themes that emerged from the data analysis process and will present the perspectives of PACU nurses on the assessment and management of postoperative pain. Interpretation of the findings will be clarified and linked back to the relevant literature. Finally, Chapter Six will reflect upon the current study including the significance of the research, its strengths and weaknesses, and recommendations for future research.

Chapter 2: LITERATURE REVIEW

2.1   Introduction

This chapter explores the literature related to the key terms defined in Chapter One. The literature encompasses the physiology of pain, what PACU nursing involves and how it is situated within the process of postoperative pain assessment and management. Literature regarding how PACU nurses assess and manage pain, as well as the complexity of pain assessment and management, will be reviewed. Finally an overview of how studies using ethnography are relevant to nursing as a profession will be presented.

2.2   Search Strategy

A comprehensive literature search was conducted using a number of electronic online databases, which included CINAHL, Mosby's Nursing Consult, Science Direct, MEDLINE and Scopus. The search systematically covered the study's previously identified key terms: *PACU; PACU nursing; recovery; pain; postoperative pain; pain assessment; pain management; ethnography; focused ethnography;* and *culture.* Articles published between 2004 and 2014 were accessed; however pertinent literature older than 10 years was also included. Database searches were conducted in English only.

Reference lists of selected articles were searched for potentially relevant literature. The abstracts of articles selected in this manner were then perused and their relevance to the study determined. A significant amount of literature was identified in this way. Articles were then grouped according to corresponding keywords and themes relevant to the study.

Other sources of data such as organisational websites of a nursing or medical affiliation, for example the Association of periOperative Registered Nurses (AORN), were accessed on the Internet. Professional guidelines and documents were accessed from nursing and medical organisations, for example the American Society of PeriAnesthesia Nurses (ASPAN) and the Australian and New Zealand College of Anaesthetists (ANZCA).

2.3   Pain: An Overview

2.3.1 Defining Pain

Pain is a problem commonly experienced in clinical practice (Lumley et al 2011; Svensson, Sjöström & Haljamäe 2000). It is the symptom that most frequently causes a patient to seek medical attention, accounting for up to 80% of doctors' consultations (Aslan, Badir & Selimen 2003; Morgan, Mikhail & Murray 2006; Voscopoulos & Lema 2010). Pain is also the leading patient-reported symptom in hospital surgical wards (Abdalrahim, Majali & Bergbom 2008). In 1968, Margo McCaffery stated that

> Pain is what the experiencing person says it is, existing whenever
> he says it does (McCaffery 1968, p.95).

This landmark definition of pain was built upon in 1979 by The International

Association for the Study of Pain (IASP) which defined pain as

> An unpleasant sensory and emotional experience associated with
> actual or potential tissue damage, or described in terms of such
> damage (IASP 1979, p.250).

This definition of pain by the IASP has since become the most commonly

accepted definition of the term (Brown 2008). Both definitions, however,

strongly endorse the theory that the experience of pain is a subjective one,

not to be measured in objective terms. The IASP's definition acknowledges

that pain has both a pathophysiological impact and, for the patient

experiencing it, a distinctly psychological dimension. McCaffery's definition

reinforces the premise that pain is a highly individualised experience and

ultimately it is the patient alone who is able to describe and understand what

is being experienced.

From a clinical perspective, pain is generally divided into two categories: *acute*

and *chronic* (Morgan, Mikhail & Murray 2006). Krenzischek (2004) provided

the following definitions for both types:

> Acute Pain – usually elicited by the injury of body tissues and
> activation of nociceptive transducers at the site of local tissue
> damage; pain that extends until period of healing (p.468).

> Chronic Pain – usually elicited by an injury but may be perpetuated
> by factors that are both pathogenetically and physically remote
> from the originating cause: pain that extends beyond the expected
> period of healing (3-6 months since the initiation of pain) (p.468).

Simply put, acute pain stems from trauma to tissue from injury, inflammation or disease, for example infection or burns. Typically the duration of acute pain lasts for a relatively shorter period of time, measured usually in days or weeks. Chronic pain, on the other hand, may stem from an old injury, for example chronic back or neck pain; be the result of a disease process, for example fibromyalgia or rheumatoid arthritis; or it may have no clearly identified origin at all. The duration of chronic pain typically lasts for months to years and may even remain unresolved. A further key difference between acute and chronic pain is that acute pain serves as a physiological protective system in that it acts as a warning sign for actual or potential injury to the body (Woolf 2010). Chronic pain, however, often does not have a functional physiological role (Aitkenhead, Rowbotham & Smith 2002; Jensen 2008).

There is growing acknowledgment that acute pain and chronic pain are no longer two patently different phenomena; instead they simply represent two opposing ends of a continuum (Macintyre et al 2010). This concept is supported by the ANZCA Guidelines on Acute Pain Management (2013) in which it is stated that the incidence of chronic pain might be reduced by preventive treatment of postoperative pain.

As this research project is centred on the assessment and management of postoperative pain the focus will accordingly remain on the concept of acute, not chronic, pain. As such, all future references in this dissertation that are made to pain will refer to acute (postoperative) pain unless specified otherwise.

2.3.2 The Physiology of Acute Pain

Tissue damage, as experienced during surgery, excites sensory receptors known as nociceptors and it is from this that the sensation of pain originates (Atsberger & Shrewsbury 1988). Nociceptors are specialised neurons that respond to noxious or traumatic stimuli, be it mechanical, chemical or thermal, and this process is known as nociception (Morgan, Mikhail & Murray 2006; Swarm, Karanikolas & Kalauokalani 2001). Acute, or nociceptive, pain is further broken down into two types: somatic and visceral. Somatic pain is musculoskeletal-related, as in the case of a torn muscle or broken bone for example, and its location is easily identifiable. Visceral pain pertains to the visceral tissue in internal organs and their coverings, for example as in myocardial infarction or appendicitis; the source of the pain may be more difficult to pinpoint. When nociceptive pain presents itself, it demands immediate attention and action, thereby overruling most other neural functions for the current time (Woolf 2010).

Upon tissue injury occurring, inflammatory cells gather and release a series of signalling chemicals that lead to a subsequent activation of nociceptors (Jensen 2008). This activation of nociceptors results in the generation of an action potential or nerve impulse. Two different types of primary afferent nerve fibres, known as A-delta (Aδ) and C, serve the nociceptors and are responsible for sending pain signals from the peripheral nervous system to the

central nervous system (Zimmerman 2004). These nerve fibres allow differing responses to take place when the body is confronted by noxious stimuli.

Labelled by Morgan, Mikhail and Murray (2006) as 'first pain' and 'second pain', the differing responses are presented as a sharp, well-localised sensation that lasts only briefly (first pain) and a slower, duller sensation with little or no localisation (second pain). These first pain and second pain sensations follow the activation of the Aδ and C fibres respectively (Aitkenhead, Rowbotham & Smith 2002). In other words, the Aδ fibre which is myelinated and larger in diameter than the C fibre, produces a sharp pain that is experienced immediately following exposure to a noxious stimulus, lasts for a few seconds and triggers behavioural and reflexive mechanisms to remove oneself from the source of pain and injury (Aitkenhead, Rowbotham & Smith 2002). As the sharp pain subsides, a slow burning or aching pain replaces it; this second pain is the work of C fibres that are unmyelinated and smaller than the Aδ fibres and can continue after the initial source of pain is removed (Moore 2003).

The overall process of nociception takes place in a series of events: transduction, transmission, perception and modulation (Farquhar-Smith 2007; Moffat & Rae 2010; Pasero & McCaffery 1999). Transduction refers to when nociceptors are exposed to noxious stimuli, as outlined above. Transmission refers to the process of the primary afferent neurons (Aδ and C fibres) travelling to the dorsal horn in the spinal cord and synapsing with second order neurons which then relay the pain signals via ascending pathways to higher areas in the brain such as the thalamus (Moffat & Rae 2010; Steeds 2013).

Acting as a relay station, the thalamus then forwards the pain signals to other areas including the somatosensory cortex and limbic system to be processed (Krenzischek 2004). Perception takes place at the end of the transmission sequence and it is at this point that pain becomes a conscious subjective experience (Wood 2008). Finally, the process of modulation takes place by diminishing or heightening the pain signals at various points along both the ascending (see Figure 2.1) and descending pathways, which subsequently influences the level and method of pain management required.

Figure 2.1: Ascending Pain Pathway
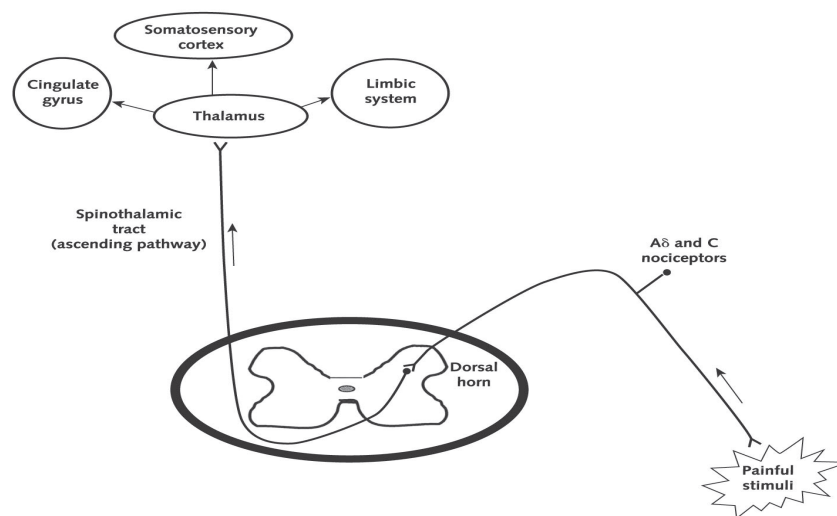
Source: Abeles et al, 2007, p. 727

2.3.3 Summary of the Pain Experience

Surgically induced, or postoperative, pain may originate from a variety of sources including the surgical incision, localised muscle spasm, intraoperative positioning or other surgery-related factors such as the presence of catheters

or drains (Savoia et al 2005). As a healthcare provider, it is essential to always remember that pain is a subjective experience. It is also important to appreciate that while pain obviously has a sensory facet, it also has an affective one as it has the ability to make the patient feel emotions such as irritability, anxiety, unhappiness and fear (Aitkenhead, Rowbotham & Smith 2002). Emotional and cognitive factors, together with the physiological, make up the patient's overall pain experience and, as such, many patients' behaviour will be reflective of the pain.

Loeser's model of pain (cited in Raspe & Kohlmann 1994) illustrates this concept (see Figure 2.2), originating at the point of nociception before broadening to encompass the ripple effect that follows nociception: the pain the patient experiences, the suffering that then occurs and the patient's behaviour that takes place as a consequence of the pain.

Figure 2.2: Loeser's Model of Pain
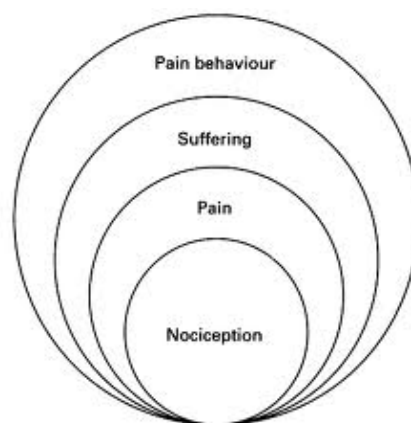
Source: Loeser (cited in Raspe & Kohlmann 1994, p. 532)

Not all patients, however, will display an obvious change in behaviour as a result of pain. Language barriers, stoicism or a lack of congruent body language in the patient are examples of influences that may make the accurate assessment of pain difficult. How patients are able to have their postoperative pain competently assessed and managed by PACU nurses is explored further on.

2.4   Situating the Post-Anaesthetic Care Unit

2.4.1 A Brief History

The history of PACUs – also known as post-anaesthetic recovery units and commonly referred to as recovery rooms – can be dated as far back as 1801 with reports of the Newcastle Infirmary having an area specifically designated for the care of dangerously ill patients or those who had recently experienced major surgery (Syme & Craven 2009; Zuck 1995). However it was in the United States of America in the 1940s that the advent of the modern recovery room took place, supported by the publication of two separate reports strongly endorsing the need for an area central to the operating theatre in which patients could recover immediately following surgery under anaesthesia (Dunn & Shupp 1943; Ruth, Haugen & Grove 1947). The PACU was amongst the first areas in the hospital to require specialised nursing care, markedly reducing the complication and mortality rate of postoperative patients (Tricario 1998). Since this time, the evolution of the PACU has reflected the advances made in the specialties of anaesthesia and surgery (Barone, Pablo & Barone 2003), establishing itself as a specific, controlled area

in which postoperative patients are able to safely emerge from their anaesthetic experience.

The ultimate goal of the PACU nurse is to ensure that the postoperative patient's wellbeing and safety is maintained without surgical or anaesthetic complications as the transitional journey is made from the operating theatre back to the surgical ward (Brent 2010; Prowse & Lyne 2000). Thus, the PACU nurse provides care that is multi-faceted including management of the patient's airway, vital signs, pain, nausea and vomiting, wounds and fluid balance, and recognition and care of the patient's emotional wellbeing. The layout, staffing, equipment, skills and knowledge of the nurses utilised in the PACU all contribute toward presenting an environment that is unique to other areas of patient care (Allen & Badgwell 1996).

2.4.2 Postoperative Pain in the PACU

The term *recovery*, in relation to post-anaesthetic care, may be defined as the return of normal physiological function following the resulting impact of anaesthesia and surgery, with particular focus on the patient's airway protection reflexes and cardiovascular and respiratory function (Syme & Craven 2009). Of all adverse symptoms experienced by postoperative patients, pain is the most predominant and it is in the PACU that patients will most likely have their first experience of postoperative pain (McMain 2010). For this reason, the assessment and management of pain is integral to the care of postoperative patients (Abdalrahim, Majali & Bergbom 2010; Manias, Botti & Bucknall 2002; Voepel-Lewis 2004) and it is accepted that a key

responsibility of PACU nurses is effective pain assessment and management (Beissbarth 2011; Persson & Ostman 2004; Puntillo & Weitz 1998; Sullivan 2004; Wilding, Manias & Diarmuid 2009).

Buss and Melderis (2002) acknowledge that assessment and management of pain in the PACU is unique and unlike other patient care settings. The type and intensity of postoperative pain varies greatly from patient to patient and is influenced by many different factors including the site and type of surgery, significant preoperative pain (either acute or chronic), age, gender, culture and anxiety (Lovering 2006; Nielsen, Rudin & Werner 2007; Nworah 2012). However PACU nurses also encounter challenges in pain assessment and management that are specific to the area. These include determining if the patient is experiencing emergence delirium (Manworren, Paulos & Pop 2004); recognising if the patient is experiencing postoperative cognitive dysfunction whereby they present with impaired memory or concentration (Bond et al 2005); and ascertaining whether the patient is experiencing pain or perhaps a different type of postoperative discomfort such as the presence of a urinary catheter, positioning in the bed, or having a sore throat from the insertion of an artificial airway intraoperatively (Zegerman, Ezri & Weinbroum 2008)

Underscoring the responsibility of the PACU nurse to proficiently deliver pain assessment and management is the awareness that while acute postoperative pain is a predictable and normal response to the trauma of surgery, if it is not managed efficiently and aggressively the patient's quality of recovery will be suboptimal; furthermore, poorly controlled pain increases the patient's risk of

developing chronic pain postoperatively (Polomano et al 2008; Nielsen, Rudin & Werner 2007; Wu & Richman 2004). Hence it can be recognised that PACU nurses are situated at the frontline of early postoperative pain assessment and management and therefore are in a significant position to positively impact upon the patient's postoperative experience.

2.4.3 Challenges for the PACU Nurse

Despite the fact that standardised pain assessment and management tools are implemented in the PACU, the literature would appear to support that there are deviations in practice from the possible assumption that pain can and must always be addressed with these tools. While McCaffrey's (1968) landmark definition supports the belief that pain is subjective, Pasero (2002; 2009) acknowledged the challenges PACU nurses face when assessing pain. She highlighted the difficulty in receiving an accurate self-assessment of pain from patients who are intubated, children, adults who may still be sedated from anaesthesia, and those who are cognitively impaired or are unable to verbalise their pain (Pasero 2002; 2009). Emergence delirium is a state of cerebral dysfunction, which presents as a state of confusion, lasting for 15-30 minutes directly after a general anaesthetic (Hunk, Andersen & Gögenur 2013). Voepel-Lewis (2004) notes that emergence reactions from anaesthesia such as delirium may also hinder pain assessment in the PACU.

Employing a descriptive, comparative cross-sectional study, set in the PACU, Heikkinen et al. (2005) investigated the usage of various pain assessment tools and then compared the difference between the pain assessments of both

the patients and nurses. Results revealed that while the nurses' and patients' assessments were generally similar, the patients' verbal assessments varied widely and did not necessarily align with a numeric pain scale assessment. The researchers concluded that further research was necessary as it was not clear how suitable pain assessment tools are in the recovery room and that the more important issue was not necessarily the assessment tool used but that both the nurse and patient understood the method of assessment.

Beissbarth (2011), Brown (2008) and McMain (2010) provided discussion of assessment tools including visual analogue scales and verbal rating scales, which are used commonly throughout PACUs. Each of these authors conceded that use of a pain assessment tool alone is not always appropriate for accurately assessing and subsequently managing pain in PACU patients when there are other factors to be considered. These may include emotional impact (Brown 2008), language or cultural barriers (McMain 2010), genetic variability, opioid efficacy (Klepstad 2007), age, gender and preoperative anxiety or depression (Nielsen, Rudin & Werner 2007).

2.5   Assessing and Managing Postoperative Pain

The ways in which postoperative pain may be assessed and managed has been the focus of extensive research, from the perspectives of both clinical staff and patients. For the purpose of this literature review and in keeping with the aim of this study which is to understand pain assessment and management from the PACU nurse's perspective, literature was not reviewed where studies included patients as participants unless it was deemed relevant.

2.5.1 Nurses' Experiences, Perceptions and Strategies

Sjöström (1995) explored the impact of both clinical experience and the professional role on how accurately postoperative pain is assessed by surgical nurses and physicians. The study was conducted within a surgical unit and used both quantitative and qualitative analysis. Interviews were carried out and comparisons made between patients' pain scores according to a visual analogue scale and how the staff member perceived the situation. 'How the patient looks', 'what the patient says', 'the patient's manner of talking' and 'knowledge of past experiences' were revealed as strategies, or categories of criteria, that are used in pain assessment. Perhaps unsurprisingly, it was seen that using the pain assessment strategy of 'what the patient says' produced the smallest average deviation from the patients' ratings, strongly suggesting that this strategy is the most successful when assessing patients' postoperative pain. This premise is supported by van Dijk et al. (2012) who believe it is through verbal communication with the patient that pain is mostly assessed.

Sjöström's study served as the foundation for further research by Kim et al. (2005) and Klopper et al. (2006). The strategies, or categories of criteria, described above were used for comparison of data with both studies. Kim et al.'s (2005) study focused on strategies of pain assessment used by nurses on surgical wards. Findings revealed that nurses most frequently relied on the appearance of the patient and used their own past experiences to recognise physical signs such as facial expression and bodily movement. Klopper et al.

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(2006) carried out a validation study to describe the postoperative pain assessment strategies used among a group of surgical ward nurses in South Africa and deemed Sjöström's strategies necessary and complimentary for pain assessment.

A 2005 observational study determined nurses' pain management strategies in the postoperative setting and specifically, the effect that context and time has on these strategies (Manias, Bucknall & Botti 2005). Data, collected by observing 52 nurses caring for postoperative patients on a surgical ward, data was analysed and sorted into the following themes: 'managing pain effectively'; 'prioritising pain experiences for pain management'; 'missing pain cues for pain management'; 'regulators and enforcers of pain management'; 'preventing pain'; and 'reactive management of pain'. While the research uncovered a number of pain management strategies, the researchers concluded that nurses caring for postoperative patients need to be aware of how competing responsibilities affect their ability to carry out effective pain management.

Richards and Hubbert (2007) acknowledged that despite the wealth of research regarding pain management, there were no studies seeking to understand the experience of expert nurses caring for patients with postoperative pain. They therefore conducted a pilot qualitative study to understand how expert nurses assess, manage and care for patients with postoperative pain. The authors defined *expert nurse* in accordance with Benner's (2001/1984) assertion that expertise is attained by working in

similar situations for at least five years. Three expert nurses from a surgical care unit were recruited and interviewed using a phenomenologic mode of inquiry. Data analysis revealed four themes. 'Considering the whole person' encompassed how they assessed their patients for pain. 'The independent art of nursing' was reflective of the way the three expert nurses uniquely managed postoperative pain. 'Accepting what the patient says' reflected how the nurses put aside their own judgments about pain management and simply accepted what the patient said, and 'Commitment to surgical nursing' demonstrated their genuine commitment to surgical nursing and pride in being able to have a positive impact on patient outcomes. The findings afforded an authentic insight into how the three nurses care for their patients with postoperative pain, providing a platform for further research.

Rejeh et al.'s (2009) study sought to identify the experiences and perceptions of Iranian nurses working in surgical wards in relation to the barriers to postoperative pain management. Using an exploratory approach with content analysis of the data, four themes emerged: 'lack of educational preparation', 'nurses' limited authority', 'limited nurse-patient relationship', and 'disturbances in pain management interventions'. It was concluded that when faced with these barriers, nurses are able to only provide 'limited pain management' as they are not able to act at an optimal level. The researcher posited that postoperative pain management is contextually complex and that the findings of the study support the advancement of understanding the contextual issues that affect pain management (Rejeh et al, 2009).

A qualitative study carried out in Jordan investigated the experiences of nurses when caring for patients with postoperative pain (Abdalrahim, Majali & Bergbom 2010). Participants were nurses from a surgical ward and data was collected via interviews. Five themes emerged from this study: 'being faced with patients' suffering', 'being caught between ideals and work conditions', 'facing neglect and misconceptions', 'being confronted with families' concerns and hostility' and 'facing the feelings of the necessity to change'. These themes revealed the working conditions endured by Jordanian nurses and provide an understanding of their world.

2.5.2 The Complexity of Postoperative Pain Assessment and Management

Due to the subjective nature of pain, the corresponding assessment and management has the potential to be a complex process (Francis & Fitzpatrick 2013). Contributing factors that may further compound the matter include busy hospital wards, limited time, low staffing levels, inappropriate attitudes and inadequate knowledge (Taylor & Syanbury 2009).

When reviewing the range of themes arising from the studies relating to nurses' experiences and strategies, it appears that the assessment and management of postoperative pain from the viewpoint of nurses is anything but simple. Subject matter is considerable and whether it is focused upon a particular patient age group, a type of surgery or perhaps the method of communication used, there is always scope for research in this area to influence the way postoperative pain is assessed and managed. The complexity

that surrounds the subject of postoperative pain assessment and management is a rich field for further research.

When reviewing the literature of postoperative pain assessment and management from the nurses' perspective, the focus taken by the researchers also varies considerably, depending upon the interest of the researcher and the questions needing to be investigated. Likewise the research methodologies employed to explore these questions vary accordingly, contributing to the overall richness of data that is available surrounding this subject.

Manias, Botti and Bucknall (2002) conducted an observational study investigating the interactions between surgical ward nurses and their postoperative patients relating to pain assessment and management and identified barriers surrounding the pain management decisions made by the nurses. Like the previous studies, these barriers were identified as themes and further highlight the complexities that impact the nurses' assessment and management of postoperative pain. As a result of the study, the researchers concluded that quantitative methods such as surveys and randomised controlled trials would not have been able to provide the rich data that the observational method allowed. This supports the assumption that by using an ethnography methodology for the current study, allowing for both observation in the clinical area and interviews with the individual nurses participating in the study, a clearer understanding of the perspectives of PACU nurses regarding postoperative pain assessment and management will take place.

2.6   Ethnography

2.6.1 An Introduction to Ethnography

Ethnography is a research strategy that enables societies and cultures integral to the human experience to be explored and examined (Murchison 2010). According to Bronislaw Malinowski (1922), a leading anthropologist of the 20th century, the goal of ethnography is:

> to grasp the native's point of view, his relation to life, to realize *his* vision of *his* life (p.25).

Traditionally, ethnography has been used to gain understanding of people native to cultures that are foreign to the Western world (Byrne 2001). Oliffe (2005) clarified that the use of ethnographic research is not confined to anthropologists who immerse themselves in learning about foreign, remote cultures for extended periods of time. Rather, in today's society, ethnography is increasingly being used to understand the existence of cultures and societies 'closer to home'. As a methodology, ethnography employs a number of methods and may incorporate both qualitative and quantitative data (Savage 2000). Savage (2000) believed this to be a strength of the ethnographic approach which, as such, lends itself to the arena of healthcare issues well.

2.6.2 Ethnography in Nursing Practice

Ethnography as a qualitative research method allows the behavioural patterns of a culture to be recognised and the meanings of those patterns understood

within certain contexts (Robinson 2013). While the term 'culture' may be defined in multiple ways, it most often composed of values, origins, roles and material items that are associated with a specific group of people (Byrne 2001). Ethnography, then, seeks to detail a cultural group's norms and viewpoints in order to increase awareness of the said group (Byrne 2001). Suominen et al. (1997) ascertained that the significance of how nurses' pain assessment attitudes are influenced by cultural influences is important, as it is one's culture that guides one's thinking, actions and decisions.

Harper, Ersser and Gobbi (2007) used an ethnographic approach to explore how military nurses working in the surgical environment justified their postoperative pain assessment decisions. Findings revealed that the participating nurses told both cultural and collective stories which in turn were broken down into several sub-themes. The outcome of the study indicated that military nurses need to be aware of their cultural attitudes and how they subsequently use their attitude to justify pain assessment decisions, especially when these differ from the self-report of the patient. The researchers concluded that the stories told by the participants could be used by civilian nurses, thus allowing the findings of this study to be adaptable to other settings. They also emphasised the importance of all nurses being aware of how their socialisation into the nursing culture can influence their attitudes towards the complexity of postoperative pain assessment.

A recent ethnographic study took place in Ghana where 12 surgical nurses shared their perceptions and responses regarding postoperative pain in their

patients (Aziato & Adejumo 2014). Data highlighted the factors influencing the nurses' pain responses that included, commitment, discretion, organisational laxity and the challenges of teamwork. The results of the study were consistent with the theme that pain is a subjective personal experience.

Another ethnography was used to establish the role of social context in pain assessment across two postoperative units (Lauzon Clabo 2007). Findings showed that each unit displayed a unique pattern of nursing pain assessment thus supporting the premise that nurses' pain assessment practice is shaped profoundly by the individual unit's social context.

Robinson (2013) posited that even though a natural fit would appear between nursing and ethnography, other qualitative methodologies such as grounded theory and phenomenology are more commonly used. This assumption would seem to be correct, as the three studies discussed here are the only studies using ethnography relating to postoperative pain assessment or management that were found during the literature search for this review. The next chapter will detail the ethnographic methodology process and why it has been chosen for the present study.

2.6   Summary

The primary focus for this literature review was, as suggested by the title of this study, related to PACU nurses and the process of pain assessment and

management in the postoperative patient. Upon conducting an expansive review of the literature, it became apparent that while the subject matter of postoperative pain assessment and management is considerable there are no studies involving the experiences of PACU nurses and remarkably few studies focusing on the experiences of the surgical ward nurse. The majority of research relating to postoperative pain assessment and management takes place on the surgical ward or unit, after the patient has left the PACU. Furthermore, the available literature that did relate to PACU nursing did not fit the specific criteria set for this review which was to explore the perspectives of PACU nurses on postoperative pain assessment and management. While the intention of this review was to focus on how PACU nurses assessed and managed postoperative pain, the available literature instead addresses pain assessment and/or management from the patient's point of view, either solely or in conjunction with the PACU nurse's point of view.

The literature reviewed for this study provides further opportunity to examine the role PACU nurses play in ensuring postoperative patients receive optimal pain assessment and management. By choosing to do this research study using an ethnography methodology, insight may be gained into how PACU nurses view the process of pain assessment and management in the postoperative patient and what factors influence the way they make related practice decisions.

Chapter 3: METHODOLOGY

3.1   Introduction

Health professionals are expected to provide rationale for their clinical decision-making and, as a result, excellent healthcare is increasingly reliant on research rather than tradition (Della & Michael 2011). This is evident from the way in which healthcare professionals have embraced evidence-based practice. However while it is widely accepted that knowledge gained from systematic reviews leads the way of evidence-based practice (Sandelowski 2008; Evans 2004), primary studies provide the foundation upon which to base this secondary research (Handoll & Smith 2004, Needleman 2002).

Neuman (2006) described research as an approach to finding answers to questions, in turn providing leaders, government officials, educators, business managers, administrators, parents, human service providers and healthcare professionals with new knowledge to use in their area of work. Within nursing, research is used as a method of inquiry to help develop knowledge surrounding important issues relevant to nursing practice (Polit & Beck 2008). In an age where healthcare is continuously advancing it is imperative that nurses are able to demonstrate sound skills and knowledge at all times in order to provide their patients with the optimal care that is expected. Gerrish and Lacey (2006) ascertained that in order for such knowledge to be developed, the role of research is integral to the profession of nursing.

Research has been historically classified into two different traditions: quantitative and qualitative. Each tradition has its own beliefs, norms and values and both are affiliated with differentiating research practices and procedures (Goertz & Mahoney 2012). Within these two traditions are again further divisions identifying differing paradigms and methodologies. As stipulated in the previous chapter, the current study shall be conducted using an ethnographic methodology, which is located within the qualitative tradition. The purpose of this chapter is to outline the key assumptions of qualitative research; explain why ethnography was chosen as the methodology; describe the fundamentals of ethnography; and define symbolic interactionism as the study's theoretical perspective.

3.2   Qualitative vs. Quantitative: What is the Difference?

Both quantitative and qualitative research have their own strengths and weaknesses, enabling one tradition to be more suitable for use than the other when considering any given research study. Quantitative research produces data that is either numerical or can be translated into numbers and is primarily objective in approach (Explorable 2014). Quantitative research focuses on searching for relationships between variables, aiming to analyse, and in turn understanding how these causal relationships work (Denzin & Lincoln 2005). Characteristics of quantitative research also include measurable data, a belief in a single reality and the researcher being independent to the research process (Speziale & Carpenter 2007). However Silverman (2006) provided the critique that cultural and social consideration of the variables may be neglected when using quantitative methods. Liamputtong and Ezzy (2005)

also acknowledged this premise noting that despite quantitative statistical data being very useful, people's interpretations and understanding of issues, along with their interactions with others, may be masked when using this method of research.

Qualitative research, on the other hand, provides data that is not number-focused but is instead represented as text, in turn requiring interpretation, rather than measurement, with a subjective approach (Explorable 2014). Qualitative research understands and describes people, highlights how their experiences are interpreted, and has become increasingly popular in health research (Liamputtong & Ezzy 2005). Whitehead (2007b) noted that in relation to healthcare, qualitative research has the potential to significantly influence change in health and nursing care practice as the research data is derived from the experiences of the participants, usually being patients, health professionals and/or the relatives/caregivers of the patient, all of whom have involvement in the care situation. Adopting an interpretive and naturalistic approach, qualitative research explores the meanings, values, beliefs, experiences and attitudes of its research participants allowing naturally occurring social phenomena to be better understood (Whitehead 2007b).

3.3   Paradigms and Methodologies: Positioning the Research Question

Having determined that using a qualitative approach is the fitting method in which to address the research question, it now needs to be positioned within either an interpretive or critical paradigm. Viewed as post-positivist, the

critical and interpretive paradigms are both employed by qualitative researchers (Whitehead 2007a). However while sharing the qualitative umbrella, they display quite different approaches to research. Researchers using the critical paradigm aim to challenge and change social structures by facilitating empowerment; this is done by working through research problems, finding answers and then acting on those answers (Taylor, Kermode & Roberts 2006; Whitehead 2007a). Interpretive research, on the other hand, endeavours to understand and account for the meaning of human actions and experiences (Fossey et al 2002). As the research question does not aim to change how pain management within the post-anaesthetic care unit (PACU) is practiced, but rather promote insight into the perspectives of PACU nurses on postoperative pain and assessment, the research question will be situated within the interpretive paradigm.

Having ascertained the need for an interpretive paradigm, the appropriate methodology must be selected to frame the research. While ethnographic studies historically explored small, often remote, communities which were thought to share beliefs and practices specific to their culture, today many ethnographers explore settings closer to home, for example the workplace (Savage 2000). Despite the expansion of the ethnography 'field' having a marked impact upon the methodology's theory and practice, ethnographers continue to have the common goal of seeking out and researching cultural communities, or social groups (Berry 2012; Lassiter & Campbell 2010). The current study's research question focuses on the perspectives of PACU nurses regarding postoperative pain assessment and management. By looking at

PACU nurses as a culture, the question lends itself to the methodology of ethnography.

3.4   Ethnography as a Methodology

3.4.1. The Origins of Ethnography

Stemming from cultural anthropology, ethnography has been used as a methodology from the late nineteenth and early twentieth centuries and is one of the oldest qualitative methods used in nursing (Oliffe 2005; Savage 2000; Simmons 2007). During this time, renowned anthropologists including Bronislaw Malinowski, Margaret Mead and Franz Boas conducted studies in remote non-Western cultures by immersing themselves in the everyday activities of the native people. Indeed, it was Malinowski, who is often referred to as the 'father of ethnography' who developed the systematic method of ethnographic fieldwork that has gone on to greatly influence the modern development of ethnography (Lassiter & Campbell 2010).

From 1910 to 1930 the Chicago School of Sociology carried out landmark work in the field of ethnography with its use of observational methods to explore the urban environment; from 1940 to 1960 the Chicago School went on to establish participant observation as an observational method in its own right (Neuman 2006). Murchison (2010) reflected that it was due to the Chicago School's promotion of ethnography that sociologists began to use it as a research strategy more often and that

> ...there is increased recognition that cultural and social phenomena are ripe for ethnographic study everywhere we find humans (p.9).

It is in keeping with this intention that Madeleine Leininger, considered to be the first nurse anthropologist, found that many anthropological concepts were applicable to nursing and furthermore, that the richness of ethnographic research contributed to the methodological approaches of nursing (Fawcett 2012; McFarland 2012). Leininger (1985) believed that through the use of ethnographic research, the nursing practices in different countries and different clinical settings, could be described. Liamputtong and Ezzy (2005) further reinforced that in healthcare there are many research settings that can be seen to be 'cultural', including maternity wards, nursing homes, ultrasound clinics and intensive care units. Accordingly, the PACU is also seen to be a cultural setting and, therefore, ethnography is deemed an appropriate methodology to be used for the current study.

3.4.2 The Ethnographic Cycle

James Spradley (1980), an American anthropologist, determined that ethnography seeks not to study people but, rather, to learn from them and in doing so the process follows a cyclic pattern. The six major activities in this cycle are: 1) selecting an ethnographic project; 2) asking ethnographic questions; 3) collecting ethnographic data; 4) making an ethnographic record; 5) analysing ethnographic data and; 6) writing an ethnography, which Spradley (1980) acknowledged may lead to new questions and further observations, thereby possibly commencing the cycle again. With reference to

this ethnographic research project, it will be seen that the activities in Spradley's ethnographic research cycle guided the process that is undertaken.

3.4.3 Data Collection and Analysis of Ethnography

Culture is made up of meanings and practices that, through interaction, are produced, sustained and altered; ethnography studies the culture in question and in turn represents how its inhabitants live (Van Maanen 2011). Simply put, ethnography focuses on human behaviour as it takes place within a cultural setting (Sydnor & Fagen 2011). In doing so, ethnography offers insight into the specific ways of a particular culture, often previously unattainable to those outside that culture (Herbert 2000; Oliffe 2005).

Regardless of the culture or social group being studied, it is pivotal that the ethnographer gains access to and be physically present in the research site (also known as *conceptual field*); the research carried out in the field is thus called fieldwork (Whitehead 2007b). By appropriately engaging in the activities of the group the ethnographer becomes immersed in the culture and collects data on the human interactions and experiences taking place (Barton 2008; Simmons 2007). This immersive fieldwork is a definitive trademark of ethnography (Fetterman 2010; Van Maanen 2011). In relation to the research question of this study, the fieldwork was carried out in PACU and primarily entailed observing PACU nurses as they engage in the assessment and management of postoperative pain in their patients as well as other processes that encompass PACU activity.

An ethnographic study employs a variety of data collection methods. Two predominant methods used are participant observation and interview processes, or ideally, a mix of the two (Herbert 2000; Maggs-Rapport 2000; Oliffe 2005; Simmons 2007; Spradley 1979, 1980).

Participant observation is considered the backbone of ethnographic fieldwork and without it ethnography falters as a methodology (Simmons 2007, Van Maanen 2011). Participant observation ideally takes place over a lengthy period of time and provides researchers with the opportunity to establish themselves within the chosen culture by observing and interacting with those they are studying (Herbert 2000; Simmons 2007). Through this observation and interaction, relationships are fostered and built with the study participants, in turn allowing the researcher to gain their trust and eventually become a participant within the culture.

Participant observation serves as a continuum for the ethnographer making the journey from complete observer to complete participant (Barton 2008). Initially the researcher is usually a complete observer and 'clueless' and will likely be regarded by study participants as an outsider, possibly with a sense of mistrust (Van Maanen 2011). The idea that ethnography is the outcome of an in-depth, intuitive and empathetic understanding of a culture evolves into reality as the researcher moves along the continuum and becomes a complete participant (Humphreys, Brown & Hatch 2003). Another advantage of participant observation is that it highlights differences between what people

say and the actions they carry out (Oliffe 2005). While people may voice their beliefs in one way, what they do in reality may differ (Whitehead 2005).

Ethnography is driven by interaction making it distinctive from other methodologies (Emerson 2009). While participant observation is integral to any ethnography, interaction through interviewing is another desirable method. Like participant observation, interviewing allows the researcher an insight into how members of a culture think and behave. By talking to them, the researcher is able to apprehend meanings, emotional currents and background experiences not usually visible or expressed during certain interactions (Oliffe 2005; Whitehead 2005). Interviews may take place in the form of one-on-one interviews or focus group interviews; they may be informal discussions within the field or they may take a more formalised approach (Oliffe, 2005). Whichever method used, the advantage of interviewing is immense as it clarifies how people understand and justify their reasons for carrying out actions in their environment (Murchison 2010).

Field notes are central to ethnography, recording all that the researcher sees, hears and experiences within the field (Whitehead 2005). Field notes make sense of fieldwork, describing not just what has been seen and heard but also the impressions, personal feelings and interpretations of the researcher's experiences (Liamputtong & Ezzy 2005). This lends itself to another distinguishing feature of ethnography; it makes room for the researcher's senses and perceptions to be involved, giving the study a richness lacking in other methodologies (Emerson 2009; Herbert 2000).

Ethnographic analysis involves the sorting and re-sorting of all valid data generated through field notes, interview transcripts and participant observations. By reviewing all the data in this manner, common themes and patterns emerge (Maggs-Rapport 2000). The researcher can then interpret data according to these thematic categorisations and can eventually transform, translate or represent their findings into a written report (Thorne 2000). At the end of the analysis process, the researcher is informed to make conclusions based on what has been learned regarding the culture. Accordingly, with regard to the study within, findings have been generated relating to the perspectives PACU nurses have regarding the assessment and management of pain in the postoperative patient.

3.4.4 Focused Ethnography

Higginbottom, Pillay and Boadu (2013) propose that within the realm of healthcare research, focused ethnographies are particularly relevant as they are able to capture data on a specific subject both pragmatically and efficiently as well as highlight ways in which to improve care and care processes. Developed from traditional ethnographic methods and using the same principles of ethnography as already discussed, focused ethnography provides, as its name suggests, a focused way to understand issues such as behaviour and cultural perspectives and this approach is utilised when a specific topic or issue needs to be explored (McElroy et al. 2011).

Certain features distinguish focused ethnography from ethnography at large. In focused ethnography a specific topic of enquiry is pre-established; participant observation is often punctuated with short-term field visits as opposed to the traditional lengthy period of time spent in the field; interviews are structured specifically around the topic at hand; and participants are usually informants who have an in-depth knowledge and experience of the subject being considered as opposed to those who the researcher has come to establish a meaningful relationship with over time (Higginbottom, Pillay & Boadu 2013; Knoblauch 2005). Furthermore, while prior knowledge of the culture being studied may not exist in a traditional ethnography, Knoblauch (2005) stipulated that background knowledge of the topic at hand is desirable for a focused ethnography as it enables the researcher to seek the specific information needed. As discussed in Chapter One, the researcher brought to the current study an experienced knowledge of PACU nursing.

The chosen research question for this study focuses on the perspectives of PACU nurses regarding the assessment and management of pain in their postoperative patients. In doing so, the question extends itself to the particular methodology of focused ethnography by addressing a specific process, or practice, of the chosen culture of PACU nursing (Cruz & Higginbottom 2013; Knoblauch 2005).

3.5 Symbolic Interactionism

Symbolic interactionism is a theoretical perspective that is frequently used in qualitative research and is an important aspect of the theoretical perspective

chosen for this study. Symbolic interactionism as a concept originates from the work of George Mead, a professor of philosophy at the University of Chicago, who believed that the mind is a result of the exchange of social acts with language being the most complex of social acts that people engage in (Benzies & Allen 2001). Mead further acknowledged the importance that symbols and meanings have for understanding how humans behave (Mead 1934). However it was not until after Mead's death in 1931 that his student Herbert Blumer expanded upon Mead's work and the term symbolic interactionism was coined (Benzies & Allen 2001).

Blumer (1969) identified three premises of symbolic interactionism. The first premise is that human beings act toward things in their environment in ways based upon the meanings that those things have for them. These things encompass everything in the person's world from physical objects to other people to the activities of others. For example, PACU nurses receiving a patient from an anaesthetist they are familiar with may continue going about their physical work while simultaneously listening to the anaesthetist's patient handover. If the nurse does not know the anaesthetist, he or she may feel compelled to be still and actively listen to the handover before carrying on with work.

The second premise is that the meanings that these things hold for human beings results from an on-going social interaction with other human beings. A nurse working on the ward may have little experience with caring for patients

who are emerging from anaesthesia, yet in PACU caring for patients who are still under the effects of anaesthesia is a routine practice.

The third premise proposed by Blumer (1969) is that people use an interpretive process to modify the meaning of a social interaction. This inner process of thinking and reflecting is illustrated by reference to the preceding scenarios. For example, as PACU nurses become more familiar with administering narcotics, they ascribe meanings to their actions. The nurse may modify his/her original interpretation of the meaning through subsequent encounters with others and a different meaning or interpretation may be applied to the administration of narcotics. Likewise, the nurse ascribes meaning while listening to the anaesthetist's handover. The 'meaning' of the handover, the interaction, is likely to be influenced by the other nurses in the PACU environment. As the nurse has other social interactions, the meaning ascribed to the interaction may continue to alter. The manner in which the meaning is altered is an interpretive process that results from how the nurse interacts with their environment. Key to this process is the opportunity for the nurse to reflect on how symbols and meanings interact.

Blumer's three premises of symbolic interactionism have an explicit focus on language, communication and relationships. Crotty (1998) considered that symbolic interactionism also relates to the basic social interactions of a person entering into the attitudes and values of a community. Liamputtong and Ezzy (2005) reinforced that symbolic interactionism explores how human beings make sense of their experiences by using a common set of symbols. Symbolic

interactionism will therefore enable the reality of PACU nurses assessing and managing pain in postoperative patients to be revealed.

3.6 Summary

Spradley (1979) contended that discovering what events and actions mean to people who are the focus of a study is what makes the essential core of ethnography. He further clarified that while some meanings are expressed directly through language, many meanings are communicated indirectly by means of word and action and as such are taken for granted. In conclusion:

> But in every society people make use of these complex meaning systems to organize their behavior, to understand themselves and others, and to make sense out of the world in which they live. These systems of meaning constitute their culture; ethnography always implies a theory of culture (Spradley 1979, p.5).

Spradley's description of what ethnography is fits aptly into the world of nursing research, particularly as nurses, due to their care-giving duties and close working relationships with others are in the unique position of being able to describe patient and nursing cultures (Oliffe 2005). As a qualitative methodology, ethnography supports a systematic method of recognising behavioural patterns and understanding what these patterns mean within certain contexts (Robinson 2013).

Robinson (2013) ascertained that by understanding the cultural influence on health, nurses are able to effectively assist patients to achieve optimal wellbeing and quality of life. By employing the methodology of focused

ethnography, in collaboration with symbolic interactionism for the present study, it is expected that the findings of the study will benefit other PACU nurses by offering them an insight into their own culture, and the postoperative patients who rely upon PACU nurses for optimal assessment and management of postoperative pain. The next chapter will detail the methods and processes used in this study.

Chapter 4: METHODS

4.1 Introduction

The purpose of this chapter is to describe the actual methods and processes undertaken in this ethnographic research study. Aspects including ethical issues, the recruitment strategy, and how data collection and data analysis occurred will be presented along with strategies employed to ensure the rigour of the study.

Integral to good qualitative research is the exemplification of participants' actions, social contexts and subjective meanings as they themselves understand them (Fossey et al 2002). As discussed in the previous chapter, observation in the conceptual field is the hallmark element of an ethnographic study, strongly supported by interviews with the participants. However there are many considerations that must be undertaken in order to carry out data collection in this manner and ensure that the resulting ethnography is ethically and rigorously grounded. These will be discussed in this chapter.

4.1.1 Restatement of the Study's Aim and Objectives

The aim of this study is to understand the processes in which post-anaesthetic care unit (PACU) nurses engage when assessing pain and implementing subsequent pain management in patients following surgery.

The objectives of the study are:

- To discern the ways in which PACU nurses assess pain in the postoperative patient.

  - To uncover the strategies PACU nurses employ to manage pain in the postoperative patient.

- To understand why PACU nurses assess and/or manage pain in the postoperative patient in the way that they do.

4.2   Ethical Considerations

4.2.1 Ethics in Ethnography

It is chiefly because of biomedical research that ethical regulation has evolved (Atkinson 2009). While the potential risk of harm to ethnography participants may not extend to the same amplitude as participants in other types of research, for example a clinical treatment trial, it would be negligent to assume that there is no potential for harm. The primary ethical responsibility of one who conducts an ethnographic study is first and foremost to the participants (Murchison 2010). That participants do not come to any emotional or physical harm is the most important principle of any research and any potential harm (or possible benefits for that matter) must be considered and disclosed by the researcher (Rees 2011). Rees (2011) clarified that potential benefits of a study must not be outweighed by the risk of harm to its participants. Further to this, the design of the current research also ensured patients were not affected by the conduct of the study.

There are four fundamental principles that pertain to ethical matters and which must be addressed when contemplating research. These are: autonomy, beneficence, non-maleficence and justice (Devlin & Magill 2006; Tangwa 2009).

Autonomy refers to the act of one being able to freely make decisions and choices without influence or coercion of others and furthermore to not be subjected to subsequent judgement from others. Within the current study, this principle was particularly relevant as the researcher, already being a nurse and in a position of leadership within the chosen PACU, had to ensure that potential participants did not feel pressured into being a part of the study. This was addressed in the Participant Information Sheet & Consent Form (Appendix D) where it was clearly stipulated that that the nurse's choice to participate or not in the study would not impact upon his/her position within the unit. Verbal assurance of the same was also offered.

Beneficence and *non-maleficence* are often coupled together - beneficence meaning to do good, or for the benefit of others, and non-maleficence, quite simply, meaning to do no harm. The fourth principle of ethics, *justice*, pertains to all research participants being treated equally and with all the burdens and benefits of the research being distributed in a fair and equitable manner (Tangwa 2009). The researcher acknowledges that all four of these principles were adhered to at all times throughout the research process.

With regard to the risk of harm to the consenting participants, it was realised by the researcher at the time of commencing the study process that participants may feel uncomfortable or anxious during the observation or interview stages. It was however felt that the benefits of the research outweighed the possibility of participants' discomfort. Furthermore, participants were assured that at any time they would be able withdraw from the observation, interview or entire study without risk of prejudice and that the option of counselling would be offered.

4.2.2 Ethics Committees

Before applying for ethical approval to conduct the current research study, the researcher approached both the Nursing Director of Surgical Services and the Nurse Unit Manager of the operating theatre department she wished to conduct her research in and explained her intentions to them. Endorsement and support was extended from both these line managers.

As the researcher was undertaking this study as a university student, ethical approval was required from two different ethics committees: that of the University of Adelaide with whom the researcher is completing her degree and that of Metro South Hospital and Health Service in Queensland where the researcher conducted the research.

The Low Risk Human Research Ethics Review Group at the University of Adelaide granted ethical approval on 19th June 2013 (Appendix E). The

Centres for Health Research of Metro South Hospital and Health Service granted ethical and governance approval on 25th July 2013 (Appendix F).

Due to the length of time taken to receive ethical clearance and time constraints of the university calendar, the researcher chose to defer the study by one semester and commenced the research project approximately eight months later. Both ethical committees were accordingly advised of the intended change in date and the appropriate documentation was submitted as required. Both committees duly approved the amendment in commencement date.

4.2.3 The Role of the Researcher

Once involved with data collection, researchers become active participants in the research process and are no longer passive recipients of impressions (Glaser & Strauss 1967). As a PACU nurse who works in the chosen place of research and is a senior colleague of the research participants, the researcher faced the task of maintaining the boundaries between being a researcher and being a PACU nurse. While it was without question that the researcher would be have an emic (insider) understanding of what she observed and heard, it was also inherent to the validity of the research findings that she be able to take an etic (external) perspective as well (Fetterman 2010). For example, when interviewing participants, it was a challenge for the researcher when participants were not able to answer questions with the responses the researcher anticipated receiving. Being unable to use the knowledge that the

researcher knew from working with the participant that they knew the answer was frustrating and yet a valuable lesson in reflexivity for the researcher.

Another point of concern for the researcher was the awareness she might find herself in a situation whereby she witnessed practice that may be unethical or unsafe. In the event that this should happen, she would have a moral and professional obligation to acknowledge this with the participant she was observing. The researcher ensured that this was addressed in the Participant Information Sheet and clarified that in such an event any data that had been collected regarding the situation in question would not be used in the final data set. In addition no further discussion would take place regarding the incident either in the field or during the interview process, nor in the subsequent report. It was also reiterated that that the care and safety of patients would not be compromised. Appropriate arrangements would be made with the nurse manager for a counselling service to be provided for the nurse if required and again, the option of withdrawing from further participant observation or the study altogether would be reiterated to the nurse. By consenting to participate in the study, the participants indicated that they understood this. There were no such issues that took place during the study.

4.2.4 Informed Consent

The ethical principle of autonomy encompasses many facets of the research process and informed consent is one of them. Informed consent is a mandatory element of any research endeavour and ethnographers must obtain this before conducting their work (Fetterman 2010; Liamputtong & Ezzy

2005;). Without informed consent, any research involving human beings as participants cannot be undertaken.

As potential participants identified themselves to the researcher they were provided with a Participant Information Sheet & Consent Form (Appendix D). The Participant Information Sheet detailed the intentions of the study, expectations of the participant during the study if they chose to take part, the potential benefits and risks to the participants, what would happen if they wished to withdraw from the study, what would happen to the information gained from the study and who to contact in the event they wished to seek further clarification or make a complaint. Potential participants were encouraged to read the Information Sheet in their own time and return to the researcher with any questions or comments. At this time the researcher went through the Information Sheet with the nurse and verbally reiterated all the information provided, ensuring that the nurse understood the study.

Nurses who agreed to be participants were asked to sign the consent form that was witnessed and signed by the researcher herself. By signing the consent form, participants indicated that they had read the Participant Information Sheet and had had their questions answered to their satisfaction; that they understood the nature and design of the study; that they were agreeable to being observed in their workplace; that they were agreeable to being interviewed and having that interview audio-recorded; and that they understood they could withdraw from the study at any given time without risk of prejudice. Upon the consent form being signed by both the participant and

the researcher, the participant was given copies of the Participant Information Sheet and the signed consent form to keep.

4.2.5 Confidentiality

To maintain confidentiality during research means that the research participants involved will not be identified by the information provided by them and subsequently identified in the research findings (Coup & Schneider 2007). To ensure confidentiality, the names of all nurses involved in this study have been changed to pseudonyms; furthermore all pseudonyms are of English origin and are of female orientation to eliminate participants being identified by gender.

All participants were assured both in the Participant Information Sheet and verbally that at no time would the researcher discuss any data relevant to them with anyone except the individual participant and the researcher's university supervisor. At all times the researcher would be the only other person aware of the individual participant's identity. Participants were also assured that should the results of the study be presented verbally (for example at conferences) or in written publications, their anonymity would be maintained. Furthermore, the data obtained from this study would not be used for any reason beyond the scope of the current study except for dissemination in a professional context. Participants were also made aware that they could request to see information collected about them at any time without question.

4.2.6 Storage of the Data

The material generated during the course of the research study is extensive and ensuring this material is protected is paramount. All documents such as field notes, memos, and interview transcripts were securely locked in a filing cabinet accessible only by the researcher. Upon transcription of interviews, the interview was deleted from the recording device; the researcher herself transcribed the interviews. Any codes used to identify participants with pseudonyms were stored in a password-protected document on a computer kept in a different location to the aforementioned locked filing cabinet storing participant information.

Storage of all data and information gathered in this study will be stored for 7 years after the completion of the research project as per Queensland Health policy. At such time, all data will be destroyed responsibly in accordance with identified policies as per the Australian Code for the Responsible Conduct of Research.

4.3   Study Setting

The setting chosen for the current study was an 11-bed PACU of an operating theatre department in a South East Queensland government hospital. This PACU cares for paediatric and adult patients who have had surgery for an array of different specialities including orthopaedics, general, gynaecology and obstetrics and who have received a general, regional or local anaesthetic. The average number of patients through this PACU is 25-30 per day and there are

28 registered nurses who work here. The operating theatre department runs a 24-hour, 7 days a week service and the PACU is staffed accordingly.

4.4   Participant Selection

When recruiting participants for research preselected criteria are generally applied, ensuring participants possess certain attributes and meet specific requirements that make them appropriate for the study (Whitehead & Annells 2007). As the study was ethnographic in nature and the researcher sought to understand PACU nurses as a culture all potential staff, novice or experienced, male or female, Australian or from overseas, or of any age, would be welcome to participate. Hence the inclusion criteria for this study was that the nurses be currently working in a PACU. This criterion was important as fieldwork, or participant observation, was intrinsic to the research. Essentially for the purpose of this study, there were no applicable exclusion criteria.

Guest, Bunce and Johnson (2006) contended that 12 interviews should be sufficient to attain optimal theoretical saturation in qualitative research. Morse (2000) supported a similar position suggesting that with the scope of the study being reasonably narrow and the nature of the topic clear and obvious, a large number of participants are not necessarily needed. Considering the advice above, and in keeping with the principles of focused ethnography, it was anticipated that 8-10 subjects would be recruited to achieve saturation, diversity and inform symbolic representation.

Ten participants were recruited to the study. Of the 10 participants, eight were female and two were male; experience as a PACU nurse ranged from three years to more than 20 years; and half the participants had previously practiced PACU nursing in a hospital other than the one in which fieldwork took place. By the end of the data collection period, one nurse had left to pursue work in another hospital. While the researcher did not have the opportunity to interview this nurse, data from participant observation had been collected and this was used in the final data analysis.

4.5   Recruitment Strategy

Upon receiving approval from the appropriate ethical and governance committees, participant recruitment commenced. In collaboration with the nurse unit manager, a recruitment flyer (Appendix G) was distributed to all PACU nurses within the department. Nurses who were interested in being involved with the study after reading the flyer were then able to contact the researcher directly either by phone or email.

Nurses who expressed an interest in being involved with the study were provided with the Patient Information Sheet & Consent Form detailing the proposed study and offering an opportunity to speak with the researcher personally and ask questions about the study. Once the researcher was satisfied the nurse had understood the details of the proposed study and was willing to be part of the research, participants were required to sign the consent form prior to inclusion in the study.

4.6   Data Collection

The methods of data collection used in this study took effect in the form of participant observation, interviewing and memoing.

4.6.1 Participant Observation

The principal method of data collection in ethnography is participant observation (Simmons 2007). For this research, time was spent in the field (PACU) capturing the perspective of the participants who had chosen to be part of the study. This was done by being present in the PACU and observing the nurses as they carried out their care of postoperative patients and, in particular, their actions in assessing and managing postoperative pain in these patients. While the researcher, as a senior nurse herself in the chosen study setting, initially had doubts about how her presence as researcher would affect the behaviour of the participants, it became obvious that the nurses being observed all but forgot she was there as they proceeded with their work.

The researcher asked questions at appropriate times to clarify things she had observed, for example after the patient had left the PACU. Notes were made at the time of observation to prompt and remind the researcher to follow up with the nurse. An example of this was when a nurse chose to administer oral endone instead of intravenous fentanyl. Later, when asked why she had made that decision, she said that by looking at the patient's case notes, she had noted that the patient was taking regular endone both at home and on the ward. She felt that this was the better avenue of analgesia to follow initially; as it turned out the patient's pain level subsided substantially and no further

analgesia was required. If the researcher had not asked why the nurse had made that decision, it would not have been made apparent.

Furthermore, because the nurses were already familiar with the researcher, they appeared to be comfortable with answering questions the researcher asked and displayed a willingness on their part to share their knowledge and experience. The researcher felt that this, in part, was due to her identifying the ways in which things are done in this PACU. A few times towards the start of the study, the researcher would be asked to participate in activities such as double-checking controlled drugs. At this time the researcher would remind the participant that she was present in the role of researcher and not nurse and therefore was not appropriate to do such activities.

Over an eight-week period, 120 hours of participant observation were accrued. All conversations witnessed and participated in, actions and behaviours observed, and responses to questions asked of participants while in the field were documented on a Data Collection Tool (Appendix H). This data collection tool was based on Spradley's (1980) nine dimensions of descriptive observation to facilitate the *collecting ethnographic data* phase of his research cycle and was slightly modified for use in the PACU. All field notes were transcribed and securely stored with other confidential documentation related to the study.

4.6.2 Interviewing

At the commencement of the study, interview times were set with the individual participants to take place throughout the same data collection period that the participant observation occurred. Interviews commenced approximately three weeks into the observation period and spanned two weeks during which observations continued to take place. Participant observation then continued for a further three weeks Depending on the intent of the research, the questions in an interview can be structured, semi-structured or unstructured (Donalek 2005). For the present study the researcher used a semi-structured format, allowing the interview to unfold in a flexible manner and access a deeper understanding of participants' responses. Open-ended questions pertinent to the research study were defined prior to the interview and set out in an interview schedule (Appendix I) for ease of reference for the researcher. On average, interviews lasted 35-45 minutes and took place somewhere private that the participant felt comfortable, such as a quiet pre-arranged room at the hospital. Interviews were audio-recorded and prior to the interviews participants were reminded that they could request that recording be stopped at any time.

Having never conducted research interviews, the researcher found the first few interviews quite challenging especially in relation to maintaining momentum. In time this process became easier as the researcher found the process for interviewing more comfortable. This comfort was recognised by the interviewee and appeared to reduce any anxiety they might have had.

4.6.3 Transcribing

Transcription is the process of translating or transforming sound or images from recordings into text (Duranti 2007; Slembrouck 2007). Upon the completion of each interview, the researcher replayed the recorded dialogue and proceeded to transcribe it. McLellan, MacQueen and Neidig (2003) acknowledge that the task of converting the spoken word into written word is challenging. Low volume, interfering background noise, overlapping speech and differing styles of speech are all examples of issues that can make recordings difficult to understand (Bailey 2008; McLellan, MacQueen & Neidig 2003). The issue of background noise is one that the researcher encountered when transcribing the first interview. While for the most part the interview was easy to interpret, at one point it proved difficult when a burst of noise from birds in a tree outside a window that had been left open overtook the interview taking place. Fortunately this occurred at a point where the researcher was speaking; from the response that the interviewee gave it was relatively easy for the researcher to work out what had been said. However, taking this into consideration, all interviews that followed took place in rooms where the windows were closed to minimise unwanted background noise.

Another challenge the researcher faced was the length of time it took to transcribe all nine interviews. While the researcher found the time spent transcribing interviews was invaluable as it gave her time to truly absorb the information that was shared by the participants, she acknowledges that in future, especially if faced with time constraints, it might be a wiser option to have someone experienced in the field of transcribing carry out this work.

All interview transcripts were securely stored with other confidential documentation related to the study.

4.6.4 Memoing

Memoing took place throughout the research process. The researcher's thoughts, reflections and ideas related to the study were audio-recorded, often in the car on the drive home, and were later transcribed. These notes were used in collaboration with other data collected to provide reflexive insight into the research process when writing the report.

4.7   Rigour, Triangulation and Auditability

4.7.1 Rigour

According to Liamputtong and Ezzy (2005):

> ...validity and reliability are not established simply through following procedures that ensure findings validly and reliably reflect 'reality'. Rather the social and interpretive process is integral to establishing rigour (p.40).

The researcher has ensured that interpretive rigour has been proven in the current study in a number of ways as described here. Firstly, the way in which the collected data was interpreted will be clearly demonstrated and explained in Chapter 5. The collected and analysed data was continually compared against the research question, the methodology and the literature. The researcher has declared how she is positioned within the study and has

maintained a reflexive approach throughout the study. Interview transcripts have been confirmed with participants by giving them their transcribed interview to review. Finally, continual consultation with the researcher's university supervisor has taken place throughout the study.

4.7.2 Triangulation

Triangulation lies at the core of ethnographic validity as it tests multiple methods or sources of information against each other in the attempt to eliminate alternative explanations (Fetterman 2010). Farmer et al. (2006) further acknowledge that triangulation has the significant potential to broaden understanding of complex social and health issues.

Denzin (1978) identified four different methods of triangulation: methodological, data, investigator and theoretical. For the present study, the researcher chose to employ methodological triangulation whereby she compared the three different types of data collection (participant observation, interviewing and memoing). Collecting these forms of data enabled cross-verification of findings as they were emerging from the data.

4.7.3 Auditability

Throughout the process a research journal was maintained to record decisions and processes undertaken. This journal formed the basis for reporting the research process as described within this chapter for the reader and in doing so, established a transparent audit trail.

4.8 Analysis

Qualitative analysis of the data took effect with an inductive thematic approach. Braun and Clarke (2006) believe thematic analysis possesses a theoretical freedom making it a useful and flexible research tool and potentially providing a data account that is rich, detailed and complex. Furthermore, Hsieh and Shannon (2005) suggest the use of such analysis is apt when existing research literature or theory regarding a subject is limited. Accordingly, the researcher believed that the analytic process undertaken was appropriate for the current study. Analysis was modelled on Braun and Clarke's (2006) guide to conducting thematic analysis.

Analysis began at the time of data collection and during the subsequent transcription of interview recordings, field notes and memos. Through the process of transcription, reading and rereading the content, and becoming immersed in the data, the researcher developed a tentative list of ideas that presented themselves from the data. By systematically working through the data, the process of coding commenced as the researcher highlighted, line by line, extracts from the data. By using highlighters and 'post-it' notes, the researcher was able to identify segments of data and develop initial codes as she sifted and sorted the extracts into relevant piles. Once the broad data extracts had been coded and collated, the researcher searched for similarities and links between the codes. At this time there were more than 50 identified codes and included titles such as *patient controlled analgesia*, *emotional distress*, *vital signs*, *age*, *continuation of care*, *subjective*, *culture*, and

challenges. Codes that were similar in meaning or related to each other were coalesced and thus a second level of coding took place. This process continued until a smaller though more representative set of codes was produced.

The researcher then considered how bringing together these codes could generate overarching themes. In doing so themes began to form with the researcher continually referring back to the original transcripts to ensure that codes were being interpreted in the correct context. At the conclusion of this analysis phase the researcher had identified six emerging themes. With no new themes coming through from the coded data, the researcher realised she had reached a point of data saturation. The researcher then presented the developed themes to an experienced PACU nurse not associated with the study. Review and discussion of these themes resulted in further merging, culminating in the final identification of five themes.

While acknowledging that the process of data analysis could potentially never end, the researcher concluded that these five main themes accurately represented the data collected throughout the study.

4.8.1 Observation Analysis

In keeping with the underpinning principles of ethnography, the data collected from the period of participant observation served an integral role in the final analysis and generation of themes. As described in chapter section 4.6.1, the researcher based the Data Collection Tool used on Spradley's (1980), nine

dimensions of descriptive observation. These dimensions are depicted in the table below:

Table 4.1: Spradley's Nine Dimensions of Descriptive Observation

SPACE	the physical place or places
ACTOR	the people involved
ACTIVITY	a set of related acts people do
OBJECT	the physical things that are present
ACT	single actions that people do
EVENT	a set of related activities that people carry out
TIME	the sequencing that takes place over time
GOAL	the things people are trying to accomplish
FEELING	the emotions felt and expressed

Conforming to the conceptual field, the researcher chose to modify these dimensions to better accommodate the PACU setting. As all patient areas in a PACU are equipped in a consistent manner and the same resources are available to all PACU nurses, and as the researcher herself was familiar with how these areas are constructed, the *Object* and *Space* dimensions were removed. They were instead replaced with *Interactions*, as the researcher felt that how and with whom the PACU nurse interacts with, was of greater relevance to the research question, and with *Miscellaneous Notes*. Appendix J is an example of how the Data Collection Tool was utilised and the types of observations noted during the care of one patient. On reflection, the researcher felt that the dimensions *Activities*, *Acts* and *Events* were often interchangeable; however this did not affect the quality of the way in which data was collected.

From the data collection tool, the researcher transcribed all notes of observations and conversations with participants within the field into a word

processing document, which she read and re-read for analysis. As with the interview transcripts, the researcher then went through the observation transcripts and proceeded to highlight the information contained to enable the coding process to happen.

Upon further analysis, the researcher concluded that the participant observation data strongly supported the data derived from the participants' interviews (detailed further in Chapter 6). During the process of analysis, the researcher made a significant discovery. With reference to Appendix J, it can been seen that communication was observed to take place in a number of ways including handover from the anaesthetist, body language, nonverbal reassurance, using the 1-10 pain scale, and directly speaking to the patient. The act of communication featured heavily in the participants' interviews and this, as exampled in Appendix J, was clearly reflected in the researcher's observations of the participants at work.

As described earlier, the coding phase of the analysis involved organising data extracts with other data of a similar nature. The researcher found in the early stages of analysis that communication kept appearing as a strong contender for a theme of its own. However, as the analysis phase continued, it became increasingly apparent that while communication itself was a predominant aspect of postoperative pain assessment and management, it also laid the foundation for each of the other themes that emerged from the data and accordingly, the final fives themes developed. While this conclusion may have been made from the interview transcripts alone, the data that was produced

from time spent observing participants was essential for both validation of the interview data and consolidation of the themes. The researcher also found that the data collected from her participant observation period did not at any time differ to the data she gathered from the individual interviews, further strengthening the findings.

4.9   Summary

In descriptive qualitative approaches, the gathering and analysing of data are executed concurrently, facilitating the quality and depth of the resulting data analysis (Vaismoradi, Turunen & Bondas 2013). In order to arrive at the stage of gathering and analysing data, the preceding considerations are many. The researcher must ensure that the research design and recruitment strategy is sound; that the ethical considerations are acknowledged to ensure the safety of both participants and researcher; and that the research process remains true to the chosen methodology.

This chapter has illustrated how all these aspects of the present study were met. The following chapter presents the five themes that emerged from the data analysis and their relevancy to the current literature.

Chapter 5: FINDINGS and INTERPRETATION

5.1   Introduction

Through analysis and reflection of the ethnographic data, the researcher identified five themes representing the perspectives of PACU nurses on the assessment and management of postoperative pain. These themes and their associated key codes are depicted in Table 5.1 below.

Table 5.1: Themes and Associated Key Codes

THEME	KEY CODES
With Surgery Comes Pain	PACU patients will have pain; patients expect pain; PACU nurses expect to manage pain; pain cannot always be removed entirely
The Picture Beyond The Wound	physiological observations; medical history; what happened in the theatre; body language/non-verbal cues; cognitive development; social background; emotional & psychological distress
Knowing	education; clinical experience; life experience; intuition; knowledge
The Individual Experience	pain is subjective; pain management changes from patient to patient; pain assessment differs across patients; pain may require one or several methods of management
Bridging Surgical Care	continuation of care; handover from the anaesthetist; ensuring adequate postoperative analgesia is prescribed; education of patients on what to expect in the ward; handover to the ward

The objective of this chapter is to define and discuss each of these themes with reference to the literature. Excerpts from interview transcripts are used and words such as 'erm', 'uh', and 'like, you know' have been removed. This data is referred to as 'dross' (Field & Morse 1985) and is not considered to add to the general understanding of the interview (Burnard 1991). Before using the chosen excerpts as quotes, the researcher re-listened to the interviews to establish that removal of these words would not interfere with the contextual meaning of the quote or how it was said. The participant's pseudonym is followed by the transcript page and line number, separated by a colon, as a point of reference.

5.2　With Surgery Comes Pain

Postoperative pain is an expectation of both patients and PACU nurses. Participants believed that patients go into surgery pre-empting that when they wake from their anaesthesia they will be experiencing pain.

> *...there's an expectation of pain when you have surgery in the patient's mind.* – Sara, 3:40

> *I think patients almost expect to wake in pain even if the procedure they're having is not considered an extremely painful procedure.* – Chloe, 20:389

This expectation on the patient's part could be built on what the patient has previously been informed of, whether through previous surgery, media such as television or cinema, or from the experience of others.

> *There's an expectation that they will have pain and they also have outside influences with regard to relatives or friends who have had similar surgery and have told them of what sort of pain to expect*

so whether it's a good or a bad experience, that's in their heads as well. –Sara, 3:41

When you do your training they tell you that pain is what the patient says it is which is true but I think to me pain is, its an expectation of surgery to me. I'm expecting that when these people come out of theatre, they are going to have some degree of pain. When I think of pain I think of being sore, I think of trauma, I think of all these different things that could be causing, so I just expect that when they come out of surgery they are going to be in some degree of pain whether its a lot or a little. – Jenny, 1:17

That pain is an inevitable outcome of surgery is well documented in the literature (Abdalrahim, Majali & Bergbom 2008; Apfelbaum et al. 2003; Taylor & Stanbury 2007). From the data it was identified that this is a belief also held by PACU nurses. As the researcher observed nurses educate their patients, it was clear that nurses encouraged their patients to tell if and when they began to feel discomfort so that it could be promptly addressed. The data also revealed that while there is an expectation that this pain will be solved in the PACU, the complete removal of pain following surgery cannot always be achieved and to believe otherwise is impractical.

I think its pretty unrealistic that we're going to remove pain altogether. Quite often to my patient I'll say 'look we'll get your pain down to a tolerable level so you can manage it but you know, you have had surgery so it's a bit unrealistic to expect that you're not going to have any pain'. – Chloe, 6:118

While the ideal scenario would involve complete eradication of postoperative pain, PACU nurses understand that this is not always a possibility. Therefore the goal of PACU nurses when assessing and managing postoperative pain is to ensure patients reach a tolerable level of comfort. From a symbolic interactionism perspective, PACU nurses understand postoperative pain to be

an invariable aspect of the patient's transition from operating theatre to ward and that while it may not be completely removed, it is their responsibility to ensure the patient leaves the PACU as comfortable as is possible.

> 'We can't get rid of all your pain' and anyone that tells any one patient that when they leave there they're going to be pain free is not fair to the patient. 'I can't get rid of all of your pain, I need it to be comfortable.' And I say to them 'if you can actually fall asleep and wake up easy if I talk to you, that's me bringing your pain down to a bearable level. So if you can fall asleep and your pain's pretty good, you're aware you've had a surgery but you're not flying all round the bed. – Lisa, 6:113

> To make them comfortable. Not pain free because you can't manage that but comfortable. At a tolerable pain for them. – Kelly, 5:86

> I mean you can't always remove all of it but we can certainly make them comfortable. – Anna, 2:34

It was also noted that while PACU nurses believe that complete postoperative pain relief is not always possible other health professionals might not share the same opinion.

> Sometimes the ward nurse will rock up and they're unhappy if the patient's got any pain and I think that sometimes that they have that unrealistic expectation that the patient is going to be pain-free by the time we've finished managing their pain. We both need to be aware of the outcome that we're trying to achieve, that we're just trying to get it to a tolerable level; and not make it disappear completely. – Chloe, 21:416

The available literature pertaining to postoperative pain assessment and management is copious and predominantly focuses on the setting of the surgical ward. It is interesting to note then that ward nurses may expect patients to return from theatre with little or no pain; yet postoperative pain is

a phenomenon that they encounter on a daily basis. From the data the researcher came to understand that PACU nurses are very much aware of the role they play in the patient's postoperative journey and in particular the position they are in to alleviate the patient of any pain experienced.

5.3   The Picture Beyond The Wound

This theme describes the wider story that patients bring with them into the PACU and the influencing factors that the PACU nurse takes into consideration to ensure optimal pain assessment and management can occur. Participants identified vital signs, body language and medical history as instrumental in aiding pain assessment and management, which was consistent with what had been observed by the researcher. For example, the researcher observed that the patient's facial expression was often one of the first indicators for the PACU nurse that the patient was experiencing pain of some description. If the patient was seen to be grimacing or frowning, the nurse invariably acknowledged that the patient did not look happy or comfortable and sought clarification from the patient if this was the case. The type of surgery the patient had was also seen to play a role. While elevation of limbs following orthopaedic surgery or elevation of the head following nasal surgery is encouraged to aid with surgical healing, PACU nurses acknowledged that doing the same also alleviates pain. If a patient's blood pressure appeared to be unusually elevated, the researcher observed that very often the first thing the PACU nurse did was ask if they were in pain and the patient's response was invariably yes.

...back to the physical, their vital signs, do they have an elevated blood pressure, are they grimacing, moaning and stuff like that. So the non-verbal cues. – Chloe, 9:170

If it's an elderly patient then check the past medical history with them. If they've got some kind of problems with their kidneys, some kind of excretion problems, you're going to have to watch how slow you're going to give your analgesia for that. If they've got breathing problems, respiratory problems, sedation rates, things like that. If they're really sedated, that's going to influence what I'm going to give. If their oxygen levels are quite low that's going to influence what I'm going to give. – Jenny, 14:260

And I look at also the type of surgery they've had and what medications they've been given inside theatre. – Sara, 4:74

Patients with various backgrounds of a social, cultural or cognitive (for example, patients who were developmentally challenged) nature presented a different dimension to the practice of pain assessment and management.

If they are a different sort of social background it's a different way to handle their pain. – Kelly, 7:122

...some kids are too young to understand the whole score from 1 to 10...dementia patients are really difficult to assess because sometimes you don't know whether it's the dementia or the delirium from the anaesthetic... – Vicki, 6:101

While these patients come across as challenging, it is their background that influences how the patient is assessed and subsequently managed for pain. Take for example the patient with a drug addiction – it is not the drug addiction itself that the nurse is considering, rather how the drug addiction impacts upon the way the patient's pain is assessed.

And then you have your drug addicts who have had their pain receptors so screwed that they do need excessive amounts of pain relief to get on top of their pain. – Helen, 4:63

A third factor that participants acknowledged as influencing pain assessment and management strategies was that postoperative pain is not always directly related to the surgical wound.

The pain that the patient experiences post-surgery, it can be a surgical pain but it can also be an emotional or stressful pain so you've got to sort out which one is which. – Kelly, 1:18

Sometimes it's about communication. Reassuring a patient. Some patients, sometimes a patient can have serious cramping. Sometimes warm blankets. Talking to a patient. Sometimes pain can manifest itself when it's really not pain. All the patient wants to talk about is what's happened and their experience. Sometimes all you need to do is listen. – Helen, 18:345

Current literature provides some insight into the complexities of PACU pain care (Bond et al 2005; Lovering 2006; Manworren, Paulos & Pop 2004; Nielsen, Rudin & Werner 2007; Nworah 2012; Zegerman, Ezri & Weinbroum 2008) but none that is based on research that considers the perspectives of PACU nurses. The researcher established through the interpretation of this data that PACU nurses appreciate that there is no one pain assessment tool that is appropriate to use for all patients in the PACU. The theme of a Picture Beyond The Wound, draws attention to the extensive range of factors that PACU nurses consider when making decisions regarding their patient's pain assessment and management. The myriad of influencing factors, that this theme represents, ensures that PACU nurses are continually re-evaluating what methods of pain assessment and management are to be implemented.

5.4   Knowing

The Picture Beyond The Wound represents the factors that impact upon how PACU nurses assess and manage pain; Knowing captures how PACU nurses are able to make practice decisions regarding those influencing factors. Education, experience, intuition and knowledge were the key codes informing this theme and, while they can be identified separately, ultimately they are interlinked, strengthening the meaning of Knowing.

From the participants, the researcher was able to ascertain that education is fundamental to building Knowing of pain assessment and management in the PACU.

> *...the more education you get, the better equipped you can deal with things, you can get on top of the pain.* – Jenny, 4:71

> *I think it's massive... but in saying that nothing can beat experience. But if you don't have the education you can't understand the experience. So you have to understand why you're doing it for when you do it.* – Helen, 16:305

Participants cited conferences, seminars, workshops and in-services as education tools used to maintain education in the PACU. However the sharing of knowledge amongst the PACU team was considered just as integral to the learning arena. One participant had recently attended a seminar addressing chronic pain and was observed talking to colleagues and sharing the knowledge she had gained from it.

> *I feel PACU as a unit work really well together; we work quite closely in sharing knowledge and experiences, in helping one another.* – Anna, 24:463

And then the experience of watching anaesthetists, or other recovery nurses or surgeons deal with pain too and you start putting it all together slowly. – Emma, 5:96

And they're the things I've learnt to do with more experience but when I first started out a lot of it was assessing and I'd also assess patients by what I would hear and see in PACU. I would pick up on cues from more experienced nurses, I would listen in and I would think 'oh, ok, I would try that next time in that situation'. – Helen, 8:147

Experience of both a clinical and personal nature serves to positively impact the PACU nurse's understanding and knowing how to assess and manage postoperative pain. The researcher observed a participant preceptoring a new graduate nurse and witnessed how the PACU nurse frequently drew upon examples of past experiences in assessing and managing pain to illustrate points she was making.

Experience of my own loved ones even. Or experience of past patients I've looked after... – Emma, 7:131

I didn't realise how much pain people would be in until I did theatre, and then I looked and went '...you would be in a lot of pain after that total abdominal hysterectomy' and it's not (sic) until you see that where you realise how much pain they're actually in so that helped. – Kelly, 11:209

The researcher posits that if education can be seen to inform experience, then experience accordingly informs intuition. Intuition, or gut instinct, is a phenomenon that experienced participants deemed an integral aspect of pain assessment and management in the PACU.

I think after doing it for so long, a gut feeling comes into it. – Sara, 16:312

> *It's just gut instinct. Because you've dealt with these patients over the last 15 years and the types of operations and you get kind of used to the severity of some of these operations and what you've given patients in the past and you know what's worked for them in the past and you know what's not worked for them. –*
> Jenny, 7:123

During her observation time, the researcher noted a participant getting morphine and preparing it for administration before the patient was fully awake and responsive. When asked why she had done this before establishing a pain level from the patient, her response was 'I just know he's going to have pain and he's going to need this'. When asked further, she explained that due to the combination of the patient's age, the type of surgery and fact that the anaesthetist had handed over to her that the patient was extremely anxious before surgery, she 'just knew' the patient would experience postoperative pain. There was nothing about the patient that indicated at that time that he was going to require pain relief. The researcher observed that upon fully waking and becoming reorientated, the patient become extremely distressed with pain. The nurse later clarified she did not know why, but she 'had a feeling' the patient would have postoperative pain.

It would appear that education, experience, intuition and knowledge work together to shape Knowing and ultimately play a role each time the PACU nurse assesses and manages postoperative pain.

> *…you've got to look at somebody that's on a lot of medication prior and think 'right, they're going to need a lot more, do I go the second pain protocol?'. –* Lisa, 3:46

Taking Blumer's (1969) third premise of symbolic interactionism into account, Knowing can be seen to be a perspective of PACU nurses that continually modifies what pain assessment and management means to them. Abdalrahim, Majali and Bergbom (2010), Aziato and Adejumo (2014) and Richards and Hubbert (2007) have all researched nurses' experiences and perceptions of postoperative pain. Again, these studies focused on ward nurses, not PACU nurses, highlighting a gap in the current literature. The researcher contends that Knowing is an instrumental theme in allowing outsiders to understand how the culture of PACU nurses addresses the assessment and management of pain.

5.5   The Individual Experience

Through conversations with participants, the researcher confirmed that the belief '*pain is what the patient says it is',* is a significant driving force behind the assessment and management of pain. It was further understood that while there are many factors influencing pain assessment and management, these factors also impact upon how patients interpret their own pain.

> *...it's a very individual thing. Some people have a higher pain threshold; some people have a very low threshold.* – Anna, 5:89

> *...people's perception of pain differs for a lot of reasons. You know, there's cultural, gender, past experience...* – Chloe, 2:26

While this theme identifies that pain is unique to each patient, The Individual Experience also establishes that the experience of assessing and managing pain is just as unique to the individual PACU nurse.

That everyone's different... even though they may have had the same procedure as the person next door to them, they're all going to experience it differently, they've all got different things going on in their lives... they're all unique, it's not a textbook situation where every patient who has this procedure is going to have this pain level and this is how we treat it. – Vicki, 20:378

I would say that because I have seen different staff over time assess pain quite differently and I've seen patients give different responses to different staff over time so there must be some subjective factor there. – Emma, 6:105

While The Picture Beyond The Wound established that multiple factors influence PACU nurses' pain assessment and management, The Individual Experience supports the premise that these factors provide the patient with an experience that is particular to the given situation. The findings of this study build upon McCaffery's (1968) posit that pain is subjective, suggesting that for PACU nurses, pain assessment and management is both objective and subjective.

So pain is subjective and objective, meaning we can take, manage pain through what the patient tells us and describes or we can assess and measure vital signs and things like that as well... So I think it's a bit of a combination for the nurse whereas for the patient it's subjective. – Sara, 1:16

...with pain full stop is subjective. However we have been ripping, tearing cutting, pulling, shoving and carrying on so to me there is a small part of objective to it, so you've got to look at what the patient's actually had. – Lisa, 1:16

From the data, the researcher inferred that adding to the patient's own description of pain, the aspects of Knowing further inform the Individual Experience. PACU nurses draw upon their own past experiences, intuition and

knowledge to add another level of subjectivity to their assessment and management of pain. By doing so PACU nurses are better able to interpret their patients' perceptions of pain and understand that more than one method of assessment or management may be required for a single patient.

If one way is not working then I will try something else and just keep working at it till we get it under control and we're on a roll so we can get it happening. – Vicki, 23:443

Making sure that what you're giving them is right and it's working and if its not, you have to try something else. – Kelly, 22:417

Central to The Individual Experience is the understanding that for PACU nurses, the experience of pain assessment and management changes from patient to patient. While the 1-10 pain scale may be well-suited for one patient, it may be inappropriate for use with someone else. Likewise, what might be beneficial to one patient's pain may not have the slightest effect on another patient. How a PACU nurse interprets pain in a patient is continuously modified, as patients differ in their pain presentation. At a localised level, this interpretation is continually altered as the PACU nurse constantly assesses, reassesses and manages the patient's changing pain. Again, while past research pertaining to the patient's experience of pain is plentiful, there is a gap in research relevant to the experiences of PACU nurses assessing and managing pain. What can be inferred from the data however is that the experience of pain assessment and management in the PACU cannot be generalised from the perspective of either the PACU nurse or the patient.

5.6 Bridging Surgical Care

The final theme to emerge from the data reflects the perspective of PACU nurses that the PACU links the postoperative care beginning in the operating theatre and continuing on the surgical ward upon discharge from the perioperative environment. Bridging Surgical Care begins in the PACU with the anaesthetist's handover.

> *A lot depends, I believe, on how good their handover is, in telling me vital information that I should know in how to deal with their pain.* – Helen, 9:175

PACU nurses believe that they play a significant role in Bridging Surgical Care and that the PACU is where the patient should receive optimal pain assessment and management.

> *We're a sort of a thoroughfare to get everything settled and get them off to the wards; we have a small window of opportunity.* – Emma, 12:228

> *...recovery's good in the sense that we're working in close proximity with the patient, it's not like one nurse to six patient, so it's easier for us to manage their pain there and get that under control...we have to keep trying to do whatever we can to get them comfortable and get them to the ward.* – Chloe, 23:441

> *Ours is acute, we have to deal with acute cases, that's our job is to deal with the pain at its most, and the patients are at their most vulnerable and psychologically they're vulnerable... mentally and physically. So we don't just deal with the pain, we deal with of that, with our drugs, with our talking, with our care.* – Helen, 15:287

It was apparent to the researcher that participants felt a sense of unity in their belief that PACU is a unique environment in which they are able to offer assessment and management of postoperative pain not available on the surgical ward.

> I feel we have a little more autonomy in our clinical area. I mean you have your protocols to go by but you don't have to go round chasing doctors because it's generally pre-written – Anna, 12:230

> ...if you're assessing a patient that's saying they're 10 out of 10 and you want to give the IV protocol, they don't do that out on the wards – Jenny, 15:290

The researcher found that this point was validated during her participant observation period as she saw how PACU nurses not only have access to pain management methods not used on the wards but also have continual access to medical staff for advice and reassessment of patients. Relationships with anaesthetists and surgeons are formed and a sense of familiarity allows PACU nurses to discuss pain assessment and management in a manner that is not usually seen in the ward environment. It was often observed, if a patient needed reviewing, the PACU nurse was aware that it would not be long before the anaesthetist would return to the PACU with the next patient from theatre and could consult with the anaesthetist then. Alternatively, they were able to leave their patient in the care of another nurse momentarily while they went inside to the operating theatre to consult with either the anaesthetist or the surgeon. To be able to do this is something that is not an option for nurses working in other areas of the hospital.

Another facet to Bridging Surgical Care is the understanding that how the patient's pain is assessed and subsequently managed in the PACU effectively influences their postoperative experience on the ward.

> *...if you get on top of it in recovery and you give appropriate stuff in recovery, his whole experience on the ward is going to be better because he's not going to be in pain. If you don't get on top of it and you send the patient back and he's in the ward for two or three days his pain's not better, then he's obviously increased anxiety, stress he's got a longer stay in hospital.* – Jenny, 16:302

> *...it can affect looking after them on the ward later on, not to have good pain management.* – Sara, 2:38

For this reason, PACU nurses strive to ensure that the patient returns to the ward with adequately prescribed analgesia to facilitate a good recovery. The researcher frequently observed PACU nurses discussing postoperative analgesia options with the anaesthetists, reminding them to prescribe analgesia for the ward and advocating for patient-controlled morphine or fentanyl pumps if they felt it was required.

> *... I always assess to make sure they've got enough pain relief for the ward.* – Kelly, 15:286

> *The goal for the patient is to be discharged to the ward or home relatively pain free or with low pain and a strategy to mange that pain should it get worse.* – Emma, 2:22

PACU nurses facilitate an optimal recovery by educating patients about what to expect on the ward with regard to their pain assessment and management.

> *'If you get more pain, don't let it get unbearable before you tell the nurse. This is the medication that you are ordered, please ask for it. And if they give you, they are usually nurofen or panadol, please take it, don't refuse it for the next day or two. Even if you*

haven't got a lot of pain because that will keep your pain under control at a nice level'. – Kelly, 14:264

Just as Bridging Surgical Care starts with anaesthetist's handover, it typically ends with the PACU nurse's handover to the ward nurse. It is at this point that the PACU nurse informs the ward nurse of any pain assessment and/or management strategies that have taken place in the PACU including regional anaesthesia and pain medications given in both the operating theatre and in the PACU; any ongoing pain interventions that have already commenced in PACU such a patient controlled analgesia pump; and any analgesic medications that have been prescribed for administration on the ward. Several participants were observed reiterating to the patient with the ward nurse present to make sure to ask for analgesia if required.

As acknowledged in discussion of the preceding themes, a gap in current literature has been shown pertaining to relevant research. With regard to the current study, the researcher has found PACU nurses to be a group of healthcare professionals who take pride in ensuring their patients transition from the perioperative environment to the surgical ward having received the best possible pain assessment and management in the PACU.

5.7   Summary

Fetterman (2010) wrote:

> Ethnography gives voice to people in their own local context, typically relying on verbatim quotations and a 'thick' description of events. ... The ethnographer adopts a cultural lens to interpret

observed behavior, ensuring that the behaviors are placed in a culturally relevant and meaningful context (p.1).

This chapter has revealed the themes that emerged from the data and has given them definition and contextual meaning. Relevant literature has also been linked to the findings. The next chapter will discuss the significance, strengths and limitations of these findings and recommendations for research.

Chapter 6: DISCUSSION

6.1   Introduction

Pain is one of the most frequently reported problems by patients (Lewthwaite et al. 2011). Nurses, being the professional caregivers who provide 24-hour care and work closely with patients (Tsai et al. 2007), play a pivotal role in being able to efficiently recognise and address the pain their patient may be experiencing. As can be seen from the literature and data analysis presented within this current study, pain assessment and management is particularly relevant to the role of the nurse in the post-anaesthetic care unit (PACU) and the ways in which this process is carried out are many and complex.

The objective of this chapter is to provide a brief discussion of the study process from the researcher's perspective; describe how the emergent themes from the research are significant to clinical practice and education; highlight the strengths and weaknesses of the study; and suggest recommendations for further research

6.2   The Researcher's Perspective

The intention of this research was to find answers to the question *What are the perspectives of PACU nurses on the assessment and management of pain*

in the postoperative patient? With a background in PACU nursing, the researcher was interested in understanding how PACU nurses interpret pain in those for whom they care and why they make the decisions that they do regarding postoperative pain assessment and management. To this end, the researcher brought to the study the underlying assumption that PACU nurses do not use standardised tools alone, rather incorporate intuition, experience and knowledge of the surrounding situation when assessing and managing pain in their postoperative patients.

The resulting research process that took place proved to be an insightful journey for the researcher. As someone new to the role of qualitative researcher, negotiating the path to ethical and governance approval for the first time was challenging but in doing so provided a clear understanding of how imperative it is to the rigour of a study and the protection of its participants. As an experienced practitioner in PACU, the subject matter was one that the researcher felt a connection to on a personal level. For this reason she was able to maintain both an insider and outsider perspective on the data collection and analysis and, while the practice of reflexivity was another new learning curve, she believes that her identification with the study participants contributed toward a deeper understanding of the data. Finally, as both researcher and PACU nurse, it is with a sense of confidence that she believes the emergent themes are an accurate reflection of the perspectives of PACU nurses regarding the assessment and management of pain in the postoperative patient.

6.3   Significance of the Research

The significance of this study is that it has shown there is no set method, tool or guideline for assessing and managing postoperative pain in the PACU. Nurses in PACU assess and manage pain on an individual basis according to the needs of the patient, and the way in which it is done varies from nurse to nurse, patient to patient. The researcher believes it would be impractical to devise a pain assessment or management tool for use in the PACU that could incorporate all factors that PACU nurses take into consideration.

A further significant finding of the study is that within the literature reviewed it is the first piece of qualitative research, both nationally and internationally, that recognises the experiences of PACU nurses regarding the assessment and management of postoperative pain.

6.4   Study Strengths and Limitations

6.4.1 Strengths

The researcher believes that a primary strength of this study lies in the premise that, as seen in the literature review, limited research has been previously conducted in the chosen area of interest. For this reason, the findings that that have been extrapolated from the present study may serve to lay the foundation for gaining a deeper insight into what is currently known about the assessment and management of pain in the PACU from the nurses' perspective.

The chosen methodology used in this study serves as a significant strength towards establishing the credibility of the findings. Through an ethnographic lens, perspectives of pain assessment and management were explored by recognising PACU nurses as a culture – a group of individuals who together share the same thoughts, beliefs and behaviours. In carrying out a focused ethnography, the researcher sought to answer questions relating to a specific topic of interest relevant to the practice of PACU nurses and was thereby able to obtain a rich sample of concentrated data pertaining to the subject.

A further strength of this study acknowledges the researcher's background as a PACU nurse. As well as contributing to a deeper understanding of the data she also believes it played a central role in facilitating a rapport with the participants and allowing the successful completion of the participant observation period.

6.4.2 Limitations

As previously mentioned this is the researcher's first experience of conducting a qualitative study. Her novice status may be seen as a limitation when considering that with more experience her data collection and analysis techniques would have the potential to be further advanced.

For the purpose of presenting this thesis in accordance with the academic calendar, the length of time afforded for this study was limited. Should the allowed timeframe have been longer, the researcher believes this study would

have benefited from the additional research method of focus group interviews, allowing another level of data richness to develop.

The PACU nurses involved in this study as participants were all recruited from the same hospital. The researcher concedes that for this reason findings cannot necessarily be generalised to nurses in other PACUs.

6.5   Recommendations for Further Research

Acknowledging the limitations above, further research of the same subject over a longer period time and with a larger number of participants to test the generalisability of the current study is recommended. A global perspective gained through conducting this research in countries other than Australia may further contribute to the field of investigation. Considering the current lack of research previously conducted in the area of PACU nursing, the researcher strongly recommends the need for further study in the realm of PACU nursing in general. This research would serve to increase awareness of the work done in this specialised area of nursing and establish a platform for further studies. The researcher also recommends continued use of ethnography as a research methodology in light of her positive experience in exploring the perspectives of PACU nurses as a culture.

Finally, from the themes that emerged in the current study it can be seen that communication, however it may take place, plays a role in almost every aspect of the PACU nurses' practice of assessing and managing pain. The researcher

proposes that this finding alone extends itself to grounds for further research to investigate the role that communication plays amongst PACU nurses including how and why they learn to communicate in the particular way that they do.

6.6   Dissemination of the Findings

Upon submission of the thesis, it is the researcher's intention to continue the research process through the dissemination of her findings to a wider audience. Dissemination of these findings will take place in journals and at conferences that are significant to the field of surgical nursing and in particular those that are related to post-anaesthetic nursing, for example the Australian College of Operating Room Nurses (ACORN). As a practicing PACU nurse, the researcher also expects to share the results of this study with her fellow colleagues.

It is anticipated the results of this study will provide an improved understanding of the multiple factors involved in the assessment and management of pain in the PACU. Furthermore it is hoped that the research findings will provide a foundation upon which nurses new to the environment of PACU nursing may learn and develop pain assessment and management skills, and current PACU nurses may reflect on their own perceptions of pain assessment and management. Finally, the researcher believes the study results will serve to positively impact upon the current practice of PACU nurses, effectively improving the patient's immediate postoperative experience.

6.7　Conclusion

At the beginning of this study the researcher believed she would come away from the experience with her preconceived notions confirmed. Since embarking on the journey that followed she has come to realise and understand that while the underlying assumption she brought to the study was indeed confirmed, and the objectives of the study were met, using ethnography as a qualitative research methodology has provided a far more vivid representation of PACU nurses than anticipated.

In Chapter Three: Methodology, Spradley's (1980) ethnographic research cycle is described and this was accordingly used to guide the process undertaken by the researcher throughout the course of the study. By working through each stage of the cycle, the researcher consolidated her understanding of the ethnographic process and in turn ascertained Spradley's position that ethnography seeks not only to study people but, rather learn from them, is accurate. Moreover, the aforementioned recommendation of further research into the communication of PACU nurses supports Spradley's suggestion that new questions may be posed, thus recommencing the cycle.

The themes that have emerged from the data presented in this thesis illustrate the complexities of postoperative pain assessment and management from the PACU nurse's perspective. These themes also serve to represent a population of nurses who identify strongly with working in an environment unique to other clinical areas. By working in close physical proximity with their

patients, each other and members of the multidisciplinary team, a multi-dimensional process is established, enabling PACU nurses to proficiently meet their goal of providing comfort to their patient. In conclusion the PACU fosters a distinct sense of culture amongst its nurses when considering the assessment and management of pain in the postoperative patient.

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APPENDICES

Appendix A: 1-10 Numerical Pain Scale
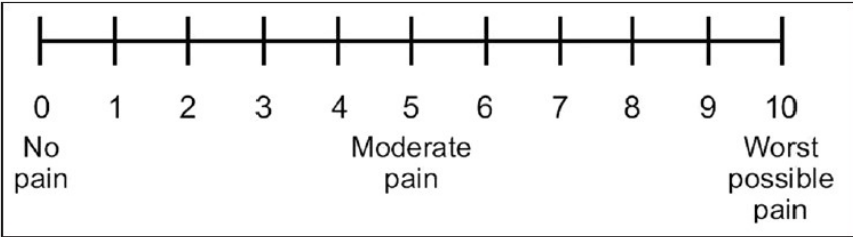
Appendix B: Wong Baker Faces Scale

0	2	4	6	8	10
NO HURT	HURTS LITTLE BIT	HURTS LITTLE MORE	HURTS EVEN MORE	HURTS WHOLE LOT	HURTS WORST

Appendix C: PACU Pain Protocol

PACU - "PAIN PROTOCOL"

Begin

Special Protocol
Applies to the paediatric
and patient over the age
of 65 years old.
Anaesthetist to specify
pain protocol order

Is patient over 65yrs or paediatric See Special Protocol — **Yes** →

Pain → **No** → Routine Observations
Yes ↓

Pain >3 → **No** → Give oral medication
Yes ↓

Pain Protocol & Opioid ordered → **No** → Get Order
Yes ↓

Prepare pain protocol solution - Morphine 1mg/ ml or Fentanyl 10 mcg/ml → **No** → 10ml syringe draw up 10mg Morphine or 100mcg Fentanyl make up to 10ml with Saline
Yes ↓

Cease 'pain protocol' 5 mins observations for 20 mins

If pain is greater than 3 perform a full set of observations and document — **No** ↑ — **Yes** → Sedation score less than 2? → **No** → Seek advice from Anaesthetist
Yes ↓

Pain ?

Respiratory rate greater than 8? → **No** → Seek advice from Anaesthetist
Yes ↓

Wait 5 minutes

BP >/= 100mg Hg Systolic → **No** → Seek advice from Anaesthetist
Yes ↓

Pain Score

Yes ↓ | **Yes** ↓ | **Yes** ↓

Mild Pain 1 - 3 | Moderate Pain 4 - 7 | Severe Pain > / = 7

Consider oral meds / nil | Give1 - 2 mls IV | Give 4 mls IV

Approved by the Director of Anaesthetics March 2007

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Participant Information Sheet/Consent Form
Non-Interventional Study

Title	Perspectives of PACU Nurses on Pain Assessment & Management in Postoperative Patients
Protocol Number	HREC/13/QPAH/228; SSA/13/QPAH/310; HS-2013-028
Principal Investigator	Priya Nayar, BHSc (nursing), GradDip NSc
Location	Post-Anaesthetic Care Unit, Logan Hospital

1   Introduction

You are invited to take part in this research project, *Perspectives of PACU Nurses on the Assessment and Management of Pain in Postoperative Patients*. The research project aims to understand what processes post-anaesthetic care unit (PACU) nurses consider when assessing pain and implementing pain management in patients following surgery.

This Participant Information Sheet/Consent Form tells you about the project and explains the research involved. Knowing what is involved will help you decide if you want to take part in the research.

Please read this information carefully. Ask questions about anything that you don't understand or want to know more about.

If you decide you want to take part in the research project, you will be asked to sign the consent section before participation commences. By signing it you are stating that you:
• understand what you have read
• consent to take part in the research project
• consent to the tests and research that are described

You will be given a copy of this Participant Information and Consent Form to keep.

2   What is the purpose of this research?

The objectives of this project are:

-    to discern the ways in which PACU nurses assess pain in the postoperative patient.

-    to uncover the strategies PACU nurses employ to manage pain in the postoperative patient.

-    to understand why PACU nurses assess and/or manage pain in the postoperative patient in the way that they do.

The principal investigator, Priya Nayar, has initiated this research and the results of this research will be used to obtain a Master of Nursing Science degree.

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3 What does participation in this research involve?

If you choose to take part in this study you will be directly observed in the workplace at various times across an eight to ten week period. In doing so a grounded understanding of the processes in which you engage when assessing and managing pain will be gained. During this time notes may be taken of what is observed so that any questions the researcher has may be verified or discussed at a later time.

A time for an interview with you away from the workplace will also be arranged. During this interview process, notes may be taken and with your permission the interview will be recorded. The interview will then be typed and you will be provided with a copy of the transcript for you to read, comment on and return.

Aside from your time, there are no costs to you associated with participating in this research project, nor will you be paid. You may be reimbursed by the researcher for any travel expenses associated with attending your designated interview location (for example, by way of a petrol voucher). It is sincerely appreciated by the researcher that your time is voluntary.

4 Other relevant information about the research project

It is intended that this research project will take place only at Logan Hospital and that eight to ten participants will be recruited.

As an experienced PACU nurse, the principal researcher is aware she may find herself in a situation whereby she witnesses practice that may be unethical or unsafe. In the event that this happens, she is aware she will have a moral and professional obligation to address the participant whom she is observing. Any data that has been collected regarding the situation in question will be destroyed. There will be no further discussion regarding the incident either in the field or during the interview process, nor in the subsequent report. Should a situation of this type or any other adverse event occur, it will be reiterated to the participant that they are under no obligation to remain part of the study and that they may withdraw from the project with no risk of prejudice should they wish to. In the event that unsafe or unethical practice is observed, this will need to be reported to the Nurse Unit Manager so that they may respond accordingly. Participants will have access to a Form for Withdrawal of Participation. Counselling will also be offered and arranged in collaboration with the Nurse Unit Manager if desired.

The principal researcher's role of Clinical Nurse within the PACU will have no bearing upon her role of researcher in this project and vice versa.

5 Do I have to take part in this research project?

This is a voluntary research project and you are under no obligation to be involved. If you choose to participate, you have the right to withdraw from the study at any time with no risk of prejudice. If for any reason you request or require counselling, this will be arranged for you.

Your decision whether to take part or not to take part, or to take part and then withdraw, will not be of any detriment to you or your position as a PACU nurse.

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6   What are the possible benefits of taking part?

Possible benefits may include:

- an improved understanding of the multiple factors utilised in the assessment and management of pain in the PACU;

- a foundation upon which nurses new to the environment of PACU nursing may learn and develop pain assessment and management skills.

- a foundation upon which other PACU nurses may reflect on their own perceptions of pain assessment and management;

- an opportunity for study results to positively impact upon the current practice of PACU nurses, effectively improving the patient's immediate postoperative experience;

- an opportunity for members of the multidisciplinary team (for example anaesthetists, ward nurses) to better understand assessment and management of pain in the PACU.

7   What if I withdraw from this research project?

If you decide to withdraw from this research project, you may do so with no risk of prejudice. You will be asked to complete a Withdrawal of Consent Form to confirm your decision to withdraw.

8   What happens when the research project ends?

The results of this research project will be submitted in the form of a thesis to The University of Adelaide's School of Nursing for the completion of the Master of Nursing Science degree. You will be asked if you wish to receive a summary of the research results and if so, it will be provided to you upon completion of the degree.

9   What will happen to information about me?

By signing the consent form you consent to the principal researcher collecting and using personal information about you for the research project. You can be assured that principles of confidentiality will be adhered to at all times. At no time will the principal researcher discuss data concerning you with anyone but yourself and her university supervisor. Any written material have that involves you will be de-identified with the use of a pseudonym. The principal researcher will be the only person who is aware of your true identity. All documents and tape recordings will be kept securely locked in a filing cabinet, accessible by no one other than the principal researcher, and destroyed after 7 years as per Queensland Health policy. If the results of this study are presented at a conference presentation or in a journal article, your involvement in this study will not be identified. Your data will not be used for any reason beyond the scope of this research project.

In accordance with relevant Australian privacy and other relevant laws, you have the right to request access to the information collected and stored by the research team about you. You also

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have the right to request that any information with which you disagree with is corrected. Please contact the principal researcher named at the end of this document if you would like to access your information.

Any information obtained for the purpose of this research project that can identify you will be treated as confidential and securely stored. It will be disclosed only with your permission, or as required by law.

10   Complaints

In the event that you should have questions, problems or wish to make a complaint about any aspect of your participation in this research project, you are advised to refer to the "Contacts for Information on Project & Independent Complaints Procedure" form or to the names of people to contact listed at the end of this information sheet.

11   Who is organising and funding the research?

This research project is being conducted and funded by the principal researcher, Priya Nayar, with no personal financial benefit from your involvement.

12   Who has reviewed the research project?

All research in Australia involving humans is reviewed by an independent group of people called a Human Research Ethics Committee (HREC). The ethical aspects of this research project have been approved by the HREC of both The University of Adelaide and Metro South Health Service District. This project will be carried out according to the *National Statement on Ethical Conduct in Human Research (2007)*. This statement has been developed to protect the interests of people who agree to participate in human research studies.

13   Further information and who to contact

The person you may need to contact will depend on the nature of your query.

If you want any further information concerning this project you can contact the principal researcher:

<div align="center">

PRIYA NAYAR
phone: 0415815653
email: priyanayar75@gmail.com

</div>

Should you wish to discuss aspects of this study with the appointed university supervisor, contact details are as follow:

<div align="center">

FRANK DONNELLY
phone: 08 83133639
email: frank.donnelly@adelaide.edu.au

</div>

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If you wish to discuss aspects of this study with someone not directly involved, you may also contact:

The Secretariat
Human Research Ethics Committee
The University of Adelaide
phone: 08 83036028

or

The Coordinator
Human Research Ethics Committee
Metro South Health Service District
phone: 07 34438047

Metro South Health

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Consent Form - *Adult providing own consent*

Title	Perspectives of PACU Nurses on the Assessment & Management of Pain in Postoperative Patients
Protocol Number	
Principal Investigator	Priya Nayar, BHSc (nursing), GradDip NSc
Location	Post-Anaesthetic Care Unit, Logan Hospital

Declaration by Participant

I have read the Participant Information Sheet or someone has read it to me in a language that I understand.

I understand the purposes, procedures and risks of the research described in the project.

I have had an opportunity to ask questions and I am satisfied with the answers I have received.

I freely agree to participate in this research project as described and understand that I am free to withdraw at any time during the project without risk of prejudice toward myself.

I understand that I will be given a signed copy of this document to keep.

I consent to the audio-recording of my interview: ☐ YES   ☐ NO

Name of Participant (please print) _____
Signature _____ Date _____

Declaration by Principal Researcher

I have given a verbal explanation of the research project, its procedures and risks and I believe that the participant has understood that explanation.

Name of Principal Researcher (please print) _____
Signature _____ Date _____

Note: All parties signing the consent section must date their own signature.

Contact details for the university supervisor overseeing this research project:

FRANK DONNELLY
08 38183639
frank.donnelly@adelaide.edu.au

Metro South Health

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Form for Withdrawal of Participation - *Adult providing own consent*

Title	Perspectives of PACU Nurses on the Assessment & Management of Pain in Postoperative Patients
Protocol Number	
Principal Investigator	Priya Nayar, BHSc (nursing), GradDip NSc
Location	Post-Anaesthetic Care Unit, Logan Hospital

Declaration by Participant

I wish to withdraw from participation in the above research project and understand that I am free to do so with no consequence to me.

Name of Participant (please print) _____

Signature _____ Date _____

A description of the circumstances of withdrawal (in the event that the participant's decision to withdraw is communicated verbally):

Declaration by Principal Researcher

I have given a verbal explanation of the implications of withdrawal from the research project and I believe that the participant has understood that explanation.

Name of Principal Researcher (please print) _____

Signature _____ Date _____

Note: All parties signing the consent section must date their own signature.

Contact details for the university supervisor overseeing this research project:

FRANK DONNELLY
08 38183639
frank.donnelly@adelaide.edu.au

Appendix E: University of Adelaide Ethics Approval

THE UNIVERSITY
of ADELAIDE

RESEARCH BRANCH
OFFICE OF RESEARCH ETHICS, COMPLIANCE AND
INTEGRITY

BEVERLEY DOBBS
EXECUTIVE OFFICER
LOW RISK HUMAN RESEARCH ETHICS REVIEW
GROUP (FACULTY OF HUMANITIES AND SOCIAL
SCIENCES AND FACULTY OF THE PROFESSIONS)
THE UNIVERSITY OF ADELAIDE
SA 5005
AUSTRALIA

TELEPHONE +61 8 8313 4725
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email: beverley.dobbs@adelaide.edu.au

Applicant: Mr F Donnelly

School: Nursing

Application/RM No: 16510

Project Title: **Perspectives of PACU Nurses on Pain Assessment and Management in Postoperative Patients**

Low Risk Human Research Ethics Review Group (Faculty of Health Sciences)

ETHICS APPROVAL No: HS-2013-028

APPROVED for the period: 3 Jun 2013 to 30 Jun 2016

This study is to be conducted by Ms Priya Nayar, Masters by Research Candidate.

Dr John Semmler
HREC Convenor on behalf of the
Low Risk Human Research Ethics Review Group (Faculty of Health Sciences)

Appendix F: Metro South Health Ethics Approval

Page 1

Metro South Health

Enquiries to: Centres For Health Research
Research Governance
Phone: (07) 3443 8050
Fax: (07) 3443 8003
Our Ref: HREC/13/QPAH/288 - SSA/13/QPAH/310
E-mail: PAH-Research@health.qld.gov.au

Ms Priya Naya
7 Millwood Terrace
Springfield, Qld, 4300

**SSA AUTHORISATION – LOGAN HOSPITAL
METRO SOUTH HOSPITAL AND HEALTH SERVICE**

Dear Ms Naya,

HREC Reference number: HREC/13/QPAH/288
SSA reference number: SSA/13/QPAH/310
Project title: Perspectives of PACU Nurses on Pain Assessment & Management in Postoperative Patients

Thank you for submitting an application for authorisation of this project. I am pleased to inform you that authorisation has been granted for this study to take place at the   hospital.

On the recommendation of the Human Research Ethics Committee approval is granted for your project to proceed.

The following conditions apply to this research proposal. These are additional to those conditions imposed by the Human Research Ethics Committee that granted ethical approval.

1. Problems and SAEs: The Research Governance Office must be informed of any problems that arise during the course of the study which may have ethical implications. Where serious adverse events (SAEs) are encountered, the events must be notified as soon as possible.
http://www.health.qld.gov.au/pahospital/research/adverse_events.asp
2. Proposed amendments to the research protocol or conduct of the research which may affect the ethical acceptability of the project are to be submitted to the HREC for review. A copy of the HREC approval/rejection letter must be submitted to the RGO;
3. Proposed amendments to the research protocol or conduct of the research which only affects the ongoing site acceptability of the project, are to be submitted to the research governance office;
4. Proposed amendments to the research protocol or conduct of the research which may affect both the going ethical acceptability of the project and the site acceptability of the project are to be submitted firstly to the HREC for review and then to the research governance office after a HREC decision is made.
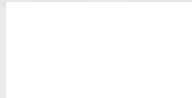
Office
Centres for Health Research
Princess Alexandra Hospital
Metro South Hospital and Health
Service

Postal
37 Kent Street
Woolloongabba Qld 4102

Phone
61 7 3443 8050

Fax
61 7 3443 8003

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If this research involves the recruitment of patients from the Metro South Hospital and Health Service (MSHHS), it is my responsibility to remind you of your ongoing duty of care for all people recruited into projects or clinical trials whilst public patients. All conditions and requirements regarding confidentiality of public information and patient privacy apply. You are required to comply at all times with any application requirements of Australian and Queensland Laws including the Health Services Act, the Privacy Act, Public Health Act (2005) and other relevant legislation, ethics obligations and guidelines which may be applicable to the MSHHS from time to time including, without limitation, any requirement in respect of the maintenance, preservation or destruction of patient records.

When the study involves patient contact, it is your responsibility as the principal investigator to notify the relevant consultant and request their approval.

We wish you every success in undertaking this research.

Yours sincerely,

Professor Ken Ho
Chair, Centres for Health Research
METRO SOUTH HEALTH

25 , 7 , 13

Appendix G: Recruitment Flyer

SEEKING PACU NURSES CURRENTLY WORKING IN A POST-ANAESTHETIC CARE UNIT

I am doing a research study for my Master of Nursing Science degree through the University of Adelaide.

The aim of this study is to explore the perspectives of PACU nurses regarding the assessment and management of pain in the postoperative patient.

I am seeking to recruit nurses who would be willing to share their experience of postoperative pain assessment and management as a PACU nurse with me. Your involvement in this study will include being observed in your place of work and participating in a semi-structured interview.

If this sounds like a study you would be interested in being a part of, please contact me for further information.

This study has been approved by
the Human Research Ethics Committees of
Metro South Health and the University of Adelaide.

PRIYA NAYAR
phone: 0415 815653
email: priyanayar75@gmail.com

Appendix H: Data Collection Tool

Proposed Data Collection Tool for Participant Observation
(adapted from James Spradley's 9 Dimensions of Descriptive Observation)

PARTICIPANT ID:	DATE:

ACTORS *people who participant interacts with in process of pain assessment/ management*	INTERACTIONS *specific pain assessment/ management-related communication between participant and patient and/or other actors*	TIME *timing of varying pain assessment/ management-related interactions/activities/acts/ events*
ACTIVITIES *various pain assessment/ management-related activities of the participant*	ACTS *specific individual actions*	EVENTS *particular occasions*
GOALS *what participant is attempting to accomplish*	FEELINGS *perceived emotions of actors in particular contexts*	MISCELLANEOUS NOTES

Opening

Thank you for allowing me this opportunity to interview you.

Over the next hour or so, I would like to ask about your experiences as a PACU nurse regarding the assessment and management of pain in the postoperative patient.

Your experience and the information you share with me are valuable and I appreciate your time that you are giving to me today.

As a PACU nurse, tell me what postoperative pain means to you?

What is your goal in the assessment and management of pain in the postoperative patient?
Prompts:
How do you assess your patient's pain levels?
Describe any situations in which you may use one method of pain assessment over another and why would you choose to do so?
How do you decide which pain management intervention to undertake in order to achieve optimal results?

Tell me about the factors you believe influence the way in which postoperative pain is assessed and managed?
Prompts:
How do you manage these factors and overcome any challenges that they may represent?

If your patient's verbal pain score does not appear to be in keeping with their physical behaviour, how do you manage this?

What do you believe makes the assessment and management of pain in the PACU different to other areas of patient care eg. the ward?

Describe to me how your interaction with other members of the PACU team influences the way you manage pain?

Please share with me any stories of situations in which the management of postoperative pain has been more challenging than usual.
Prompts:
What made it challenging?
How did you manage the situation/postoperative pain?
On reflection, would you change your method of management if faced with the same situation again?

Closing

That brings us to the end of my questions. Is there anything else you would like to share with me that you feel would be helpful to my research?

Thank you again for your time and for sharing your thoughts and beliefs regarding postoperative pain assessment and management with me.

Would you be happy for me to come back to you if I have any further questions?

Appendix J: Data Collection Tool Example

Proposed Data Collection Tool for Participant Observation
(adapted from James Spradley's 9 Dimensions of Descriptive Observation)

PARTICIPANT ID: 66   DATE: 26.3.14

ACTORS *people who participant interacts with in process of pain assessment/management*	INTERACTIONS *specific pain assessment/management-related communication between participant and patient and/or other actors*	TIME *timing of varying pain assessment/management-related interactions/activities/acts/events*
patient anaesthetist. "Are you comfortable now?" (Rewording) "The pain feel in your back. is it better than before?" "Can you sleep with the pain?"	Asking patient directly "do you have pain?" Rewording q's "how does the pain feel in your back. is it better than before?" "Can you sleep with the pain?"	As per protocol. Once patient fully awake and stated as patient refusing to open eyes.

ACTIVITIES *various pain assessment/management-related activities of the participant*	ACTS *specific individual actions*	EVENTS *particular occasions*
- 1-10 pain scale. - acting out pained expression *Letting patient sleep undisturbed	Repositioning patient to side to get off back where wound is. holding hand reassurance.	pain protocol. Reassurance that patient is breathing fine.

GOALS *what participant is attempting to accomplish*	FEELINGS *perceived emotions of actors in particular contexts*	MISCELLANEOUS NOTES
Establishing patients pain levels - English is a second language. Comfort for the patient.	? frustration at not being able to communicate efficiently with patient (ESL)	arithmetic protocol. asked how pain affects — "exactly in these areas of the body" world.

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