The Experiences of Final Year Nursing Students in Administering Medications

*Shifting Levels of Supervision*

By

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ABSTRACT

Background

Unintended medication errors made by health care professionals continue to be a major concern in hospitals, medical centres and aged care facilities throughout Australia. Nurses play a vital role in preventing errors so consequently undergraduate nursing students are taught that to administer medications safely they must adhere to specific protocols and be personally supervised by a registered nurse. While safety measures may be reinforced to students, previous studies have not explained what occurs when students actually administer medications to patients in the clinical setting.

Aim

This thesis reports on a study aimed at identifying the experiences of final year undergraduate nursing students in administering medications.

Research Design

A grounded theory approach using constant comparative analysis was undertaken to develop a substantive theory to explain this process. A sample of 28 final year nursing students from an Australian university provided the data to permit the development of the theory.

Findings

This study identified that supervision was central to the medication administration experiences of students. Students were confronted with registered nurses who presented or provided them with shifting levels of supervision when administering medications to patients. Shifting levels included the registered nurse; being near, being over or being absent. The shifting levels failed to meet the supportive
supervision required of students and created internal conflict for them. Students responded to the conflict through a process of *Contingent Reasoning*. *Contingent Reasoning* involved students making a decision and then actioning behaviour which could be categorized into one of three levels. At level one the student would do whatever was asked of them, at level two they would negotiate so as to come to some agreement with the registered nurse and at level three they would refuse to administer medications unless personal supervision was available. The reasoning was driven by a desire of the student to *get through* meaning, to pass the clinical placement. However, in an effort to *get through* students were willing to accept levels of supervision from registered nurses that were less than ideal. In turn this influenced medication errors as reported by students.

**Conclusion**

In unveiling the substantive theory it became apparent that the central issue of *shifting levels of supervision* and students’ responses to this has significant implications for safe medication administration practices of undergraduate nursing students when undertaking clinical placements in health care facilities throughout Australia. Ultimately patient safety is at risk because inappropriately supervised undergraduate nursing students can make medication errors.
BONAFIDE DECLARATION STATEMENT

I, Kerry Anne Reid-Searl, declare that the work presented in this dissertation is, to the best of my knowledge and belief, original, except as acknowledged in the text, and that the material has not been submitted, either in whole or part, for a degree at this or any other institution.

Signed by Kerry Anne Reid-Searl  ………………………………………

Date
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CHAPTER 1: OVERVIEW

On an average day in Queensland Australia, health care professionals provide care for 7,456 in-patients and 25,093 outpatients (Queensland Health 2007). These figures represent the public health system only. Despite the fact that the majority of care is delivered safely and effectively (Queensland Health 2007), health care professionals including nurses, can unintentionally cause harm to patients. While most harm is considered to be caused by competent staff with good intention, up to one in six patients experience an adverse event (see glossary p. 296) as an unintended consequence of receiving care while in an Australian hospital. Evidence to support the latter comes from the Quality in Australian Healthcare Study conducted in 1992 by Wilson, Runciman, Gibberd, Harrison, Newby and Hamilton (1995). This study involved a major retrospective clinical review of 14,179 admissions to a representative sample of Australian hospitals. Of the admissions reviewed, 16.6 percent were associated with an adverse event (fourteen percent resulting in permanent disability and five percent in death) (Wilson et al.1995). Alarmingly fifty one percent of the adverse events had high preventability (Wilson et al.1995). Extrapolation of these figures to all acute hospitals within Australia at the time of the study, suggests that 50,000 patients would have suffered permanent disability and 18,000 would have died as a result of their health care (Wilson et al.1995).

The impact of adverse events is not restricted to patients and their families, rather they are damaging to the entire Australian health care system. The financial burden is significant. The predicted cost based on the figures from Wilson et al’s. (1995) study was thought initially to be $867 million per annum (Armstrong 2004; Clark 2004),
however Ehsani, Jackson and Duckett (2006) argue that it is more likely in the range of two billion dollars per year. Australia is certainly not alone in its concern. One of the most profound reports to highlight the pressing needs to address patient safety and preventable harm was released by the Institute of Medicine (IOM) in the United States of America in 1999, titled ‘To Err is Human: Building a Safer Health System’ (Kohn, Corrigan, Donaldson 2000). Within this report it was suggested that each year at least 44,000 and perhaps as many as 98,000 people may die in hospitals throughout the United States of America as a result of preventable adverse events costing between $17 and $29 billion per year (Kohn et al. 2000).

While there are multiple causes of patient harm, one of the major contributors are medication errors made by health care professionals. The consequence for the patient as a result of this type of error can range from minor inconvenience to temporary disability or death (Queensland Nursing Council (QNC) 2005 a). The confirmation of death occurring from medication errors in Australian hospitals is evident from a National report of Sentinel Events published by the Australian Institute of Health and Welfare and the Australian Commission on Safety and Quality in Health Care in 2007. The document was based on the reported events from 759 public hospitals in Australia during the period of 2004-2005 (AIHW & Australian Commission on Safety and Quality in Health Care 2007). During this time there were 4.3 million patient separations and 42.6 million occasions of service to non-admitted patients (AIHW 2006a). Within the report, seven episodes of medication errors that lead to the death of a patient believed to be due to incorrect administration of drugs (AIHW & Australian Commission on Safety and Quality in Health Care 2007) were documented.
Unfortunately this first National report did not include the 534 private hospitals operating at the time which had 2.6 million patient separations, nor any non-hospital occasion of care (AIHW & Australian Commission on Safety and Quality in Health Care 2007). Hence, the number of medication errors leading to harm occurring within Australian hospitals is difficult to ascertain. An earlier review by Runciman, Roughhead, Semple and Adams (2003) reported 27,000 incidents in Australian hospitals up to 2002 and of these 26 percent were medication related. More recently Queensland Health (2007) published its first Patient Safety Report for the period of 2005-2006. During this time 33,226 clinical incidents, which included harm and near misses, were reported and managed (Queensland Health 2007). Of the top five types of incidents, medications accounted for 21 percent (Queensland Health 2007). In America it is estimated that more than 750,000 patients are injured each year from medication errors (Cullen, Bates, Small, Cooper, Nemeskal & Leape 1995; Classen, Pestonik, Evans, Lloyd & Burke 1997).

In an effort to protect patients, the Australian Council for Safety and Quality in Health Care has identified medication safety as a National priority area for action and are developing strategies to address the problem (Deans 2005). This is vitally important to the health and well being of all Australians, after all nearly 59 percent of the National population use prescription medications (see categories of drugs-Appendix A) and this increases to about 86 percent for those over 65 years of age (ABS 1995, Cat No.4377.0.). Based on these figures it is realistic to consider that many Australians, while a patient in a health care facility, could require medication in some form or another and so may be at risk of harm as a result of a medication error made by a health
care professional.

Implementing safety strategies to prevent such errors involves collaboration between different professional groups as mishaps occur at all stages of the medication administration process (Hodgkinson, Koch, Nay & Nichols 2006). This collaboration includes the medical practitioner who has the responsibility in prescribing safely, the pharmacist in dispensing and finally the nurse in administering the medication to the patient (Cheek 1997; Jarman, Jacobs & Zielinski 2002). The nurse’s role at this stage demands highly complex thinking (Eisenhauer, Hurley & Dolan 2007) as they are the last link in the safety chain for preventing harm to the patient (Leape, Bates, Cullen, Cooper, Demonaco & Gallivan et al.1995). Unfortunately most mistakes occur at the patient care–transition point (Burke 2005) with various studies confirming nurses’ involvement (O’Shea 1999; Bindler & Bayne 1991; Kapborg 1994; Wilson 2003). While there are many reasons that contribute to medication errors, they do occur when complacency takes over from meticulous and safe practice (Bullock, Manias, Galbraith 2007).

To prepare nurses for safe medication administration education is paramount. This begins in undergraduate nursing programs where students are exposed to theoretical and practical teaching. The practice, being the focus of this study, occurs in two different clinical contexts. The first is the on campus laboratory setting within the university and the second is the off campus setting situated in the various wards of the health care facilities where students undertake their clinical placements.
The on campus experience involves students being exposed to the task of medication administration in the safety of a laboratory within the university setting. This environment is relatively controlled and predictable. The medications are not real and the ‘patients’ are simulated. On the other hand, the off campus experience exposes students to real medications and patients in health care facilities. Thus, the potential for medication error is real. To reduce that potential, undergraduate nursing students in Queensland, Australia are required to be personally supervised by registered nurses when undertaking medication administration. The expectation is set down in undergraduate nursing curriculum which has been written in accordance with the Queensland Nursing Council (QNC) regulatory guidelines. Furthermore, these guidelines are consistent with legislative documents including the *Health (Drugs and Poisons) Regulation (1996)*, which states students are to be personally supervised by a registered nurse when administering medications to patients (Queensland Parliamentary Council 1996).

While on campus and off campus clinical settings have been recognized as valuable learning environments for students in preparing them for medication administration, little has been uncovered about how students apply what they have learnt or factors that impact on their medication administration practice when in the clinical context. The literature is particularly lacking with regard to the off campus setting, which as previously stated, is where real risks exist. Thus, it is not known if students practise medication administration in a safe manner which includes following the correct process and adhering to legislative requirements.
This thesis reports on a grounded theory study which has explored final year undergraduate nursing students’ experiences when administering medications in the off campus clinical setting. Data collection and analysis enabled a substantive theory to be developed. Based on the findings, recommendations have been made concerning medication safety. These are targeted at undergraduate nursing programs and for those in health care facilities who are involved in the development and implementation of procedures and policies specific to safe medication administration involving undergraduate nursing students in Queensland, Australia.

**Purpose and Aim of the Study**

The purpose of this research study was to explore what influences the process of medication administration for final year undergraduate nursing students in the off campus clinical setting.

Two main aims existed for this study. The first was to discover and describe phenomena concerning final year undergraduate nursing students’ experiences when administering medications whilst in the off campus clinical setting. The second was to generate a substantive theory, using a grounded theory approach, to explain the experiences.

**Research Question**

The research question underpinning this study was: *What influences the process of medication administration for final year nursing students when in the off campus clinical setting?*
Rationale and Significance of the Study

Answering the research question would allow for an understanding of contemporary issues influencing undergraduate nursing students’ experiences when administering medications in the off campus clinical setting. Such an understanding, explained by the substantive theory, would contribute to undergraduate nursing programs. Additionally, the contemporary issues reflected in the substantive theory would inform those within health care facilities developing policies and procedures surrounding safe medication administration which relate to undergraduate nursing students. These policies would then impact on practising registered nurses who supervise students with the skill of medication administration.

Significance

Identifying student experiences would enable factors contributing to or detracting from safe practice to be addressed within undergraduate nursing programs. Ultimately this could mean that when students graduate to become registered nurses, they are more aware of factors influencing safety this reducing the chance of error. Moreover, they could become positive role models for future undergraduate students, reinforcing their understanding of safety in medication administration. Promoting safe medication administration by understanding student experiences has merit as reflected in recommendations from the Safe Medication Administration Symposium held in the United States of America (USA) in 2004 (Lewis 2005). The report detailed significant barriers to safe medication administration by nurses which included the absence of a systems approach to patient safety in nursing curricula and registered nurses being too busy to educate and supervise nursing students in safe medication administration.
This study is unique and therefore contributes to the body of knowledge about medication safety in an area not previously addressed. Currently the literature is devoid of Australian studies that have addressed student experiences with medication administration including medication errors in the off campus clinical setting. Based on a recent five year American study by Wolf, Hicks and Seremus (2006), nursing students do make errors. Wolfe et al. (2006) identified 1,305 medication errors made by student nurses during the administration phase over a five year period. While the focus of this study is not to examine errors, it is important to understand student experiences as this may give insight to factors that impact on safe or unsafe practice for students.

Undertaking any research that can contribute to safer medication administration practices is significant for the health and well being of every person entering an Australian health care facility. This research ultimately has the potential to reduce errors, save patient lives and reduce the financial burden that errors impose on health care. Enhancing patient safety is the shared responsibility of schools of nursing, students and health care facilities (Gregory, Guse, Davidson-Dick & Russell 2007). While the literature provides evidence of factors that impact on medication safety for the registered nurse, it is now time to examine the experiences for students. As aptly stated by Gregory et al. (2007), without such data it becomes difficult to enable system changes at the curriculum level to lessen the risk of student errors in the clinical setting.

**Scope of the Study**

Medication administration is a skill practiced by undergraduate nurses throughout Australia. However, despite this study being relevant to every undergraduate program
throughout the Nation, it is limited to one university in Australia. The geographical boundaries in which the students’ undertook their final year off campus clinical experiences though, were across Queensland. However, the data was drawn from undergraduate students’ exposure to diverse and varied clinical contexts including community facilities, aged care facilities, acute care areas within public and private hospitals (both regional, rural and metropolitan) and general practices.

**Assumptions**

There are six assumptions underpinning this thesis, namely:

(i) medication administration is a task undertaken by final year undergraduate students when in the off campus clinical setting;

(ii) medication administration involves risks and as such, safety is a concern;

(iii) undergraduate nursing students are expected to have personal supervision during administration and adhere to ‘the five rights’ of medication administration to promote safe practice when administering medications. Safe practice includes having knowledge of the medication being administered including the dose, side effects and adverse effects of the drug;

(iv) registered nurses are bound by legislation to personally supervise students when administering medications;

(v) students need the support of the registered nurse as they work through the steps in the process of medication administration; and

(vi) students participating in this study were truthful about their experiences in their interviews.
These assumptions provided guidance throughout the research study including the selection of the methodology, data collection and analysis processes and the recommendations.

**Definition of Terms and Nomenclature**

*Direct/ Supportive/Personal/ Close/ Supervision:* Terms used interchangeably to describe a certain level of supervision whereby the registered nurse is actually closely present, observes, works with, directs and supports the student undertaking the correct steps in the task of administering medications.

*Final Year Undergraduate Student:* A person who is in the final year of their undergraduate nursing program. For the purpose of this study the student is experiencing their last clinical practicum of their course prior to seeking eligibility for registration.

*Faculty/University:* A tertiary body providing the education of undergraduate nursing students. For the purpose of this study- faculty/ school/ and university are used interchangeably.

*Five Rights:* Safe medication administration centers on adhering to ‘the five rights’. This means the nurse administers the right medication, the right dose, at the right time, via the right route to the right patient (Crisp & Taylor 2005).

*Indirect Supervision:* A level of supervision whereby the registered nurse works in the same clinical setting as the student, but does not directly observe the student administering medications.
**Medication Administration:** A process which involves several steps, including the ‘five rights’ undertaken by the registered nurse/student in preparing, delivering and giving of a medication to a patient.

**Medication Administration Episode:** Denotes the student embarking on the skill of administering a medication to a patient at a given time.

**Medication Error:** Any event that has lead to the incorrect administration of a medication to a patient according to the prescriber’s orders as written on the patient’s medication chart (Crisp & Taylor 2005).

**Near Miss(es):** Any event(s) that has lead to a student making an error in the preparation of medication for a patient according to the prescriber’s orders as written on the patient’s medication chart. The error had the potential to cause harm but no harm resulted because it was intercepted/corrected.

**Off Campus Clinical Setting (OCCS):** The environment in which the student undertakes a clinical experience outside of the university setting. This can be in a variety of health care organizations. Such placements may include a hospital ward, an aged care nursing complex, a community health care organization and a general practitioner’s surgery. Within the OCCS the student can encounter elements such as patients and their families, other health professionals (nurses, pharmacists and doctors), equipment (intravenous infusion pumps, patient controlled analgesic devices, infusion pumps), documentation (medication charts, patient charts, care plans, clinical pathways) and real medications as opposed to simulated ones.

**On Campus Laboratory:** A laboratory within the university in which the student practises the process of medication administration. The student has the opportunity to utilize simulated medications, mannequins and real equipment, for example medication
charts, syringes, needles, infusion pumps and intravenous fluid. Within the laboratory the student also practises drug calculations.

Preceptor or Mentor/Supervisor: Terms used interchangeably to define a registered nurse located in the off campus clinical setting who facilitates learning opportunities, and who may or may not participate in the evaluation of the students’ clinical performance. This person is responsible for the direct / indirect supervision of the undergraduate nursing student during their clinical experience. This individual is employed by the clinical organization in which the student is undertaking their clinical placement and continues to assume the responsibility of the patient whilst overseeing the student.

Registered Nurse (RN): A person who is licensed to practise nursing under an Australian State or Territory Nurses Act.

Undergraduate Nursing Student: An individual enrolled in a Bachelor of Nursing Program at a university.

University: A term used in this study to refer to the School of Nursing. In the results chapter of this thesis participants make reference to ‘the university’. This refers to faculty within a School of Nursing who determines expectations, scrutinize practice and grade performance.

Outline of Thesis

This first chapter has provided an overview of the thesis, the aims of the study, the research question, the rationale and significance. Chapter Two provides a background to the teaching of medication administration to undergraduate nursing students so as to provide the reader with an understanding of the complexity of the process. Chapter Two
also provides an explanation of the legislation underpinning undergraduate nursing students administering medications. Chapter Three describes and justifies the methodology selected for this study. It outlines the research design including the process taken to collect data and the analytical approach which facilitated the comparative analysis. Chapter Four discusses the results of the study and commences with an examination of the overarching conceptual framework of the substantive theory and follows with narrative to explain the findings. Excerpts of raw data and diagrams are used to demonstrate and explain the findings. A discussion of the substantive theory occurs in Chapter Five where elements of the conceptual framework are broken down and explored using the literature to support or refute the findings. Chapter Six concludes the thesis with recommendations aimed at promoting safer medication administration practices for undergraduate nursing students. The recommendations are also targeted at those in health care facilities who are involved in the development of policies and procedures concerning medication administration involving undergraduate nursing students.
CHAPTER 2: THE TEACHING OF MEDICATION ADMINISTRATION

Introduction

This chapter provides the background to the teaching of the actual process of medication administration in the clinical context for undergraduate nursing students and while duly considering the literature, it does not include a review of such. The chapter begins with an explanation for not reviewing the literature prior to conducting the research. The discussion then moves to consider medication administration highlighting the complexity of the process for undergraduate nursing students. Strategies used in preparing students to safely administer medications are considered. The teaching is considered from both an on and off campus setting as both are environments in which students apply the principles of medication administration. The chapter then moves to consider the legislation surrounding students administering medication and the responsibilities that govern registered nurses in their delegation of this skill to students. The chapter concludes with a brief discussion concerning differing clinical models that govern the supervision of students in the off campus clinical setting.

Rationale for Avoiding the Literature in the Preliminary Stage of this Study

A limited review of the literature was conducted at the outset of this study in keeping with traditional grounded theory. However following completion, further literature was accessed and this emerges in the discussion chapter of this thesis. A limited review was undertaken to confirm the paucity of other research on this topic and to gain an
awareness of previous writing in order to develop a proposal that would make an important contribution to nursing knowledge (Schreiber 2001). Such an approach is not inconsistent with grounded theory. As Strauss and Corbin (1998) confirm, there is no need to review all the literature prior to a grounded theory study because the researcher does not want to become so immersed in the literature that they become constrained or stifled by it. Glaser (1978) also recommended avoiding the literature early in the study as it could lead the researcher into a deductive approach which could then contaminate the generation of concepts from the data.

The Medication Administration Process

Medication administration is a skill that involves complex decision making and therefore demands that nurses be properly prepared and educated. The preparation is necessary to ensure patients receive high quality, competent and safe care. The process of administering is far more complex than just carrying out a seemingly simple task of giving a medication to a patient. Medication administration involves managing medications and to do this successfully the nurse is expected to be able to assess the patient’s health condition and problems, plan and make goals for care, administer and monitor the effects of the medication, provide patient education and discharge planning, collaborate with other health care professionals, evaluate the desired and adverse effects of medication and document the process (Galbraith, Bullock & Manias 2007; Latter, Rycroft-Malone, Yerrell, & Shaw 2000; Manias & Street 2000; Manias & Aitken 2004).

Undergraduate nursing students within Australia begin their medication administration education in their pre-registration courses. The aim of undergraduate preparation is for
students to gain an understanding of medications, their management and importantly how to safely administer them. This aim is consistent with the core principles underpinning what is termed ‘Quality Use of Medicines’ (QUM). QUM is about the patient receiving the right medication at the right time and at the right cost (Stuart & Hunt 2007). The principles of QUM include judicious, appropriate, safe and efficacious use of medicines (Griffiths, Hunt, Napthine & Birch 2000) and as Griffiths et al. (2000) argue, provide the basis from which medication utilisation should occur. The principles of QUM are rooted in Australia’s National Medicines Policy (2000) which aims to meet both medication related and service needs for Australians so that optimal health outcomes and economic objectives are achieved (Commonwealth of Australia-The National Strategy for Quality Use of Medicines 2002).

In order for undergraduate students to be educated about QUM, Stuart and Hunt (2007) argue that nurse educators need to know where to access accurate reliable drug information and the application of pharmacology needs to be included in the curriculum. While this may be considered ideal, what is actually taught in relation to QUM in universities varies across Australia (Griffiths et al. 2000). Griffiths et al. (2000) conducted a study to ascertain the extent to which undergraduate nursing curricula reflected a commitment to the principles of QUM. The results suggested that elements of QUM are not taught to nurses as widely as hoped and that the principles of QUM may not be directly reflected in pharmacology subjects taught. However, Griffiths et al. (2000) study did identify common strategies used in the teaching of the practical application of medication administration to undergraduate nursing students. The clinical
context was identified as a learning environment where students have the opportunity to administer medications.

The following narrative discusses strategies used in two different clinical contexts to prepare students for the practical application of medication administration. The clinical strategies discussed have been guided by the curriculum of the university central to this thesis. Whilst it is not the intention of the researcher to generalize that these strategies reflect the approach of all universities throughout Australia, it does provide the reader with a general understanding as to the complexity surrounding the process of medication administration for students and the expectations that surround them when in the clinical context.

**The Teaching of the Medication Administration in the Clinical Context**

Strategies used by universities to teach the practical application of medication administration to undergraduate nursing students in the clinical context can be separated, as previously stated, to that which occurs on campus and that which occurs off campus. Both the on campus and off campus settings will be considered separately.

**The On Campus Laboratory Setting**

An important component when teaching the process of medication administration is what occurs in the on campus nursing laboratories. Universities utilize the nursing laboratory settings to allow students to apply the principles of pharmacology and safe medication administration before they encounter real medications and real patients in
the off campus clinical setting. The on campus laboratory as an environment is controlled and relatively safe. Nurse academics/educators can scrutinize the students’ performance of administering medication and use teaching strategies to monitor the effect and outcome of the medication. The laboratory sessions allow students to practise using case scenarios, simulated drugs, role plays and manikins and importantly they have the opportunity to work through medication calculations in order to determine the correct drug dosages.

During the laboratory experience students are introduced to the principles of medication administration which include evidence based decision making, partnerships and communication with consumers and multidisciplinary teamwork (Leape, Kabcenell & Berwick et al. 1998). The principles may be presented as a series of steps to follow (see Figure 1) with students being taught the application of the principles from step six through to nine.

**Figure 1: Steps for Medication Administration**

(Adapted from Leape, Kabcenell & Berwick et al. 1998)
The application of the principles are, however, far more complex than just following steps. Prior to preparing the medication for administration students must have an understanding of pharmacology and its application. This is extended from the theoretical content taught in other courses, however in the on campus laboratory settings students are taught to retrieve specific information relevant to the medication they are administering. This includes knowing the standard dose, action, contraindications, precautions and side effects. To gain this information, students access resources - such as MIMS Australia, MIMS CD-ROM or MIMS Annual (see glossary p. 296).

In addition to identifying the correct medication, students are expected to known what is valid on an official/hospital medication chart and order. If information is missing they are educated to recognize such and respond appropriately. The information on the medication chart should include the patient’s name and address, the organization registration number, date of birth, the name of the medical officer ordering the medication, the weight of the patient and any allergies the patient may have including the effect on the patient (Safety & Quality Council 2005). The medication order on the medication chart should include the generic name of the drug (see glossary p. 296), the dose in metric units and Arabic numbers, how often the medication is to be given, what time, in what route (see glossary p. 296) the date the medication order is to be commenced (and if necessary ceased) and the signature of medical officer who has ordered the medication (Safety & Quality Council 2005).

Once students have identified that the order is correct and valid, and they have an understanding of the medication to be administered, they are expected to complete
medication calculations to ensure the correct dose is prepared. Reinforcement of drug calculations occurs throughout the students’ undergraduate program with various assessments to determine competency including examinations. Some faculty may insist on competency of calculations before students actually practise administration in the off campus setting.

Having completed the calculation prior to medication administration, students are expected to have these checked by a registered nurse. In the on campus laboratory setting, the student may have another peer or faculty member acting as the registered nurse to undertake the check with them. The process requires the student and their peer to adhere to the ‘five rights’ of medication administration. This means examining the medication against the medication order to ensure that they have the right drug, in the right dose, in the right route, for the right patient and at the right time (Crisp & Taylor 2005; Bullock, Manias & Galbraith 2007; Reid-Searl, Dwyer, Ryan, Moxham 2006).

While addressing the ‘five rights’, students are also expected to adhere to ‘the three checks’ (Myers 2003; Reid-Searl et al. 2006; Reid-Searl, Moxham, Dwyer & Reid-Speirs 2007). The checking includes inspecting the label when getting the drug from storage, inspecting the drug label again with the drug order and re-inspecting the drug order and drug after dispensing but prior to administration. Additionally, students can be advised of specific safety tips as suggested by Reid-Searl et al. (2007) (see Table 1), which includes for example, questioning large doses and checking calculations.
Table 1: Tips in Preventing Medication Errors

<table>
<thead>
<tr>
<th>Tips in Preventing Errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervision for students</td>
</tr>
<tr>
<td>Never give medications if you cannot read the medication chart</td>
</tr>
<tr>
<td>Do not give medication if elements on the order are missing</td>
</tr>
<tr>
<td>If in doubt do not administer- seek advice</td>
</tr>
<tr>
<td>Always question large doses</td>
</tr>
<tr>
<td>Always double check medication calculations</td>
</tr>
<tr>
<td>Check decimal points</td>
</tr>
<tr>
<td>Know measurements</td>
</tr>
<tr>
<td>Know the difference between units and mLs</td>
</tr>
<tr>
<td>Never administer anything that you have not prepared yourself</td>
</tr>
<tr>
<td>Never leave medications beside a patient’s bed</td>
</tr>
<tr>
<td>Check</td>
</tr>
<tr>
<td>For Oral medications</td>
</tr>
<tr>
<td>Measure oral liquids at eye level on a flat surface</td>
</tr>
<tr>
<td>Do not crush enteric coated medications</td>
</tr>
<tr>
<td>When breaking scored medications use the appropriate device</td>
</tr>
<tr>
<td>When handling use standard precautions</td>
</tr>
<tr>
<td>Check patient can swallow</td>
</tr>
<tr>
<td>Do not give if patient sedated, has no gag reflex, swallowing reflex or vomiting</td>
</tr>
<tr>
<td>Sit patient up</td>
</tr>
<tr>
<td>Check fluid is available</td>
</tr>
<tr>
<td>Consider if patient is on a fluid balance chart</td>
</tr>
<tr>
<td>Check</td>
</tr>
<tr>
<td>For Injectable medications</td>
</tr>
<tr>
<td>Check with 2 nurses</td>
</tr>
<tr>
<td>Supervision</td>
</tr>
<tr>
<td>Check calculations</td>
</tr>
<tr>
<td>Take drug ampoule to bedside- allows for correct checking pre administration</td>
</tr>
<tr>
<td>Know the landmarks</td>
</tr>
<tr>
<td>Use correct needle and syringe</td>
</tr>
<tr>
<td>Never recap needle</td>
</tr>
<tr>
<td>Use standard precautions</td>
</tr>
<tr>
<td>Dispose of needle/ syringe appropriately</td>
</tr>
<tr>
<td>Check</td>
</tr>
</tbody>
</table>

(Reid-Searl et al. 2007)

The role of administering medication also requires the student to consider environmental factors, the context in which the medication is being given, the safety of the patient and the supervision available. Supervision and legislation are discussed further in this chapter.

Having progressed through all the safety checks students are expected to assess the patient to ensure that administration is appropriate and provide pharmacological...
education. Administration then proceeds with students remaining with the patient until after the medication has been taken or given. Completion of documentation follows which includes signing the medication chart with the registered nurse countersigning. Edwards et al. (1998) proposed that the responsibility of the nurse to write it down is an addition to the ‘five rights’ as previously discussed. Once medication administration is complete students are taught to monitor and evaluate the effect of the medication on the patient which Wilson and DiVito-Thomas (2004) argue is the right response of the patient to the medication.

The process of medication administration is complex and requires practice to facilitate the development of confidence and competence. The process that has been taught on campus is then applied by students to the off campus setting where real medications and real patients exist.

**The Off Campus Clinical Setting**

The off campus setting includes the wards of the health care facilities where students undertake their clinical placements. It is here that students have the opportunity, by combining cognitive, psychomotor and affective skills, to develop competency in the application of knowledge, skills, attitudes and values to clinical situations (Chan 2002). Within the off campus clinical setting students are able to participate legitimately in real life contexts which Field (2004) describes as, a social participation framework for learners. Furthermore, through participation they have the opportunity to develop sound clinical reasoning abilities (Byrnes & West 2000). The value of the off campus clinical setting has been recognized in the National Review of Nursing Education (2002), as
being integral and essential to undergraduate nursing education (Australian Government, Department of Education, Science & Training 2002). The report highlighted that while the laboratory sessions on campus may skill students on particular procedures, actual exposure to the off campus clinical setting was indispensable to students’ understanding of the profession and to the development of competence at the beginning practice level for registration.

In terms of medication administration, the off campus setting offers students the opportunity to apply the principles of medication administration to people and real medications while adhering to the correct processes including ‘the five rights’ and ‘three checks’, as previously discussed. Within this environment students are able to read patient charts, interpret medication orders, work out medication calculations, handle real equipment and drugs, interact with patients and other health care professionals as well as problem solve in the process of administering medications. Additionally, because students are dealing with reality, the context in which they are situated may be unpredictable and uncontrolled. Thus they also have to learn how to manage medication administration in situations that they may not have been prepared for. There are different sounds, sights and smells and furthermore incidents happen and patient situations change. The environment is dynamic and is not like the controlled on campus laboratory setting. In essence, the learning is primarily incidental and informal and students need to be assisted and supervised (Dix & Hughes 2004). The supervision responsibility most often falls on registered nurses or staff nurses in the clinical areas (Andrews & Roberts 2003; O’Callaghan & Slevin 2003). These individuals are considered to be the most effective role models for promoting theoretical knowledge
(Corlett, Palfreyman, Staines & Marr 2003) as well as providing the guidance and supervision that students need.

The amount of assistance and supervision that registered nurses provide to students in the off campus clinical context can depend upon the clinical supervision model adopted by the university. Different models are used throughout Australia with the choice influenced by factors such as the clinical context, student numbers and the level of experience of the students’ (Levett-Jones & Bourgeois 2007). Two common approaches adopted are those of the facilitator and the preceptor model. The facilitator model generally involves a cohort of students placed in a clinical setting under the supervision of a registered nurse termed, a ‘clinical facilitator’. The clinical facilitator is responsible for student learning and assessment and does not assume a patient load. They are employed or seconded by the university to oversee and supervise the students’ during their clinical placements. In contrast the preceptor model (as it applies to the participants in this study) uses registered nurses employed by hospitals and health care agencies to provide on-site supervision (Nehls, Rather & Guyette 1997). The role is a one-to-one reality based clinical experience where the registered nurse assumes the responsibility for supervising, guiding, teaching, supporting and evaluating while at the same time assuming a patient load (Peirce 1991).

In terms of medication administration and the student practising this skill in the off campus clinical setting, the supervision and support required is not dependent on the supervision model in place. Rather, all students are expected to be personally supervised and supported by a registered nurse when administering medications. The support and
supervision is not only important for the student to learn how to administer medications safely and correctly, but also for the registered nurse because they are accountable for the patient’s care even though the student may be performing the skill. Professional standards, developed by the Australian Nursing and Midwifery Council (ANMC) (see glossary p. 296), confirm this notion. For example standards include The Code of Professional Conduct for Nurses in Australia (ANMC 2003) (see glossary p. 296), The Code of Ethics for Nurses in Australia (ANMC 2002) (see glossary p. 296) and The ANMC National Competency Standards for registered nurses (ANMC 2006) (see glossary p. 296). Additionally guidelines established by State Councils or Boards for instance those set down by the Queensland Nursing Council (QNC) such as the Scope of Practice Framework for Nurses and Midwives (QNC 2005 b) (see glossary p. 296), reinforce the responsibility but specifically relate this to the registered nurses role in delegating elements of care from a patient’s care plan. The principles, when applied to the undergraduate nursing student administering medications, would require the registered nurse to among other things: assess the patient prior to the student administering medication; determine that the student is competent and has had the educational preparation; and is permitted to undertake the task.

Throughout Australia, the expectation of the registered nurse supervising a student when administering medications is clearly embedded within legislation. For example, every State and Territory in Australia has an Act and a set of Regulations that deals with the control of drugs which cover specific information relating to nurses administering medications (Bullock, Manias & Galbraith 2007). Incorporated into the Regulations is information about different schedules of drugs, which are the way drugs are divided into
categories (see Appendix A). Each schedule indicates specific drugs according to their potency, therapeutic use, toxicity, addictive and abusive potential, safety and modes of action (Bullock, Manias & Galbraith 2007).

Furthermore in Queensland, the Health (Drugs and Poisons) Regulation (1996) (Queensland Parliamentary Council 1996) is complemented by the Drugs Standards Adopting Act 1976 and sections of the Health Act 1937 (Savage 2007). The Act is divided into divisions and within those divisions reference is made to endorsements which clarify, among other things, who can possess and administer various categories of drugs according to their schedule. Undergraduate nursing students in Queensland, are authorized to administer restricted and controlled medications only if they are under the personal supervision of an authorized person who is employed in a relevant occupation (Queensland Parliamentary Council 1996). Restricted medications are what nurses predominantly administer to patients in a health care setting in that they are substances that can only be obtained by prescription (Savage 2007). An authorized person includes a registered nurse who meets the requirements as set down by the State regulatory authority, such as the Queensland Nursing Council (QNC). Every nurse is expected to have an understanding of and adhere to this legislation. This is further reinforced in organizational documents, for example the Code of Conduct (Queensland Health 2006).

The off campus clinical setting is an environment that allows the student to apply the principles of medication administration using real medications and patients. The registered nurse in this setting is accountable for the patient and has the responsibility of not only moving through the steps of medication administration with the student but
also meeting legislative requirements by supervising them. These requirements are fundamental in ensuring safe patient outcomes.

In conclusion, this chapter has provided a background in relation to the teaching of medication administration from a clinical perspective in an undergraduate nursing program. The process is complex and one that demands students have both a theoretical and practical understanding in an effort to promote safe practice. Part of that safe practice includes adhering to the five rights of medication administration (Crisp & Taylor 2005; Bullock, Manias & Galbraith 2007; Reid-Searl et al. 2006) and following the three checks (Reid-Searl et al. 2007). Additionally, students must competently work out drug calculations with accuracy. Both the on campus and off campus learning environments play an important role in teaching students safe medication administration practices. The on campus setting allows students to practise the skill in a safe and non threatening environment whilst the off campus setting is complex and students encounter real medications and real patients. Within the off campus setting the registered nurse plays a pivotal role in the support of students and the promotion of safe practice. Legislation dictates that they have a responsibility to directly supervise students in medication administration.

While expectations exist for undergraduate nursing students and the registered nurses’ who oversee them in the off campus clinical setting, the actual experiences for students when administering medications has not previously been explained or understood within the available literature. The next chapter outlines the methodology and research design used in this study to examine this phenomenon.
CHAPTER 3: METHODOLOGY AND RESEARCH DESIGN

Introduction

This chapter presents the methodology of the study and the methods by which the research was conducted. The rationale for the use of grounded theory to address the research question is provided. The research design is explained including the recruitment of participants, the sampling procedure, the use of individual in-depth semi structured interviews and the analysis of the data using a constant comparative method. Data analysis is discussed which involved a complex process of open, axial and selective coding consistent with grounded theory methodology. The chapter concludes with a discussion on considerations of how trustworthiness was achieved in this study.

Grounded Theory

Grounded theory is a research method that was developed from the symbolic interactionist view of human behaviour (Glaser & Strauss 1967). Grounded theory uses a set of data collection and analysis procedures in order to develop an inductively derived theory (Strauss & Corbin 1998) that evolves during the research process through a continuous interplay between analysis and data collection (Strauss & Corbin 1998). The procedure is referred to as the constant comparative method (Glaser & Strauss 1967; Strauss & Corbin 1994). The aim is to discover rather than test theory (Strauss & Corbin 1998). Distinguishing characteristics of grounded theory are succinctly put forward by Morse (2001 p. 2) who states that it is a method that… focuses on a process and trajectory, resulting in identifiable stages and phases; it uses gerunds (Glaser 1978, 1996) indicating an action and change; it has a core variable or category (Strauss & Corbin 1998), and a Basic Social Process (Glaser 1978)…that ties stages and phases of the theory together; and
grounded theory is abstract…but it is unique in that it makes synthesis of descriptive data readily apparent through its concepts and relational statement.

Grounded theory was used as a methodology to guide this study as no theory was found in the literature to explain what influences the experiences of medication administration of final year undergraduate nursing students when in the off campus clinical setting. It has been suggested that grounded theory makes its greatest contribution when used to investigate areas where little research has occurred because it allows the study to be well placed to generate theory grounded in data (Chenitz & Swanson 1986; Burns & Grove 1995; DeLaine 1997).

Grounded theory was also selected as it is a useful methodology to explore the social processes that are present with human interactions (Struebert & Carpenter 1995). While this study was concerned with uncovering students’ experiences of medication administration, it was anticipated that the human interactions occurring between students and those in the clinical milieu (such as preceptors, registered nurses, patients, peers and other health care professionals) would actually add to the meaning of the experiences. Yegidis and Weinbach (2002) claim that grounded theory is based on the premise that people give meaning to the events in their lives and these are important in understanding their responses to such events. Therefore, grounded theory was also selected as a method that would allow for the acknowledgement of the role that undergraduate nursing students had in administering medications in the health care settings by permitting their experiences, through dialogue, to take centre stage within the study.
Research Design

Individual in depth interviews using a semi structured approach were chosen as the primary means of data collection for this study in order to address the research question: *What influences the process of medication administration for final year nursing students when in the off campus clinical setting?*

Participants were selected based on sampling procedures consistent with the grounded theory methodology. In accordance with the methodology, the literature was examined and used in the final stages of analysis when the writing up of the study had begun and was used to validate the emerging concepts in the substantive theory. Each aspect of the design will now be discussed.

Recruitment of Research Participants

*Target population*

The target population for this study was final year undergraduate nursing students from a university in Queensland, Australia, who would be undertaking clinical placements across diverse regions throughout the State. Figure 2 shows a diagram of the State of Queensland where the target population was drawn.
This population was targeted because these individuals were about to experience their final year placements prior to becoming registered nurses. Their experiences would be under the guidance of registered nurses in off campus settings acting as mentors or preceptors rather than faculty educators or facilitators employed by the university. Furthermore, their experiences would be based on placements that were no less than six
weeks in duration. The length of time in the placement meant that students had exposure and experience in medication administration as a final year students and were able to contribute to the research study based on their experiences. This is further explored under the selection criteria.

**Recruitment Process**

Following confirmation of ethical clearance from the University Human Research Ethics Committee (HREC), which functions in accordance with the National Health and Medical Research Council (NHMRC) guidelines (see Appendix B - Project number H05/05-67), approval was sought from the Dean of the Faculty to access student names. A package was then sent to 135 final year university students enrolled in a Bachelor of Nursing program inviting them to participate in the study. This pack included a letter of invitation with an explanation of the research (see Appendix C), a consent form (see Appendix D) and a demographic questionnaire (see Appendix E).

All potential participants were assured that their participation was completely voluntary, that they had the right to withdraw without prejudice and that non participation would not affect their academic standing. Additionally, they were advised that their identity would not be revealed and measures would be taken to protect privacy and anonymity. This was reinforced in writing on the consent form. Participants who were willing to be involved in the study were requested to complete the consent form and the demographic questionnaire and return the information to the researcher in a reply paid envelope. Mechanisms were also in place in the event that any participant required counseling as a result of participating in the study (see Appendix F).
Selection Criteria for Inclusion

The participants selected for this study were required to meet certain criteria. Firstly, they had to be in the final year of their undergraduate nursing program. This meant that they would have been previously exposed (in earlier semesters of the program) to specific nursing courses which incorporated theoretical and practical content about medication administration. The theoretical courses addressed the principles of pharmacology and included content about the action; use and responses of individuals to drugs and medications; the physiology and biochemistry of drug metabolism; the body’s reaction to drugs; the safety aspects of medication administration; and legislation governing practice. The practical courses included content about all aspects of the administration process, as outlined in Chapter Two. Additionally, the practical courses meant that the students had participated in both on and off campus clinical experiences which involved medication administration. Thus, these courses provided participants with information and practical exposure to know how to administer medications in the off campus clinical setting in a manner that would promote safe practice prior to their final year placement.

Secondly participants selected were required to have undertaken at least two of their final year clinical placements. Completion of such meant that participants would have had no less than six weeks clinical experience as final year students. These measures ensured exposure of participants to medication administration while in a preceptored or mentored relationship. Being in a preceptored or mentored relationship would enable participants to contribute to this study in a meaningful way. Additionally, the requirement for participants to have completed two placements meant their experiences
would be based on several clinical contexts rather than representing one clinical area only.

Participants were not excluded if they had past nursing experiences or held other qualifications including assistants in nursing or enrolled nurses (see glossary p. 296) with or without medication endorsement. To exclude enrolled nurses with medication endorsement would have meant that the general cohort of students in the undergraduate program would not have been accurately represented. Furthermore, there would be a reduction in the potential participants. The rationale for not excluding any students with other nursing qualifications was based on the expectation that students were administering medications only in the capacity of an undergraduate nursing student.

**Method**

*In-depth Semi Structured Interviews*

Sound implementation of grounded theory is based on a variety of sources for data collection including direct observations, individual interviews, focus groups and document analysis (Wilson 1993). However, a conscious decision was made at the outset of this study to avoid any data collection methods other than in-depth semi structured interviews. The reason being that medication administration can potentially involve sensitive issues particularly if conversation leads into discussing errors and unsafe practice. For example, had the participant been involved in a negative experience such as a drug error, they may have been reluctant to talk about that episode with other participants listening. They may have avoided either sharing true experiences or telling the truth. It was considered important to use a method of data collection where
participants’ conversations were not heard by any other individual apart from the researcher hence, a reason why focus groups in particular were not used. Moreover, Happell (2007) claims focus groups are questionable as a method of data collection when the topic of investigation is of a sensitive nature because of the potential for participants to limit what they are prepared to disclose. Thus, in depth semi structured interviews were selected as a method to promote freedom of conversation around a potentially sensitive topic.

A further reason for this method of data collection was flexibility and convenience for participants. Because the interviews were individual, it meant that participants could select the time and location for the interview without having to consider the needs of others as occurs with focus groups. The researcher was also able to be flexible in meeting the needs of the participants in terms of what was convenient for them. However, it should be noted that the off campus clinical setting in which participants had undertaken their placement was not considered an appropriate venue. The reason being that if they disclosed details surrounding a negative medication experience there was a chance that they could be overheard by a registered nurse thus, influencing their willingness to speak freely.

The use of a semi structured approach was also considered the most appropriate method as it enabled the researcher to provide some structure while simultaneously exerting minimal control over the topic. In turn, participants were able to influence the direction of the interview. Having some degree of structure though, enabled the interview to commence with questions specific to the study so that conversation would remain
relevant. The actual process taken in conducting the interviews is discussed further in this chapter.

The following section discusses the manner in which data was collected for this study followed by the method used for simultaneous data analysis. It is important to note that data collection and analysis occurred simultaneously as consistent with grounded theory methodology. This is schematically represented in Figure 3.

**Figure 3: Research Design Showing Data Collection and Analysis Occurring Simultaneously**
Demographic Statistics

The initial data collected for this study was from the demographic questionnaire (see Appendix E). Individuals willing to participate returned the demographic questionnaires with their consent forms in a reply paid envelope. Of the 135 invitations sent out, a total of 57 students replied indicating a willingness to participate. This was a 42 percent response rate. Separation of the demographic data and consent forms commenced immediately after the potential participant’s name was coded. Potential is emphasized at this point as not all respondents were selected for the study. The rationale for this becomes clearer in the next part of this chapter when the sampling procedures are discussed. Coding meant that the researcher could go back to participant details to organize interviews. The selection of participants occurred through a process of deduction, which allowed for the selection of participants to be based on the potential of maximizing similarities or differences about medication administration experiences (Strauss & Corbin 1998). To understand this process it is necessary to consider the sampling approach.

Sampling

Sampling was conducted in a manner that allowed progression through logical steps structured to support what was learnt and coded from previous data collected (DeLaine 1997). This approach then allowed decisions to be made on what data to collect and which participants to invite to the next interview according to their significance to the development and testing of the emergent theory (Bartlett & Payne 1997). The steps applied in this study were consistent with those outlined by Strauss and Corbin (1990) in accordance with open, axial and selective coding. At the open level, sampling was
relatively broad. Initially participants were purposively selected based on their demographic data. However, as the research progressed sampling became more focused upon the theoretical concepts that had emerged in the previous interviews. The objective of this theoretical approach to sampling was to seek rich data that would provide the basis to develop concepts, categories and ultimately the theory itself (Strauss & Corbin 1998). At the axial coding level, sampling was relational and variational while at the selective level sampling was discriminate. Each of the sampling approaches will be discussed in the following narrative.

**Open Sampling**

Open sampling involved the selection of participants who could provide the greatest opportunity for discovery (Strauss & Corbin 1998). To achieve this, the demographic data collected from all willing respondents was reviewed and five participants were selected based on the greatest level of diversity. The intent was to allow for the opportunity of discovering what was happening for a wide range of participants. The selection of participants at this open level was consistent in the same way as described by Strauss and Corbin (1998 p 206) where “…one could choose every third person who came through the door or could systematically proceed down a list of names, times or places”. The reason being, that no concepts at this stage had be proven to have any theoretical relevance which meant that there was no where to go or look for variations of concepts along the lines of their properties and dimensions (Strauss and Corbin 1998).
Relational and Variational Sampling

Based on the emerging concepts from the first five interviews, relational and variational sampling then occurred simultaneously with the end stages of open sampling (DeLaine 1997). The process was lengthy as seventeen participants were selected and analysis of each of their interviews occurred before the next participant was selected. Selection involved reviewing the demographic data again (excluding those in the initial open sample) and selecting participants who portrayed dimensional range and variability to the data that had emerged in the open sample. An example was selecting a mature age participant with past nursing experience who had undergone their clinical placement in an aged care facility and to compare what they had to say with the data collected from a participant in the open sample who also had the same demographic characteristics. Further, to facilitate identification of variations and dimensional range, as required in grounded theory, the next sample would be of a participant who had no previous nursing experience but who had also undergone a similar facility experience. This type of sampling facilitated the identification of further incidents in medication experiences of students which demonstrated dimensional range and variation of the previously emerging concepts and to see the relationships among concepts consistent with grounded theory methodology (Strauss & Corbin 1998). However, what became apparent at this stage was that no two events or incidents described by participants to further guide the next sample selection were identical. There was something different with all participants albeit conditions, actions/interactions or consequences. According to Strauss and Corbin (1998) this provides the basis for making comparisons and discovering variations.
Discriminate Sampling

The final selection occurred at the discriminate sampling stage and involved the deliberate selection of five participants to maximize or minimize differences (Strauss & Corbin 1998). Discriminate sampling was necessary to meet the aim of selective coding. Specific demographic data was used for the selection to maximize opportunities for comparative analysis (Strauss & Corbin 1998). A profile of the sample of participants is included in the results section of this thesis. All participants met the selection criteria as previously discussed in this chapter. A total of 28 final year students were selected to participate. Table 2 portrays the number of participants at each sampling stage.

<table>
<thead>
<tr>
<th>Sampling Stage</th>
<th>Number of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Stage</td>
<td>5</td>
</tr>
<tr>
<td>Relational &amp; Variational Stage</td>
<td>18</td>
</tr>
<tr>
<td>Discriminate Stage</td>
<td>5</td>
</tr>
</tbody>
</table>

Of the 28 participants selected, six were revisited for a second interview in the final stage of analysis as discussed in the results chapter of this thesis. The 28 participants selected had experiences in 41 different clinical organizations including private, government and non government. The locations of these 41 different organizations ranged from the Torres Strait in the north of Queensland to Brisbane in the south of Queensland. Regions throughout the eastern coast, central and western parts of Queensland were also captured. The varied types of the organizations and locations meant that participants could draw from a diverse range of experiences also contributing to a richness of discourse.
Collecting the Data

Interviews occurred over a five month period during 2005, however six participants were revisited until the following June of 2006 which was the final stage of the analysis and the writing up period. Such a strategy is not unusual. Schrieber (2001) argues that the researcher can continue theoretical sampling throughout the study including during the analysis and writing up stage. By revisiting the participants during 2006, categories were further developed, connections validated and the overall substantive theory was confirmed.

The time frame for conducting the interviews was crucial for this study. The initial interviews needed to occur after the participants had completed at least two of their three final year clinical placements in the later part of the autumn or winter terms of their course. If interviews were not conducted at this time there was a chance that participants could have completed their final placements and left the university. The most ideal timing was after the participants had completed their last placement in the winter term and their assessment (graded by the registered nurse acting in the role of preceptor or mentor) was finalized. When participants were interviewed at this time they were willing to share their experiences with a knowledge that they were not required to return to the clinical setting and they had passed their clinical placement.

Allowance was made for the interviews to be conducted over at least a one hour period with time included for preparation, debriefing and any note taking. Interviews occurred in a variety of settings with the exception of the clinical facility as previously discussed. Settings were diverse and included participants’ home; a quiet corner in a coffee shop; a
park and a private student lounge area at the university. Promoting comfort for the participant was important. Strategies included the provision of food, informal conversation occurring at the outset of the interview, the use of terminology that participants were familiar with and the use of active listening skills by the researcher.

At the beginning of each interview the purpose of the research and how long the interview would possibly take was explained. To ensure accuracy, each interview was recorded with a small, hand held tape recorder positioned close to the participant. The interviews were later transcribed verbatim by an experienced transcriber. To ensure accuracy, each transcript was then rechecked by the researcher against the actual taped interview. Further independent checking of transcripts occurred with the researcher’s supervisor. This checking occurred promptly and in a very organized manner because of the short time frame in conducting the interviews and the need to analyse and code the data before selecting the next participant (discussed further under data analysis). Taping the interviews enabled the participants’ spoken word to accurately reflect what was said rather than relying on memory. Additionally, as grounded theory was the chosen methodology the data would need to be revisited many times during analysis and accessing transcribed interviews would enhance this.

Participants were informed of the need to tape the interview prior to commencement and consent was then obtained. This consent was in addition to what they had previously signed at the outset of the study during recruitment (see Appendix D). All participants were informed that any information used in the research would not reveal their identity. Participants were also assured that there were no right or wrong answers
to the questions and that it was important they revealed their true experiences. The researcher reiterated that the information gained for the study had no bearing on any of the courses they were currently undertaking and that they had the right to withdraw from the research at any time without prejudice. Equally important was the fact that the researcher was not involved in the teaching or assessment of any participants. Additionally, participants were advised that if experiences created discomfort or anxiety for them then support persons were available. Upon closure participants were advised that a second interview could be required or alternatively, elements of the interview may need to be revisited. Thus participants were asked if they were willing to volunteer for a second interview.

After each interview reflective notes were made. The notes included the reason for the selection of the participant, how they were accessed, the arrangements for the interview, the rapport established, the interview setting, the timing, the interaction in the interview, any comments about the interview and the closure of the interview. Information obtained was later used to assist with the analysis of data and was stored as a header file linked to each transcription (however was not a part of the actual transcription). An explanation of the header file is given further in this chapter.

**Questions Used to Collect the Data**

Open ended questions were used in the semi structured interviews and were designed to explore the research topic and fit within the participant’s reality without being too formal. Moreover, Adler and Rodman (1997) claim that open ended questions allow issues to be discussed more freely than would occur with closed or structured questions.
Burnard (1994) argues that they encourage the participant to say more and expand on their story or go deeper and Mohan, McGregor, Saunders and Archee (1997) suggest that they communicate trust by giving the respondent the freedom to decide on how much to reveal and the nature of the information and opinion that they will offer back. Therefore, at the outset of all interviews, the following question was posed to participants:

- *Tell me about your experiences with medication administration as a final year student when in the off campus clinical setting?*

In the initial open sample the following questions served as a framework:

- *From your experiences tell me what promotes your ability to administer medications safely?*

- *From your experiences tell me what impacts on your ability to administer medications safely?*

In subsequent interviews the questions changed based on the emergence of labels and categories. This is not unusual because as Strauss and Corbin (1998) confirm, even though the initial questions posed in a study can start out broadly, they become more focused during the research process as concepts and their relationships are discovered. A one page summary of the previously identified categories and questions was taken to each consecutive interview to serve as a prompt to ensure that the questions asked allowed for the building of previously identified concepts including the properties and dimensional range. This sequence occurred several times during the research process. Examples of questions used to build upon concepts and categories, to identify properties and the dimensions of the categories included:
• Tell me about your experiences with registered nurses in administering medications?

• Tell me about your experiences with attitudes of staff with regards to medication administration?

• Tell me about your experiences with supervision when administering medications in the off campus clinical setting?

• Tell me about what the ‘fitting in’ means to you when administering medications as a final year student?

• Tell me about what ‘getting through’ means to you when administering medications as a final year nursing student?

• Tell me about what sucking up and shutting up means in relation to your experiences with medication administration as a final year nursing student?

• Tell me about how you as a person influence your medication administration?

• Tell me about the ward and medication administration?

Two questions used to finish each interview were structured in a similar manner to that proposed by Schrieber (2001). The aim of asking these questions was to elicit any information that may have been missed. These included:

• What advice would you have for final year undergraduate nursing students administering medications in the off campus clinical setting?

• Is there anything else that I should know about undergraduate nursing students’ experiences in administering medication when in the off campus clinical setting that I have not already asked?
However, in some interviews few questions were posed after the initial opening question because participants spoke openly about their experiences and in doing so covered topics relevant to the labels and categories that had emerged from previous interviews. While the method of in-depth semi structured interviews allowed the data to be collected, the process occurred simultaneously with a constant comparative method of data analysis consistent with grounded theory methodology. According to Strauss and Corbin (1998), constant comparative analysis sees the researcher continually moving between data collection and analysis until the final substantive theory emerges and the gaps surrounding the theory are filled.

**Data Analysis**

The first goal of data analysis using a grounded theory methodology is to understand the basic social issue, also referred to as a problem from the participants’ perspective (Schreiber 2001). The discovery of this, as Glaser (1998) suggests, is the beginning of the researcher’s autonomy and empowerment. Without an understanding of the basic social issue the research can become difficult to organize and the findings can end up as a list of topics conceptually described which do not allow a theory to emerge (Glaser 1998).

To understand what was happening in the data, constant comparative analysis was used. This required a four stage approach and included:

- comparison of incidents within the categories;
- integration of categories;
- delimitation of the theory; and
In moving through each stage, analysis was achieved using open, axial and selective coding (Strauss & Corbin 1998). This coding process allowed raw data from the interview transcripts to be reduced to concept labels and then rewoven into categories and sub categories. The categories were then refined to a point of saturation. A commitment was then made to the central category with related categories, their sub categories and properties. The categories were then organized around a central explanatory concept which included the basic social issue which would reveal a problem, conditions influencing the basic social issue and the process used by participants to respond to this. Several techniques were used to facilitate the integration process which would ultimately result in the substantive theory. The following discussion considers each aspect of coding used for analysis while Figure 4 presents this schematically and the strategies employed consistent with grounded theory methodology.
Open Coding

Open coding is the first stage of grounded theory analysis (Glaser & Strauss 1967; Strauss & Corbin 1990). Open coding allows the text of the transcripts to be transparent to the researcher and then thoughts, ideas and meanings contained within the text to be
exposed (Strauss & Corbin 1998). Categories are then developed. Open coding began after the first interview was transcribed and continued with consecutive interview transcripts until no further categories could be identified and saturation of categories was achieved. The steps taken in open coding began with each transcribed interview linked header file (see Table 3) being reviewed. The header file, as previously introduced, contained information about the interview that was useful to remind the researcher about the context in which the interview occurred and any specific issues. A visual image of the actual interview was prompted by reviewing the header file. The information provided depth to the analysis.

Table 3: Header Information Associated with Each Transcript

| Access to the participant: | Participant was invited to participate after being given a letter of invitation, an explanation and consent form to sign. Participant was then emailed to negotiate a date for the interview. This participant responded and the interview was arranged. The interview was conducted at the student’s home around the table. Coffee and food was shared. Her puppy was present and would happily sit on my knee during the interview. The atmosphere was very relaxed. |
| Why the participant was selected: | The participant was selected because of her sex, no past nursing experience and age. |
| Establishing rapport: | Establishing rapport was not difficult as the participant was very positive about being involved in this study. |
| How the relationship was concluded: | The interview was tentatively closed as I indicated that follow up interview may occur. |
| Any factors that may have influenced or affected the content and process of the interviews: | The participant had completed all her prac. She spoke very honestly about her experiences and verbalized that she felt this type of study could be so beneficial to future students. I did not feel any barriers in the interview. The outside traffic noise was somewhat distracting initially- however closing the windows and door rectified this. |

Following consideration of information on the header file, the transcripts were then read line by line to begin the process of conceptualization of the data into meaningful units (Strauss & Corbin 1998). After reading the transcripts incidents, events, facts, actions and interactions considered as significant in the data were then given a concept label (an abstract representation of the phenomenon) (Corbin 1986; Glaser 1978; Strauss &
Corbin 1990). The purpose of labeling the phenomenon, as supported by Strauss and Corbin (1998) was to facilitate the grouping of similar events, happenings and objects in the data under a common heading. The concept labels were placed in the right hand column of the transcript file and were allocated to underlined sections of the transcripts (see Table 4). Underlining meant that the text was not divided into small components. If this had occurred potentially the data could have become fragmented when analyzed resulting in a loss of context and meaning (Browne & Sullivan 1999). The meaning of the labels also reflected the context of what was being said (Strauss & Corbin 1998).

**Table 4: Interview Transcript with Concept Labels**

<table>
<thead>
<tr>
<th>Interview Transcripts</th>
<th>Concept Labels</th>
</tr>
</thead>
<tbody>
<tr>
<td>It depends on which um, prac I’ve been on. Because you actually, like obviously your community health prac you don’t really do medications at all.</td>
<td>Different types of clinical placements-variation in medication experiences</td>
</tr>
<tr>
<td>When I worked in the wards though, um, at lot of times it actually happens where they, some, sometimes they will actually dispense it and give it to you for you to deliver, which shouldn’t happen I know.</td>
<td>Being Supervised – RN expectations; To administer on own, Knowledge of uni requirements- administering on own shouldn’t happen</td>
</tr>
</tbody>
</table>

The next stage in the open coding consisted of categorizing the concept labels however this did not commence until sufficient labels had accumulated from the first interviews. Once categorizing had occurred it continued with each consecutive interview until no new labels emerged. In order to do this, the concept labels were reworded and refined to evoke the meaning of what they represented from the data. Additionally, they needed to be understood by the researcher when separated from the transcripts. In some instances the words of the participants were used, a strategy supported by Strauss and Corbin (1998). Table 5, provides an example of some of the reworded/ refined concept labels developed from those shown in Table 4.
Table 5: Reworded/Refined Concept Labels

<table>
<thead>
<tr>
<th>Concept Label as Attached to Interview Transcript</th>
<th>Refined Concept Label for Categorizing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Different types of clinical placements-variation in medication experiences</td>
<td>Type of clinical placement</td>
</tr>
<tr>
<td>Being Supervised –RN expectations; To administer on own,</td>
<td>Expectations of RNs</td>
</tr>
<tr>
<td>Knowledge of uni requirements- administering on own shouldn’t happen</td>
<td>Policy and awareness Taking Risks in supervision</td>
</tr>
<tr>
<td>Supervision-the RN being called away; expectation continue administration on own</td>
<td>RN Called away-The Waiting Game</td>
</tr>
</tbody>
</table>

Following the rewording and refining, the labels were stored in a separate file away from the transcripts and were temporarily clustered under a heading termed ‘early category’. Table 6 provides an example.

Table 6: Early Clustering Under Early Category Headings

<table>
<thead>
<tr>
<th>Being Supervised</th>
<th>Attitudes of the RN</th>
<th>Student Attributes/ Feelings/ Past Experiences</th>
<th>Busyness of the ward/ Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timing of placement-beginning/ end</td>
<td>Background Wanting students Knowledge about students coming The Student Friendly RN The Student Unfriendly RN</td>
<td>Confidence Age Standing up for one self Gender</td>
<td>Time for students Using resources MIMS</td>
</tr>
<tr>
<td>Type of placement</td>
<td>Having time Background The way we are taught</td>
<td>The administration process- five rights Six rights Drugs Documentation Patients Safety</td>
<td>Risk Perception of students</td>
</tr>
<tr>
<td>Policy &amp; awareness Expectations of RNs Seeking supervision-chasing, Negotiating for supervision Confidence &amp; Trust</td>
<td></td>
<td></td>
<td>Being called away</td>
</tr>
<tr>
<td>Supervision</td>
<td>Supervised but rushed Staffing Saying No</td>
<td>The Waiting Game</td>
<td>Fear of making mistakes The delegation Stories</td>
</tr>
<tr>
<td>Type of placement</td>
<td></td>
<td></td>
<td>The patient</td>
</tr>
<tr>
<td>How much supervision Supervised but rushed</td>
<td></td>
<td></td>
<td>The outcomes/ Failure</td>
</tr>
<tr>
<td>Staffing Saying No</td>
<td></td>
<td></td>
<td>The reactions</td>
</tr>
<tr>
<td>Taking Risks in supervision</td>
<td></td>
<td></td>
<td>The support</td>
</tr>
<tr>
<td>Fear of failure for not being supervised RN with you when administering</td>
<td></td>
<td></td>
<td>Being assessed- getting through Keeping the RN happy</td>
</tr>
<tr>
<td>RN rushing you when administering</td>
<td></td>
<td></td>
<td>Don’t tell the uni</td>
</tr>
<tr>
<td>RN near you when administering</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RN not there when administering</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Different places</td>
<td>Opportunity available Timing between places Climate Acceptance of students</td>
<td>Dealing with the RN Not Rocking the Boat Stepping back Avoiding conflict Do what they say Being a part of the team/ Fitting In Saying No</td>
<td></td>
</tr>
</tbody>
</table>
A more complex and thorough grouping and categorizing of the refined concept labels then began. For instance, labels that represented events, incidents, actions and interactions with the same meaning were gathered and reanalyzed for grouping into those with similar characteristics or simply ‘like for like’. This process was considered important because it allowed the number of units of data to be reduced to a manageable level for analysis. However, the process was complex as it meant going back to the data in relation to the refined concept labels and allocating parts of the transcripts to them but this facilitated the sorting of relevant parts of the interview transcripts. Having the relevant parts of the transcripts attached to the concept labels then allowed for the viewing of data with analytical depth (Strauss & Corbin 1990). The aim at this stage was to identify properties and dimensions. Properties are the characteristics of the phenomenon and the dimensions are the range in which the properties vary (Strauss & Corbin 1998). In order to identify the properties and dimensions, theoretical sensitivity was required. This necessitated the researcher to have insight into the data and the capacity to see what was really there (Bartlett & Payne 1997). A technique employed (Glaser 1978; Strauss & Corbin 1990) to achieve the latter was to ask the following questions:

- What is this concept label actually saying?
- What does it mean?
- What early category will it fit into?; and
- Does it compare to other concept labels and can it be represented in the same category?
Asking these questions also facilitated constant comparison between a particular concept label and other concept labels to look for similarities and differences. The aim was to guard against bias and produce valid and reliable analysis so that with further data collection and analysis concepts could be verified, rejected or refined (Bartlett & Payne 1997).

Through grouping and categorization, some of the previous concept labels as apparent in Table 6, were identified as a property to the category and some would change their position and be placed under other categories. The concept labels were then renamed as sub categories. These were considered as more definite concepts that pertained to the category thus giving it further clarification and specification (Strauss & Corbin 1998). Table 7 reflects changed labels as previously apparent from column one in Table 6.

<table>
<thead>
<tr>
<th>Table 7: Changed Labels Following Further Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Being Supervised</strong> (category)</td>
</tr>
<tr>
<td>Need to be supervised (sub category)</td>
</tr>
<tr>
<td>Policy and awareness (property)</td>
</tr>
<tr>
<td>Fear of failure for not being supervised</td>
</tr>
<tr>
<td>Seeking supervision (sub category)</td>
</tr>
<tr>
<td>Chasing (property)</td>
</tr>
<tr>
<td>Negotiating for supervision (property)</td>
</tr>
<tr>
<td>Waiting (property)</td>
</tr>
<tr>
<td>Saying No (property)</td>
</tr>
<tr>
<td>Supervision offered by the RN (sub category)</td>
</tr>
<tr>
<td>RN with you when administering (property)</td>
</tr>
<tr>
<td>RN rushing you when administering (property)</td>
</tr>
<tr>
<td>RN near you when administering (property)</td>
</tr>
<tr>
<td>RN not there when administering (property)</td>
</tr>
</tbody>
</table>

During this complex process of grouping and categorizing the researcher commenced memoing and diagramming simultaneously. This method suited the researcher because
as a visual person, the diagrams prompted memoing and memos prompted diagramming. Whilst these strategies are introduced at this open coding stage it should be noted they continued throughout the entire data collection and analysis stages of this study.

The purpose of memoing included making clear pre-existing assumptions, hence making them open for examination, recording methodological decisions regarding the conduct of the study and to speculate on and analyze the data (Glaser 1978; Glaser & Strauss 1967; Strauss 1987; Strauss & Corbin 1990, 1998). Diagramming served as a strategy to consider the data in a different way such as simulating ideas about what was emerging in the data and then reflecting on those ideas. Art pads were used extensively and provided the researcher with a level of freedom to draw and memo whenever ideas and thoughts about what was happening in the data emerged. Many of the drawings were later transferred to the computer via Microsoft Visio, a computer program that facilitates the production of diagrams. Some of these are presented in the results chapter of this thesis. The diagrams and memos allowed the researcher to visually see the relationships between early concept labels and later categories and sub categories, properties and dimensions. As the analysis progressed to the selective stage (discussed further), the diagramming facilitated the emergence of the central category.

The following is an example of a memo in relation to being supervised at the open coding stage. This memo not only served as a prompt for what the category being supervised was about, but also served as a prompt for further questioning surrounding this phenomenon.
The concept of supervision seems to be taking centre stage in the participant’s stories. Participants have an understanding that they need to be supervised. They verbalize this in their interviews. They talk about being supervised as a university requirement - it’s what they have to do and so are keen to meet these. The desire is manifested in behaviours such as chasing and waiting for the registered nurse. However, it seems that they all share this understanding of requirements but there is variation in what they do. In the one interview a participant will tell me about seeking supervision and then in the same interview they share an experience where they have administered without supervision. It seems that supervision can occur on some occasions but not on others. This variation needs to be explored. What is it that makes them seek supervision on some occasions and not on other occasions? Participants talk about the busyness of the ward and the registered nurse. Both of these issues need to be further explored in terms of supervision and medication administration experiences in general. (Memo)

In summary, open coding in this study involved interview transcripts being examined carefully line by line and concept labels identified. Ultimately through constant comparisons early categories were defined from the concept labels and were grouped like for like and given a name with consideration being made towards their properties and dimension. Memos and diagrams added meaning to the categories and served as a prompt for questioning aspects of previously identified phenomena with the consecutive data collection. However, at this open coding stage, categories and subcategories were not fixed, meaning that they could change with further analysis. Whilst many categories were identified at this stage, further analysis at the axial coding stage would reveal that some represented conditions, some actions/interactions while others were consequences to the central phenomena.

**Axial Coding**

The goal with axial coding is to systematically develop and relate categories and subcategories along the lines of their properties and dimensions (Strauss & Corbin 1998) by the use of a coding paradigm (Bartlett & Payne 1997). Ultimately this forms
what Strauss and Corbin (1998) describe as more complete explanations about the phenomenon. To achieve this, the data that was fractured during the open coding stage was required to be reassembled through constant comparative analysis (Strauss & Corbin 1998). The procedure adopted for this study at this stage involved a series of tasks which will be explained in the following narrative.

The first part of the procedure had already begun in open coding and involved transcripts from the interviews being placed under the categories and sub categories and the dimensions being determined. This was followed by identifying the variety of conditions, actions/interactions and consequences associated with what the category stood for (Strauss 1987; Strauss & Corbin 1998). To clarify the latter, conditions dictated or created the circumstances in which the issues, happenings or events relating to the category arose (Strauss & Corbin 1998). The actions/interactions were the strategic or routine tactics or the ‘how’ by which individuals handled situations, problems and issues which they encountered (Strauss & Corbin 1998) and the consequences were the outcomes of the occurrence of the category and the action/interactions. The consequences provided more complete explanations of the category (Strauss & Corbin 1998). This stage of coding also provided the opportunity to integrate structure with process (Strauss & Corbin 1998). Structure refers to the conditional context in which a category is situated while the process represents the sequence of actions/interactions relevant to a category which have evolved over time (Strauss & Corbin 1998). Unless an understanding of structure and process exists, including how they relate to each other and the category in question, then it is difficult for the analyst to appreciate what is going on in the data (Strauss & Corbin 1998).
To identify the conditions, actions/interactions and consequences associated with each category, as previously explained, a coding paradigm termed the Conditional Relationship Guide (Scott 2004) was adopted. The format in the Conditional Relationship Guide (Scott 2004) included asking the following questions:

- What is the category?
- When does the category occur?
- Where does the category occur?
- Why does the category occur?
- How does the category occur? and
- With what consequence?

(Scott 2004).

Asking questions such as the latter, uncovers relationships among categories (Strauss and Corbin 1998). Table 8 provides an example of how this format in the Conditional Relationship Guide (Scott 2004) was used with the sub category *seeking supervision*. It should be noted that the following example is for the purpose of explaining the Conditional Relationship Guide (Scott 2004). The meaning of the data is explained in the results and discussion chapter of this thesis.
Table 8: The Conditional Relationship Guide (Adapted from Scott 2004) Using the Sub Category ‘Seeking Supervision’

<table>
<thead>
<tr>
<th>Category/subcategory</th>
<th>What</th>
<th>When (time) “during”</th>
<th>Where/“in” what is the situation</th>
<th>Why</th>
<th>How</th>
<th>Consequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervision (category)</td>
<td>Seeking supervision:</td>
<td></td>
<td></td>
<td>Adhering to the uni requirements</td>
<td>Seeking supervision by:</td>
<td>Chasing- catches the RN – supervision</td>
</tr>
<tr>
<td>Seeking supervision (sub category)</td>
<td>What participants do to gain direct/indirect supervision when administering medications</td>
<td>During the prac</td>
<td>In response to acceptance of delegation by RN</td>
<td>Trying to do the right thing - university requirements - practicing the 5 rights</td>
<td>chasing the RN</td>
<td>Gained</td>
</tr>
<tr>
<td></td>
<td>First few days of prac</td>
<td></td>
<td>In ward/aged care facility</td>
<td>Fear of doing wrong things - get into trouble</td>
<td>waiting for the RN when called away</td>
<td>No concern except when RN busy and rushed, standing over</td>
</tr>
<tr>
<td></td>
<td>During times when ward is busy</td>
<td></td>
<td>In medication rounds</td>
<td>Fear of making mistakes - giving the wrong medications</td>
<td>negotiating with the RN</td>
<td>Not gained at personal level - conflict-being in trouble, making mistake, not getting through adoption</td>
</tr>
<tr>
<td></td>
<td>When the registered nurse is there</td>
<td></td>
<td>In trying to find someone</td>
<td>Wanting to get through</td>
<td>please the uni</td>
<td>behaviour to continue to seek supervision or ignore supervision will adopt behaviour to please the RN</td>
</tr>
<tr>
<td></td>
<td>When the registered nurse is called away</td>
<td></td>
<td>In situation where the RN is called away</td>
<td>Wanting patients to get medications on time</td>
<td>please the RN</td>
<td>If waiting for RN- may give medications before returns- if it pleases the RN</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Expectations of the RN</td>
<td>may wait until RN returns- response</td>
<td>May wait until RN returns- response</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Please the uni</td>
<td>May agree to give without supervision</td>
<td>May agree to give without supervision</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Please the RN</td>
<td>May refuse to give without supervision</td>
<td>May refuse to give without supervision</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>May miss out on medication administration</td>
<td>May miss out on medication administration</td>
</tr>
</tbody>
</table>

By asking the questions (as previously discussed), Table 8 reflects how the phenomenon seeking supervision was contextualized, meaning how it became located within a conditional structure. For example answering ‘what’ as set down within the Guide, the
category seeking supervision was identified from the data. Seeking supervision was perceived by participants as a requirement determined by the university- (School of Nursing) of what to do when administering medications. Answering ‘when’, ‘why’ and ‘where’ followed and allowed for the emergence of the conditional structure. For example, ‘seeking supervision’ occurred at the beginning of the placement and was in response to the student being delegated the task of medication administration by the registered nurse. By answering ‘how’, the actions relating to the category were revealed. As an example, these actions included the student chasing the registered nurse, waiting for the registered nurse, ignoring or negotiating with the registered nurse. By asking ‘what consequences’, the outcomes of the actions/interactions emerged. For example, an outcome of chasing the registered nurse was the student locating them for supervision. The consequence for the student of not gaining supervision from the registered nurse at a close and personal level was internal conflict. Using the Conditional Relationship Guide (Scott 2004) both actions/interactions and the consequences revealed the process of how students responded when the registered nurse did not give them personal supervision when administering medications but rather provided less than adequate levels of supervision (which would be labeled as shifting levels of supervision discussed further in this thesis).

Using the Conditional Relationship Guide (Scott 2004) the conditions were also revealed and examined in terms of their different properties and how they influenced actions and interactions concerning the phenomenon or category in question. Conditions were labeled as casual, intervening and conditional as explained in Chapter Four. Explanations were also developed to clarify how the conditions intersected with each
other leading ultimately to the central issue which participants would respond to through a basic social process. In addition, variations in the social process were revealed because of changes in conditions. Therefore in summary, the Conditional Relationship Guide (Scott 2004) allowed the connections among categories to be uncovered.

The next step in the procedure of axial coding consistent with grounded theory involved developing some relational statements depicted in both explanations and supported with diagramming at a more conceptual level than had occurred at the open stage of coding. Both diagramming and the relational statements facilitated the linking of categories with their subcategories and the diagramming allowed for the visual differentiation between conditions/actions/interactions and consequences. In essence, concepts could be presented and the relationships portrayed visually together with the statements explaining them. However, these initial thoughts of how concepts related, even though they were derived from the data, needed validating and further elaboration through continued comparison of data from incident to incident (Strauss & Corbin 1998). The reason for validation, according to Strauss and Corbin (1998), is that these initial relational statements are abstractions, meaning that they were developed at a conceptual level from the coding paradigm and not immediately from the raw data level (being the interview transcripts).

The validation involved going back to the transcripts that had been placed under the relevant categories and subcategories to compare incident to incident looking for any new properties, dimensions, and relationships. Additionally, the conceptual drawings and associated statements were discussed with the researcher’s supervisor to allow the
opportunity to explain relationships between categories and then further refine them to
tell a story.

**Selective Coding**

The final stage in the data analysis process was selective coding whereby the categories,
previously systematically developed and linked at the axial stage (using the Conditional
Relationship Guide (Scott 2004)), were integrated and refined around a central
explanatory concept. This central explanatory concept would include the basic social
issue/ problem experienced by final year undergraduate nursing students and the process
used by them to deal it.

The first step in the refinement and integration of categories around the central
explanatory concept involved identifying the core category, which the researcher has
 termed as the ‘central’ category (Strauss & Corbin 1998). At the previous axial level the
central category had not been selected, rather there were multiple categories. The
multiple categories also had relational statements associated to them. Choosing the
central category from all the multiple categories that existed required the researcher to,
yet again, go back to the data but this time using criteria set by Strauss and Corbin
(1998). These criteria included sorting which category was the focus and then making
sure that all other categories related to this central category. Additionally the central
category needed to appear frequently in the data and it had to provide a logical and
consistent explanation (which had evolved by relating other categories). Finally the
central category had to explain variation as well as the main point made by the data
(Strauss & Corbin 1998).
Once the central category was confirmed, the next step was to explain the central explanatory concept. This meant further analysis of the data and again asking questions such as those adapted from Glaser and Strauss (1967). These included what’s going on in the data?, what is the focus of the study and the participant’s relationship of the data to the study?, what is it that continually appears in the transcripts?, what is the basic social issue or problem that is being dealt with by the participants?, what processes are helping participants cope with the issue/problem? and what comes through that might not be directly said?.

Several strategies were then employed to facilitate the integration and refinement of the central category and related sub categories around the central explanatory concept (Strauss & Corbin 1998). Strategies included writing a story board that integrated the relational statements (which had been developed at the axial coding stage) to the central explanatory concept. Extensive diagramming also occurred to facilitate the integration of categories to the central explanatory concept. All diagrams that had been developed during the open and axial coding stages were revisited which allowed the researcher to see not only the refinement of the categories and the central explanatory concept but also to see the progressive development of what would become the larger theoretical scheme. Once the central explanatory concept had been integrated and grounded, categories were again revisited. This necessitated the researcher returning to the transcripts to ensure that nothing was missed in the data, meaning that what was said by participants was reflected in the central explanatory concept. Upon confirmation, the central explanatory concept then became the larger theoretical scheme representing the substantive theory. In diagrammatic form, this was then presented to those participants.
who had been selected for second interviews (as well any others who were willing and
available to comment), as part of a member checking process. During member
checking, participants were invited to comment on the accuracy of the larger theoretical
scheme. The questions posed to the participants were:

- *Is this an accurate representation of the experiences that influence the process
  of medication administration for final year undergraduate nursing students
  when in the off campus clinical setting?*

- *Is there anything that I have missed or you would like to add?*

Confirming that no further data needed to be collected was an important step to ensure
that theoretical saturation had occurred. Theoretical saturation is a point where
additional analysis no longer contributes to new discoveries about the data (Glaser &
Strauss 1967; Strauss 1987; Bartlett & Payne 1997) meaning no new properties,
dimensions, conditions, action/interactions or consequences present in the data.
Strauss and Corbin (1998) suggest that saturation is more a matter of arriving at a point
in the study where collecting any further data is counterproductive and the ‘new’ that is
uncovered does not add to the study.

**Finalizing the Analysis with the Literature**

In the final stage of analysis when the larger theoretical scheme for the substantive
theory was identified, the literature was then fully examined. Integration of the findings
with the literature helped identify theoretical grounding that could further explain what
had been discovered. Using the literature in this way meant it could be used to support
or negate the findings or confirm where the literature differed, was over simplistic or
where it had explained the phenomena only partially (Strauss & Corbin 1998). Thus,
bringing the literature into the writing meant allowing for the extension, validation and refining of knowledge that existed in this field of study (Strauss & Corbin 1998). Finally with confirmation from the literature the larger theoretical scheme would take the form of the substantive theory as discussed further in this thesis.

Although the research process of data collection and analysis has been discussed, none of this progressed without the researcher ensuring that the process was trustworthy. The next section of this chapter will consider how trustworthiness was achieved in terms of credibility, auditability and transferability.

**Trustworthiness of the Research Approach**

**Credibility**

Research is credible when it presents reliable descriptions of an experience that the reader can recognize (Guba & Lincoln 1989). In this study credibility centered on whether experiences in medication administration in the off campus clinical setting were accurately identified and explained from the perspective of final year undergraduate nursing students. Roberts and Taylor (2002) suggest that recognition of the phenomenon from the participants should be apparent through their reading about it in research reports and as in this case of this study, via explanations of conceptual drawings. Several methods were employed to ensure credibility, such as allowing participants to guide the inquiry process (Chiovitti & Piran 2003). A strategy to achieve this was the use of semi-structured interviews so that participants could guide the discussion. A further strategy occurred during the analysis of the data and included using excerpts from the transcripts to support the categories. Therefore, all categories
reflected what participants were saying with some categories being the participants own words for example ‘getting through’. This was also a term used by participants to mean passing their clinical placement. The use of this term ultimately resulted in the use of participants’ actual words in the substantive theory (Chiovitti & Piran 2003).

Inter-related reliability was addressed by having the interviews transcribed verbatim by an experienced transcriber. This allowed each transcript to be rechecked against the actual taped interview followed by independent checking and coding of transcripts by the researcher’s supervisor.

A final method to ensure credibility was articulating the researcher’s views and insights regarding the phenomenon explored (Chiovitti & Piran 2003). To achieve this, notes were made after each interview as this was important in identifying any aspects which could have impacted on the interview thus influencing the results. Information was accessed during the analysis period and fortunately, all interviews progressed without problems.

Memos and diagrams were also kept to monitor personal thoughts, feelings and ideas during the data collection and analysis stages to reduce the likelihood of the researcher’s feelings being forced into the data. The final strategy to ensure credibility was member checking. Member checking involved the larger theoretical scheme being checked against the participants meaning of the phenomenon (Chiovitti & Piran 2003).
Auditability

Auditability, also termed dependability, refers to the ability of the study to be audited (Koch 1994). Roberts and Taylor (2002) describe auditability as a decision trail which is able to be scrutinized by other researchers to see if the study has been consistent with its methods and processes. Moreover the decision trail according to Koch (1994) not only establishes a means by which other researchers can audit the study but it also allows them to see linkages to the data with the researcher signposting their theoretical, methodological and analytical choices made throughout the study.

The first method employed to promote auditability was specifying how and why the participants were selected (Chiovitti & Piran 2003). The decision for selection was based on theoretical sampling and was articulated on all header files associated with each interview. Specifying how and why would validate that ethical processes were adhered to and that the selections were consistent with theoretical sampling. Initially however, open sampling was used as there was no previous data to direct what further information was needed. Therefore, selection was based on demographic data that represented participants with differing demographics. Consecutive sampling was however guided by what was emerging from the data and then further selection of participants through demographic data was considered appropriate to be able to build on what was said by previous participants.

A further method to ensure auditability involves specifying and delineating the criteria built into the researcher’s thinking (Chiovitti and Piran 2003) and is perceived as necessary in grounded theory when analyzing the transcribed interview data (Glaser
In this study, the criteria were specified by explaining standard questions consistently asked of the transcribed data during analysis. The questions, included in the analysis section of this chapter, were not created by the researcher but rather were derived from Glaser (1978), Strauss and Corbin (1990) and Scott (2004). These questions were asked during open, axial and selective coding when categories and sub categories were identified, developed and refined. Additionally, questions from Scott (2004) was a valid way of identifying the relationship between categories and subcategories as previously discussed at the axial coding stage which was a necessary step towards ultimately building the substantive theory.

**Transferability**

Transferability is concerned with the generalisability of the findings (Minichiello, Fulton & Sullivan 1999) whereby results of the findings, such as the emerging substantive theory, may have meaning to others in similar situations. In this study, two methods were used to promote transferability of the findings. The first was describing the scope of the research in terms of the sample, the setting and the level of theory generated (Chiovitti & Piran 2003). The sample is explained in the demographic data included in the Chapter Four of this thesis. The demographic data includes examples of the clinical placements in which participants underwent their final year clinical experiences. The participants would use these placements to draw on their medication administration experiences. It is anticipated that including this information will allow the reader to visualize both the context from which experiences would be drawn and the demographic characteristics of the participants, thus, allowing them to assess the transferability of the findings. Additionally, it was not the intent of this research to
develop a grand theory from this study, meaning one which evolves from exploring phenomenon in a variety of contexts (Strauss & Corbin 1990). Rather, the theory generated for this study was a substantive one which evolves from studying phenomena that is situated in a particular context (Strauss & Corbin 1990). The second method to promote transferability was using the literature to connect the substantive theory developed. However, despite the methods presented, the transferability of findings ultimately rests with the reader.

**Declaration of the Researcher's Interest in the Research**

The researcher acknowledges that previously gained beliefs, experiences, assumptions and expectations could, as suggested by be a barrier to objective and inductive data analysis (Asselin 2003). As such, the researcher was cognizant of the need to think analytically through the data collection and analysis period to gain an insight and capacity to understand what was actually apparent in the data (Bartlett & Payne 1997). Deep analysis was considered important to gain an awareness of personal biases and assumptions.

Further control strategies were implemented to achieve theoretical sensitivity such as stepping back from the data to reflect on the assumptions and biases that existed. This resulted in memoing and diagramming as previously discussed. The second strategy involved regular discussions with the supervisor about what was observed in the data which in turn forced the researcher to go back to the data and again ask questions. According to Bartlett and Payne (1997), this encourages the researcher to avoid standard ways of thinking about phenomena and stimulates the inductive process,
allowing the researcher to focus on the data and not take it for granted. Further it prevents the researcher from rushing when examining the data thus promoting the discovery of properties and dimensions. A third strategy used to enhance theoretical sensitivity occurred in axial coding, where comparisons were constantly made between categories and sub categories.

While the researcher was aware of the potential bias and the need to control for this, the advantages that the researcher could bring to this study seemed to outweigh any negatives. Having previously been a clinical coordinator meant that the researcher shared an understanding of the students’ on and off campus learning requirements. This included a knowledge surrounding the expectations for students in administering medications. Additionally, the researcher was familiar with the language and the process of medication administration. Being a registered nurse also meant that the researcher understood the role of the registered nurse/preceptor/mentor in the clinical setting and had insight into the culture of the off campus clinical setting. It was anticipated that having this understanding would allow the researcher to be more sensitive to the data and have a greater level of insight to facilitate identification of concepts from a variety of perspectives and see beyond the words that the participants verbalized in the interviews. Insight allows for creativity which Sandelowski (1995) argues is an essential ingredient in using this methodology.

**Conclusion**

This chapter presented the grounded theory methodology and methods used to collect and analyze data to identify what influences the experiences of final year undergraduate
nursing students when administering medications in off campus clinical settings. The chapter began with an explanation of the methodology and rationale for its use. The grounded theory approach, described in this chapter, was used to facilitate the collection and analysis of rich quality data. The design of the research was discussed including recruitment and sampling of participants and the use of in depth semi structured interviews. Analysis methods were comprehensively presented including a description of the process taken, namely open, axial and selective coding. Considerations of trustworthiness were explained and finally a declaration of the researcher’s interest. Chapter Four which follows, will describe results of the research and provide the reader with a clear understanding of what influences final year undergraduate nursing students’ experiences when administering medication in the off campus clinical setting.
CHAPTER FOUR: RESULTS

Introduction

This chapter presents the results of this study commencing with a brief overview of what emerged in the data including the central category, the basic social issue experienced by final year undergraduate nursing students’ when administering medications in the off campus clinical setting and the process used by them to deal with the basic social issue. Combined, these developed into the central explanatory concept from which substantive theory would be confirmed. This brief introduction is followed by a schematic representation of the overall substantive theory to guide the reader through the chapter. The discussion then moves to consider demographic data followed by actual analysis of the results supported with excerpts of raw data. The chapter closes with consideration of findings in relation to medication safety.

Overview

As the data from each transcript were compared through the process of constant comparative analysis, the discovery of a central category emerged. The central category, supervision has two other dominant categories which contextualize what was happening in the data (see Figure 5). The first dominant category is shifting levels of supervision which manifested from the data as the basic social issue surrounding medication administration for final year undergraduate nursing students. The second dominant category is Contingent Reasoning which emerged as the process used by participants to respond to shifting levels of supervision. The central category and the two dominant categories also have other related sub categories, properties and conditions to help explain the central explanatory concept (see Figure 5).
Shifting levels of supervision can be defined as supervision levels provided by registered nurses to final year undergraduate nursing students which move away from the personal and supportive level that students understand is required when administering medications. Shifting levels of supervision has three related subcategories that provide deeper meaning. The first subcategory is supervision seeking behaviours. These are behaviours that students adopt in an attempt to gain supervision from the registered nurse when involved in the task of administering medications. The second subcategory is the supervision levels presented and/or performed by the registered nurse. These are the supervision levels that students are confronted with having undertaken the seeking behaviour. The third subcategory is internal conflict. Students’ experience this when they realize that the levels of supervision the registered nurse presents and/or performs.
shifts away from what they know is required by the university. Meaning, there are opposing expectations. *Internal conflict* is identified as the trigger that leads final year undergraduate nursing students to respond to and deal with *shifting levels of supervision*. The motivation to do so is their need ‘to get through’ the clinical placement meaning, students just want to pass their clinical placement. The desire ‘to get through’ is a precursor for undergraduate nursing students to weigh up priorities and make a decision about what to do when confronted with *shifting levels of supervision*. As a result they make decisions and action behaviour labeled as ‘Contingent Reasoning’ (the second dominant category to supervision). The pattern of decisions and behaviour, places students into one of three levels of *Contingent Reasoning* identified as; level one- *norming for survival of self*; level two- *conforming and adapting for self and the benefit of others* and level three- *performing with absolute conscience*.

This study revealed that conditions influence the basic social issue of *shifting levels of supervision* and the process of *Contingent Reasoning*. Conditions influencing *shifting levels of supervision* are categorized as: *attitudes of the registered nurse*, *communication from the university*, *busyness of the ward* and *having time*. Those influencing *Contingent reasoning* include the *relationship with the registered nurse* and *individual attributes*. This chapter brings these categories together to provide clarity to the overall substantive theory as schematically presented in Figure 6 and titled *Contingent Reasoning related to Shifting levels of Supervision for Medication Administration*. This substantive theory serves to provide an explanation of final year undergraduate nursing students’ experiences of medication administration. The
following part of this discussion will present the findings with support from excerpts of the data. Each element of the overall substantive theory will be considered.

Figure 6: The Substantive Theory of Contingent Reasoning Related to Shifting Levels of Supervision for Medication Administration
Demographic Data

The following presents a demographic profile of the 28 participants as a group. Individual participants will not be described for the purpose of protecting their identity. The demographic data collected included: age; gender; prior nursing experience; current type of employment; type of employment in past five years; years in nursing program; highest level of school; whether English was their first language; and clinical placements for the final year. Each will now be considered with the exception of English (all participants indicated English as their first language) and their highest level of schooling (this demographic data proved not to be relevant to the study).

<table>
<thead>
<tr>
<th>Age (in years)</th>
<th>Sample Number</th>
<th>Total % of Sample (Approx)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-20</td>
<td>7</td>
<td>25</td>
</tr>
<tr>
<td>21-25</td>
<td>6</td>
<td>21</td>
</tr>
<tr>
<td>26-30</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>31-34</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>35-40</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>41 and above</td>
<td>8</td>
<td>29</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>28</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

There were an equal number of participants at both ends of the age spectrum as identified in Table 9. Ages ranged between school leavers and mature age students 41 years and above. The age of school leavers entering the undergraduate nursing program was between 18-20 years. Twenty five percent of the total population of the students participating in this study fell into this age group. Having recruited participants at both ends of the age spectrum enabled stories to be gathered from participants with varying life experiences and differing maturity levels.
Table 10: Gender Comparison

<table>
<thead>
<tr>
<th>Sex</th>
<th>Sample Number</th>
<th>Total % of Sample (Approx)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>Female</td>
<td>24</td>
<td>86</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>100</td>
</tr>
</tbody>
</table>

The majority of the participants in this study were female (n=24), with only four males as shown in Table 10. However, this is not surprising in that the number of males in the cohort of 135 potential participants who were invited to participate was 16 - a total of 11 percent hence, the number participating is a good representation of the total invited.

Table 11: Prior Nursing Experience

<table>
<thead>
<tr>
<th>Prior Nursing Experience</th>
<th>Sample Number</th>
<th>Total % of Sample (Approx)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil previous experience</td>
<td>11</td>
<td>39</td>
</tr>
<tr>
<td>Enrolled Nurse</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>Assisted in Nursing</td>
<td>11</td>
<td>39</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>100</td>
</tr>
</tbody>
</table>

A total of 53 percent of participants or 15 of the 28 had prior nursing experience as identified in Table 11. Of those, 11 (39 percent) had experience as an Assistant in Nursing. A further four (14 percent) indicated that they were enrolled nurses. Of the four, three indicated they were enrolled nurses with a medication endorsement. A further two (or seven percent) of the participants indicated that they had previous nursing experience in the capacity of ‘other’. The ‘other’ was identified as being a carer. Approximately 39 percent had no previous nursing experience, thus allowing stories to be heard from undergraduates with and without other nursing experiences (see glossary p 296).
Table 12: Employment Status at Time of Interview

<table>
<thead>
<tr>
<th>Employment status</th>
<th>Sample Number</th>
<th>Total % of Sample (Approx)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current employment at time of interview</td>
<td>23</td>
<td>82</td>
</tr>
<tr>
<td>Not employed at time of interview</td>
<td>5</td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>100</td>
</tr>
</tbody>
</table>

The majority of participants, totaling 23 or 82 percent worked in various occupations while completing their university studies as per Table 12 above.

Table 13: Years in the Nursing Program

<table>
<thead>
<tr>
<th>Years in the Nursing Program</th>
<th>Sample Number</th>
<th>Total % of Sample (Approx)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Three</td>
<td>17</td>
<td>61</td>
</tr>
<tr>
<td>Four</td>
<td>6</td>
<td>21</td>
</tr>
<tr>
<td>Greater than Five</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>100</td>
</tr>
</tbody>
</table>

The majority of participants, namely 17 of the 28 (61 percent) were in their third year of the program. Thirty five percent or 10 out of the 28, had been in the program for more than the required three years as a result of either undertaking the course part time or having to repeat individual courses within the nursing program. One participant indicated that this was their second year of the program due to transferring from another university to complete their nursing degree.

Table 14: Type of Final Year Clinical Placements

<table>
<thead>
<tr>
<th>Type of Clinical Placement</th>
<th>Sample Number</th>
<th>Total % of Sample (Approx)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aged Care Facility</td>
<td>18</td>
<td>64</td>
</tr>
<tr>
<td>Community Health Setting</td>
<td>23</td>
<td>82</td>
</tr>
<tr>
<td>Rural / Remote Setting</td>
<td>9</td>
<td>32</td>
</tr>
<tr>
<td>Doctors surgeries</td>
<td>5</td>
<td>18</td>
</tr>
<tr>
<td>Public Acute Care</td>
<td>17</td>
<td>60</td>
</tr>
<tr>
<td>Private Acute Care</td>
<td>12</td>
<td>43</td>
</tr>
<tr>
<td>Total</td>
<td>84</td>
<td>100 x 3 = 300</td>
</tr>
</tbody>
</table>

3 clinical placements for 28 participants
Table 14 profiles the type and number of clinical placements experienced by the participants in general throughout the final year of their degree. The total number of placements was 84. Each participant experienced three rotations. These varied in length. The first and second rotations were four weeks each in duration while the third was six weeks. Of the three rotations, 64 percent of participants had an aged care placement, 82 percent had a community placement, 60 percent had an acute care placement in a public health care facility and 43 percent had an acute care placement in a private health care facility. These figures indicate that all participants experienced at least one acute care placement. All acute care placements were six weeks in duration. While not specified in the table, the placements occurred in 41 different types or organizations.

Each element of the central explanatory concept will now be discussed bringing clarity to the substantive theory of Contingent Reasoning related to Shifting levels of Supervision for Medication Administration. From the outset of data collection, the question in the mind of the researcher, as suggested by Strauss and Corbin (1998), was ‘what is going on here?’. From the first interview through to the very last, participants spoke predominantly of supervision issues in relation to a wide range of situations relating to their medication administration experiences. Supervision influenced these experiences more than anything else. It was central to their practice. They knew supervision was something that they were required to have whenever they were involved with administering medications. It dominated their conversations because their experiences indicated that to obtain it was not always easy. Additionally if they were ‘to get through’ their clinical placement they perceived that they would have to learn to get supervision or deal with what they were offered by the registered nurse. The central
category will now be explained to represent how this one powerful phenomenon had a major influence on medication administration experiences for a group of final year undergraduate nursing students. Data from participants will be included to validate the emergence of the categories. Where participants words are included in the following chapter, a number has been used which represents that allocated to each participant. These numbers are recorded after each quote with participant abbreviated with the letter P. (for example P.5, P.21).

**The Central Category - Supervision**

Upon analysis of the data, *supervision* emerged as the central category that had the analytical power to unite other categories. Prior to considering the categories, an explanation of what participants’ perceived *supervision* to mean, will be given.

**Supervision: A Student Perception**

Supervision was a term used by participants which emerged to having three properties which gave it meaning. These included, *supervision as a university requirement, scope of practice* and *safety - the five rights* (see Figure 7).
**Supervision: A University Requirement**

While participants did not provide a concise definition of *supervision*, they indicated that this was a concept that they were taught at university and were cognisant that this was required/expected of them when administering medications to a patient. For example participant 20 claimed,

... *at uni you get told all the way through ‘you must be supervised, you must be supervised’ (P20)*.

and participant 21 said,

... *it’s the university, we have to be supervised (P21)*.

Participants spoke about knowing that they were not permitted to administer any medication to a patient without the registered nurse being there otherwise they risked consequences. Participant two states what others also revealed,

... *as an RN student, you’re not allowed to give anything without supervision, so you have to wait to give that (P2)*.

For some participants, being aware that they could not administer medications without
supervision meant that they would wait for a registered nurse to be with them. Whilst no participant used the actual term ‘direct’ supervision, they understood that the level of supervision required of them was to have the registered nurse standing beside them and checking the medication from the point of preparation through to delivery to the patient. In the following excerpt, participant 22 spoke of the close level of supervision that students need.

... you have to have the nurse standing there beside you...it had been drummed into us in all of our uni lectures that you have the nurse standing there beside you (P22).

Scope of Practice

The data also revealed that participants understood supervision to include keeping within their ‘scope of practice’. Scope of practice pertains to third year nursing students being not permitted to administer medications without personal supervision from a registered nurse and if negating this then they would be practicing inappropriately. In the following excerpts participant 15 states that they knew supervision was part of their scope of practice whilst participant 24 indicated that students were ‘drilled’ about scope of practice at the university.

... the supervision thing and what’s expected of the RN supervising you... that’s the rules and that’s how it is, that’s the scope of a student’s practice (P15).

We’re drilled ... all the time; don’t go out of your scope of practice (P24).

Further, the data revealed that scope of practice was also a tactic/strategy that participants used when having to explain to registered nurses that they needed supervision for medication administration. Participant 20 explained the discomfort of working outside this scope of practice when the registered nurse expected them to administer medications alone.
I told her I felt really uncomfortable and that, ... it’s really out of my scope, I need you to come with me, I need you to be able to explain and help me identify the client, because I don’t want to be giving it to the wrong person, because just being a student I felt really unsure about giving the medication without the supervision (P20).

**Safety: ‘The five Rights’**

Participants’ understanding of supervision included patient safety for example participant 13 revealed,

> I’ve always been aware that we must be supervised, and I’m, for my patients’ safety (P13).

Participants spoke of supervision as being a safety measure reinforced through conducting the five rights (as explained in Chapter Two). Participants described knowing that part of implementing these rights included having the registered nurse present and that this was part of the university requirements. Moreover, participant eight claimed,

> ... well checking, keep doing your five rights, ... as a student we must have our RN there, you know, I always check when I take drugs out of a box or whatever they’re in, I always turn it over to make sure that what’s in the box is what is in my hand (P8).

The process of the registered nurse supervising and going through the correct steps with them was considered to be time consuming especially when the student had to look up information about the medications. For example participant 27 claimed that they had no time to look up medications.

> ... the fact that you’re not given time, you know, the time to look up the MIMS is later on, not when you’re actually doing the medications because the RNs want to get their job done quickly, you know, you’ve got a, patients to shower, other duties to do, and so, you haven’t got that time to sort of have a look at the medication that you’re giving (P 27).
Despite the time required, participants spoke of wanting and needing supervision. They considered this as necessary for patient safety because it was a way of preventing medication errors (which they considered they were at risk of making). For example, participant 11 explains how thinking of other things and just being human meant they could make a mistake.

...they [the university] drum into us the five rights, three checks and get another one to check, and why we should be supervised, because we’re only human and if we’re thinking of other things and not checking things properly, we will make mistakes (P11).

The fear of making a mistake was also spoken about by participants because they were worried about being in trouble with the registered nurse and the university and possibly failing the clinical placement. This concept is explored later in this chapter in relation to internal conflict.

Participants’ also desired supervision because they questioned their own ability and knowledge level and in particular understanding generic and trade names of drugs (see glossary p. 296). Participant 17 suggested that it was their biggest problem,

the biggest problem is actually identifying the drugs and the generic names (P17).

Many participants claimed that having the registered nurse supervising them was easier because registered nurses’ administered medications on a regular basis and were therefore familiar with the task and various drugs. Supervision and what this term meant in relation to safety, was also identified when participants spoke about not being able to understand medical officers’ writing on medication charts. For instance the
names of medications being administered, the dose, the time and the route were not always clear. Participant 19 stated,

*Doctors’ handwriting...one thing that I hate...you can almost never recognize their writing (P19).*

whilst participant 26 claimed,

*Doctors’ writing is disgusting...They’re still not writing generic names, a lot of brand names used...They’re shocking, they don’t write the times down... between their handwriting and generic brand names, it’s just yeah, pretty atrocious...cause I don’t know the drugs, ... I’m looking at ... going what the hell is that, you know, is that an ‘f’ or is that a ‘c’ or that an ‘x’ or...No idea, you know, I’d hate to be by myself and have no one else around and having doctors’ writing to try and work out, I can’t read it on forms let alone on a medication sheet (P26).*

Therefore the desire to be supervised was reinforced by participants describing that medication administration was a task that they had to get correct. Further, participant 22 described what appeared commonly in the data, that medication administration for undergraduate nursing students was frightening and scary. For example,

*... I shake, I shake when I give out medications, I’m that scared, I’ve knocked over so many little medicine cups full of medication, you wouldn’t believe it, because you’ve got to get it right, you’ve got to get it right, ... we’re petrified and you’ve got to get it right (P22).*

In summary, participants clearly understood that they needed personal and supportive *supervision* when administering medications. As students they knew that *supervision* was a requirement/expectation of the university (namely the School of Nursing), it was part of their *scope of practice* and it was necessary for patient safety. Despite this understanding, the next section of this chapter reveals that participants were not always supervised at the appropriate level. The *supervision* levels presented and/or provided shifted and university requirements/expectations were at times disregarded, patient safety was compromised and *the five rights* abandoned.
Discovering the Basic Social Issue/Problem and Related Subcategories

Shifting levels of supervision (see Figure 6) was a dominant category of supervision and a fundamental component of the resulting substantive theory. As previously stated this meant that the supervision presented and/or performed by registered nurses shifted away from the personal and supportive levels that undergraduate nursing students knew was required/expected by the university. The data revealed that this basic social issue was a problem that had three sub categories. The sub categories included; supervision seeking behaviours; supervision levels presented and/or performed by the registered nurse and; internal conflict as a consequence. Each sub category had different properties and dimensions that provided further meaning to shifting levels of supervision as portrayed in Figure 8. The following section of this chapter will consider each sub category.
Supervision Seeking Behaviours

Participants described different supervision seeking behaviours that they would adopt when involved in the task of administering medications to a patient. These behaviours occurred at two stages. The first stage was the initial medication experience with a registered nurse and the second was the consecutive administration episode with a registered nurse (see Figure 9).
Stage one represents the behaviours adopted when a relationship with the registered nurse was in a beginning stage. Meaning, when the student worked with a registered nurse whom they had previously not been assigned and therefore had to get to know them. At stage one the student was not aware of what the registered nurse required/expected. For example, when the student was in a new clinical placement or when they encountered a registered nurse on a ward that they had previously not met.

Stage two represents consecutive supervision seeking behaviours. These behaviours were adopted when the student was with a registered nurse who was known to them. In other words, they had administered medications with them on previous occasions and the student had already been exposed to the type of supervision provided by that registered nurse. They were aware of what that registered nurse required/expected. Each
stage will be explained followed by an explanation of the common behaviours.

Participant 27 explained the different stages they underwent.

*When you start off you do the right thing- you know you go and try and get the supervision for the medications that you are giving, but next time you’re with that same RN- how you approach it will be dependent on what they were like the first time. Every time you meet a new RN or you go to another ward you start out all over again - you know you go and try to get the supervision but what you do after that depends on what they were like. It’s like you move through stages (P27).*

**Supervision Seeking Behaviours- Stage One**

Participants described seeking behaviours at stage one as *negotiating, chasing* and *waiting*. The intent of the student adopting these behaviours was to gain personal supervision from the registered nurse when administering medications. Participants would perform these seeking behaviours until they worked out what the registered nurse required/expected or in other words, the level of supervision that the registered nurse considered appropriate for the purpose of the student administering medication. The supervision levels that the registered nurses required/expected ranged from personal and close to no supervision at all. In some situations the *supervision seeking behaviours* adopted by participants (which were aimed at gaining personal supervision), would be performed with the initial medication administration episodes only, while others spoke of adopting these behaviours with several medication administration episodes.

In the following excerpt, participant three describes *supervision seeking behaviours* consistent with stage one, and occurring with the ‘first few’ medication administration episodes. At this stage the participant described the registered nurse as watching every little move.
What happens, well, ... usually for the first two or three times we give medications out... the ... nurse that you’re ... buddied up with, they’re really, ...watching every little move, ...but after that ... once they’re confident with you, ... and you show that you’re confident in yourself they usually just let... you go a little bit and give you a little bit of slack meaning, they don’t want to follow you to the person who’s receiving the medication (P3).

However, what also emerged in the previous excerpt from participant three was that after the first few episodes of administering medications, they perceived that they were expected to administer without the registered nurse being with them. As a result, the participant did not bother chasing the registered nurse for supervision again because they knew what the registered nurse required/expected. In essence, the participant had moved into stage two seeking behaviours.

**Supervision Seeking Behaviours- Stage Two**

Participants would describe seeking behaviours at stage two as being consistent with what they knew the registered nurse required/expected and what they had previously encountered. The seeking behaviours at stage two included *negotiating, chasing and waiting* as appeared at stage one and *avoiding*. All seeking behaviours will now be explained.

**The Seeking Behaviours Defined**

*Negotiating*

Negotiation can be defined as a behaviour undertaken by nursing students to obtain supervision from the registered nurse. In doing so the student communicated with the registered nurse so that some agreement could be reached about what level of supervision they would accept for the actual act of administering. Participants indicated
that a large part of their day was taken up with negotiating, resulting in either obtaining close supervision with the registered nurse or accepting a less than desirable level.

Negotiation at stage one was characterized by the student gaining the level of supervision desired because they had provided an explanation to the registered nurse regarding why they needed supervision. In the following example participant ten uses the term ‘explained’ when revealing how they negotiated supervision with the nurse.

… I wouldn’t administer medication unless they [RNs] were there to supervise me and I also explained … that I was a student and I’ve a right to be supervised and we were to be supervised (P10).

At stage two however, negotiation was characterized by the student being willing to come to some agreement with the registered nurse which would result in varying levels of supervision. For instance, participant seven communicated with the registered nurse and suggested that they should not be left alone, however they had to compromise and accept a level of supervision less than what was required of them.

… I’ll say ‘look, you know you shouldn’t be leaving me here’, they’ll say ‘oh, it’s right, it’s right’ and … I’ll say ‘well, look I’m going to go and give Mr Smith his medication, then I’m going to do Mrs, Mrs Blue’, and I tell them exactly what I’m going to do so that if they came in, … they know exactly where I’m at (P7).

The data revealed that negotiation at stage two was often based on the student trying to meet the requirements/ expectations of the registered nurse and was especially apparent when the ward was busy. Participant three supports this notion by initially seeking supervision with negotiation but was willing to accept a less than acceptable level because it was quicker.

… what we did we, we took turns so, once I go give a patient some medication, she’d get the other one and she’d do the other patient and then I’d come back
and she’d watch me dispense them and then I’d go off and she’d do the other person, so it was just a rotation thing. That worked really well, it was quite quicker too (P3).

Negotiation for some participants (at stage two) meant that they were not willing to accept anything less than the registered nurse being beside them. Participant 21 explains,

... she’d say ‘oh, you can do that’ and I said ‘no I can’t, cause I, I’m still a student and I don’t feel comfortable’ and then she’d be like ‘okay, I’ll watch you’. But, most of the time they said you’re so close to being an RN you can do it anyway and then you have to say ‘no I can’t, because I’m not allowed to (P21).

While the act of negotiation was to obtain supervision, participants perceived that they bothered the registered nurse when they sought supervision. Participant 11 uses the term ‘pecking’ to describe this notion:

Oh, you felt like you were always pecking at them, you know, ‘come watch me, come watch me, come watch me’. You just felt like you’re always attention seeking ... you had to remind them because it’s not just me as a student, it’s them as an RN, that are responsible for it so (P11).

**Chasing**

The most common seeking behaviour identified was termed ‘chasing’ and was defined as the behaviour exhibited by students to find the registered nurse in order to gain supervision. *Chasing* emerged from the participants’ words. For example, participant two stated,

... you’re chasing around after the RN to come and supervise you (P2).

*Chasing* behaviour was characterized by the student having to find the registered nurse amidst the every day happenings on in the ward. *Chasing* was considered time consuming as participant 22 described,
I’ve had times where ...I’m running around the hospital looking for another nurse who could just come and stand in the corner of the room while I give out the medications...I really found it hard and I had to go and chase them up to double check what I had done for that, ... I had to go and find him and ask him to come with me and check things and... make sure it was all correct (P22).

Chasing resulted in lost time and participants could not always get on with their other tasks. For some participants, chasing caused frustration because they feared that by not completing tasks allocated to them from the registered nurse their clinical placement and associated grades could be influenced. Participant 26 stated,

... chasing the RN is a big thing, yeah. I’ve found that the bigger the hospital, the harder it is to find them... I don’t think they’d probably appreciated how much it affects your time management, you know, but that was part of the problem because no one would get enough staff, they’re up the other end doing the two RN thing. Nup[sic], no chance, kills your day, kills your time management, makes you look average...because at the end of the day, if your time management sucks, there’s like about four or five or six of the reporting competencies that are going to be sucked back down because of time management (P26).

Additionally, participants worried about the consequences of spending time chasing registered nurses. For instance, participant 26 stated that:

... another way to get yourself into trouble is they’ll say at the end of the day, ‘you know I didn’t see you writing down a lot’ and you’re saying to yourself bloody hell, you know; I spent more than an hour looking for you today, things like that they used to annoy the hell out of me. But you can’t, you don’t say anything to them ... you don’t want to stir them up, you know that straight away so you just bite your lip and just go ‘Brawrrr’(P26).

Chasing involved not only moving around the ward, but if students were in smaller organizations, it could involve the whole health care facility. Additionally, this behaviour led students to adopt time saving strategies such as retrieving the medications for the patient out of a communal ward medication trolley or from a cupboard located in the patient’s room. The retrieving did not involve the registered nurse checking
medications first; rather the student would take the medication with them as they *chased* the registered nurse for supervision. Participant four claimed:

> ... I actually chased my RN around the hospital... I took the medication chart with me and the pills, the pill packet and actually chased him around the ward to actually dispense it before I gave it to someone (P4).

*Chasing* was identified in seeking behaviours at stages one and two. At stage one the student would *chase* the registered nurse. The intention of the student at stage one was to locate the registered nurse to gain the personal supervision that they knew was required by the university. At stage two the student would *chase*, however once the registered nurse was sought, the supervision the student accepted for the medication administration episode would be dependent upon what the registered nurse required/expected as an appropriate level of supervision to give to the student. Many participants at stage two described *chasing* and locating the registered nurse as a reason only to have medications checked prior to administering. The *chasing* did not include having the registered nurse present to supervise the actual process of administering the medication to the patient. Again, the supervision seeking behaviours at stage two were dependent upon what the registered nurse required/expected. *Chasing* the registered nurse for some participants resulted in *waiting*.

**Waiting**

*Waiting* can be defined as a behaviour occurring when the student was left in a situation where they were ready to administer medications to a patient but the registered nurse, who was to supervise, was no longer present. Participants spoke about this behaviour as occurring most often when the registered nurse was called away. Participant four explains,
… you’re actually doing something and they’ll be called away, so you’re
expected to continue with the drugs on your own… my last prac, I was left quite
frequently (P4).

Reasons for the registered nurse being called away included phone calls, doctors’
rounds, or attending to another patient. For some there was seemingly no obvious
reason, the registered nurse just walked away to do other things. For instance participant
26 stated,

… sometimes you’d start and sometimes they’d supervise you for a lot of it, or
sometimes you’d start with say a four bed area and they’d be with you for that
and then they’d walk away and do something else in the middle of it, and you
might only have two done and … before you can do your third and fourth person
… you’ve got to find them [RN] and bring them back and really there’s not a lot
you can do in that period, so you might spend fifteen minutes waiting for that RN
to turn up again, good time management job again (P26).

The above behaviour was evident in the data when participants were at stage one and
stage two. At stage one participants’ spoke about waiting until the registered nurse
returned to administer the medications because they were not aware of what the
registered nurse required/expected. However, in stage two their actions of either waiting
for the registered nurse to return, or to go ahead and administer alone, was based on
what they understood the registered nurse required/expected. When participants knew
that the registered nurse required/expected them to continue on alone they often felt
pressured to do so which is evident by the comments made by participant four and also
participant nine as follows:

If I had of actually stood in the ward with the trolley when I was left, and waited,
just stood there and did nothing, didn’t continue with that person’s pills, … the
attitude that would have come back, which has happened before, is not of
appreciation at all, it’s a case of, you know, you’ve now just put us back further
(P4).

If you stand there and wait and you’re in a medical ward very, very busy, the
RN’s going to come back and think ‘great, I’ve been away for half an hour, this
chick has stood here for half an hour, done nothing, I’m now half an hour behind in my work’, they’re not going to be very impressed, at all. And then you’re going to have stand there ‘well, the uni said that’ and ... it would not go down very well (P9).

For some participants the outcome of waiting resulted in another behaviour termed avoiding.

**Avoiding**

*Avoiding* emerged as a behaviour adopted by participants at stage two only. *Avoiding* occurred when they were in the process of seeking supervision for medication administration but in doing so realized, because of a previous encounter, who the registered nurse was. As a result of a previous negative experience, participants would avoid undertaking the task of medication administration when buddied with that particular registered nurse. For example participants 28 declared,

> You start out to get the supervision then you realize which RN it is and you avoid them like the plague... you know what they are like and you don’t want to go there again...not with that RN anyway (P28).

Further, participants 11 described actions undertaken to avoid medication administration such as:

> ... you try and stay out of their way then, and so you’re not learning fully cause...you’ll go and find something else to do while they’re doing the medication round (P11).

Moreover, participant 15 stated,

> ... you end up making lots of beds and showering lots of people ... I had to be quite sneaky towards the end to, ... try not to put myself in that position where I was going to be asked (P15).
In summary, the data revealed that final year undergraduate nursing students adopt different supervision seeking behaviours. These behaviours vary depending upon whether it is the students’ first encounter with the registered nurse or whether they are administering medications with the same registered nurse on a consecutive occasion. While the seeking behaviours of the students’ have been explained, the following narrative provides an explanation of what occurs for the student after the seeking behaviour has occurred.

**Supervision Presented and/or Provided by the Registered Nurse**

The supervision presented and/or provided by the registered nurse was consistently raised by participants. Supervision was the central topic that influenced medication administration experiences. Supervision was the central category in the data and gave rise to shifting levels of supervision and allowed for the definition of shifting levels to emerge. Participants spoke of the supervision from registered nurses when administering medications as being at different levels. The differences ranged from close, nearby, to no supervision at all. Participant 15 revealed:

> ... some people will see supervision as sitting at the desk and that sort of waving down the corridor as you go and do something...other RNs would be standing by your side as you actually administer a medication (P15).

The levels were labelled as ‘being with’, ‘being over’, ‘being near’ and ‘being absent’. (see Figure 10). Each will be explained and in doing so that it becomes apparent that being with posed no challenges to undergraduate nursing students, while being over, near or absent defied what undergraduate students knew was required.
Supervision Levels Defined

**Being With**

*Being with* can be defined as a level of supervision where the registered nurse was *with* the student during the process of medication administration. This level was consistent with what participants understood as being required/expected by the university and as specified in the *Health (Drugs and Poisons) Regulation 1996* (Queensland Parliamentary Council 1996). Participants used the words ‘*with you*’ to describe this level of supervision. It involved the registered nurse doing the checks and the ‘five rights’ as the following statement by participant 25 demonstrates,

> ... there are ... nurses that’ll stand there with you and do those proper checks *(P25)*.

*Being with* was also described by participants as having the registered nurse by their side. For instance participant 24 reported,

> ... the RNs would be standing by your side as you actually administer a medication *(P16)*.

Participant’s 16 description of the level of supervision was considered positive and was characterized by the registered nurse taking their time and using appropriate resources.
(such as MIMS see glossary p.296) to gain information about the medication during administration. Further participant 20 explained,

... they’ll take the time and they’ll explain the drug and they’ll come to you with questions and what it actually does and everything like that, but they’ll spend the time going through the MIMS to flick through the drugs and that’s been a positive experience, where they’ll actually go through the whole thing with you and they really help, I’ve found that it’s only in certain areas that they’ll spend the time in doing it (P20).

Participants also spoke of the registered nurse at this level as being patient, empathetic and caring. For example, participant one revealed,

There is the RN who is standing there with you ... patiently, smile on her face you know, ‘okay, take your time, do it right’, you feel comfortable to do it, take your time and do it right (P1).

However participant 15 claimed,

... those are the nurses who are empathetic and really want to help you do it right and want to encourage you (P15).

Equally significant are participant’s 19 comments,

... those are the RN’s that care ... that you’re ...going through the ...rights and that you know the medication you are giving, why you’re giving it, what the patient’s health status is like (P19).

Overall participants wanted to be with this type of registered nurse because the medication administration process was ideal. Participants viewed the registered nurse in this situation as caring, a good role model and someone whom they wanted to be like.

For instance, participant 19 also claimed,

... those nurses that are brilliant they are sort of an idol like, a role model you want to be them when you become a professional, they may be tough but they are doing it for our sake... I always treasured ... having an RN that cares about what they are doing (P19).
Participants described *being with* level of supervision as occurring more often at the outset of their clinical placement and reduced as the placement proceeded. No specific timing was consistent among their stories as to when this reduction would occur and therefore is an area that would benefit from further research. For a small number of participants *being with* occurred, on occasions, throughout their entire placement but not with every medication episode because it depended upon which registered nurse they were with. For the majority, *being with* occurred anywhere from the first few days to a week of their placement. The variations are demonstrated by the following comments by participant 12, 11 and five:

... for the first couple of days that I was with each RN, they ... kept a good eye on you, and then after that and once you got to know ... the residents, they tend to let you just run off and do your own thing (P12).

Supervision is like, we were doing our three week block and once you’ve done the first week, the RNs thought it was fine to leave you go around doing the medications yourself (P11).

They do it, you know, for the first couple of times and then that’s it, you know, like oh, you’ve done it a couple of times, now you’re right (P5).

In general, when participants encountered this level of supervision they did not experience conflict; rather the process of administration was smooth.

Because *being with* rarely appeared in the data as occurring for participants for all medication administration episodes it was not considered reflective of what the majority of participants were saying about their experiences. The following supervision levels of *being over, being near* and *being absent* appeared more commonly in the data. These levels caused internal conflict for participants because they moved away from the close and supportive supervision participants sought. Each will now be explained.
**Being Over**

*Being over* was identified as a level of supervision where the registered nurse was in close contact but stood ‘over’ the student. In other words the student perceived that the registered nurse was positioned over their shoulder and displayed a rushed and hurried approach. Unlike the close and personal level of supervision there was time to question or undertake the thorough checks required when administering medications. Participant two describes the rushed approach.

... a person standing over your shoulder going ‘this has to be done, now, hurry up’ sort of attitude you know (P2).

*Being over* level of supervision partly met with university requirements because the registered nurse was in close proximity, however, it was still not considered ideal due to the non supportive and rushed approach. Additionally, participants revealed that at this level they rarely referred to resources such as the ‘MIMS’ (see glossary p.296) because there was insufficient time. Therefore participants were unable to gain the necessary information about the medication prior to actually administering. Furthermore, participants spoke about fearing making a mistake because the registered nurse was not allowing them to move through the steps in medication administration in a thorough and safe way. Even though participants were concerned about this level of supervision as participant 19 explained, they perceived they had to go along with the nurse.

You don’t, you don’t have time to look things up, like ... what is this for? What am I giving this for? ... and when they’re in a rush you feel obliged to just go through and not think, like just let them think for you (P19).

Participants did not portray the registered nurse who provided this level of supervision in a positive light. For instance participant 15 said,
they think of you as someone that’s getting in the way and they wish you’d just leave them alone (P15).

Registered nurses were commonly described as ‘drilling’ and ‘impatient’ which would cause the participant to become ‘flustered’. Participant 20 supports this notion:

*I get flustered, because if they are there, they’re asking you a billion questions, ‘What’s this drug? What’s it do? How does it interact? What should you be looking for? What are you supposed to be asking?’ and really drilling you and making it really difficult (P20).

Further participant one added,

*She stood there tapping her foot ‘come on, we could get on with this’ type of thing... they’re just the impatient RNs ... I don’t like being with them (P1).

**Being Near**

*Being near* was a level of supervision described most commonly by participants to indicate the registered nurse being within visual range when administering medication but not beside them. Participants knew this level did not meet expected standards. In the following excerpt participant one uses the word ‘admit’ to indicate that they had in the past administered medication with this level of supervision.

*I’ll admit to the RN’s being at one bed and I’ve been at the bed beside them, we’ve both been giving out medications at the same time. But I won’t do it if they’re not in the room (P1).*

*Being near* level of supervision occurred most often when the registered nurse was busy and participants claimed that the registered nurse took this approach because it allowed them to get on with other ‘things’ while still *being near* the student. These other ‘things’ included attending to other patients including administering medications to them or answering their call bells. For example, participant six revealed,
You just go through it all, ... always with the nurse in the room, usually she’s running around busy, whatever, but I always get her to check before I give to the patient and tell her which one’s which and how many and go through all the rest (P6).

Participants described this level of supervision as becoming more apparent after they had been in the clinical placement for some time because the registered nurse had developed trust and confidence in them. Some were content to accept this level of supervision because they liked the fact that the registered nurse felt this way about them. However, others spoke about the fear of being in trouble if they were found/identified by a faculty member from the university for administering medication with the being near level of supervision. Some spoke of mixed feelings which are summarized by participant 13.

So, she went next door and talked to the patient there and did something with that patient while I was completing this drug, I mean, she wasn’t looking directly over me, but ... I could see her the whole time. I had no ramifications from doing that, ... she was very, very happy just to stay in ... the vicinity in my eyesight while I did it [administered medication]. I was quite confident, I knew exactly what I was doing, I felt very comfortable but it was sheerly again, that experience of someone failing for having done something like that. And in the back of my mind all the time when that was happening was, God, if my facilitator walks in and I’m sitting here pumping IV’s into this guy, I am going to be dead meat (P13).

**Being Absent**

*Being absent* was when the registered nurse provided no supervision to the student.

Participants understood that this level did not meet requirements. *Being absent* arose most often when participants were left in a waiting situation after the registered nurse had been called away or when the registered nurse had an expectation that the student should administer medications alone. This is discussed separately in the next section of this chapter. The registered nurses expectations are explained by participant five.
they expect you to know what you’re doing, and then they’ll just say ‘oh you go and give the drugs’ and they’ll just walk along behind you half an hour later and countersign… and you’re administering drugs … while they’re off in the next bay doing something else, they’ll say ‘well, you start here with your administration and I’ll meet you halfway’ (P5).

Absent supervision also emerged in the data as occurring along a continuum. Participants did not describe this at the outset of their clinical placement but rather towards the end. For instance, participant 26 stated,

... by the time I got to the end of my prac,... I wouldn’t be supervised as much, they might come in and come out, if they felt that they need to stay with a patient (P26).

In describing absent supervision, participants spoke about their impression of the registered nurse as someone who didn’t care or that they were too busy to supervise. In some circumstances they felt that the registered nurse did not want them there as suggested by participant 19.

There are nurses that don’t care. Like some nurses you get put with you have to shove the medication under their nose and say, this is 500mg on such and such, so you know that they aren’t checking... they reckon you should be doing it by yourself... They don’t have time to check and bother about what you are doing (P19).

‘Shifting Levels of Supervision’ Categorized

The results of this study revealed that different levels of supervision are presented and/or provided to undergraduate nursing students by registered nurses when they are administering medications in the off campus clinical setting. However, the levels are not always close, personal and supportive as required. This study identified that three levels occurred which were inconsistent with the latter. These included the registered nurse being near, being over or being absent. All three have been categorized as shifting levels of supervision. Each had defining aspects as summarized in Table 15. The results
of this study also identified that certain conditions influence levels of supervision provided to undergraduate nursing students. The next part of the chapter will consider these in greater detail.

**Table 15: The Defining Aspects of Each Level of Supervision**

<table>
<thead>
<tr>
<th>Levels of Supervision</th>
<th>Direct/Indirect</th>
<th>Defining aspect: The Supervision Type</th>
<th>Defining aspect: Characteristics of the Registered Nurse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being With</td>
<td>Direct</td>
<td>The registered nurse stands with the student. The student is able to do the ‘checks’. Apparent in early part of the placement. Diminishes over time.</td>
<td>Takes their time, Uses resources, Patient, Empathetic, Caring, Positive role model.</td>
</tr>
<tr>
<td>Being Over</td>
<td>Direct</td>
<td>The registered nurse is personally close but is standing over the shoulder. Most apparent when the registered nurse is interrupted by the student.</td>
<td>Hurried, Busy, Drilling, Scary, Poor role model.</td>
</tr>
<tr>
<td>Being Near</td>
<td>Indirect</td>
<td>The registered nurse is within visual range to the student. The registered nurse is usually in the same room. Usually occurs when the registered nurse is busy.</td>
<td>Busy, Has confidence in student, Friendly, Trusting</td>
</tr>
<tr>
<td>Being Absent</td>
<td>Neither</td>
<td>The registered nurse is not present. Occurs in a waiting situation. Occurs when RN expects student to administer as a third year. Apparent in later part of clinical experience.</td>
<td>Busy, Uncaring, Poor role model.</td>
</tr>
</tbody>
</table>

**Conditions Influencing Levels of Supervision**

The conditions influencing levels of supervision provided and/or performed by the registered nurse were identified and related to each other as a result of analysis using the
Conditional Relationship Guide (Scott 2004) as discussed in Chapter Three. The types of conditions identified included casual, contextual, and intervening. Strauss and Corbin (1990) explain casual as the events or incidents which lead to the issue. Contextual are the events or incidents taking place and intervening are those which either constrain or facilitate actions and interactions taking place (Browne & Sullivan 1999). The conditions have been categorized under the *attitudes of the registered nurse* (casual), *communication with the university* (casual), *busyness of the ward and having time* (intervening and contextual) (see Figure 11).

**Figure 11: Conditions Influencing Shifting Levels of Supervision**

![Diagram](image)

*Attitudes of the Registered Nurse*

Participants referred to the registered nurses ‘attitude’ as influencing the level of
supervision provided. Attitude was a term used to represent a broad range of factors. In sorting through the data the central properties of attitude included whether the registered nurse wanted the student, whether they were told about having a student, what they expected of a third year student and whether they were university educated or hospital trained. Each of the different properties surrounding attitudes will now be discussed.

**Wanting Students**

The attitude of registered nurses described by many participants appeared to reflect whether the registered nurse wanted students in the clinical area or not. If the registered nurse wanted a student, then their attitude was described as ‘positive’. When the registered nurse had a positive attitude students perceived that medication administration episodes were less challenging. However, if the perception was to the contrary then medication administration episodes were described as problematic.

Participant nine claimed,

> If your RN’s attitude is just, they just don’t want to be there, they don’t want students, they don’t want anyone, yeah that’s not going to go down very well, like it just, every single medication administration is a problem... every RN is very different...., different attitudes like you’ve got the nurse that sort of says you know, ‘that’s fine, yes I’ve seen them, you’re right keep going’... I’ve had pretty good ones who’ll go ... ‘you have to do this, cause this part of what you have to do’ (P9).

Further participants used the term ‘inconvenience’ to represent what they perceived the registered nurse’s perception was about them being in the ward. However, some participants expressed that they pretended the attitude didn’t exist as evident by the comments from participant 27 and later participant four:
you get the attitude. It’s like ‘oh shit,[sic] here’s the students again’, you know
‘I’m sick of these students, I’m sick of having them around, they’re a bloody
[sic]inconvenience’, not like ‘g’day, gee it’s really good to see you, it’s
wonderful that you’ll be joining in our team or group’(P27).

... sometimes it’s a hassle for ... staff ... like ‘oh God, we’ve got another
student’ ... it’s a case of you actually have to sort of ... pretend it doesn’t exist.
You actually have to put up, like ... you have to ignore their negativity, ... which
I do a lot of (P4).

When participants spoke of not being wanted they perceived the clinical placement was
less than conducive to their learning. In terms of medication administration they
described episodes of not getting any supervision or commonly they would have to
interrupt the registered nurse and ask for supervision. This would result in the registered
nurse providing a being over level of supervision. The impact of the registered nurses’
negative attitude was defined by participant one as,

... attitude towards students on the ward I think was really one thing. I mean,
I’ve been to a ward where we were greeted with the ‘Oh F[sic] not more
students’ and that was a really rough placement, I didn’t get very much out of it
(P1).

Participants also spoke about learning to accept negative attitudes such as participant
five who described this as something that she had to ‘get over’.

... yeah, their attitude towards students, for sure, is an issue. You know, how ...
they see us as coming out of, out of uni. You know... ‘oh, my, God, we’ve got
students to look after’. And that’s a really big thing to get over at first, you
know; and you really sometimes have to push to say, hey, can I do that? ... I’ve
done the competency, I can give that medication,...can I do that?... because a lot
of the time they just, they don’t want you there, so they pretend like you’re not
there (P5).

Some participants said that not being wanted resulted in them avoiding medication
administration as they did not want to be with the registered nurse who would make
them feel nervous and flustered. As participant 16 explains, when feeling this way they
believed there was an increased chance of them making mistakes.

*It appears quite clear sometimes when you walk on at the beginning of the shift that you’re not wanted there and I guess that sometimes … I start getting nervous and flustered and I could easily make a mistake with medication administration... I would start doing it and get it wrong because … I’ve got myself all flustered cause I know that I’m with someone that doesn’t want to be with me* (P16).

However, participants also spoke about coming across registered nurses with an attitude of wanting them there and feeling welcomed. The outcome of this was that medication administration was a smoother process. Participant 11’s statement supports this notion,

*… if you’ve got an RN that really makes you welcome into the organisation and everything when doing medications seem to flow a lot easier, it does, it makes it, so much helpful* (P11).

**Being Told**

Further comparative analysis of the data found that participants perceived the registered nurses’ attitude was influenced by communication and whether or not they were told they were being allocated a student. Participants suggested that when the registered nurse was allocated a student without choice they would be greeted in a less than happy manner. Participants spoke about this situation as being unfair to both the registered nurse and them. For example participant 23 and participant 16 explained,

*… like the nurses aren’t given even a chance to say whether they want a student or not, they’re just sort of told ‘well, you’ll have this student today’, whether they like or not, sort of, and I don’t think that’s fair on them either. And then they … take that out on the student during that shift, cause they didn’t want to have a student in the first place* (P23).

*... if they [RN’s] are, not given a choice ... and if told to precept I suppose you have to, but it doesn’t seem fair to make it harder on the student* (P16).

When this situation occurred, participants spoke about the general atmosphere around them and the tone of the environment. They perceived that these registered nurses were
often those who were not given a break between students. Participants did not blame the registered nurses as participant one explains,

... I don’t know I could totally blame them. They had two other students from another university on the ward at the time, ah, they’d just gotten rid of six students from another university ... I think they were expecting a few weeks free of students more or less and that didn’t happen (P1).

However, participants also became frustrated when registered nurses were not aware of being allocated a student. An example of a participant’s experience with a registered nurse who was not informed about having a student until arriving on the ward was provided by participant two.

I mean, I had a nurse ... she was very quiet and wouldn’t speak to me ... I got the impression the whole time that, I was thinking, what’s wrong? You know, am I not doing the right thing? ...I ended up saying, look, have you got a problem ... with me working with you? Anyway she hadn’t been told that she had a student until she got to work... she looked like she was near tears half the time, and I was getting near tears and I was frustrated with the whole situation, ... I ended up hitting her up and saying, 'look, you know, have you got a problem with me working with you tonight? Cause I can go home’ and I was furious (P2).

University Educated versus Hospital Trained

Whether the registered nurse was university educated or hospital trained was also identified as influencing the registered nurses’ attitude about supervision and how much supervision they provided. Registered nurses who were university educated were considered more aware of the requirements surrounding supervision and were often described as stricter. For example participant one stated,

...a university trained nurse is a very strict kind; a hospital trained nurse seemed to be a little bit more relaxed about it (P1).

Moreover, participant 22 relayed,
...and you find that the RNs who’ve only been out for a little while, they are more understanding and they’ll come and stand next to you because they know what it was like to be the student (P22).

Participants perceived that university prepared registered nurses were more aware of the legal requirements and policies because they too would have had this form of education. Meaning, the university educated registered nurses were perceived as being more likely to undertake the three checks and the five rights as outlined in Chapter Three. When speaking of the difference, participants often described university educated registered nurses as the ‘younger ones’ and the ‘older ones’ as hospital trained. For instance participant 10 stated,

... when I was on, rostered on with younger nurses and they could be up to about five, eight years out of uni, ... They were very good at checking that the five rights were completed, they were very good at reading up the drug interactions book, checking that you had looked up MIMS (P10).

Furthermore participant 15 said,

I had all sorts from new grads right through supervising me on different shifts, ...Some of the younger ones understood cause they remembered their pracs (P15).

**Expectations of Third Year Students**

The registered nurses’ expectation of third year students was also discussed with regards to attitude. Participants perceived that because they were ‘third years’ they were expected to administer medications on their own. Participants attributed this expectation of the registered nurses to students being near completion of their course which implied that they were to get used to the ‘real world’ as a registered nurse. Examples of this are provided by participants 17 and 20:
... she said to me that because I am a third year student that I should ... know by now the, ... checks and everything, and she’s not going to watch me do everything (P17).

...because they think that you’re a third year student at this stage you should be able to give medications on your own because you’re nearly finished (P20).

Participants also perceived that the registered nurses’ considered a final year student as an ‘extra pair of hands’ capable of taking on a workload. Participant 15 best summarized what many other participants suggested,

*I think part of it they see you as an extra pair of hands and... as a third year, expect you to be a capable, you know, able to take a patient load, to do everything for your patients and you know, have minimal supervision. That’s how they see you, that’s how they want you to be (P15).*

Participants also discussed the pressure they felt to conform to the registered nurse and how difficult it was when they would tell them to go and administer alone. The expectations would then result in the registered nurse providing *absent* supervision or at the most a *near by* level. Whilst participants spoke about placements across the final year, the very last placement was the one in which they felt the expectations were most apparent. This would often result in them agreeing to accept *absent* supervision. The conforming is supported by participant 25.

*... they were expecting me to be able to administer without supervision in my final weeks and I did (P25).*

The reasons why participants accepted the inadequate levels of supervision will become clearer later in this chapter when discussing *Contingent Reasoning*. However, in addition to the attitudes of the registered nurse, participants often spoke about the communication that the registered nurse received from the university. They perceived that this influenced the level of supervision that the registered nurse would present.
and/or provide.

**Communication from the University**

Communication from the university emerged as an intervening condition. This was spoken about from two aspects. Firstly, the communication forwarded to the clinical area from the university about the students’ arrival and secondly the information provided to individual registered nurses’ about what was expected of the students. This differed from ‘being told’ which related to the registered nurse being allocated a student without a choice. In discussing communication, participants spoke about the breakdown that appeared to occur between the university and the clinical area and as a result, registered nurses were unaware of the scope of practice of students as participant eight describes,

*If they don’t know the students’ are coming at the beginning of the shift, they get chucked in ... righto, you’ve got student X, whatever... So, they don’t actually have like, an outline of our scope of practice (P8).*

Participants spoke about the consequences that would transpire when communication was not received. For example participant 19 describes being put in the position of having to tell the registered nurse of their requirement for supervision with medication administration.

*...if the communication's broken down and the preceptor doesn’t have the information of what’s expected of them from the university, they don’t know. ... it goes back to the supervision thing and what’s expected of the RN supervising you, if they don’t know that you know, that’s the rules and that’s how it is, that’s the scope of a student’s practice, then they’re going to question it, and they’re going to say ‘why can’t you just give, go and give this ... to Mrs Bloggs down the end of the corridor?’, and I’ll go ‘well, I know it sounds stupid, but you have to actually see me give it, you know, that’s, I’m not employed here, ... as students it’s very hard to have to explain all that to someone. ... I’m used to it now, this prac I was really good at it because I’d had to do it for nearly every other prac I’d, I’d been on (P19).*
Additionally participants spoke of the difficulties that they encountered when having to tell a registered nurse that the supervision was also their legal obligation. For instance participant 15 claimed,

... when I got to this prac, for whatever reason, the clinical nurse supervising me knew nothing about me, the paperwork hadn’t got to her, it had sat on someone else’s desk and she didn’t know I was coming, what day I was coming, what was expected of her ... and she never actually saw that paperwork for the whole six weeks I was there. ...she didn’t have anything from the university... you know, the things that are required of an RN supervising a nursing student... it puts us in a terrible spot when we have to tell them their legal obligations ...you know, they should know it ...there’ve been ...all sorts of communication problems both from the university end and from the hospital end, ... it really makes it doubly hard for the students if they have to instruct the instructor (P15).

Further analysis of the data revealed that part of the problem with the communication being provided to registered nurses, acting in the preceptor role from the university, was lack of preparation from preceptor or mentor workshops. Without workshops information was unclear. Participants described the lack of information as a problem because the registered nurses did not always know how much supervision to provide. Participant 27 provided the following account,

*It’s the university’s responsibility, they need to tell the registered nurses what is expected, they need to spell out about medication administration and supervision because the RN’s don’t always have the knowledge of what students are supposed to do. The uni has to do this better in preceptor workshops and the problem is I don’t think that happens because the RN does not get it from the uni ...so the registered nurses get frustrated cause they have no idea about the students and they just don’t have the time to read stuff on the day the student arrives (P27).*

Furthermore, participants also believed that it was not their responsibility to inform registered nurses of the content that should be included in the preceptor workshops as outlined by participant 16,
... more time on how important is to, to be supportive of the needs of... where
the student is coming from, why the student needs to be supervised, ...and it’s
not just a safety issue, it’s also ...for my own piece of mind, I want somebody
there and I shouldn’t have to make them be there, ... I don’t really feel that
should be my role, although I ...have had to do that at times (P16).

Despite lack of communication from the university as influencing supervision, the most
frequently spoken about condition by students was how busy the registered nurses’ were
in the ward and whether they had time to supervise students. The following section of
this chapter addresses this final contextual condition.

**Busyness of the Ward and Having Time**

Overwhelmingly participants spoke about the busyness of the ward and the limited time
the registered nurses had to supervise them when administering medications. They
spoke about how it seemed unrealistic to expect registered nurses to go through the
steps of administration at the level expected by the university when they had so little
time. Even participants, who tried to do the right thing in gaining full supervision, spoke
that this would break down when they could not look up the medications that they
administered until the end of the shift due to the lack of time available during the actual
administration period. In other words, students administered medication without
knowing about them. The concept of not having the time is supported in the following
excerpts from participants five, 15 and four.

_There’s not enough time given to them for us to go through things slowly, you
know, they don’t have the time to go slow with us because they’ve got other
things to do on top of meds, you know, meds is the easy part of their job really,
and they just need to get it done, get it out of the way. But with us, you know,
now we’ve got to look up the MIMS and ask ‘hey, yeah, what does it actually
do?’, and because we ask question, ... you know, they’ll, sometimes they’ll roll
their eyes at me, like, you can see them sort of tapping their feet, can we hurry
up with this?(P5)._
...they don’t want to invest time um, cause they’re busy, they’ve got their own patient load, they’ve got ten other things to do (P15).

...It’s a case of um ... they don’t have the time to sit there with a student. ... they don’t have the time to be there with us while we dispense it[medication] (P4).

Additionally, many participants believed they were a burden to the registered nurse when the ward was busy and their perception was confirmed from the non verbal cues that the registered nurse displayed. Consequently participants said they felt afraid to go and ask the registered nurse to supervise them and guilty about taking up their time as evidenced by participant nine and 24.

... when they are busy... they do not have time for us, and asking an RN is just like the scariest thing on the face of the planet that you’ve to do, and you’ve sort of got to go up and they’ll snap and have a go at you ..., because they just don’t have time (P9).

... suppose ... it’s hard when ... you’re in that situation because the nurses are all under pressure of trying to get everything done and I suppose you feel ... guilty thinking well, you know, the, the RN has to supervise you ... hopefully you’re not going to have a RN that... puts you on your toes all the time and wants you to do things really quickly and expects them done now (P24).

Busyness was perceived by participants as a reason why registered nurses would not provide supervision as participant 20 states,

... they’re [RNs] too busy thinking about everything else that’s got to be done, rather than ‘okay, this is the medications we want to show, like help the student through how to deliver these drugs safely (P20).

Participants’ perceived busyness also as a risk when they were being supervised by the registered nurse because the checking process was not as thorough as it should be. Participant one stated,

I mean, you get a busy ward, things are rushed off your feet, it can get very, very slack on the checks. The nurse wants to get the round done and get onto other things. Um, the other times you get a very, very quiet ward and they’re all over
you like a rash, it’s, it seems to boil down to their loads, ... every single situation is different (P1).

Furthermore when the registered nurse was supervising but was rushing, the students also reported being nervous and ‘panicky’ as supported by participant 24,

... you can’t think where your head is, you’re just panicky, sort of become more nervous than what you are anyway because you, you’re just thinking I hope I’m doing everything right and cause the RN may have not checked everything thoroughly, ...cause I mean, you know, RNs, especially when it’s busy, they don’t, they’re, I mean they’re not thinking exactly clear-headed either and everything’s going quickly for them and that’s when, sort of, errors and stuff can be made (P24).

Moreover, when the registered nurse was busy, participants also spoke about having to find other registered nurses in the ward for supervision. Meaning the student would find someone who was willing and available as participant four described.

I ... asked one person to help, they [sic] were too busy so they told me to ask someone else, and, oh, when I went and asked her she was too busy as well, so I went and got someone else (P4).

On some occasions when students could not find a registered nurse to provide supervision they would have medications checked by the enrolled nurse. However, more alarmingly, participants reported asking an assistant in nursing (who was not qualified to administer medications themselves) to check medications. Fortunately, this did not appear frequently in the data and thus, does seem to represent student experiences generally.

In summary, a variety of conditions were identified in the data as influencing the level of supervision that the registered nurse presented and/or provided. Attitude was revealed as relating to whether the registered nurses wanted a student, whether they
were told they were having a student, the expectations they had of final year students and the educational background of the registered nurse. Additionally the communication from the university and the busyness of the ward were also identified as conditions. The conditions determined the supervision levels presented and/or provided by the registered nurse. When being over, being near or being absent, was presented and/or provided, the participant experienced internal conflict which will now be explained.

**Internal Conflict in Response to ‘Shifting Levels of Supervision’**

Internal conflict emerged for undergraduate nursing students when confronted with shifting levels of supervision because of opposing expectations. In other words participants understood that there were university requirements/expectations about what was an acceptable level of supervisions and then there were individual registered nurse requirements/expectations. It seemed that what students were taught at university with regard to the supervision required when administering medications was not always consistent with that which occurred for them in the clinical setting. When participants were placed in a situation involving shifting levels of supervision they became worried about what to do for fear of compromising their clinical placement assessment. Compromised clinical placement assessment was about the consequences of either being found or identified by a faculty member from the university for administering without the required supervision or displeasing the registered nurse for not doing what they required/expected. Compromised clinical assessment was also about fearing making a mistake and risking patient safety which was perceived to ultimately mean being in trouble. Both were considered by participants to equate to possibly failing the clinical placement. These will be explained as properties to internal conflict. The
opposing expectations ultimately became the central property of internal conflict (see Figure 12).

![Figure 12: Internal Conflict and its Related Properties](image)

Internal conflict manifested in words used by participants including **being scared**, **worried** and **frightened** when confronted with **shifting levels of supervision** at the time of a medication administration episode. The following excerpt from participant five provides evidence of how the descriptive terms appeared commonly in the data but were used interchangeably to represent what participants experienced.

... it’s scary because what if I give them the wrong thing, or what if I miss something that I shouldn’t have missed. ... That scares the crap[sic] out of me ...

... I worry that I’m going to give the wrong medications to the wrong person (P5).

Participant 23 used the word ‘frightened’ to represent the conflict they perceived.
You’re... just frightened that you’re going to hurt someone or, or kill someone or, be frightened of making mistakes because the mistakes are just so severe (P23).

Participant nine describes being frightened as fear of failing if doing the wrong thing which they described as an error,

... maybe fear of failing the subject cause you’ve done something wrong, yeah, I think that’s probably the one yeah (P9).

Participant 13 described being frightened as sheer terror,

... for me it was the sheer terror of actually failing (P13).

Each of the properties of internal conflict will now be discussed.

**Opposing Expectations**

Participants perceived that they experienced opposing expectations from the university and the registered nurse in relation to being supervised, performing the five rights and conducting the appropriate checks when undertaking medication administration. Some participants spoke about the difference between what they were taught at the university about supervision when administering medications compared to what actually occurred in the clinical setting. In the following excerpt participant 22 describes the difference.

I don’t think that the RNs who were supervising me understood ... the way that we’ve been taught at university about the importance of having someone to supervise us. And I also think that they didn’t understand the implications of what would happen if we did make a mistake, ... I think the RNs who are supervising us need to understand ..., the consequences of and how important it is to us to be supervised with all medications (P22).

Additionally participant six stated,

Um, I just think at uni, you learn the technique, but it’s absolutely nothing compared to what you do on the ward (P6).
Participants also spoke about the variation in policies, a word they used interchangeably with requirements. They knew what was expected but this often differed to the ward policies. For example, participant 15 revealed,

I think the only real thing was … what we were taught at uni and what we were taught… in the ward ..., like the ward policies were very different (P15).

In general participants verbalized that differences made it difficult because they perceived they had to do what the registered nurse required/expected them to do. However, the participants stated that this was partly attributed to feeling in a subordinate position and therefore they believed they could not question the registered nurse. Participants 15 and 21 highlight the perceptions of subordination.

I think, for me, the biggest thing out of everything is, is the difference between um, what we’re taught with medications and what actually happens in the workplace, and ... how we have dealt with it, the difference ... as a student you’re in a, ... subordinate position, you’re not in a real position to say ‘well, this is the right way to do it, this is what we’re taught’, you do say ‘this is what I’m, we’re taught’, and the response is almost always ‘well, here we do it blah, blah, blah’(P15).

... I’d say ‘oh, well this is how we’ve been taught at uni’, ...and she said ‘that’s not how I was taught’ ..., I said ‘oh, that’s how we do it at uni and that’s how we’re supposed to do it ... like then I’d play ‘well, I’m sure that you do it the right way as well’ and you know, you’d be saying, this is the right way but don’t get offended the way I’m saying it, like you’re always worried, you know that you doing some of the right things but then she had, because she was really not up to date with the new, the evidence base practice, you’d have to make sure you’d do what she asked (P21).

Being in a subordinate position was also described by some participants as meaning they ‘lacked power’ to question shortcuts in supervision with medications. Some participants claimed that lacking power was escalated by the university not being aware of the true culture of the ward setting and students needed to be taught the culture.
Participant 28 explains.

You need to ensure the students feel they have some power over their situation on the prac. Give them a real idea of ward culture...comments such as "you're the people that will change things” may be relevant once students are actually RN's, but when in the student/RN situation, these comments only serve to alienate the student from the uni, and the RN's. These comments only serve to make the student feel as though the uni has no idea of the ward culture and student experience, and reduce the power students have in the situation, because (students feel) if the uni is saying that, then the uni either has no idea of what is really going on or the uni doesn't care, they are "glossing" over the real experience and sugar coating real ward culture. If students have no power, then they are not going to argue with RN's re shortcuts (P28).

Participants also spoke about how strong the internal conflict was because just wanted to fit in as participant two explained,

... some are understanding that you've been taught a different way and some are not understanding and want you to do it their way. ... It's very hard when you're trying to fit in, which is a big thing with nursing (P2).

The data also revealed that the conflict from the opposing expectations began to narrow particularly in the last weeks of the last placement in the final year. However, the narrowing emerged as participants conformed more towards doing what the registered nurse required/expected in the clinical area and they became more influenced by what was happening in the clinical setting as opposed to adhering to the university values. In the following excerpt from participants 20 and then nine, the influence of the registered nurse is clearly evident.

Well, everyone’s got a different way of doing it, so you’re sort of influenced by how they’re doing it (P20).

If you’ve got a very careless nurse, ...you just think oh my God ... if they’ve done it I can do it, you’re mislead from their example. But if you’ve got a very proactive nurse in the way that they do things, you’ll actually find that you’ll pick up those traits and use them next time you go to do something. ... if you ... do have a careless nurse, you will definitely, in your practice, pick up their bad
habits. And especially if they don’t have time to show you the right way, they’ll show you every shortcut, and it’s not necessarily the best way to do it (P9).

**Compromised Clinical Assessment**

Part of the internal conflict that participants spoke about when confronted with the shifting levels of supervision was being found or identified by a faculty member from the university for not having direct supervision and fearing displeasing the registered nurse (perceived as the assessor) by refusing to accept what level of supervision they offered. Hence, the data revealed that compromised clinical assessment was about the participant trying to meet the university requirements/expectations and the registered nurse requirements/expectations.

**Meeting the University Requirements/Expectations**

Participants spoke about the need to meet university requirements/expectations in terms of always being supervised for medication administration because if they did not they risked being in trouble by the university which could result in failing the clinical placement. They spoke of their concern about being found or identified by a faculty member from the university administering medications without supervision. Avoiding being in trouble was their number one priority. For instance participant 23 stated,

*I don’t want to get into trouble, like, that’s sort of my number one priority (P23).*

Additionally participants also spoke about being graded poorly which might mean failure of their clinical placement. The following excerpts from participants 16 and 10 describe what many participants consciously struggled with.

*... I’m just not going to take chances with my future. ... I want it too much, and I just can’t compromise by yeah, having a mark against me saying that I’ve gone beyond that level and getting in trouble for doing so ...the consequences to me*
... we're meant to be able say that, that I wasn’t to touch any medications without supervision, otherwise I would be failed immediately and there was no way in the world I was going down that track (P10).

The fear of being found or identified by a faculty member from the university for administering without the required supervision and thus being ‘in trouble’, caused participants internal conflict. However, even greater levels of conflict were experienced with regard to what would transpire in relation to their clinical assessment if they did not adhere to the registered nurse’s requirements/ expectations.

**Meeting the Registered Nurse Requirements/ Expectations**

Many participants spoke about registered nurses as being the ones who would give them their final grade. Meaning that students did not want to get the registered nurse off side’ because that could result in failure. For instance participant seven claimed,

... students would just do as they were told, for fear of failure. Because if they didn’t, they could be failed...Even though they knew from whatever learning they have, that it’s wrong, they would still do as they were told because, you know, you know no one wants to fail at anything (P7).

Further, participants spoke about how it would be problematic for them not to accept whatever supervision the registered nurse presented and/ or provided. The following statements by participants 19, four and five demonstrate what other participants alluded to:
You’re out there to impress the nurse you’re with, nothing else matters, yeah, like and if you do stand up to them then they see you in a different way and then you are treated unfairly (P19).

... and the thing is like, you just try to make them happy... ultimately these people who grade you and the last thing your going to do is to piss them off to get failed (P4).

... these people are assessing you, you can’t, you can’t say anything, they’re assessing you. They’re people you need as references when you’re going to get a job, you don’t need to have them offside (P5).

Therefore, the need to please registered nurses caused students varying levels of conflict. The conflict was however, dependent upon the level of supervision that the registered nurse presented and/or provided. Each level of supervision had defining aspects that contributed to the conflict experienced as discussed further in this chapter. Participant 20 provides an example of the internal conflict they experienced when supervision was not provided by registered nurses.

... I felt really unsure about giving the medication without the supervision... they say ... if you’re not confident enough to give medication by yourself, what are you competent at doing? And you’re doubting yourself, ... I should just do it....Keep them happy and that way, you know, I’ll get my assessment done, ...but then I don’t want to be going outside, ... at uni you get told all the way through ‘you must be supervised (P20).

The internal conflict outlined was a precursor for participants to make a decision about whether or not to go with what the registered nurse expected/ required. This is further discussed under the process of Contingent Reasoning.
**Compromised Patient Safety**

A further property of the sub category *internal conflict* was compromised patient safety because without supervision participants feared making an error. The error in turn could harm the patient as participant 12 revealed,

*I’m very scared of making medication errors...the medications will make my patients sick and then they’ll get sick and I’ll be trouble and they’ll die...I’d be scared of telling the uni because they would fail me (P12).*

The thought of making an error was also about the fear of being failed in their clinical assessment as participant 12 previously alluded to. The fear was confirmed by participant eight.

...to do anything unsupervised, it just wasn’t worth making an error...it’s just too big a risk...and I really don’t want to fail. ...I just felt that was protocol from, from the university that you know, that we don’t do it, you know (P8).

The internal conflict that participants experienced was heightened for many because of stories that they had heard from other students or from what they described as those told by lecturers at the university.

**The Stories**

Participants spoke of the stories about students who had failed clinical placement because they were found, by a faculty member from the university, to be administering medications without supervision. Excerpts from participants 11 and 13 support this.

Yeah, I was, I um, worried because I know I had a one other student that actually got failed because he administered medications without supervision (P11).

Um, I trace it back to a particular incidence when one person at the university was failed for giving a medication without a nurse being there (P13).
Participants spoke about stories of students who had left the university due to the conflict they experienced from being forced to do what the registered nurse required/expected when administering medications. Participant 27’s statement supports this claim,

... I know damn well that it’s happened ...that they have been told to do something, if you don’t do it, you know, you’re going to be in strife, she said ‘I don’t have to do that with you’, and I know it happened.. it made them ... actually leave the university because they didn’t like that tactic... what happened was that this young lady that I know was told to go over there and get those drugs and give it to the patient. She said ‘no, I can’t do it without your supervision’, ...she was basically told to get the pills out of the closet and go and deliver the pills, ... she was going to be in for it, ...because she didn’t do what she told her to do (P27).

Further participant 11 also told a story about a student who was persuaded to do things that he or she was not comfortable to undertake.

I was talking to a... student, she was telling me she was having a horrendous time with an RN ... she is a bully, and this girl does not like to say ‘excuse me, can we just do it this way?’ , she likes to um, take least resistance. And, once that RN knew that she takes least resistance, she just kept making her do more and more things that the student didn’t feel comfortable in doing (P11).

Overall participants spoke about not only failure of supervision or doing things that the registered nurse required/expected, but also of errors that they had heard about, witnessed or experienced. Participant 18 highlights how they were petrified about the stories told by lecturers to highlight mistakes.

... we had lecturers talking to us about ... the mistakes that other students have made... I was absolutely petrified ... I was that scared (P18).

Some participants spoke of stories being in their thoughts when administering medications. The stories further compounded the internal conflict that they experienced in terms of deciding what they should do when confronted with shifting levels of
supervision. The data revealed that each level contributed to internal conflict in
different ways. Table 16 provides a summary of the conflict however, a discussion
explaining the conflict at each supervision level will follow.

Table 16: Internal Conflict at Each Level of Supervision

<table>
<thead>
<tr>
<th>Shifting Levels of Supervision</th>
<th>Direct/Indirect</th>
<th>Conflict</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being Over</td>
<td>Direct</td>
<td>Hurried</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worried/scared risk of error</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Interrupting the RN</td>
</tr>
<tr>
<td>Being Near</td>
<td>Indirect</td>
<td>Worried/scared risk of error</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fears being caught by the University-failure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fears RN no longer seeing them as confident/trusting</td>
</tr>
<tr>
<td>Being Absent</td>
<td>Indirect- Nil</td>
<td>Worried/scared risk of error</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fears displeasing RN - refusing instructions/failure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fears being caught by the University-failure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fears what to do in the waiting situation</td>
</tr>
</tbody>
</table>

Conflict at each Shifting Level of Supervision

‘Being Over’

Being over was a level of supervision that made participants feel hurried as illustrated
by participant two,

... a person standing over your shoulder going ‘this has to be done, now, hurry
up’ sort of attitude you know, and pulling out more drugs and giving them to
you rather then letting you find them yourself and find what those drugs are for,
you know, I mean (P2).

Moreover, the hurrying contributed to some participants being worried about what they
were doing and also making a mistake as indicated by participant 22 and then 24:

... she’s hanging over my shoulder and ... I’m looking through all these
different medications trying to find the right one and she’d just plunk [sic] it out.
...doing things before I could even get to them and things like... not letting me
have time to go through my little routine and... double check ...the expiration
date... medications with her was a lot more stressful ... even though she’s
standing over my shoulder and plucking out the cases for me, it took me longer
to do the medications, because I was getting all frazzled and worried about what
I was doing (P22).
... you were hurried, so that's where I’m really worried, especially with medication errors because I hate being hurried... especially if I’m unconfident in administering a certain type of medication like, especially if you have to draw it up and stuff [sic] like that because I like to think about what I’m doing and if I don’t have time to think about what ... I’m doing, I, I tend to think I’m doing it wrong because I haven’t thought about it myself (P24).

Additionally, the internal conflict that some participants spoke about when experiencing this level of supervision was based on their previous experience with a near miss medication error. Participant 22’s comments support this claim,

... I had the RN was standing there right over my shoulder extremely close and, you know, ‘come on, we’ve got the doctor’s rounds to go’ and I popped out the wrong pill for an evening medication and I would have given it, but she pulled me up, I didn’t realise my own mistake, ... because of the hurry, she wasn’t checking my drugs as, as thoroughly as she would have checked her own and, and she would’ve given medication, if I had just put them in she would have just given them (P22).

Being over was described by some participants as a level of supervision which necessitated them having to interrupt the registered nurse from what they were doing in their already busy day. Participants spoke about how the interruption would cause them concern because they feared that they would displease the registered nurse who could in turn make the process of administering medications harder. Participant 20 supports this claim,

... they feel like they’ve put them out of joint by asking them to supervise, so they’ve got all these other things that they’ve got to be doing, so if they’re going to supervise, they’re going to make it as hard as possible... because I’ve gotten so flustered with everything else that’s going on that you’re like ‘what do I have to do next?’, so it makes it really hard (P20).

‘Being Near’

Being near was a level of supervision that caused internal conflict because participants felt divided between doing what was required/expected by the university and also
meeting the requirements/expectations of the registered nurses’. Participants understood that the being near level of supervision did not meet university requirements/expectations yet they perceived that they still had some degree of supervision because the registered nurse was within visual range. Participants spoke of being worried about being found or identified by a faculty member from the university (as previously discussed). However, participants also indicated that they did not want to refuse this being near level of supervision because they believed the registered nurse trusted them and had confidence in their ability to administer medications with this level of supervision. Furthermore, participants did not want to compromise the opportunity of helping out and pleasing the registered nurse.

Internal conflict at the being near level also existed because participants feared that without the registered nurse’s supervision they were more likely to make a mistake. Participant 26 shared an episode of having a near miss with a medication error because the registered nurse was not supervising closely.

Some RNs don’t even look at what you’re doing on the sheet. … like I had one where I didn’t give a tablet and had to go back and give it later and it was only because I was going through afterwards that I … picked it up that I hadn’t given that tablet... That’s happened once … some RNs will just … look the other way, ‘... yep you’re doing it right’ (P26).

‘Being Absent’

The level of supervision that caused participants the most conflict was being absent. Participants spoke about the registered nurse not being there which they knew was wrong. As a result they were worried about a number of things; being found/identified by a faculty member from the university, making a mistake and the consequences of not
doing what the registered nurse required/expected. Participant nine expresses the discomfort they experienced.

... when she first said ‘oh, go do it’, I felt ... uncomfortable thinking in the back of my head - is this right? Should I actually pull her up and say ‘well, you should be with me the whole time’ (P9).

Absent supervision was spoken about by participants on many occasions during interviews, but most commonly when they were in a ‘waiting’ situation. The internal conflict arose because participants had to decide whether to administer medications without the registered nurse or wait for their return as discussed by participant five.

Um, I had stood there before and waited for them to come back, and when they come back ‘haven’t you given them yet?’, I said ‘no, well you haven’t checked them’. And, and being told to ‘oh, well, you know, that’s what you’re here for, you’ll, you’ll be right, you’ll be, you’ll be doing that by yourself in no time’, expecting that I would do that, when, I’m not allowed to...but they push you to do it (P5).

In summary, internal conflict experienced by participants was caused by shifting levels of supervision. Each shifting level posed different challenges for participants. The internal conflict then became a trigger for participants to respond and deal with the level of supervision that confronted them. The next part of the chapter will present the decisions and actions of participants in response to shifting levels of supervision which resulted in a pattern of behaviour fundamental to the development of the substantive theory (Glaser 1978).

**Unveiling the Process for Dealing with Shifting Levels of Supervision**

Dealing with the shifting levels of supervision was a manifestation of the central category supervision and involved a process triggered by internal conflict. The process
was labelled as *Contingent Reasoning* (the second dominant category to supervision). *Contingent* meant that participants would make decisions depending upon the conditions at the time of a medication administration episode. Such conditions could influence their possibility of *getting through* the clinical placement. This took into account that each episode of medication administration was different although it was mostly dependent upon the registered nurse allocated to the student. *Reasoning* was the intellectual activity which resulted in participants making a decision about the level of supervision they were prepared to accept in order to proceed with the actual act of administering the medication to the patient. Additionally, the decision would further influence the type of supervision the participant would then seek out to administer medications when with that same registered nurse again. The seeking behaviour was categorized as *stage two seeking behaviours* as discussed earlier. The decision about what level of supervision to accept resulted in a pattern of behaviour involving actions. The ultimate intention of these actions was for the student to *get through* their clinical placement. The decision making process, as identified in the participants’ stories, involved two different phases as schematically represented in Figure 13.
Each phase will be discussed in the following sections. However, it is important to note that *Contingent Reasoning* was not a process undertaken by participants when the supervision level of *being with* was presented, because as previously stated, no internal conflict was experienced.

**Phases of Contingent Reasoning**

**Phase One: Weighs up priorities to ‘get through’**

Phase one, triggered by internal conflict, involved the participant ‘weighing up’ their priorities about whether or not to accept the *shifting level of supervision* that the registered nurse presented/provided. They could either accept what was offered and
proceed with the actual act of administering the medications to the patient or choose to refuse unless close, personal and safe supervision was available. ‘Weighing up’, involved balancing what was considered most important to the participant at the time, but always with the intention of getting through.

The following excerpt by participant 22 uses the phrase ‘weigh up’ to describe what they had to do in order to make a decision.

... they state to you that they will be expecting you to give out medications without their ... observation ... and I felt that it was a bit dangerous, ... Anyway, it was a bit ... awkward because ... all of the nurses who were overseeing me were sort of saying the same thing so I sort of had to weigh up the fact that they were the ones who were marking me (P22).

The dilemma for participants was adhering to what the university required/expected or what the registered nurse required/expected. The university requirements as previously stated was understood by the participants to mean close, personal and supportive supervision. The registered nurse requirements/ expectations were considered to be pleasing them and doing what they expected in order to pass the clinical placement.

‘Weighing up’ occurred quickly for participants and was influenced by the level of conflict that each supervision level posed (see Table16) as well the conditions surrounding them at the time. Participant 27 revealed,

... you know from the time that you feel the conflict in terms of deciding what to do is so quick, you know you have to decide whether to go ahead and administer medications with the RN there hanging over you or standing in the next room or even not being there. You have to make a decision about what you are going to do with the medications in no time at all and all these things are going through your head- you just hope that you get on with the RN because it’s like a rollercoaster and the thing is you have to get through your prac (P27).
As previously stated ‘getting through’ was the driving force for participants to make the decision about what to do. This was a term that emerged consistently in the data to mean passing the clinical placement. When participants spoke of getting through this was linked to the grades they would be given and avoiding failure as outlined by participant 20.

... as a student, you’re thinking I’ve got to get through, at the end of the day I need that assessment... I need to make sure I get, get my level three, so if I just keep going about my business and make sure I do what I need to do (P20).

Additionally, participants perceived that getting through encompassed securing a job at the end of their final clinical placement. Participant 22 supports this notion.

... in our third year, we’re looking for jobs at the end of the year as registered nurses so, your final placement in third year ... you’re going to ... be judged for whether you’re going to get a job or not (P22).

For some participants getting through, namely passing the placement and ultimately securing a job, meant doing what the registered nurse required/expected however, only if the registered nurse provided the required close and personal level of supervision that the student knew was required. For other participants getting through meant doing whatever the registered nurse expected even if this meant accepting the responsibility of administering without any supervision. The ultimate goal of participants at this latter level was to please the registered nurses by doing anything that they asked. Participant 27 explains,

...like, if you’re delivering drugs without any supervision, how the hell would anybody know if you were doing it properly...I think that why people do what they do, it’s so that they will get a job...To please ... so they will get employed... a lot people will do basically anything to get employment (P27).

Participants spoke about ‘looking good’ as a way of impressing the registered nurses.
Some participants believed that to ‘look good’ they had to abide by the university requirements/expectations while others perceived that by not seeking supervision all the time made them ‘look good’. Participant 18 explained,

... of a lot of students really try to make themselves look good, especially if they're in the last placement they want to get a job in that place so they want to look efficient, not like ... going back to get the nurses all the time (P18).

Decisions and actions varied as participants ‘weighed up’ their priorities with every medication administration episode in order to get through. Upon further analysis, different patterns of behaviour emerged according what was the most important priority. Some participants made decisions that met university requirements, others met with the registered nurse requirements/expectations while others tried to meet both.

**Phase Two: Decision made and action implemented - resulting in a particular pattern of behaviour**

The patterns of behaviour, based on priorities, were categorized and termed ‘Levels of Contingent Reasoning’. The participants’ experiences suggested that they positioned themselves in one of these levels depending on the various conditions that influenced their decisions at the time. The three levels identified were labelled as:

1. norming for survival of self,
2. conforming and adapting for self and benefit of others, and
3. performing with absolute conscience.

The conditions that influenced participants’ decisions were *the relationship with the registered nurse as the assessor* and *the attributes of the individual*. These are discussed further in this chapter.
Each level of *Contingent Reasoning* will now be discussed. Table 17 provides an overall summary of each level. Figure 14 schematically represents the level of supervision accepted at each level, while Figure 15 represents the consecutive supervision seeking behaviours (Stage 2) consistent with each level of *Contingent Reasoning*. These will become clearer as this chapter unfolds.
### Table 17: Levels of Contingent Reasoning

<table>
<thead>
<tr>
<th>Priority</th>
<th>Level 1: Norming for Survival of Self</th>
<th>Level 2: Conforming &amp; Adapting for Self &amp; Benefit of Others</th>
<th>Level 3: Performing with Absolute Conscience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority</td>
<td>To get through.</td>
<td>To get through.</td>
<td>To get through.</td>
</tr>
<tr>
<td>Priority</td>
<td>university requirements &lt; registered nurse requirements/expectations</td>
<td>university requirements = registered nurse requirements/expectations</td>
<td>university requirements &gt; registered nurse requirements/expectations</td>
</tr>
<tr>
<td>Actions</td>
<td>Do what ever the registered nurse asks and expects</td>
<td>Compromises to meet RN expectations</td>
<td>Won’t administer without Supervision</td>
</tr>
<tr>
<td>Actions</td>
<td>‘Fit in’ at any cost</td>
<td>Not tell the university if supervision is not apparent</td>
<td>Saying No</td>
</tr>
<tr>
<td>Actions</td>
<td>Not rocking the boat- keep the registered nurse happy</td>
<td>Not tell the university if supervision is not apparent</td>
<td>Not tell the university if supervision is not apparent</td>
</tr>
<tr>
<td>Actions</td>
<td>‘Suck up and shut up’</td>
<td>Key words Compromising, no tell</td>
<td>Key words Saying no, no tell</td>
</tr>
<tr>
<td>Actions</td>
<td>Not tell the university if supervision is not apparent</td>
<td>Key words</td>
<td></td>
</tr>
<tr>
<td>Key words</td>
<td>Do what ever, fit in, suck up, shut up, no tell</td>
<td>Compromising, no tell</td>
<td>Saying no, no tell</td>
</tr>
<tr>
<td>Levels of supervision accepted</td>
<td>Accept any level of supervision without negotiation with/near/over absent</td>
<td>Will accept levels of supervision as negotiated with the registered nurse/preceptor- with, near, over, absent on rare occasions if negotiated and can see benefit-</td>
<td>Will accept levels of supervision – with and over only Refuse to administer if not supervised</td>
</tr>
<tr>
<td>Levels of supervision accepted</td>
<td>If left in a waiting situation – will administer without supervision if this is thought to please the registered nurse</td>
<td>If left in a waiting situation – will wait to administer with supervision unless negotiated and can see the benefits</td>
<td>If left in a waiting situation – will cease administration</td>
</tr>
<tr>
<td>Consecutive administration practices-Stage 2 Seeking behaviours</td>
<td>Will implement supervision seeking behaviours as expected by the registered nurse negotiation with/ without accommodation, chasing, avoiding, waiting</td>
<td>Will implement supervision seeking behaviours to obtain direct supervision, however if negotiated will consider variations. Negotiation with/ without accommodation, chasing, avoiding, waiting</td>
<td>Will implement supervision seeking behaviours to obtain direct supervision without accommodation, chasing, If cannot obtain supervision will avoid administering medications.</td>
</tr>
</tbody>
</table>

Kerry Reid-Searl 2008
Figure 14: Supervision Levels Accepted at Each Level of Contingent Reasoning

Figure 15: Supervision Seeking Behaviours (Stage 2) at Each Level of Contingent Reasoning
Levels of Contingent Reasoning

Level One: Norming for Survival of Self

The first level of Contingent Reasoning: norming for survival of self (see Table 17) can be defined as the final year undergraduate nursing student accepting supervision levels from the registered nurse that meet with what the registered nurse requires or expects. The students’ priority at this level was not meeting university requirements as explained by participant seven.

"... everything you do is to accomplish a pass or better, and if you don’t accomplish that the only other option is to fail. So you do what you have to do to get that pass ..., and if it is going against something well, you know, people will do that because (P7)."

In weighing up their decision about what to do in response to the shifting level of supervision, participants at level one of Contingent Reasoning spoke about how the registered nurse was the person to please and impress. Participants perceived that it was in their best interest to comply with whatever the registered nurse wanted. In the following excerpts participant 19, sums up what other participants at this level stated.

"... all you’re there for is to impress the RN you’re with really, nobody else (P19)."

Further, participant 25 elaborated on what others spoke of with regard to pleasing the registered nurse as a means of getting the ‘marks’ required to get through the clinical placement. Adopting the behaviours to gain the ‘marks’ outweighed everything else including the university requirements, referred to as policy. For example participant 25 said,

"If it comes to getting marks or following policy, we’ll go for the marks pretty much every time (P25)."
Participants positioned at this level also spoke about the actions that they would undertake take to ensure that the assessment from the registered nurse would be positive when faced with shifting levels of supervision. Participant 27 explained this concept.

> If you, if you’re stuck with somebody who can be a right pain in the arse and you don’t get the supervision you need, more than likely people will change their tactics to try and make that assessment work. So if you get somebody who you are finding difficult, you will try and do whatever you need to do to make your assessment stick...they will almost do anything to not worry, to not upset people (P27).

The actions typified at level one of Contingent Reasoning, were described by participants (see Table 17). These actions were labelled as:

- doing whatever the registered nurse asked or expected,
- fitting in at any cost,
- not rocking the boat,
- sucking up and shutting up and
- not telling the university if supervision was not apparent.

Each action will now be explained following section of this chapter.

‘Whatever the Registered Nurse Asks’

This concept reflected the action whereby participants would accept any level of supervision from the registered nurse in order to proceed with administering the medication to the patient. Again, this was a strategy to avoid compromising their clinical assessment. Although participants spoke of their internal conflict in accepting any level of supervision, they would conform to expectations in order to pass the clinical placement. Participant 20 explains.

> I wasn’t getting the supervision...Well, at the end of the day you’re thinking, I need my assessment...Just do what they ask, just don’t, don’t sort of get on the
bad side of them, make sure that you do everything they ask and put a smile on your face and look like you’re enjoying it (P20).

‘Fit in at Any Cost’

‘Fitting in’ was commonly spoken about as not only doing what was asked, but also in relation to complying with whatever was happening in the clinical area, even if it meant contravening what they knew was right. For instance participant ten stated,

… students have had to do things, including myself, to fit into the culture (P10).

Additionally participants described consequences of not ‘fitting in’ as described by participant 11.

… well, if you don’t think you fit in, feel you fit in, you think that the RN’s just got you there under sufferance and … you become hesitant, and start making mistakes and of course that compounds… then you get flustered and you keep making the same mistake (P11).

Furthermore ‘fitting in’ was identified as a strategy which avoided being spoken about negatively by others and this was considered important for securing a job as outlined by participant 25.

Administering without supervision… it might be contradictory to what you’ve been taught at uni… it’s to fit in…, and that’s one of the major ones that I’ve felt, just to fit in, cause … when I’m going to be working there in the future and I don’t want to be seen as an outsider, cause I mean, … everybody picks on the person that is different, … it’s big that one (P25).

‘Not Rocking the Boat’

Participants used the metaphor ‘not rocking the boat’ as a way of avoiding a clinical assessment ‘mark’ that could lead to them failing the placement. Therefore, if the registered nurse presented and/or performed supervision that was not what they knew was required/ expected from the university, then they would not question this at all.
Students would administer medications in the manner that the registered nurse required/expected so as to maintain harmony and avoid negativity which could result in being awarded a poor clinical assessment ‘mark’. For example participant 25 said,

...if you rock the boat you’re either going to have really unfriendly staff towards you, or you’re going to get a bad mark (P25).

Followed by participant nine’s comment that,

... if you rock the boat too much you’re going to like, be punished really badly in marking, and that’s pretty much it (P9).

Further, participant 22 revealed,

...well, you can’t rock the boat because they’ve got your final marks in their hand … I spent my six weeks trying to fit in as much as could, so by rocking the boat, squealing that they were doing the wrong thing was really, not only I couldn’t… say ‘no, I’m not going to give out that medication’…you’ve really just got to do whatever they want and please them (P22).

Because staff were perceived as ‘assessors’ it was considered important to work with them and to remain agreeable as participant 23 explained,

... if you want to get passed or you want a good mark you need to say what people want to hear or you need to behave how the rest of the people are behaving on the ward (P23).

‘Suck Up/Shut Up/No Tell’

The above terms were used by participants on many occasions to indicate that they had to be nice and not saying anything despite sometimes being placed in difficult situations. Participant five states,

...you suck it up, you be nice (P5).
The word ‘shut up’ suggested being quiet about whatever they saw or did in relation to supervision and the act of administering medications. Participants five and 23 best explained ‘shut up’.

... and you don’t say ... ‘just don’t tell, you know, don’t tell the uni this is how we do it’ (P5).

... with regards to medication administration you’ve got to shut up if you see something go on, and not say a word (P23).

Participants claimed ‘shutting up’ was used as a means of avoiding conflict, similar to ‘not rocking the boat’. For instance participant two said,

... I keep my mouth shut, you know, if I see something that is, you know, depending on the RN that I’m talking to, I will question myself as to whether I should raise that issue...because I don’t want to cause conflict, I don’t want to make this process harder than it already is (P2).

Some participants perceived that there were consequences if they did not adhere to ‘shutting up’. The consequences included being excluded from the ward culture. In other words participants perceived that they would not have a sense of belonging and without this they risked not being trusted. Participant 23 provides and example.

People quickly learn that you are one that will say something and you are one that will say what you firmly think or firmly believe and ... you’re not in the circle then, they don’t trust you (P23).

‘Shutting up’/ ‘no tell’ was also described by participants as a strategy to avoid being awarded a clinical assessment ‘mark’ that could in turn interrupt their success of getting through the clinical placement. Participants 22 and 23 described this association.

If you don’t go along with what they’d like you to do, which is give out medications and they feel that you’re, you’re not competent in giving out those medications, then they’re going to mark you down... yeah they do like you to just sit down, shut up and go along with what they’ve said because that’s the way
that they do it and because we’re, as a student we’re really outside to the organization (P22).

... if a student speaks up or feels that things aren’t quite going as they should be, you are basically told ‘you are a student here, shut up’... you’re frightened that if you speak out ...that’s going to impact negatively on your assessment. And even if you were saying it and you were in the right, you still don’t fully have that confidence to say anything, just in case it comes back on you when you go to get marked... (P23).

Participants also gave examples of ‘shutting up’ because they were afraid to stand up to the registered nurse which they perceived as possibly impacting on their relationship.

Participant 21 explained,

... the RN was saying well; just do what I say it doesn’t matter about the legislation. ... and she was, sort of very stubborn in her beliefs, ...cause I’m a shy person I was kind of afraid to stand up to her to... we wouldn’t have a good relationship... cause if you stood up ... the rest of your shifts would just be a nightmare. And then you might be worried about how she’s going to mark you, cause you’re...saying what she’s doing is wrong and you know, undermining her ...she’s the person that says that she’s been doing it for so many years, and she actually said to another nurse ‘what would they know, I’ve got more experience than her’, you know, just even the way she talked it, it made me, I just had to be quiet and listen to her (P21).

Moreover, the concept of ‘shutting up’/ ‘no tell’ was a strategy that participants used to protect themselves from failing their placement by the university. In other words they would not tell faculty members within the university if inappropriate levels of supervision were provided to them or if they were involved in a medication error in case of being failed. Participant 22 described this.

Well, I didn’t feel comfortable saying anything to the university, because if I did then they’d be saying well, you’ve given out a medication without being supervised, and ... I’ve already done the wrong thing, so I might want to say something, but as ... you know that everyone does it but no one says it, you just know that if you say it then you’re going to get yourself in trouble, but if you just shut your mouth it should be fine, the uni shouldn’t find out about it ...and the nurses that are doing it to you, they sure as hell aren’t going to tell everyone
that, ... they don’t watch the students when they give out the medications, they’re not going to tell that back to the uni, are they? (P22).

The levels of supervision that participants accepted at level one of *Contingent Reasoning* included any behaviour that they perceived necessary to ‘please the registered nurse’. Meaning, that whatever level of supervision the registered nurse presented or performed including being *with*, *near*, *over* or *absent* (see Figure 14) was accepted. If left waiting, the participant would be willing to administer medication and do whatever they thought would please the registered nurse.

**Consecutive Seeking Behaviours (Stage Two) at Level One**

For those participants who shared stories at level one of *Contingent Reasoning*, it seemed that when students encountered the same registered nurse again, they would move into stage two seeking behaviours which are consistent with performing to please the registered nurse (see Figure 15). For example, if the registered nurse had previously indicated to students that they were to chase them, wait for them or negotiate, then the participant would accommodate this behaviour. At the same time, if the registered nurse did not expect the participant to seek them out for supervision, the participant would also oblige.

For some participants, stage two seeking behaviours did not cause them any conflict because they perceived they knew what the registered nurse required/expected. Some were content with not expecting to be supervised. An example of this is from participant nine who described herself as being confident (using the word ‘pumped’)
after being allowed to administer medications solo and furthermore did not need to seek others to check medications.

... to be by yourself straight up...I thought, okay, yeah I can do this, I don’t need ...someone to always double-check it... I was pretty pumped after that (P9).

In the following excerpt participant three explained how they had a ‘system’ with the registered nurse that worked well. They had used the ‘system’ before in previous episodes of medication administration and despite the fact that there was no direct supervision they did not perceive it necessary to obtain closer supervision. The participant actually made defensive comments when telling the story indicating that they did not want to be supervised closely.

... the nurse watched me, you know, dispense the medication but, ah didn’t follow me to the patient a lot..., you know, I didn’t need to be watched like a hawk (P3).

Other examples of stage two seeking behaviours at level one of Contingent Reasoning are those described earlier under the seeking behaviour of waiting. Participants gave examples of waiting for the registered nurse after they were called away during a medication administration episode. They spoke of being reprimanded by the registered nurse for not having proceeded with the medication administration process and thus holding them up. As a consequence, when moving into stage two seeking behaviours, if faced in another waiting situation with that same registered nurse they would proceed to administer medications without the registered nurse being present. They could not cope with the thought of displeasing the registered nurse again.

In summary, the participants who spoke of medication administration episodes consistent with level one of Contingent Reasoning made decisions about supervision
levels that were aimed at pleasing the registered nurse. If the registered nurse provided inadequate levels of supervision the student would accept this notion.

**Level Two: Conforming and Adapting for Self and the Benefit of Others**

The second level of Contingent Reasoning was *conforming and adapting for self and the benefit of others* (see Table 17). Level two represented patterns of behaviour adopted by participants where their priority was meeting both the registered nurses requirements and those of the university. Both were equally important in order to get *through* and pass their clinical placement. Participant 21 provided an example of this balancing process.

... so you have to make sure you agree with them, but then at the same time you have to do what’s best for you and best for the patient (P21).

Further, in the following excerpt participant 18 describes how meeting both demands posed a challenge to them.

And they had faith in me and I guess that is ...quite scary because ...they’re trusting me and having faith in me and my wisdom, and yet they’re asking me to do something that I’m not meant to be doing. And...because they’ve got this feeling that oh, soon I’ll be out there in the real world ...it would be nice to, start treating me like nearly an RN (P18).

In general, participants at level two of Contingent Reasoning also spoke about the actions that they would take. The actions were labelled as ‘*compromising to meet expectations*’.
‘Compromising to Meet Expectations’

Compromising involved undertaking actions where participants would do what they perceived as beneficial to all; the university and the registered nurse. The most common level of supervision accepted by participants positioned at this level was being near. Being near was considered to be beneficial to the university in that, there was still supervision apparent with the registered nurse being in the room and within visual range. The benefit to the registered nurse was that this level of supervision allowed them to get on with other tasks and the patient could be given their medications on time. Participant 19 provided an example of compromising when administering medications at a near level.

I can say I’ve always being supervised and if not... is like a very busy day ..., I’ll go get the trolley, bring the trolley to the ... room. I’ll get the chart, get the tablets out. Then I’ll take it to the RN and say this is what I am giving, that’s the order. And she’s like yep can you go give it, without supervision (P19).

Participant six also provided an example of being near and also used busyness as a rationale for their action. Additionally participant six also justified their behaviour indicating that they at least had the medication checked.

You just go through it all, ...always with the nurse in the room, usually she’s running around busy, whatever, but I always get her to check before I give to the patient and tell her which one’s which and how many and go through all the rest (P6).

As placements progressed and participants became more confident, they gave more examples of medication administration episodes reflective of level two of Contingent Reasoning. In some examples participants spoke of accepting no supervision at all. Again they justified their choice, even though they knew it was wrong, because they were relieving the busy registered nurse and were ensuring that the patient got their
medications on time. Participants five and four provide examples of the justifications that were given.

... they’ll just say ‘oh you go and give the drugs’ and they’ll just walk along behind you half an hour later and countersign. You know, and you’re administering drugs that, you know that, while off in the next bay doing something else, they’ll say ‘well, you start here with your administration and I’ll meet you halfway’. ... Back to the time thing, you know, you’re helping them with their time management (P5).

... I actually continued administering the medications, I put them one of those paper cups and then when my person came back, ... I actually showed them and said you know, ‘there should be five pills here, I have five pills in there’. Other than standing there waiting them, for them for twenty minutes, that was the next best thing that I could do. And I mean, I know that I’ve done the wrong thing ...But I mean, it’s a case of some people have to have their pills, you know (P4).

Therefore when making a decision about what type of supervision to accept, the participant positioned at this level was willing to accept being with, being over and being near without much hesitation. Being absent was reluctantly accepted on a few occasions during a waiting situation when the registered nurse had been called away (see Figure 14).

What also emerged in the data was that when participants administered medications with less supervision than was required at level two of Contingent Reasoning, they would not report this to the university. The reasons were consistent with what was explained in level one of Contingent Reasoning and furthermore participants wanted to adhere to what was expected of them by the university. Participants did not want to risk being detected undertaking any incorrect procedures because they perceived the repercussions of being in trouble and failing the clinical placement as too formidable.
Consecutive Seeking Behaviours (Stage Two) Level Two.

Participants who shared stories at level two of Contingent Reasoning revealed that, when encountering the same registered nurse for a repeated medication administration episode, they would adopt stage two seeking behaviours. The behaviours at stage two were consistent with those at stage one in that they would perform to balance what they knew was required/expected by the university but would also meet the requirements/expectations of the registered nurse. Thus, participants would still attempt to seek out the close and supportive supervision that they knew was required by chasing, negotiating and waiting (see Figure 15). However, if close supervision was not available participants would continue to compromise and also justify their decision. In a waiting situation participants stated that they would prefer to wait, however if they knew the patient needed their medications on time, or that the registered nurse was really busy, they would reluctantly administer alone. The following excerpt portrays how participant seven justifies administering medications alone sometimes because the registered nurse had watched the process before.

... I know, well as a student it is having that RN there with you, even though sometimes they do, like ‘you’ve done this person before, you’re right’, or in my case I’ve often been given keys um, ...to the drug trolley and told oh, that ... they’ve supervised me doing this room before and I can go ahead and do it. ..., but I’ve taken my time, I haven’t rushed ...the fact that ... I’ve got these drugs ... they’ve left me in charge, I can do this without them watching me ...(P7).

In summary, the data revealed that participants, who spoke of medication administration episodes reflective of level two of Contingent Reasoning, would adopt and perform actions when administering medications that were considered balancing the registered nurse requirements/expectations and university requirements/expectations. The aim of participants at this level was to get through their clinical placement.
Level Three: Performing with Absolute Conscience

The final level of Contingent Reasoning identified from the analysis of the data was performing with absolute conscience (see Table 17). Performing with absolute conscience occurred when participants accepted supervision levels from the registered nurse that complied with university requirements/expectations and legislation. When confronted with shifting levels of supervision, participants accepted nothing less than the personal, close supervision that they knew the university required as opposed to meeting the registered nurse requirements/expectations. Participants gave examples of being at this level in single medication administration episodes when beginning their clinical placement or when commencing a new relationship with a registered nurse. A minority reported such episodes when nearing the completion of their placement.

In analysing the examples of medication episodes reflective of this level, it was identified that participants would make reference in their descriptions as to what they knew was required. Some, like participant 24, suggested that administering without supervision was outside of their ‘scope of practice’ and that they were ‘not covered’ to do so. Meaning that because students were not registered nurses it was against the law for them to administer medications alone.

I prefer them [RNs] to supervise me even though I may be able to do it...its not within our scope of practice and ...I need the supervision ...I’m not covered...Basically I’m ... not registered so .... I shouldn’t be giving medication to someone without supervision in case I make a mistake (P24).

When participants spoke of this level, they did so in the context of expressing what they risked if they deviated from their scope of practice. The most dominant category as previously stated was fear of failing the clinical placement if found or identified by a
faculty member from the university for administering medications without supervision. This equated to them risking what they have worked for in their previous years at university as revealed by participant 13.

... I’m a student. ... there is no flipping way that I am, especially at my age, losing my investment in this, by not being supervised. So, I could be a stick-stickler for the rules (P13).

Evidence suggested that the few participants who spoke of their medication administration episodes portraying this level of Contingent Reasoning were willing to accept being with and being over levels of supervision (see Table 17). If faced in a waiting situation where the registered nurse was called away, the participant would not continue to administer the medications. The risk of administering alone was perceived as ‘not worth it’ as explained by participant eight. If supervision was not given participants at this level would simply ‘say no’.

Well, I just would wait, I just wasn’t prepared to do anything unsupervised, it just wasn’t worth making an error...it’s just too big a risk...and I really don’t want to have to go and do anymore...to get this close after six years of study, ...to muck it up now because I wasn’t prepared to wait, ...sometimes I’d be waiting ten minutes and I get very frustrated standing there for ten minutes doing nothing...but I just thought I cannot afford to muck this up now...I just felt that was protocol from, ...the university (P8).

‘Saying No’

‘Saying no’ meant that the participants refused to administer medication without the required close and supportive supervision. This action was considered difficult. Participants believed they were risking upsetting the registered nurse, their relationship with the registered nurse and ultimately their clinical assessment. Participant 24 and seven reinforced this notion in the following statements.

Well, basically ... the RN’s actually going to either respect you in saying no or, it’s going to cause conflict ... but hopefully you’ve got a good RN that’s going to
say ‘oh, yeah I understand and I know I shouldn’t have asked you to do that’ or something, because I mean ... they should know where, ...we stand as well and they shouldn’t be putting us in those sorts of situations (P24).

When you’re saying no, they ...do become very defensive towards you. ... it’s personally happened to me where I’ve said ... I’m not doing this ... then the next day that nurse was very ...rude, would not ...help me, would just cut me off um, and it was obvious that she was upset about the whole situation, she thought, in her words ‘oh, there goes my bludge’: ... as it turned out, ... it did not reflect well, because nurses, as we know, talk...and it’s an old saying but it’s true, that they eat their young (P7).

When ‘saying no’, participants spoke of how they became submissive in their professional practice. For example, they apologized to the registered nurse when having to refuse inappropriate levels of supervision. Participant 11 revealed,

... quite a few times the RNs have said ‘you know what you’re doing, off you go’, and you have to explain to them ‘no sorry, I can’t’, and then they’ll say ‘oh, there’s no one around, no one will know’ (P11).

When participants at level three of Contingent Reasoning spoke of ‘saying no’, they remained unwilling to report their experiences to the university about any situation that they were confronted with. Participants believed that the university could challenge the registered nurses’ creating unrest in the clinical setting. For instance, reporting events could result in their clinical placement being negative and their clinical assessment being compromised. This reluctance to report was consistent with participants at level one and two of Contingent Reasoning.

As the clinical placements proceeded and participants became more familiar with the registered nurses in the clinical setting, fewer episodes of medication administration reflective of level three were spoken about. Fewer incidents occurred because the majority of participants in this study were willing to accept a being near level of
supervision and consequently spoke of medication episodes relating to this. However, the minority of participants who remained at level three of *Contingent Reasoning*, shared stories that provided insight into the consecutive administration seeking behaviours of participants at the *performing with absolute conscience* level.

**Consecutive Seeking Behaviours (Stage Two) Level Three**

In order to achieve the supervision with consecutive administration episodes participants would speak of *chasing, negotiating* and *waiting* (see Figure 13). These behaviours occurred even if the participant was with a registered nurse who had, on a previous medication episode, advised the participant that they needed either no supervision or near supervision. The participant would deviate from seeking direct supervision despite knowing what the registered nurse expected. In the following example participant 15 spoke of having to reassert them self in the act of negotiating for supervision.

*I had to reassert that all through my six weeks placement ... I’m saying ‘nup [sic], I can’t’, you know (P15).*

On some occasions participants spoke of avoiding medication administration if they were with the registered nurse whom they knew had previously insisted on no supervision. Rather than going through the internal conflict again the participant would simply avoid the situation.

In summary, the participants who spoke of medication administration episodes that reflected level three of *Contingent Reasoning* demonstrated they would meet university requirements/expectations when faced with *shifting levels of supervision*. Therefore, to
successfully get through their clinical placement they would not compromise by accepting inappropriate levels of supervision when administering medications.

As levels of Contingent Reasoning emerged from the data what also became apparent was the fact that the majority of participants moved between the levels in different medication administration episodes. For example in any one interview a participant could describe a situation of being supervised, yet as the same interview proceeded they would give another example of being unsupervised. Hence, participants’ actions and decisions when confronted with shifting levels of supervision were not always consistent meaning; they did not remain at one given level of Contingent Reasoning. The movement between levels was identified as being dependent upon conditions that surrounded participants at the time of the medication administration episode. The conditions influencing these decisions will now be explained.

**Conditions Influencing Contingent Reasoning**

**The Relationship with the Registered Nurse**

The relationship with the registered nurse emerged in the data as the central condition influencing participants’ decisions about what to do when confronted with the shifting levels of supervision. This was particularly apparent for those whose actions were consistent with stage one and two of Contingent Reasoning. The relationship with the registered nurse was perceived as important for getting through the clinical placement. Participants spoke most about the trust and confidence in the relationship as well as the role the registered nurse played as the assessor.
Trust and Confidence Afforded by the Registered Nurse

If participants believed that the registered nurse had trust or confidence in them, refusing any shifting levels of supervision presented and/or provided by the registered nurse was difficult. Some participants perceived that if they refused the registered nurse, then trust would be violated which could impact on their relationship with them as claimed by participant 12.

*I think that, they take some trust away maybe? They, they wouldn’t trust you as much, …I guess maybe they don’t see you as confident as what you could be and, also they’d get frustrated and cranky like (P12).*

Additionally, participants perceived that if they refused what the registered nurse offered by way of supervision then the registered nurse may judge them as incompetent. Participant 21 outlined the following,

... they might think that ... you’re not competent ... you have to be brave enough to say it and that might affect your relationship with them...Um, like if you say to them ’no, I’ve got to be supervised’, they’ll be like ‘oh, you don’t’, and you might feel oh, well I do but I don’t want her to think that I can’t do it (P21).

For some participants, the trust and confidence afforded would result in them making the decision to administer alone even when they knew the risks associated as revealed by participant 17.

... they trust that you know what you’re doing and the other thing is it’s scary because all of a sudden like, I’m on my own here, I could make a mistake, ... but ... I think the bigger one is the fact that, ... you’re trusted (P17).

Trust and confidence was also dependent on the amount of time they had been attending the clinical placement. For example, participants perceived that as the placement proceeded then more trust was given because they were nearly finished. As the clinical placement proceeded and the participant became more comfortable in the clinical
setting and more familiar with the registered nurses’, it became more difficult to make a
decision about what to accept as appropriate supervision. Participant 21’s statement
supports this finding,

... and the thing that they say to you is ‘but it’s only five more shifts and you’ll
be out giving them out by yourself, go on, run along and give it’, and they trust
you and you trust them, however, it’s very hard, also, to ask for a bit more
support because ... when you say ... I don’t feel comfortable’, they take it as you
being unconfident (P21).

Furthermore, participants were reluctant to relinquish the trust and confidence once this
was bestowed upon them. Trust and confidence was something that participants wanted
because they were final year students eager to finish their placements and get through.
However, participants were reliant on the registered nurse to provide the correct levels
of supervision which would allow them to perform with absolute conscience (level three
of Contingent Reasoning). When close and supportive levels of supervision were not
provided, participants would face the dilemma of having to make decisions that placed
them back at level one or two of Contingent Reasoning. Closely linked to trust and
confidence was the registered nurse’s role as the assessor.

The Registered Nurse as the Assessor in the Relationship

As previously discussed getting through, namely passing the clinical placement, was the
central motivating factor for participants’ decisions and actions at each level of
Contingent Reasoning. Thus, it is not surprising that participants continually referred to
the registered nurse as the assessor and as a primary reason to maintain a good
relationship with them. As participant 18 explains, the relationship could dictate the
outcome of their assessment.
if you get on really well with the nurse you know... you’re going to get a pretty good assessment, ... but if ... you’ve gone in and, and said ‘look no, I can’t do that’, I can’t’... and question every practice that the nurse does .... you’re going to get her back up and it’s going to be reflected definitely (P18).

Additionally some participants described the registered nurse as having the power over them as revealed by participant 23.

... you’re relying on them to pass you so you’re not going to do anything to jeopardize... they have the upper hand, it’s a power thing basically... staff on that ward have power over you as a student cause they are what’s going to make sure you pass at the end of the day (P23).

The perceived power differential attributed to the registered nurse being the assessor meant that some participants, especially at level one of Contingent Reasoning, would do whatever was required.

... if you start saying things that they don’t like or they don’t agree with or whatever, you are risking having them all not like you, all give you the worst possible mark or...not be as nice to you as they could be, ... you don’t want to risk that (P23).

As previously discussed at level one of Contingent Reasoning, participants suggested that most students would not go against what the registered nurse required/expected.

Participant 19 disclosed the following,

I don’t know any students that have stood up to their RN or, done anything differently to what they say. Like I would have to say every student has done something wrong in accordance of medications administration, it is impossible not to. ... it’s hard to go against the RN’s says because they are the ones assessing you, like (P19).

Overall, the relationship with the registered nurse was the most dominant condition influencing the participants’ decisions about what level of supervision to accept when confronted with shifting levels of supervision. Participants wanted to maintain an
effective relationship with the registered nurse so that passing their placement was not compromised.

**Individual Attributes**

Some participants, particularly those that spoke of medication administration episodes consistent with level two and three of *Contingent Reasoning*, described attributes of both themselves and what they saw in other students as reasons as to why they would respond in different ways to *shifting levels of supervision*. The most dominant attributes spoken of included *being confident*, their *age* and *communications skills*.

**Being Confident**

Participants spoke of their own level of confidence as being a factor in how they responded and dealt with the registered nurse when faced with *shifting levels of supervision*. Confidence was a reason why some participants believed they could refuse to administer medications if presented with *shifting levels of supervision*. Confidence was also reported as a reason why some participants believed they could compromise with the registered nurse thus arriving at an agreement about the level of supervision to accept. However, lack of confidence was a reason why some participants believed that they would do whatever the registered nurse expected. Hence, confidence appeared to influence decisions at all levels of *Contingent Reasoning*. The following excerpts provide an example of participant 15 having the confidence to say ‘no’ to administering medications when adequate supervision was not provided. This is followed by participant 9 who spoke of other students lacking confidence and whom they described
as timid. Further, participant 9 perceived confidence as the reason why students do
whatever registered nurses expects.

... I mean, that’s the thing as a student, you can actually step back and say ‘no, I
don’t want to do that’ ... it’s important that ... nursing students have confidence
to say ‘no, I’m not comfortable about doing that (P15).

I’ll just say no ... like I’m pretty honest like ...and you go ‘oh, I can’t do that’,
‘oh, okay’. ..., I think, if you’re a timid student and ... if a nurse said to you,
‘can you go do that?’, and you sort of thought ‘oh shit, it’s not in my scope of
practice, and you’d still go and do it, ... I’m comfortable in saying ‘no’, I stay to
my scope of practice’, but if you’re a, another student that possibly was told, by
a nurse that didn’t know your scope of practice to go do something, they might
just go off and do it, some sort of (P9).

**Age**

Comparative analysis revealed that some participants perceived age as a factor that
influenced their decisions. For example, older participants spoke of witnessing other
students who had been involved with medication administration that was less than ideal.
Older participants suggested that age was the reason that they were unable to refuse the
registered nurse if *shifting levels of supervision* presented as claimed by participant one.

... a lot of the young ones... they are pushed into doing things that they know
they shouldn’t be doing... they’ll do whatever ... anyone tells them to do.
They’re kids... they’ve just come straight out of a high-school situation where
everyone’s telling them what to do and how to do it. ...I mean, I’ll argue ... I’ve
got the experience behind me; they don’t have that (P1).

Others spoke of age as a reason for conforming to whatever was required because they
had spent so much time at university trying to complete their studies, they could not
afford the risk of upsetting the registered nurse and being graded poorly. In reviewing
the data however, there was no consistent pattern which showed a particular age group
as making consistent decisions for any one level of *Contingent Reasoning*. 
**Communication Skills**

A number of participants perceived communication skills as a strategy that could be used to be able to respond to *shifting levels of supervision*. Participant 11 explained how communication skills enabled them to obtain adequate or required supervision.

> ... *I think if you talk to people the right way, they’ll listen and if your personalities don’t meet, you can always just keep trying until they do, meaning you, you’ve got a gruff person that doesn’t want to listen to what you want to do ... you, ... find a way around, find her an interest, you can talk about common interest, and they come back to what you need* (P11).

Participant 11 further explained that by employing effective communication skills they could establish a positive relationship. For example, a strategy adopted was to use humour with the registered nurse. Humour appeared important particularly when participants had to make a decision about levels of supervision. The following excerpt from participant 11 discloses the outcome of a positive relationship when in a waiting situation.

> ... *because we had such a great relationship, a really good rapport ..., I was teasing her about it. I’m just like, ‘oh my god, I’ve been waiting here for forty-five minutes, I could have had this done and that done’, so I was really able to, to just turn it into a joke with her* (P11).

In terms of communication skills, some participants revealed that using non verbal skills, such as smiling to look like they were enjoying themselves, were utilized to try and keep the registered nurse happy. Participant five indicated how they employed this strategy.

> ... *you really have to be overly nice, to the point where you come home in the afternoon exhausted and your face hurts from smiling, just because if you don’t come over as a really nice, competent sort of a person, they’ll dismiss you, in a way* (P5).
This chapter has thus far revealed supervision and shifting levels of supervision as the central issue/problem for final year undergraduate nursing students when administering medications. The discussion described the supervision seeking behaviours adopted by undergraduate students followed by the levels of supervision presented or provided by registered nurses. The latter part of the chapter then considered undergraduate students responses to shifting levels of supervision through a process of Contingent Reasoning. However, the next part of this chapter unveils one of the most concerning findings about the medication administration experiences of undergraduate nursing students. Some participants revealed that they had made medication errors which were never disclosed to faculty members at the university because they feared the consequences of failure. When discussing medication errors, participants again referred back to the central category of supervision. There was a pattern to these errors which mirrored differing levels of Contingent Reasoning. The emergence of medication errors allowed a connection to be made which further gave an understanding of the consequences for participants of being at levels one, two or three of Contingent Reasoning. The pattern of the medication errors connected to levels of Contingent Reasoning are very important in terms of medication safety.

**Consequences for Medication Safety at Each Level of Contingent Reasoning**

When participants responded to shifting levels of supervision and made a decision to accept and proceed to administer medications with inadequate supervision they put themselves in situations where medications errors could, and on occasions did, occur. The data revealed that of the 28 participants interviewed, nine spoke of making a
medication error (see definition of terms p. 11) or experiencing a near miss (see definition of terms p.11). The interviews with participants also revealed that their follow up actions involved not telling the university about an error or near miss.

When an error or a near miss occurred, there was a clear association with the level of supervision that the participant had accepted at the time of the episode. Medication errors and near misses were reported by participants who were at levels one and two of Contingent Reasoning where they had accepted the shifting levels of supervision (see Figure 16). On the other hand only near misses were reported by participants at level three of Contingent Reasoning when direct supervision was in place. At this level the registered nurse detected the participant’s mistake before the medication was administered to the patient.

**Figure 16: Medication Errors in Relation to Each level of Contingent Reasoning**

![Diagram of medication errors in relation to each level of Contingent Reasoning]
The level of supervision most apparent with participants, who reported an actual error, was the absent level of supervision consistent with levels one and two of Contingent Reasoning. Participant five described an error made when not supervised.

I’d previously administered wrong medications to the wrong person…. I wasn’t thinking, I grabbed the wrong pre-dispensed medications out of the wrong drawer, of somebody who had a similar name, and gave them to the wrong person...she [RN] wasn’t with me (P5).

Participant five went on further to describe the registered nurse’s response after the episode.

… she came back, and I just sort of, almost broke down, I was like, I just done the wrong thing, and she sort of patted me on the shoulder and went ‘it’s alright, you won’t do it again… She patted me on the shoulder, and went ‘oh, well, it’s alright, they won’t die, too much paperwork, let’s just keep going’. She said ‘you’ve learnt by your mistake, you’re right, you’ll never do that again’…The first thing that went through my head was, I failed right there, you know, she had done anything to me, I was failed right there and that’s twelve months on my degree, and that was the second thing that went through my head. After worrying about my client, I worried about myself, and thought, if she writes this down or I have to fill something in, I’m gone. So I didn’t say anything to anybody (P5).

Participant five also reported that they would not say anything to the university about the incident because they feared failing the course. In the next excerpt participant 15 also revealed administering the wrong medication when working without supervision. Like participant five, participant 15 had also accepted absent supervision and proceeded alone, consistent with levels one and two of Contingent Reasoning. Factors that contributed to the error were described as ‘distractions’ as spoken by participant 15,

... I gave the wrong patient the wrong pill, and it happened because the bed didn’t have a name on it and someone had put the wrong chart in, in the wrong person’s bed. She had, ... all those factors that make errors happen, she had family around her, one of them asked me for some valium because they were stressed and I said ‘no, no I can’t do that’, ... there’s was all these distractions, I looked at the chart, I looked at the woman, and I think I even said her name but because there was all this chatter going on they didn’t hear it, and I said
‘here’s your tablets’. She was an elderly woman, and so I helped her take it. And then… I put the chart back in and turned around and realised that the chart didn’t belong in that bed end chart place, and I was mortified and rushed outside ... and got the nurse in charge and told her (P15).

Participant 15 went further to explain that even though they thought about not telling someone, they did report this to the registered nurse because they did not know what the medication was.

... I guess at that point, a lot of people it goes through their mind ‘oh, I just won’t tell anybody’, but I didn’t know what the pill was or what it would do to this person (P15).

However, telling the registered nurse resulted in a positive experience for participant 15,

... and luckily for me, the, the nurse in charge was wonderful, ..., she said ‘it’s okay, everyone’s done it, it’s a learning experience, this is what we do, I’ll help you do it, you know this, we have to ... do some obs on the lady, ... you have to look up the drug and make sure you know what it is you’ve given her ... you have to notify the doctor, ... but I’m there with you, I’ll go through it with you’, ..., she said ‘you know, it’s, ...something that all of us have done and you certainly will learn from this’. And so it was a no blame situation and fortunately there was no ill effects for the patient ... I’ve never made an error since because of that, it was a great experience (P15).

Despite the learning experience verbalized by participant 15 with regard to the error, like participant five they did not tell the university about the medication error for fear of failure. In the same interview, and after having shared the experience of making an error, participant 15 went on to discuss other episodes of undertaking medication administration without supervision because they sat at level one or two of Contingent Reasoning. It seemed that even after making an error, the importance of pleasing the registered nurse when presented with shifting levels of supervision was their priority.

The next excerpt from participant 20 revealed that they knew the registered nurse was
supposed to be supervising them, however they proceeded to administer alone, became
distracted and made a medication error.

... there’s been one incident where I’ve given the wrong medication to somebody
because the nurse that’s supposed to be supervising me has distracted me by
asking me to do something else (P20).

Participant 20 further explained that they reported the medication error to the registered
nurse and found this to be a difficult experience because she was reprimanded as
opposed to being asked why the error happened.

... and then I went and I told the nurse ...I said ‘I think I’ve made an error
because I’ve given the wrong medication to this person’ and then we had to
document it,... but she made it really difficult for me by saying ‘well, you should
have been paying attention, you should be making sure that you’re following
through’, instead of asking ‘oh, why did it happen?’...I felt really bad because I
try and concentrate and put all my effort into what I’m doing, especially when it
comes to medications because it such an area where if you do make mistake if
can affect someone’s health at the end, if it’s something that they shouldn’t be
having, so it’s an area where you should be concentrating on what you’re doing,
focusing on it and making sure that you are giving it to the right person because
if you don’t, it can have consequences (P20).

Even though it was reported to the registered nurse, participant 20 verbalized that it was
not reported to the university for fear of failing the placement. What follows is
participant 22’s revelation of making an error. However, the participant dismissed the
error to some degree because it was ‘only panadol’. Of note, the participant was in a
situation of absent supervision despite initially having the registered nurse in the room.

I made... a medication mistake, I gave ... paracetamol to the wrong
patient....And she didn’t even come in and check that patient, she said ‘oh, don’t
worry’, ...it was a four bay bed and ...she just said ‘give it to’ and waved her
arm in the direction and there were two beds side by side and I gave it to the
other patient and when I went to sign for the medication, I found that it was a
PRN order not a regular medication and she just said ‘oh, don’t worry about it,
it’ll be right, it’s only Panadol’. ... I’m glad that it was only Panadol not
anything else. But I should have checked it too but because we were in a rush
and ... she left the room, she asked me to give it, I had it in my hand, she left the
room and then I gave it (P22).
Further the follow up for participant 22 was again one of not reporting to the university.

*I could see just by the look on her face and the way she talked, there was going to be no incident form to be filled in. I knew that there should’ve been one filled in, but you don’t rock the boat, ... when I said it I went directly to her and I was so nervous and I just told her what I’d done because ... that’s the right thing that I should’ve done and she wasn’t, she didn’t even flicker an eyelid when I said it, she just said ‘oh, well don’t worry about it (P22).*

Participant 18 also reported giving the wrong medication to a patient which she had identified only by the ‘shape’ of the medication. They spoke of leaving the medication for the patient and proceeding to another patient’s room to continue with administration. It was in the next patient’s room that they realized an error had occurred. However, because the patient had not swallowed the medication, the error would become a near miss. In revealing this error, the participant acknowledged breaching the five rights as well administering without supervision.

*... I was looking for a diamond shaped pill and there was an oval shaped pill and I thought, well that must be it..., pulled it all aside, it wasn’t until I had sorted all through it and I went on to the next person and they had the same medication, I was like oh, hang on, that’s not right... that could of ... been a quite a significant error because the one that I ...was going to give was ...a thinner and he was about to go into surgery... no one was there watching (P18).*

Whilst the previous examples have identified the absence of supervision, other episodes of medication errors were reported by participants who had accepted being near levels. In the next excerpt participant seven described an episode of administering the wrong medications to the patient while the registered nurse was with another patient.

Participant seven described administering medications which they had not prepared or checked because they ‘trusted’ the registered nurse.

*... he said ... ‘all the medications are there, just give them to her’, and I did and I shouldn’t have ... I trusted him that he had checked everything. When I went back and was signing, co-signing where he had signed, I found that I had given an eight o ‘clock medication at lunch time (P7).*
This participant further stated that again this was not reported to the university for fear of failing the clinical placement. Not all medication incidents reported by participants resulted in the patient being harmed. The data revealed a clear link with errors being prevented because the participant had supervision at the time. However, participant 22 spoke of obtaining the wrong medication from the medication container for the patient due to the registered nurse hurrying them. However, the presence of the registered nurse enabled the error to be detected prior to the patient receiving the medication. Participant 22 explained,

\[
\text{one morning I was hurrying when I was doing the medication and I was put out, because we were in a rush and I had the RN was standing there right over my shoulder extremely close ... you know, ‘come on, we’ve got the doctor’s rounds to go’ and I popped out the wrong pill for an evening medication and I would have given it, but she pulled me up, I didn’t realise my own mistake (P22).}
\]

Another example of a participant experiencing a near miss, close, direct and supportive supervision was present. The presence of the registered nurse prevented participant eight harming the patient,

\[
\text{... I got a bit tired and ... made an error, but that’s why we have the RN beside us.... I was giving this fellow antibiotics... but he had to have a heparin flush, and I went and put the heparin flush in the burette and had the antibiotic in my hand. The RN said ..., ‘where’s the flush?’ I looked at my hands and I said ... ‘oh, goodness, oh I’ve put it in the burette’. She said, ‘oh, that’s okay’, so we just emptied it out, and luckily that the drug was still here. So we had to just strain out the burette with the heparin, and start again, ...I think it was a tired, ...and I was just lucky she was there (P8).}
\]

Medication administration is a complex task that involves a risk of undergraduate nursing students making errors and causing patient harm. The results of this study indicate that errors are made when required supervision levels are not provided by registered nurses. However, what emerged from the data was that potential errors were identified by registered nurses when direct supervision was provided. Clearly the risks
of mistakes are greater for undergraduate nursing students when supervision is not adequate. Most concerning is the fact that these students are (at times) willing to proceed administering medications without the required level of supervision. The events described by participants indicated they experienced an array of feelings after making a mistake. Fear, anxiety, and horror were apparent in their words. For example participant five said,

...I stood there and shook from head to toe, and almost cried (P5),

and participant 22 claimed,

...I was petrified (P22).

Moreover participant 15 stated,

...I was really worried (P15).

Of note, one participant, when sharing the experience, indicated that this was the first time they had spoken about the error that they had made and felt relieved to have done so.

Throughout the results chapter the term ‘continuum’ has been referred to on more than one occasion. An explanation of this has been intentionally left to the closing part of this chapter as the reader has now been exposed to the categories and subcategories of supervision including the problem of shifting levels of supervision and students’ response, namely Contingent Reasoning. This study identified that students do not consistently fall into one specific level of Contingent Reasoning, rather their decisions and behavior change pending on the registered nurse that they are with at the time of the medication administration episode. Additionally the seeking behaviours and the
response to shifting levels were noted to change for students as the placement proceeded, meaning the ‘continuum’ of the placement. As previously discussed at the outset of this chapter, when students were undertaking a clinical placement for the first time or they were meeting a registered nurse for the first time they would seek personal and close supervision. How they responded was dependent upon their relationship with the registered nurse and their own individual attributes. As placements proceeded and the student became more familiar with the registered nurse there was a tendency for students to administer medications in the way that the registered nurse required/expected meaning, with or without supervision. Hence, the continuum of the student seeking supervision and accepting different levels of supervision may change when the student is with the same registered nurse. The study did not explore the changing supervision behaviours of registered nurses throughout the continuum of the placement however, this would be worthy of further research.

**Summary of Results**

Analysis of the data revealed that final year undergraduate nursing students experiences in administrating medication in the off campus clinical setting were predominantly influenced by supervision or lack thereof. Initially participants strived to obtain supervision for medication administration. However, participants did not always receive the level of close, direct and supportive supervision that they expected. Instead supervision involved the nurse being near, being over or being absent. These were labelled as shifting levels of supervision and created internal conflict for participants because they were concerned about compromising their clinical assessment. Internal conflict would trigger a response within participants who dealt with the shifting levels of
supervision through a process termed Contingent Reasoning. Participants made decisions about the level of supervision to accept and adopted behaviours so as to proceed with medication administration. All patterns of behaviour shared the common element of students striving to get through their clinical placement. The behaviours would further dictate consecutive administration episodes if the participant was assigned the same registered nurse.

This study also revealed that certain conditions influenced shifting levels of supervision. These included the attitude of the registered nurse, communication from the university, the busyness of the ward and having time. How final year students responded to shifting levels of supervision was influenced by two conditions labelled as the relationship with the registered nurse and individual student attributes. Further, this study revealed that medication errors occurred for these final year undergraduate nursing students more often when they make decisions to accept levels of supervision that are less than what is required by both the university and legislation within Queensland and Australia.

Validation of Results

Validation of these results came with member checking, as described in Chapter Three. Some participants were re-interviewed and the central explanatory concept of Contingent Reasoning relating to shifting levels of supervision was shown to them (see Figure 6). Participants were asked if the concept reflected a true representation of what influenced medication administration experiences for them and to determine if anything was missing or incorrect. Comments from the participants reaffirmed that the concept of Contingent Reasoning relating to shifting levels of supervision was an accurate
representation of what influenced their medication administration experiences.

Additionally, comments from participants validated that the central explanatory concept was clear. For instance participant five stated,

... that's it...you have hit the nail on the head (P5).

Participant four claimed that it was true representation saying,

It’s very logical... it’s very true... I agree with it completely (P4).

Furthermore, participants 17 and four indicated that it reflected their own and others behaviours. For instance participant 17 stated,

I can see myself and I can see others whom I have worked with (P17),

and four revealed,

I can see myself at all levels depending upon which registered nurse I am working with (P4).

Overall, participants could not see anything that was missing as supported by participant 23 and 17,

... can’t think of anything else (P23),

I can’t see anything that’s missing (P17).

Participant four also commented on the truth of the explanatory concept indicating that this came from participants feeling comfortable in saying how medication administration experiences really were for them as final year students.

It’s still the same- this happens now with the third year students...I feel very privileged to have been able to contribute because it is so important- students need to be supervised with medication administration and they need to feel that they can have this when they are on their pracs...what you have got here is so true... I felt that because of you I was able to be totally honest (P4).
One participant, who has since commenced working as a registered nurse, believed that the central explanatory concept was apparent in their current workplace. This participant has since spoken about the findings to the researcher on several occasions and verbalized that after participating in this study they were even more aware of *shifting levels of supervision* and how students respond. Additionally this participant revealed how they provide *shifting levels of supervision* as a registered nurse because they are too busy. Further investigation understanding registered nurses perceptions in relation to providing *shifting levels of supervision* would be of benefit.

**Conclusion**

This chapter has presented the results of this study and has unveiled the central explanatory concept which has formed the substantive theory. The data presented was obtained from participants and, as a result of constant comparative analysis, has been presented to allow the reader to make sense of the substantive theory. Chapter Five will now discuss the overall substantive theory and incorporate the literature to validate and compare the categories that have emerged.
CHAPTER 5: DISCUSSION

This chapter discusses the overall substantive theory and incorporates literature to validate and compare the findings. The first part of the chapter will provide an explanation of the overall substantive theory. Supervision will be introduced as the central category with shifting levels of supervision and Contingent Reasoning manifesting. Both will be discussed to explain the main issue/problem experienced by undergraduate nursing students’ when administering medications and the process used by them to deal with the issue. Each separate part of the substantive theory as schematically presented in Figure 6 will be discussed. The chapter concludes with a brief summary and then moves to introduce Chapter Six which outlines recommendations as a response to the findings from this study.

The Substantive Theory: Contingent Reasoning relating to Shifting Levels of Supervision for Medication Administration

Grounded theory method aims to generate a substantive or formal theory that is grounded in the data. However, formal and substantive theories differ. Formal theories are less specific to a group and place hence, apply to a broader range of disciplinary concerns and problems (Strauss & Corbin 1998) while substantive theories are derived from more specific situational contexts as applies to this study. For this reason Contingent Reasoning relating to Shifting Levels of Supervision for Medication Administration is a substantive theory pertaining to final year undergraduate nursing students from a Queensland university. The theory centres on supervision. Supervision was the central category to emerge as influencing final year undergraduate nursing students’ experiences in medication administration when undertaking an off campus
clinical placement. From this central category two other dominant categories arose. The first was *shifting levels of supervision*. In simple terms this refers to the level of supervision presented and/or provided to undergraduate nursing students from registered nurses. Supervision levels deviated from a close, personal and supportive level, necessary when students administer medications. *Shifting levels of supervision* became the basic social issue, in essence a problem that influenced undergraduate nursing students’ medication administration experiences. The other dominant category was *Contingent Reasoning*, a process used by students to address *shifting levels of supervision*. To understand the substantive theory it is necessary to revisit the basic social issue/problem and the process. Consideration will firstly be given to the basic social issue/problem.

*Shifting levels of supervision* had three related sub categories as shown diagrammatically in Figure 6, Chapter Four. These included *supervision seeking behaviours*, *supervision presented and/or performed by registered nurses*, and *internal conflict*. The first sub category *supervision seeking behaviours* occurred at two stages. Stage one represented the behaviours adopted by final year students when they had to administer medications with a registered nurse whom they had never previously encountered. For instance, when students began a placement in a new clinical area or when they encountered a registered nurse whom they had not previously met. The behaviours included *negotiating, chasing* and *waiting*. Stage two represented consecutive seeking behaviours adopted by students when they were to administer medications. This would occur when students were with a registered nurse known to them from a previous medication administration episode. At stage two the student knew
the level of supervision that the registered nurse expected and so they adapted their seeking behaviour. The behaviours at the second stage included negotiating, chasing, waiting and avoiding.

*Negotiating* involved the student bargaining with the registered nurse and ultimately coming to some agreement with the level of supervision. *Chasing* was characterized by the student literally ‘chasing’ after, or trying to locate, the registered nurse to obtain supervision for medication administration. *Waiting* involved the student being in a position of being left alone with medications as a result of the registered nurse being called away. During the waiting period the student had to make a decision as to whether to wait for the registered nurse to return or proceed to administer medications without the registered nurse being present. *Avoiding* was a behaviour that the student adopted so as to avoid administering medications which involved taking on other tasks to look busy. *Avoiding* occurred when the student was in the process of seeking supervision but realized who the registered nurse was to provide that supervision. If the student had had a previous negative experience with that registered nurse, they would then adopt avoidance.

The second sub category to *shifting levels of supervision* was levels of supervision presented and/or performed by the registered nurse. The levels ranged from the registered nurse *being with* the student which met university requirements to levels termed as ‘shifting’. Shifting levels included *being over, being near* and *being absent*. *Being over* involved the registered nurse being beside the student but at the same time standing over them in a rushed and hurried approach. *Being near* and *being absent*
involved the registered nurse not being beside the student and undertaking the correct checks. The most common level of supervision that final year undergraduate nursing students encountered was that of being near. The levels of supervision that the registered nurse presented and/or performed was influenced by casual, intervening and contextual conditions which included the attitude of the registered nurse, the communication from the university, the busyness of the ward and having time.

The third sub category was internal conflict. This was experienced by students when they were confronted with shifting levels of supervision. This concerned opposing expectations which was the central property of internal conflict. Opposing expectations was apparent because the level of supervision that the registered nurse presented and/or performed to the student was inconsistent with that taught at the university setting. The inconsistency caused internal conflict due to the students’ being concerned that this compromised their clinical assessment which, in turn could impact on their ability to get through and pass their clinical placement. The compromised clinical assessment was about being found or identified by a faculty member from the university for not being supervised at a close and personal level, displeasing the registered nurse for not doing as they required/expected and compromising patient safety. The internal conflict would then trigger the student to respond and deal with the shifting levels of supervision through a process termed Contingent Reasoning. Contingent Reasoning would be the other dominant category to supervision. Students would action Contingent Reasoning by balancing what they considered were their priorities. Meaning, weighing up university requirements/expectations versus the registered nurse requirements/expectations. As such, students would make decisions about what level of supervision
to accept at the time of the medication administration episode. Furthermore, this would
dictate what level of supervision they would seek the next time they were with that
same registered nurse. Depending on the decisions and action made by the student in
response to the levels of supervision, they were categorized into one of three levels: 1.
*norming for survival of self*, 2. *conforming for the benefit of self and others* and 3.
*performing with absolute conscience*. These levels reflected patterns of behaviour
adopted by students. Their decisions would also be influenced by two conditions which
included the *relationship with the registered nurse* and *individual student attributes*.
The substantive theory also revealed that safety can be compromised at each level of
*Contingent Reasoning* when students are willing to accept less than required levels of
supervision.

The substantive theory suggests a pattern of medication administration practices for
final year undergraduate nursing students which indicate that appropriate levels of
supervision (consistent with legislation in Queensland), are not always provided when
administering medications to patients. In turn, the pressure of passing their clinical
placement contributes to students not always making appropriate decisions about
acceptable levels of supervision from registered nurses. Furthermore, the focus of
passing the placement impacts on what level of supervision students seek the next time
they need to administer medications. The reality of what transpires for these students is
hidden from the university for fear of negative consequences. The substantive theory
indicated that patient safety is at risk when direct supervision is not provided to
undergraduate nursing students as levels of supervision are correlated to medication
errors and near misses.
The next part of this chapter will consider the literature available to validate elements of this substantive theory. Additionally, where gaps in the literature emerge it becomes apparent that this theory has identified aspects of medication administration concerning final year undergraduate nursing students that have previously not been reported.

**Validation of the Substantive Theory**

The results of this study identified that final year undergraduate nursing students were aware of the need to be supervised for medication administration. Participants verbalized an understanding of supervision, they knew it was a university requirement, it was part of, what they described as, their ‘scope of practice’ and it was necessary for patient safety. In reviewing the literature to identify whether other research had reported on undergraduate students’ perceptions of needing supervision, no relevant work could be identified. Data from legislative documents relevant to nurses practicing in Queensland Australia, including the *Health (Drugs and Poisons) Regulation 1996* (Queensland Parliamentary Council 1996), confirmed that undergraduate students must be personally supervised by a registered nurse when administering restricted and controlled medications. Furthermore, exploration of the literature was conducted to identify if other research was undertaken that reported how undergraduate nursing students knew of the legislation surrounding their practice; again nothing could be identified. Although participants in this study verbalized that they were aware of the need to be supervised, none made specific reference to (Queensland) legislation. Instead, they saw supervision as a ‘university requirement’. Clearly an area for further research would be an examination of undergraduate students’ knowledge concerning
specific legislation within each State and Territory of Australia that govern practice surrounding medication administration.

Although participants reported that supervision was a ‘university requirement’, they also verbalized that, in order to administer medications safely they needed to be supervised otherwise the skill was outside of their ‘scope of practice’. Meaning, the skill would not be supported by the university as one that could be performed by a student in the context of the clinical setting. Scope of practice was reinforced in information provided to undergraduate nursing students from the university (see appendix G) and included information regarding questions that students should consider when accepting patient care to ensure that the delegation from the registered nurse was within their scope of practice. A review of the literature to explore ‘scope of practice’ as it relates to medication administration for final year undergraduate nursing students found no specific studies. What appeared in the literature was that ‘scope of practice’ is a common term used in nursing however, is not always clearly defined (Levett- Jones & Bourgeois 2007). ‘Scope of practice’ appears to be used frequently in undergraduate nursing programs, and may often represent to students the practice skills which they are permitted to perform when in the clinical setting. Levett- Jones & Bourgeois (2007) suggest that the scope of practice provides parameters that guide the students’ clinical learning in terms of the activities that they can undertake. Additionally, those activities are determined by the nursing program that the student is enrolled (Levett- Jones & Bourgeois 2007) which clarifies why participants often spoke about their ‘scope of practice’ as being determined by the university.
For registered nurses in Queensland the scope of practice cannot be defined as a list of activities, rather it is a broad principle based definition that considers the parameters of nurses’ practice in dynamic settings that are influenced by change (QNC 2005 b). Scope of practice outlines what nurses are educated, competent and authorized to perform (QNC 2005 b). Further, scope of practice is also embedded within a framework that guides registered nurses in their every day practice when delegating patient care to others in the health care team. (‘Others’ in the health care team include undergraduate nursing students). In the process of delegation, discussed further in this chapter, the registered nurse considers the context of practice, the health needs of the patient, the level of competence, education and qualifications of the health care team member and the service provider’s policies (QNC 2005 b). Appropriate supervision then follows according to what the registered nurse has delegated. In summary, students may use the term ‘scope of practice’ to indicate particular activities that they are permitted to perform. In relation to registered nurses, it is a term that is encompassed within their professional standards and has clear and defining principles. Further research would be beneficial to determine the variations amongst university educators, students and registered nurses in their understanding of scope of practice and what this means in relation to students safely administering medications.

Patient safety was another concern and a further reason as to why participants reported that they needed supervision. Reported concerns included difficulties in interpreting doctors’ writing and having minimal knowledge about medications. Doctors’ handwriting and a lack of knowledge about medications have been identified as contributing to medication errors (Leape et al. 1995; O’Shea 1999). A review of the
literature to identify other studies that reported undergraduate students concerns about medication safety provided some insight. Various studies have reported on student anxiety and stress in relation to their clinical experience. Further, these studies identified that the fear of making medication errors was a source of concern however; none pertain specifically to final year nursing students administering medications (Pagana 1988; Kleehammer, Hart & Keck 1990; Wilson 1994; Kim 2003; & Lopez-Medina & Sanchez-Criado 2005).

Despite participants expressing concerns about their knowledge of medications and doctors’ handwriting, it was surprising that they did not speak about any worries that they may have had with working out medication dosage calculations. Maths competency is fundamentally important for safe medication administration and various studies have confirmed that student nurses not only worry about maths but also experience difficulties in solving maths problems. For example, Ptaszynski and Silver (1981) examined the dosage calculation ability of baccalaureate-nursing students and results showed that no student scored the required 90 percent passing score. Bindler and Bayne (1984) reported similar findings from their study of junior nursing students where they evaluated students’ ability to add, subtract, multiply and divide whole numbers, fractions, and decimals as well as calculate percentages. Bindler and Bayne (1984) found that between nine percent and 38 per cent of the students could not achieve a 70 percent pass grade. Moreover, Bindler and Bayne (1984) concluded that many nursing students lacked skills in the basic mathematics necessary to function as a registered nurse.
Chenger, Conklin, Hirst, Reimer and Watson (1988) studied problem solving skills in mathematics performance of students entering and exiting nursing programs in Alberta, (Canada). Their research revealed that students entering the nursing program performed less well than exiting students. Additionally Segatore, Edge and Miller (1993) examined the incidence and nature of errors including conceptual and arithmetic errors of beginning nursing students who had successfully completed specific mathematics courses before they entered the nursing program. Only 24 of the 44 subjects they examined met the passing criteria. Bliss- Holtz (1994) identified that most medication calculation errors were attributed not only to nurses’ lack of knowledge but their skills in formulating and solving problems. In a more recent study, Brown (2002) administered a Computational Arithmetic Test to 850 associate degree students. The results indicated that the average score was 75% which confirmed to Brown (2002) that nursing students are under prepared in mathematics. These studies highlight some of the concerns relating to nursing students and competency concerning maths. These concerns highlight a very sound reason as to why students need to be supervised for medication administration especially since the preparation of medications involves maths calculations when working out drug dosages. The participants in this study did not speak of their maths competency when discussing medication administration experiences however, it is recommended that further research be conducted pertaining specifically to final year nursing students maths and dosage calculations when administering medications. Rather, participants’ experiences were focused on the problem of supervision.
Participants were aware of the need for supervision therefore, they adopted supervision seeking behaviours. Behaviours identified and categorized have not previously been reported in the literature. Hence, it is argued that the results of this study have contributed to the body of knowledge surrounding medication administration for undergraduate nursing students. However, to consider the seeking behaviours in isolation of the overall substantive theory is not overly helpful. Moreover, an understanding of initial seeking behaviours may be gleaned from the participants’ desire to gain supervision, consecutive seeking behaviours cannot be understood until all relating sub categories of the substantive theory are considered including the body of literature that may relate to each element. The first sub category to be considered is that of the levels of supervision performed or provided by the registered nurse.

**Levels of Supervision by the Registered Nurse**

As previously discussed, this study found that registered nurses do not always provide students with a level of supervision when administering medications that would meet clinical excellence, legislation within Queensland or requirements set by the university specific to this study. As reported earlier in Chapter Two, registered nurses in Queensland are expected to adhere to the *Health (Drugs and Poisons) Regulation 1996* (Queensland Parliamentary Council 1996), which necessitates that they personally supervise students when administering restricted and controlled medications. Considering that restricted medications are generally the most common type of medications administered by nurses to patients it is expected that they comply with this requirement (Savage 2007).
Furthermore, the appropriate supervision of students is a standard of care expected of the registered nurse that is not negotiable (Savage 2007). Such standards are imposed to ensure patient safety, to protect patients from high-risk procedures and to protect the public from unsafe or unqualified staff (Savage 2007). Additionally, nurses employed in Queensland Health facilities are also expected to adhere to the Queensland Health Code of Conduct (2006). Within the Code, principle three clearly states that there is an obligation to respect the law and the systems of government which requires registered nurses to not only know the laws and policies that apply to their work, but in giving directions they should carry these out lawfully (Queensland Health 2006). Nurses are required to know about the rules and regulations that govern their practice (Delaune & Ladner 1998).

It could be argued that the participants in this study have reported instances of registered nurses breaching their duty of care because they have not adhered to legislation and have therefore failed to satisfy standards of care for which they are both responsible and accountable (Savage 2007). By not adequately supervising students, the registered nurse has in essence allowed the care of the patient to be compromised of which they are ultimately responsible (Levett- Jones & Bourgeois 2007).

To confirm the registered nurses responsibility and accountability to the patient, a review of the professional standards developed by the Australian Nursing and Midwifery Council (ANMC) (see glossary p. 296) was conducted. Documents including The Code of Professional Conduct for Nurses in Australia (ANMC 2003) (see glossary p. 296), The Code of Ethics for Nurses in Australia (ANMC 2002) (see glossary p. 296)
and The ANMC National Competency Standards for Registered Nurses (ANMC 2006) (see glossary p. 296) all confirm the registered nurse’s responsibility and accountability. In addition to these documents, guidelines as set down by the Queensland Nursing Council (QNC), validate the responsibility and accountability as well highlight that the registered nurse in Queensland is responsible for decisions about the delegation of activities from a nursing care plan (see glossary p. 296) (QNC 2005 b). Clarification of this is set out in a standard called the Scope of Practice Framework for Nurses and Midwives (QNC 2005 b) (see glossary p. 296). The standard includes the registered nurse’s responsibilities in delegating care to unregulated care providers, of which students could be classified. To place this in the context of medication administration, the registered nurse has a responsibility to assess the patient prior to the patient receiving the medication, to ensure that the student is competent in administering medication and to ensure that the student’s role in administering meets the requirements set down by legislation, the university and the organization. Therefore adherence to legislation is not occurring if the registered nurse is not directly present when the student is administering medication such as occurs with shifting levels of supervision.

*Shifting levels of supervision* has legal implications for the registered nurse especially if it impacts on patient safety. The concern about inadequate supervision is reinforced by the Institute for Safe Medication Practices (2004). The Institute has identified that failure to adequately supervise is considered an example of an at risk behaviour by a health care personnel, thus risking patient safety. Additionally, failure to respond to a colleague (which could be said of nurses who do not provide supervision to students after they have sought supervision) is also considered an example of an at risk
behaviour (Institute for Safe Medication Practices 2004). The Institute for Safe Medication Practices (2004) reports that even the most educated and careful individuals will learn to engage in ‘at risk’ behaviors because rewards for performing such are more immediate and positive than the perceived risk of causing harm to a patient. For example, based on personal experience, the registered nurse can be praised by colleagues for achieving workloads by the end of the shift even though they may have taken shortcuts. However, the slower registered nurse with no shortcuts might be labelled as disorganized. In the context of supervision and medication administration relating to this study, it could be argued then that the registered nurse working with the student may be looked upon favorably because they have been prompt to complete their medication round. However, the registered nurse may have only achieved completing the medication round by providing the student with a being near or a being absent level of supervision. This is in contrast to the registered nurse who has not completed medications on time and judged as disorganized. However their slower approach may have been attributed to them providing a methodical being with level of supervision to the student in which correct process was followed. Further research is recommended to examine this phenomenon because the scope of this study has not included registered nurses perceptions of supervising students when administering medications.

While the rewards for accomplishing tasks on time may help to explain why shifting levels of supervision occurred, this study also identified that the risk of the registered nurse providing such supervision and the student accepting this (especially the being near level), was also related to meeting the needs of patients. A desire to meet patient needs also concurs with the findings from a study by Eisenhauer et al. (2007) of...
registered nurses reported thinking during medication administration. Eisenhauer et al.’s (2007) study identified that nurses take risks to benefit the patient and do not always follow hospital protocols in situations when they need to expedite getting drugs to patients. The desire to get drugs to patients on time was especially so in actual or anticipated emergency situations. Other risks included nurses by-passing the system such as taking a medication from another patient’s medication drawer to accommodate to a different patient’s immediate needs (Eisenhauer et al. 2007).

Moving back to the risk taking behaviour of shifting levels of supervision performed by registered nurses, a review of the literature was conducted to identify if other research had considered registered nurses’ understanding of their responsibilities for supervising students. The search included nurses’ understanding of legislation, how to access the information and reasons why they would not adhere to legislation. Again the literature lacked any explanation for this. Further, from the researcher’s perspective, retrieving documents that specifically outline the registered nurses’ role in supervising students within the clinical setting for medication administration was not easy. For example, the State Regulatory Authority- the Queensland Nursing Council (QNC) has a policy on medication administration by enrolled nurses (QNC 2005 c), a policy for enrolled nurses checking medications, (QNC 2005 d) and a general information sheet to reduce the risk of medication errors (QNC 2005 a). The Council clearly explains clinically focused supervision including the two levels termed direct and indirect and the registered nurses’ responsibilities in delegating. However, there is no mention in these documents of the registered nurses’ responsibility in supervising undergraduate nursing students administering medications. Therefore, it is questionable as to whether
registered nurses need information that is clear and easily retrievable so that they know, understand and adhere to legislation concerning medication administration.

Some literature indicates that final year students do not need to be supervised at all (Wright 2005). Wright (2005) proposes that once final year students are assessed and competent they should be given independence in medication administration. According to Wright (2005) this approach would allow students to take full responsibility for their actions; would assist them to develop problem-solving and decision making skills based on the realistic clinical setting; and would facilitate a smoother transition into the role of the registered nurse. From a United Kingdom perspective, Wright (2005) also argued that there was no legal reason why nursing students could not administer unsupervised and to think otherwise was a common misconception. In response to Wright’s (2005) argument, Greenall (2005), a third year nursing student in the United Kingdom, argued that it was both unnecessary and unsafe to expect final year students to administer independently. Greenall (2005) suggested that qualified nurses have had sufficient time to gain the knowledge and experience needed to administer medication safely while under the pressure of the clinical setting, whereas students have not. Despite Wright’s (2005) stance, registered nurses in Queensland cannot dismiss their responsibility and accountability to the patient in allowing students to administer unsupervised.

The findings reported in this current study of the medication administration experiences of final year undergraduate nursing students not only presents concerns about registered nurses accountability and responsibility in supervising students administering
medications, but also questions where students stand if they are willing to administer medications without supervision. In reviewing professional documents in Queensland, no attention was paid to the accountability of the student in terms of accepting the delegation of administering medications without supervision. The closest reference relates to unlicensed health care workers who (like students) are considered unregulated. Unlicensed health care workers (HCWs) are paid employees who carry out non-complex personal care tasks (QNC 2005 b). The QNC does not determine or regulate their scope of practice but they do stipulate that HCWs must work with the support and supervision of the registered nurse or midwife. In doing so they are accountable for their actions and can only undertake tasks if they are competent and legally authorized to do so (QNC 2005 b). Additionally, the tasks allocated to them must be properly delegated by a registered nurse (QNC 2005 b). However, undergraduate nursing students differ in two ways. Firstly, they can be involved in complex care and secondly as students they are not paid employees of the clinical facility. Furthermore, a pre-registration undergraduate nursing student cannot be called to account for any actions and omissions by the QNC because the Council emphasizes the responsibility of the registered nurse in delegating tasks from a care plan. While this point reinforces that registered nurses working within Queensland assume significant responsibility in allowing nursing students to administer medications to a patient without supervision, what remains unclear is the students’ responsibility in accepting that delegation. It could be argued that by accepting the delegation and administering medication without the required supervision, the student has moved outside of their scope of practice. If an undergraduate nursing student is aware of this, then according to Savage (2007), they are personally responsible. Savage (2007) also argues that the registered nurse remains
responsible for delegating that responsibility and making the judgment that the student
can perform the skill and is therefore directing actions outside of policy.

Student responsibility and accountability is an area that would benefit from further
exploration and development of guidelines that provides clarity to this issue.
Furthermore, registered nurses need to be reminded not only of their legal responsibility
in supervising undergraduate nursing students but also their responsibility and
accountability in the delegation of patient care to students. The need for registered
nurses to be aware of the latter concurs with what Atack, Comacu, Kenny, Labelle and
Miller (2000) recommended after having examined diploma nursing student and staff
nurse relationships. According to Atack et al. (2000) registered staff should be informed
and understand what students can undertake including the legal implications for student
actions.

It is important that facilities involved in undergraduate student clinical placements
together with universities develop standards and policies to reflect legislation,
accountability, delegation and all the steps required to ensure safe medication
administration. Each clinical facility has a duty of care to protect patients from risk.
Equally, universities have a responsibility to ensure that students are aware of their
responsibilities and practice in accordance to set standards and policies. This study of
the medication administration experiences of final year undergraduate nursing students
also raises the question as to whether the State Regulatory Authority has a role in
establishing guidelines outlining the accountability and responsibility of nursing
students and their position in the existing Scope of Practice Framework (QNC 2005 b). This is an area for further debate and resolution.

This study went beyond identifying that different levels of supervision existed, rather the data revealed that each level had defining aspects which included the characteristics of the registered nurse as highlighted in Chapter Four. The characteristics ranged from the supportive, caring, positive role model registered nurse at the being with level, to the perceived uncaring and poor role model at the being absent level. Despite studies not being found that examined the characteristics of registered nurses in providing supervision to students while administering medications, some studies have reported what students, as well faculty, describe as characteristics of effective and ineffective clinical teachers in general. The findings in the literature in terms of the caring supportive clinical teacher had a striking resemblance to what participants described as characteristics of the registered nurses who provided close personal supervision when administering medications. However, characteristics of ineffective clinical teachers reported in the literature were similar to what students reported as characteristics of the registered nurses who provided inadequate supervision at the being over and being absent levels.

Morgan and Knox (1987) were the first to examine the characteristics of the best and worst clinical teachers. Their study was based on data collected from students and faculty using an instrument developed by Morgan and Knox called the ‘Nursing Clinical Teacher Effectiveness Inventory’. Morgan and Knox’s (1987) study was later replicated using the same tool by Nehring (1990), Kotzabassaki, Panou, Dimou,
Karabagli, Koutsopoulou and Ikonomou (1997), and further in Australia by Woo-Sook, Cholowki and Williams (2002). All studies reported that a distinguishing characteristic between the best and worst clinical teacher was whether or not they were a positive role model or whether they encouraged mutual respect. The clinical teacher was also identified in the literature as the person vital in making the learning environment safe, organized and structured for students (Barnard & Dunn 1994; Villafuerte 1996). While participants in this study did not refer to the registered nurse as a clinical teacher (rather they were described as the preceptor), participants did identify that their learning and the type of supervision presented or provided to them was influenced by this individual and was mostly linked to attitude.

**Conditions Influencing the Level of Supervision Performed or Provided by the Registered Nurse**

*Attitudes of the Registered Nurse*

Literature was not able to be located which specifically examined the registered nurses’ attitude as influencing medication supervision with students. However, the attitude of managers and supervisors is reported in the safety literature as one of the most common factors that influenced whether workers followed safe practice procedures (Reason 1997). When attitudes of those individuals in supervisory roles are positive and support safe practice procedures then employees are more inclined to adopt the same. For participants in this study, attitude was a generalized term used to describe how the student perceived the registered nurse. The term encompassed a number of influencing properties which gave the term ‘attitude’ further meaning. Properties included whether or not the registered nurse wanted or was told they were having a student, whether the
registered nurse was hospital trained or university educated and what the registered nurse actually expected of students in their third year. Each will now be considered in relation to the literature.

**Wanting a Student/ Being Told**

At times participants felt uncomfortable in their medication administration experiences because they perceived the registered nurse had an attitude of not wanting them to be there. As a result participants felt unwelcome. The attitude, as perceived by participants, was partly attributed to the registered nurse having no choice in supervising them rather, they were literally told they had to supervise a student. Some participants provided examples of the registered nurse not being advised they were supervising a student until the day the student arrived at the placement. ‘Being told’ was not a concept that emerged in the literature, however in widening the search and appreciating the underlying meaning, communication pathways between those registered nurses who supervise students and those appointing them to the position was considered.

The literature identified that registered nurses may indeed be told they have to supervise students because of their immediate availability or simply because it is ‘their turn’ (Beattie 1998). In such situations there may not be any negotiation meaning, they do not have a choice. Beattie (1998) believes when a registered nurse is appointed as a preceptor because it is ‘their turn’, it is unrealistic to expect individuals to effectively contribute to the development of a positive learning environment or develop an effective student / preceptor relationship. The problem of preceptors being appointed without choice further or if repeatedly given the role, leads to preceptor burnout (Letizia &
Jennrich 1998). Moreover, when preceptors are told to supervise students they may not have even met selection criteria for the position which Letizia and Jennrich (1998) argue, is almost non existent. However, the literature suggests that the person assuming that role should be selected carefully with prerequisites including clinical expertise, a sound knowledge base, strong leadership skills, well developed communication skills, clear decision making ability and interest in professional growth and teaching skills (Shamian & Inhaber 1985; Myrick & Barrett 1994). When registered nurses are not given a choice it is not surprising that students detect this and feel unwelcome. As revealed further in the chapter, being uniformed impacts on the socialization of students and can, from a medication administration point of view, help explain why students adopt strategies in order to please the registered nurse.

A study by Randle (2003) found that when students were not welcomed into the clinical setting by the nursing team, they actually failed to develop autonomy in their practice. Unreceptive staff was also a factor reported by Peirce (1991) that contributed negatively to nursing students learning experiences. Similarly, Atack et al. (2000) identified that nurses’ actions had a large impact on the students’ sense of belonging. When staff made them feel welcome and wanted, students then valued the setting. Moreover, Birx and Baldwin (2002) noted that some nurses are ‘cold’ towards nursing students and become irritated by the additional demands of having to support them. Further Birx and Baldwin (2002) suggest that one of the greatest sources of stress for students occurs when they are assigned to work with non welcoming nurses. Similarly Beadnell (2006), reported on nursing education in Australia and cited a quote from a graduate who shared an experience of arriving at a clinical placement to be greeted by staff who did not know of
her, or her peers, or the arrangement of the placement. The graduate made comment that when staff welcomed students it could make a difference to their clinical placement. Dunn & Hansford (1997) also reported that the warmth of the registered nurse, among other factors, was an important aspect of attitude that made a difference in students’ clinical learning. Additionally, individual accepting attitudes of preceptors and positive attitudes of health care personnel towards students facilitate student learning (Häggman-Latila, Eriksson, Meretoja, Sillanpää and Rekola 2007).

The results of this study affirm the importance of registered nurses having a choice in the role of supporting students during off campus clinical placements. Without choice the registered nurse may withdraw from being an effective preceptor, mentor or role model. The impact on student learning can then be damaging. Part of the frustration for registered nurses in not being told about having a student to precept/mentor, can be attributed to lack of other staff willing to assume the role. It is argued that registered nurses who choose not to support students on a continual basis, leaving the responsibility to others, may need further professional development and support to allow them to gain the confidence to participate in the development of undergraduate nursing students consistent with their professional responsibilities.

University Educated or Hospital Trained

The attitude of the registered nurse, as perceived by participants, was also influenced by educational background; that is if they were hospital trained or university educated. A review of the literature was unable to locate any studies that have reported on perceived attitudinal differences as identified in this study. In addition there was a dearth of recent
literature that had examined the differences in general between university and hospital prepared nurses. However, a study by Yung (1996) did compare role conception and role discrepancy between hospital-based certificate program nurses and degree program nurses in Hong Kong. Yung (1996) reported less role conflict being experienced by the hospital based nurses than the degree program nurses because the hospital based nurses had spent more time in the hospital setting and were assimilated into the actual, not the ideal role.

Despite not specifically relating to role conflict as reported by Yung (1996), participants in this study did report that university prepared registered nurses were more likely to know what was expected of students. Participants perceived that registered nurses who were educated at universities were more likely to know that students had to be supervised when administering medications and how to undertake this because they had been exposed to these experiences during their own undergraduate education. That is, they had not forgotten what it was like to be a student nurse from a university. This concept was also identified in a study by Atack et al. (2000) who reported that students identified ‘good clinical teachers’ as those who had not forgotten what it was like to be a student. An understanding of the latter was not apparent, according to participants in this study, with the ‘hospital based’ registered nurses. Participants perceived that the ‘hospital based registered nurses’ were more likely to expect them to administer medications alone and furthermore, were not always aware of supervision requirements.

However, the data also revealed that participants were not always aware of what the registered nurses background was rather, they often assumed that all young registered
nurses were university educated and all older registered nurses were hospital trained. This assumption on behalf of the participants’ did not consider the mature age university graduate or the hospital trained registered nurse who had gained tertiary qualifications. Despite this, the findings, as reported by participants, of the perceived differences between university and hospital nurses is concerning in that all registered nurses are expected to be aware of legislation and their responsibilities in supervision.

*What’s Expected of a Third Year*

Participants perceived that the attitude was also influenced by what the registered nurse expected of them as a third year student nurse. Overwhelmingly they spoke of registered nurses having greater expectations of them because they were nearly finished. This meant that they were to function independently and administer medications solo, or with minimal supervision. As the placements proceeded, the expectations grew. The pressure that this created for participants was evident in their stories. Ultimately, in order to please the registered nurse they felt they had to abide by the registered nurse’s required/expected even if it meant administering medication alone. In reviewing the literature no studies could be identified which have examined this specific phenomenon in relation to medication administration. Therefore, this is an area for further research. If there is an expectation for final year students to practice in an independent manner, then clearly undergraduate nursing curricula and clinical facilities need to identify what the issues are and what strategies need to be implemented to ensure that patients still receive optimal and safe care.
The preceding discussion has focused on the attitude of the registered nurse however, participants also indicated that other conditions influenced the level of supervision presented or provided by registered nurses. These included the level of communication from the university and whether the ward was quiet or busy.

**Communication from the University**

Participants frequently indicated the frustration they and the registered nurse would experience because at times, no communication had been received from the university about the student placement. The impact of this included lack of resources to support the registered nurse in their role of supervising the student. Although participants did not verbalize any understanding of how the communication occurred between the university and the clinical facility or whose responsibility it was, they expected that communication from the university should reach ward level and be available to the registered nurse who was supporting them.

A literature review revealed no studies that specifically addressed communication from the university in relation to supervision levels and medication administration. In terms of trying to provide further meaning to the emergence of this condition, consideration was given as to what process of communication occurs between universities and clinical organizations when clinical placements are being negotiated and confirmed for students. In seeking out information about the process of communication the researcher also questioned what issues existed in terms of placing students and what information was actually sent or used by the registered nurse overseeing the students’ placement.
A review of the placement process at the university central to this thesis was conducted which identified that the communication pathways involved several individuals or components. For instance, clinical coordinators at the university, clinical liaison people from the facility, directors of nursing, nurse educators, nurse unit managers, clinical nurse consultants and clinical nurses were all involved in the communication process. Communication also included written correspondence, emails, telephone calls, face to face meetings to discuss provision of resources. The communication was not conducted at the ward level rather, it was generally undertaken with key individuals in the clinical facilities who were responsible for dissemination of the information at ward level namely, clinical coordinators. Timing of communication was dependent upon when placements were being sought. Final confirmation of placements could take months, weeks or even change in a period of a day. The pathway of communication portrayed complexity and was not something that the university always outlined to students or those supervising students in preceptor or mentoring roles. Hence, the reality was that neither the student nor preceptor/mentor were fully aware of the process however, were still frustrated at the ‘university’ for a perceived failure to deliver information.

Additionally, there was a dearth of literature examining the communication pathways of other universities but what did emerge were factors that could not only impact on the communication process but ultimately the supervision of students. Literature indicated the pressure that clinical facilities and universities face in terms of the availability of clinical placements (Hall 2006) the cost associated with placements (McMillan, Conway, Little & Bujack 2002) and the ability of clinical facilities to support students.
Universities are under pressure to accept students into nursing programs to ensure the sustainability of nurses within the Australian health care system (Beadnell 2006). A 2004 report by the Australian Health Workforce Advisory Committee (AHWAC) revealed that by 2010 the number of new graduate nurses required to enter the workforce to meet the Nation’s demand is between 10,712 and 13,483 (Beadnell 2006). However, in 2004 only 5,702 students graduated (Beadnell 2006) indicating a significant shortfall of new registered nurses. As a result Australian universities are under pressure to accept more nursing students into undergraduate nursing programs. Moreover, there is the pressure to find sufficient clinical placements for students. Finding placements can result in universities being forced to compete with each other. Clinical facilities can be inundated with requests for placements from universities and in turn this creates pressure on them to accept students when they are already burdened by other constraints. As the literature reports, clinical facilities struggle with staff shortages, low nurse-to-patient ratios, an increase in the use of unlicensed personnel, greater patient acuity (Matsumara, Callister, Palmer, Cox & Larsen 2004). Therefore, today a large casual workforce and increasing work hours for nurses is experienced (McKenna & Wellard 2004). Thus, all of these factors impact on student placements including the appropriate support and supervision available from the registered nurses at the ward level.

The individuals’ who often experience the greatest strain in trying to meet the demands of universities and balancing what is available in terms of placements in the health care facilities, are the individuals who negotiate placements. For the purpose of this study these individuals are referred to as ‘clinical coordinators’. Clinical coordinators are
usually situated in the universities and in the clinical facilities. Their role of negotiating and coordinating placements can be exhausting, especially when they have to negotiate and secure placements in a very competitive environment because universities are continually competing for placements. The pressure on clinical coordinators is reflective of the current approach in Australia whereby each university submits requests for placements which are often far in advance of knowing the true number of placements required (Barnett et al. 2008). The clinical coordinators at the health care facilities then have to balance the number of requests with the capacity of the facility to accommodate students within the contracted university semester timetable (Barnett at al. 2008). In the process of juggling, the clinical coordinators at the health care facilities may then have to decline some requests from universities. The declined university then seeks placements elsewhere. The challenge of the negotiating and sorting is then compounded by the clinical coordinator at the university having to later cancel a confirmed placement because of insufficient student numbers (based on the fact that the initial requests may have been sent out prior to knowing the true number of students needing placements). This then results in the clinical coordinator at the health care facility trying, at short notice, to accommodate students from another university otherwise they face a net loss of the placement to the system (Barnett et al. 2008). To reduce the pressure and to facilitate organized placements, clinical coordinators rely on true student numbers being supplied to them for placements and clear lines of communication including pathways and structures being in place. The communication via the coordinators includes the appropriate numbers of students, the names of students being supplied to the ward level, the times of their arrival and most importantly material for registered nurses being available to support them in their roles as preceptors/mentors.
A common thread in the data was that registered nurses did not always know students were coming which could have been attributed to the short notice sorting of placements as previously discussed. The not knowing was also compounded by the fact that the registered nurses were without resources to support them in their preceptor role and therefore they were not always aware of what skills the students could undertake. In some cases, communication was not received throughout the duration of the clinical placement. Similar to participants in this study, Häggman-Latila, Eriksson, Meretoja, Sillanpää and Rekola (2007) reported that the registered nurses supervising students, namely preceptors, lacked resources for clinical supervision which then disrupted the students’ concretisation of nursing reality and environment. As this study found, without resources and communication, registered nurses are less aware of course objectives, assessment requirements and what their role is when supervising students. Further, Yonge, Krahn, Trojan, Reid, & Haase (2002) argue that this results in preceptors experiencing increased workloads, stress and feelings of inadequacy with regard to the expectations placed on them. According to Ferguson (1996) the lack of support and communication can be a reason why registered nurses withdraw from the role of supporting students. As confirmed by Fehm (1990) the single most important factor in determining the success of a preceptor program is the preparation of individuals, which includes the communication and resources they receive. Without doubt, preceptors and students’ need to be adequately prepared for their roles as supervisors and supervisees (Aston & Molassiotis 2003). Pathways of communication between clinical facilities and universities must be clear and smooth so that delivery of information to registered nurses at ward level is likely to be organized and effective. This requires support for the
clinical coordinators. However, there is a significant gap in the literature in terms of what roles clinical coordinators play and furthermore what needs to occur for them in terms of managing placements to reflect reality. Clearly the number of students being placed in clinical settings by universities must be appropriate. Numbers must reflect what is considered realistic so that students have quality placements and registered nurses are available to appropriately supervise students when administering medications. An examination of adequate student numbers is an area that warrants further exploration, especially as inappropriate supervision of undergraduate nursing students when undertaking medication administration places patients at risk of being harmed. If however, clinical facilities are allocated large numbers of students due to the demand for clinical placements (to address the shortage of nurses), then different approaches to clinical supervision need to be examined by universities and the Australian health care sector.

In summary, the results of this study indicate that communication between universities, and clinical facilities need improving. Registered nurses need to be sufficiently prepared for their role as supervisors to student nurses. Effective communication and sufficient resources (such as preceptor guides, course objectives, student assessment tools) must be provided to registered nurses so that they have an understanding the students’ ‘scope of practice’ (including the supervision requirements) surrounding medication administration. Without this knowledge patient safety can be compromised. Therefore, clear communication, guidelines and an understanding of roles and responsibilities is essential. These concepts are key factors that have repeatedly appeared in the nursing
literature in terms of improving clinical education experiences for nurses (Murphy 2000; Andrews & Roberts 2003; Dix & Hughes 2004).

**Busyness / Having Time**

Busyness of the ward was a condition, as perceived by participants in this study, to impact on the registered nurses’ attitude and the time they had to supervise students when administering medications. In fact, busyness was revealed as an intervening condition to *shifting levels of supervision* and contributed to the different seeking behaviours revealed by participants. For example, some participants would have to *chase* the registered nurse to seek supervision because the registered nurse was busy. Alternatively participants would find themselves in a *waiting* situation because the *busy* registered nurse had been called away during the medication administration process. Busyness was a reason why students accepted the *being near, being over* and *being absent* level of supervision.

The increasing complexity of nursing and the ever changing health care arena can be attributed to the emergence of busyness and registered nurses not having time to supervise students administering medications. Busyness or excessive workload has been identified as a major cause of stress and dissatisfaction in the Australian nursing workforce (Australian Government, Department of Education Science & Training 2002). Further, Duffield, Roche and Merrick (2006) suggest that the busyness and the added complexity of nurses’ workloads are reflective of different patient mixes, restructuring of health care services and facilities, bed shortages and cost cutting. Additionally, Duffield and O’Brien-Pallas (2002) believe changes in technology and the
increasing expectations of consumers add to workloads while Ebright, Patterson, Chalko & Render (2003) report that geographical layout of wards is an added factor. However, Hegney, Plank and Parker (2003) found that staffing levels are not always sufficient which compounds the situation for nurses. Hegney et al. (2003) reported that over 50 percent of Queensland nurses in aged care settings and 32 percent of nurses in acute care settings had difficulties in meeting patient needs because of insufficient staffing levels. In a more recent study which helps to explain the busyness of nurses, Kalisch and Aebersold (2006) reported that today nurses are assigned patients who are more acutely ill, length of hospital stays are shorter which means there is a greater turn over of patients and ultimately greater numbers of patients. Further, Kalisch and Aebersold (2006) suggest that nurses are continually trying to balance organization demands with patient goals in an attempt to provide quality patient care.

According to some literature the busyness and lack of time registered nurses experience is heightened when they are expected to supervise students. Grant, Ives, Raybould and Oshea (1996) identified that a quarter of registered nurses surveyed in their study believed teaching nursing students was too time consuming because they were already burdened by heavy clinical workloads. Similarly, Atack et al. (2000) reported that staff nurses perceived that students increased their workloads while Howatson-Jones (2003) argued that time and high work demands were common reasons why clinicians express dissatisfaction with supervising students.

Despite the above mentioned studies concurring that workloads and busyness are issues for nurses, studies were not identified that have examined this phenomenon in relation
to medication administration and the adjustment required for the supervision of students for this skill. However, studies have reported that workload factors do influence the number of unsafe acts performed by nurses during medication administration including nurses making procedural violations during the process (Leape et al.1995; O’Shea 1999, McKeon, Fogarty & Hegney 2006).

Medication administration for student is a slow and arduous process and as this study has found that when registered nurses are busy in the clinical setting students perceive that their ability or willingness to provide supervision shifts. Patient safety can be compromised if registered nurses do not have the time for supervising students. If students are to move through medication administration in a manner that allows them to follow the correct process then clearly registered nurses need their workloads to be measured so that they can provide safe patient care while still being able to supervise students. Alspach (1989) found that lack of relief from normal workloads while having to support students was the most stressful aspect of the preceptor role. There is a growing acceptance within Australia that measuring nurses’ workloads is not only important for nurse retention but also in ensuring patient and nurse safety (Duffield, Roche & Merrick 2006). Literature also indicates the need for cooperation and agreement on the division of labour between educators, nursing management and preceptors and that this should be based on the definition of tasks required for clinical supervision (Öhrling & Hallberg 2001). Finally, workloads should reflect the time taken for supervising students.
The results of this study have identified that certain conditions, as perceived by students, influence the level of supervision that registered nurses give when they are administering medications. Having considered the conditions influencing *shifting levels of supervision* it is clearer as to why the third sub category *internal conflict* emerged from the data.

**Internal Conflict**

Internal conflict became a sub category to *shifting levels of supervision* because of opposing expectations. Participants found themselves in situations of being expected to administer medications in a manner that differed to what they were taught at university. When reviewing the data in the study, as well the literature to validate the emergence of this sub category, it was identified that opposing expectations was about the theory practice gap which is a well known phenomenon in the nursing literature. Participants had learnt the theory behind medication administration during their university laboratory experiences (including the level of supervision required), however when in the off campus clinical setting the practice differed.

**Opposing Expectations-The Theory Practice Gap**

There is widespread agreement within classical and contemporary literature that the theory practice gap relates to the distancing of theoretical knowledge from the actual doing in the world of clinical practice (Alexander 1983; Miller 1989; Goode 1998; Gallagher 2004). The theory practice gap is not new to nursing education rather it has concerned the nursing profession for many years (Corlett, Palfreyman, Staines & Marr 2003). Rafferty, Allcock and Lathlean (1996) consider it as problematic and an
embarrassing sign of failure within education, practice and research. Stuart (2003) suggests that educationally it is unrealistic to teach theory in one setting and then expect it to be applied automatically in another. As revealed in this study when inconsistencies are apparent, students become torn between doing what they are guided to do by the university to that expected in the clinical setting.

Previously no studies have specifically addressed the theory practice gap in relation to medication administration experiences of final year nursing students. However, Cooper, Taft and Thelen (2005) did report on the incongruence of what final year students noted in their last clinical placement to what they were taught in nursing school. For instance, Cooper et al.’s (2005) study explored the cognitive and emotional responses of baccalaureate nursing students during their final clinical experience. ‘Facing reality versus expectations’ was one of seven themes identified. Overall, students noted incongruence in two areas; the behaviour professional registered nurses (and other health care personnel) and policies, procedures, and practices within the health care system (Cooper et al. 2005). While medication administration practices were not specifically mentioned, incongruence was noted by students which align with the opposing expectations that emerged in this study.

Conflict was experienced by a number of participants in this study, because of opposing expectations reflective of the theory practice gap and was reported as participants ‘being scared’, ‘worried’ and ‘frightened’. Of note, a plethora of literature supports the emergence of conflict generally experienced by student nurses as a result of the theory practice gap (Corwin & Taves 1962; Kramer 1974; Melia 1987; Evans & Kelly 2004;
Kitchener, Caronna & Shortell 2005; Maben, Latter & Clark 2006). The most recent work by Maben, Latter and Clark (2006) not only concurs with previous literature whereby students experience conflict, but raises a very real concern for the nursing profession in that, the theory practice gap can impact on the practice of newly graduated nurses. In relation to this study, the latter suggests that the newly graduated registered nurses who performed at level one or two of *Contingent Reasoning* as final year nursing students may not provide close supervision to the next generation of undergraduate students. The reason being that, as undergraduates, these newly graduated registered nurses learnt to administer medications in the clinical setting without the registered nurse *being with* them.

Further, the study by Maben et al. (2006) examined the extent to which the ideals and values developed by students in their pre registration nursing courses were adopted by them as graduate registered nurses. Maben et al. (2006) examined the views of students in their final year then re-examined them as post graduates at a point of four to six months and 11 to15 months post employment. The findings suggested that even though students emerged from pre registration programs with a strong set of values, there were factors from both an organizational and professional level that effectively sabotaged the implementation of those values (Maben et al. 2006). Sabotaging factors included the newly graduated nurses having to obey covert rules, lack of support, having poor nursing role models, time pressures, role constraints, staff shortages and work overload (Maben et al. 2006). The researchers describe this as professional- bureaucratic work conflict. Therefore, principles governing professional practice and those used in employing institutions such as hospitals conflicted with one another. Thus there were
differing and sometimes opposing principles that governed behaviour. Such findings confirmed the earlier work of Corwin and Taves (1962), Kramer (1974), Melia (1987) and Kitchener, Caronna and Shortell (2005). Furthermore, Maben et al. (2006) argues that political reforms, such as the transfer of nursing education from hospital based programs to universities, have sharpened the tension between the professional-bureaucratic work conflicts creating a more deeply segmented profession which has widened the gap. The widening of the theory practice gap is in contrast to the intent of such reforms as occurred in Australia between the mid 1970s and 1993 (Elliot 2002). The aim of the transfer was to augment the correlation between nursing theory and practice as well as to facilitate students’ effective use of theory and knowledge in a variety of clinical settings (Wong & Wong 1987; Myrick, 1991; and Gassner, Wotton, Clare, Hofmeyer, Buckman 1999 cited in Elliot 2002).

The work of Maben et al. (2006) affirm the significance of this study because as previously stated, medication administration practices that students adopt as undergraduates could well transfer to what they undertake as graduates. If unsafe behaviour is performed by students and justified at an undergraduate level, then performance as a graduate registered nurse could reflect the same practice. That is, as registered nurses they may provide shifting levels of supervision to future undergraduate nursing students while administering medications and risk patient safety. This is an area for further research.

The results of this study which reveal another dimension to the well known theory practice gap, suggests that teaching of medication administration in the laboratory
setting of the university setting needs further consideration. For instance, education should include the unpredictability of the off campus clinical setting and factors such as the conditions surrounding medication administration. Factors pertaining to various levels of supervision should be incorporated into the teaching of medication administration for students within the safety of the on campus laboratory.

Undergraduate students need to be provided with strategies to enable them to manage situations when confronted with *shifting levels of supervision*. Thus, the student should not feel a need to conform to standards that are less than ideal.

Registered nurses in clinical settings who are involved with undergraduate nursing students also need to be exposed to the standards of teaching that occur in the university setting. Hence, it should not only be academics that are teaching medication administration in the laboratory setting, nor should it only be the registered nurses involved with the teaching in the off campus setting. Therefore, it is suggested that a combination of both occurs. This suggestion aligns with the literature where Hewison and Wildman (1996) assert that to bridge the gap between theory and practice, joint appointments such as lecturer-practitioner roles need to be established. Such positions, as Fairbrother and Ford (1998) argue, involve the dual function of both teaching and practice. Moreover, there is a general agreement in international literature that there is a need for stronger links between academic institutions and clinical settings with additional content in nursing curricula on patient safety (Affonso, Jeffs, Doran & Ferguson-Pare 2003; Nicklin & McVeety 2002). Without narrowing the theory practice gap, internal conflict may continue to exist for undergraduate students when involved in medication administration.
Getting Through

This study also identified that internal conflict encompassed the need for students to *get through* the clinical placement. In other words, pass the clinical placement. When confronted with *shifting levels of supervision*, participants were torn between deciding on what to do in order to *get through*. Meaning, they had to decide whether it was more important to perform to meet the university requirements/expectations or those of the registered nurse that they were administering medications with.

A review of the literature revealed that some studies have made reference to *getting through* clinical placements in a similar way as reported in this study. Melia (1987), in a study on the occupational socialization of nurses, made reference to the importance of students *getting through* their clinical placement which meant students did whatever they needed to do to meet both the demands of passing exams and getting a ‘good’ ward report. Further, Chapman and Orb (2001) reported on the lived experience of nursing students and reported strategies adopted by students to *get through* the demands that they encountered during their clinical placement. Strategies described by Chapman and Orb (2001) which align with the findings of this study, were ‘playing the game’ and ‘not rocking the boat’. These concepts are explored later in this chapter under *Contingent Reasoning*. Of note, these strategies were behaviors implemented by students in Chapman and Orb’s (2001) study in order to effectively complete the clinical placement. However, neither Melia (1987) or Chapman and Orb’s (2001) made mention in their studies about *getting through* the clinical placement in the context of medication administration.
In widening the search of the literature to determine the meaning of getting through for final year students, literature has reported the pressures experienced by final year nursing students. This literature gave greater insight as to why getting through was significant for the participants of this study as final year students. In essence, the participants in this study had been at university for at least three years and they were now at a stage where they needed to pass their studies to become registered. Smith (2001) revealed that the last six months for nursing students are inevitably anxious ones and stress may arise from events that seem to be uncontrollable, unpredictable or overwhelming. Stressors included balancing home and work, financial considerations, concerns about clinical competency, managing a client group, and fitting into new teams (Smith 2001). Furthermore, Holland (2002) reported that the timing of clinical placements, especially towards the end of the year when students are studying for examinations, can also be an added source of stress for them.

In summary getting through the clinical placement was central to participants’ decision making because it was about ‘passing’ the clinical placement. However, when confronted with shifting levels of supervision their decisions were burdened by internal conflict as they considered the possible consequences of compromised clinical assessment from either being found or identified by a faculty member from the university, displeasing the registered nurse and/or compromised patient safety. Each of these properties of internal conflict will now be discussed with reference to the literature.
Compromised Clinical Assessment

Compromised clinical assessment emerged as a property of internal conflict. In order to appreciate the conflict associated with this concept and to relate this to the literature, it was necessary to analyze how participants were assessed in the clinical setting. It was identified that the registered nurse was responsible for the students’ clinical assessment but final decisions were the role of the Course Coordinator located at the School of Nursing within the university. However, frequently more than one registered nurse contributed to the overall evaluation of the student. Hence, the participants’ interpretation of the registered nurse as playing the role of their assessor was accurate. The role of the registered nurse undertaking the assessment was to complete an evaluation record/tool. The assessment record/tool was based on the Australian Nurse Midwifery Council (ANMC) competency standards (see glossary p. 296) with criteria adapted consistent with the participants overall course objectives. The evaluation, which required the registered nurse to complete the assessment record/tool, occurred at both a formative and summative level. The summative evaluation determined whether the participant had met the competencies to pass the clinical placement. In order to validate the summative evaluation, the faculty member (who was the Course Coordinator from the university) had a responsibility of liaising with the registered nurse throughout the clinical experience to discuss the student’s progress. Participants were also aware the Nursing Program Coordinator (who was positioned above the Course Coordinator) at the university was responsible for notifying the Queensland Nursing Council (QNC) as to who would be eligible for registration at the completion of their studies.
Participants reported that the ‘university’ and the registered nurse contributed to their assessment; therefore it is understandable as to why conflict would emerge when they were confronted with *shifting levels of supervision*. Students perceived that they could be failed by the ‘university’ if found or identified by a faculty member for administering without supervision and by the registered nurse if not doing what that nurse required/expected. Both situations created anxiety and stress for participants.

Reviewing the literature confirmed the concerns that undergraduate nursing students generally have in relation to clinical assessment. For instance, Nolan (1998) identified that anxiety amongst nursing students was attributed to being constantly observed by nursing staff and being formally assessed. Nolan (1998) further suggested that this constrained student confidence and learning. Moreover, Holland (2002) suggested that being assessed in the clinical setting was both threatening and unnerving. Additionally, Kim (2003) reported that final year nursing students felt that being observed by instructors and assessed by faculty staff was one of the most anxiety provoking situations. Literature also reported that there are challenges in the process of assessment which, in turn adds to student anxiety. Holland (2002) spoke about the difficulty surrounding bias in assessment, including the challenge of assessment tools and how a nurse’s subjective response can be shaped by conscious and unconscious variables which can have a negative or positive influence within the assessment context.

Although previous literature concurs about the concerns that participants of this study revealed in relation to assessments, this study also revealed that part of the internal conflict associated with assessment and *getting through* was also about employment. Securing employment was, in essence, the ultimate goal for students undergoing their
final placement. Participants described the concerns that they had about securing employment as being related to what was written on their final clinical assessment tool/record. Few studies have investigated the link between clinical evaluations of undergraduate nursing students and securing employment and as such more research is recommended in this area. A limited study by Andre (2000), reported that clinical assessment tools/records are used in the appointment process of graduates. After interviewing staff involved in the recruitment of graduates in South Australian metropolitan hospitals, Andre (2000) confirmed that among other factors, employee selection was based on academic records and clinical performance tools/records. Andre (2000) further suggested that short listing for positions was based on the clinical evaluations and several employing institutions weighted clinical evaluation tools/records as high as 35 percent in the selection process. At least one study validated the concerns expressed by participants about having to conform to what registered nurses required/expected because the registered nurses were their assessors and in turn they would document on their assessment tool/record. Ultimately what was written on their assessment tool/record could influence their future employment. Therefore, using clinical practice tools/records for recruitment can place students under high pressure to conform to inappropriate medication administration practices as apparent in this study.

If breaches in safety occur by students because they are conforming to what they believe will give them the evaluation they need, then clearly the assessment process of final year students requires review. Student performance and adherence to safety appears to be reflective of what the person undertaking the assessment requires/expects. Therefore, it is argued that those performing assessments of students must be aware of the
standards that students must meet to ensure that the students’ are competent. Assessments conducted by registered nurses who are too busy and who are unaware of legislation or university requirements may mean that they are allowing students to exit nursing programs who are less than competent in their ability to administer medications safely. In turn, these graduating registered nurses will be the assessors of future students. Therefore, internal conflict was related to compromised assessment but also aligns with the fear of making a mistake because of inadequate supervision. This fear was connected to concern for patient safety and failing the clinical placement which was connected to compromised clinical assessment.

**Compromised Patient Safety/ Making a Mistake**

A review of the literature was conducted to identify if other studies had reported student concerns about making a medication error. Anxiety and fear was reported in several studies (Pagana 1988; Kleehammer, Hart & Keck 1990; Wilson 1994; Kim 2003). However, while Lopez-Medina and Sanchez-Criado (2005) identified anxiety as one of the most stressful situations for first and second year nursing students when undertaking their clinical experience, they did not mention any associated fear with medication errors because of *shifting levels of supervision*. The final year undergraduate nursing students in this study feared errors when no supervision was apparent as they underwent medication administration. Additionally they feared errors when the registered nurse stood *over* them and when the registered nurse was only *near* them while administering medication. Fear was also based on past experiences with near misses or actual errors. These findings, unlike any other study, have identified concerns that students have in relation to *shifting levels of supervision* and the possibility of making errors.
When the skill of administering medications is fraught with the fear of making errors, it is clear that strategies need to be implemented to enable students to be supervised in a close and supportive manner at all times. Additionally, should errors occur, a process should be in place that promotes accountability and learning from mistakes. Those teaching medication administration need to be mindful of students’ experiences that can further heighten anxiety including the sharing of ‘horror’ stories that involve errors. However, if stories are used as a teaching strategy, then the focus needs to be on what can be learnt about the factors that have contributed to the medication error, how the error was effectively managed and what strategies could be put in place to prevent such incidents occurring in the future.

In summary opposing expectation was identified as the central property to internal conflict when students were faced with shifting levels of supervision. The opposing expectations represented a theory practice gap between what students were required/expected to do from the university perspective when administering medications compared to what the registered nurse required/expected in the clinical setting. Maben et al. (2006) suggested that the nursing profession should not lose sight of individual nurses, such as students, who struggle with opposing forces. The identification of such a gap in relation to medication administration is important for patient safety. The reality of practice and what undergraduate students encounter in the clinical laboratories of the university setting need closer examination. Although universities should not move away from having students adhere to what is legal, it is clear that the realities of the clinical arena do not always allow for registered nurses to provide personal supervision to students when they are administering medication. This study raises questions and
suggests further research into different approaches to clinical supervision and assessment of students during medication administration episodes. Further research needs to take into account the realities of the clinical context that considers the absolute time that is required of registered nurses to support and teach students to administer medications safely in the off campus clinical context.

**Contingent Reasoning- Dealing with the ‘Shifting Levels of Supervision’**

The discussion thus far has considered the supervision seeking behaviours of undergraduate nursing students, the differing levels of supervision presented and/or provided by the registered nurse, the conditions impacting on that supervision and the internal conflict experienced by students. This thesis now considers the process undertaken by final year undergraduate nursing students in response to *shifting levels of supervision*, termed *Contingent Reasoning*.

*Contingent Reasoning* involved participants making a decision and then actioning a behaviour when confronted with *shifting levels of supervision*. The decision and behaviour was triggered by the internal conflict that the participant experienced because of the *shifting level of supervision* that the registered nurses presented/provided. In essence, the decisions were about the level of supervision to accept so as to proceed with actually administering medications to the patient that would allow participants to *get through* the clinical placement. This required participants having to balance university requirements/expectations with the registered nurse requirements/expectations. The reasoning was contingent. This meant that there were conditions
influencing the decisions being made. These included the relationship with the registered nurse and the attributes of the student.

Balancing university and registered nurse requirements/expectations was a dilemma. Participants gave priority to either the registered nurse, the university or to both. Predominantly, their decisions resulted in meeting the registered nurse requirements/expectations even if incorrect. Other studies have reported on students accommodating to registered nurses in the clinical area, but not in the context of medication administration. For example, studies in manual handling training of pre registration nursing students (Kane & Parahoo 1994; Kneafsey 2000; Swain, Pufahl & Williamson 2003) identified that students comply with staff practices in order to be accepted despite what they were taught. In a recent study, Swain et al. (2003) explored why students may or may not apply theoretical concepts and skills taught to them concerning manual handling when in the off campus clinical context. Swain et al. (2003) found that students’ practice fell somewhere between what they saw others do in the clinical context and what they believed was recommended from their theoretical teaching. More students were likely to do what others in the ward team did as opposed to what they remembered learning as the correct technique (Swain et al. 2003). Similar to the findings in this study of final year students’ experiences with medication administration, Swain et al. (2003) reported students’ actions as being influenced by their anxiety surrounding their assessment. Further, they were keen to be accepted as a team member and did not want to go against the staff nurse who could influence their assessment. What these studies did not identify was the process that students went through in order to arrive at the decision. This study identified a process termed Contingent Reasoning.
which helps explain the decision making of students when confronted with shifting levels of supervision.

A wider review of the literature was conducted to identify if any existing theories could concur with and validate the levels of Contingent Reasoning developed by the researcher. Kohlberg’s (1984 cited in Kohlberg 1987) theory on Moral Reasoning was identified as the best aligned, as well as providing a mechanism for supporting the three levels of Contingent Reasoning. Kohlberg’s theory of moral reasoning was built on the foundation of Piaget’s theory of overall cognitive development and in doing so described a sequence of fixed stages that reflect different ways individuals think about moral development (Kail & Cavanaugh 2000). At the earliest stages, moral reasoning of individuals is based on external forces such as the threat of punishment or the promise of reward while at the most advanced stage a personal, internal moral code emerges that is unaffected by others’ views or society’s expectations (Kail & Cavanaugh 2000). Each stage will be considered prior to discussing it applicability to Contingent Reasoning.

**Kohlberg’s Theory of Moral Reasoning**

Kohlberg’s theory (Kohlberg 1984 cited in Kohlberg 1987) presents six stages of moral development grouped into three major levels surrounding convention. Kohlberg (1987) defines conventional as the individual conforming to and upholding the rules and expectations of society and authority just because they are society’s rules and expectations. The first level of Kohlberg’s theory is the Pre-Conventional Level which includes stage one being Heteronomous Morality and stage two being Individualism, Instrumental Purpose and Exchange (Kohlberg 1984 cited in Kohlberg 1987). At this
first level, moral reasoning is based on external forces and decisions for most
individuals are based on reward and punishment (Kail & Cavanaugh 2000). The second
level incorporating stages three and four is the *Conventional Level*. Stage three is
*Mutual Interpersonal Expectations, Relationships and Interpersonal Conformity* while
stage four is *Social System and Conscience* (Kohlberg 1984 cited in Kohlberg 1987). At
this level the individual’s moral reasoning is largely determined by others’ expectations
of them (Kail & Cavanaugh 2000). Individual’s look to society’s norms for moral
guidance (Kail & Cavanaugh 2000; Dierckx de Casterle, Janssen & Grypdonck 1996)
and loyalty and conformity guide behaviour. Individuals have developed the capacity to
view themselves in relation to others. The last is the *Post Conventional Level* with
stages five and six. Stage five is *Social Contract or Utility and Individual Rights* while
stage six is *Universal Ethical Principles* (Kohlberg 1984 cited in Kohlberg 1987).
Individuals at this level are able to differentiate themselves from expectations and rules.
They define and autonomously examine moral values and principles (Dierckx de
Casterle, et al.1996) and reasoning is based on a personal moral code (Kail &
Cavanaugh 2000). Individuals at this level understand society’s conventions but
acceptance is based on abiding by the general moral principles that underpin the rules.
When principles come into conflict with rules, the individual judges by principle
(Dierckx de Castere, Grypdonck, Cannaerts & Steeman 2004).

Even though Kohlberg examined the rules that people use to make moral decisions
rather than the decisions themselves (Kail & Cavanaugh 2000) this system of
classifying stages still helped to confirm those developed in this study with *Contingent*
Reasoning. Table 18 highlights the variations as well as the similarities between Kohlberg’s theory of Moral Reasoning and Contingent Reasoning.

Table 18: Comparison of Kohlberg’s Six Moral Stages (Kohlberg 1984 cited in Kohlberg 1987) and Contingent Reasoning Relating to Shifting Levels of Supervision

<table>
<thead>
<tr>
<th>Kohlberg’s Six Moral Stages</th>
<th>Contingent Reasoning relating to Shifting Levels of Supervision</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level 1: Pre-conventional Level</strong></td>
<td><strong>Level 1: Norming for Survival of Self</strong></td>
</tr>
<tr>
<td>Stage 1 Heteronomous Morality:</td>
<td>The Individual considers the rules surrounding medication administration as being controlled by the registered nurse - the authority who can dictate whether they pass.</td>
</tr>
<tr>
<td>• The individual considers what is right as avoiding breaking rules backed up by punishment and power of authorities.</td>
<td>• To avoid ‘punishment’ for example failing, the individual normalizes and does whatever the registered nurse expects. The individual will fit in at all costs and not rock the boat.</td>
</tr>
<tr>
<td>• The social perspective of self is egocentric. The individual doesn’t consider the interests of others.</td>
<td>• The individual’s first priority is themself and passing the placement rather than patient safety.</td>
</tr>
<tr>
<td>• Actions are considered physically rather than with regard to the psychological interest of others.</td>
<td>• The individual will seek supervision initially but in consecutive episodes of administering with that same registered nurse will be willing to ignore requirements set by the university pending what the registered nurse requires/expects.</td>
</tr>
<tr>
<td>Stage 2 Individualism, Instrumental Purpose and Exchange:</td>
<td>• To tell the university that supervision is not in place is disregarded as this could mean failure (and punishment).</td>
</tr>
<tr>
<td>• The individual considers what is right is to follow rules only when it is to someone’s immediate interest, acting to meet one’s own interests and needs and letting others do the same.</td>
<td>• What is considered right is what is fair, a deal or an agreement.</td>
</tr>
<tr>
<td>• What is considered right is what is fair, a deal or an agreement.</td>
<td>• The reasons for doing right is to serve one’s own needs where it is recognized that other individuals have their interest too.</td>
</tr>
<tr>
<td>• The social perspective is a concrete individualistic perspective.</td>
<td>• The social perspective of self is egocentric. The individual doesn’t consider the interests of others.</td>
</tr>
<tr>
<td>• There is awareness that everybody has their own interests to pursue and these conflict, so that what is right is relative.</td>
<td>• Actions are considered physically rather than with regard to the psychological interest of others.</td>
</tr>
</tbody>
</table>
**Level 2: Conventional Level**

**Stage 3 Mutual Interpersonal Expectations, Relationships and Interpersonal Conformity:**
- The individual lives up to what people generally expect of people in their role.
- Being good is important and is portrayed as having good motives and showing concern about others.
- The reasons for doing right includes the need to be a good person in the eyes of the individuals, that the individual cares for others, they believe in a desire to maintain rules and authority which support stereotypical good behaviour.
- The social perspective is the individual in relationships with other individuals.
- There is an awareness of shared feelings, agreements, and expectations which take primacy over individual interests.
- The social perspective also sees the individual as relating their point of view through putting themselves in other persons’ shoes.

**Stage 4 Social System and Conscience:**
- What is considered right is the individual fulfilling the actual duties to which they have agreed.
- Laws are upheld except in extreme cases where they are considered to conflict with the individual’s other fixed social duties. What is right is also considered to be contributing to society, the group or the institution.
- The social perspective differentiates societal point of view from interpersonal agreement or motives.

The individual takes the point of view of the system that defines roles and rules. Individual relations in terms of place in the system are considered.

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**Level 2: Conforming for the Benefit of Self & Others**

- The individual at this level will always seek supervision because they know that this is the right thing to do by the university.
- The desire to get through the assessment means that the individual needs to be ‘good’ when on clinical. To achieve this they will try to do what is appropriate for the registered nurse but with a consciousness of university requirements. The individual is keen to maintain a good relationship with the registered nurse and portray a level of respect because they are assessing them.
- The individual portrays a greater level of accountability and adherence to university requirements than level one.
- If in a situation of having to administer without the required supervision the individual will proceed if they believe the benefits of this approach outweighs the negatives.
- The individual will support what the registered nurse sees as good behaviour.
- The individual is unlikely to report behaviour or choice in decision to the university because they want to live up to what is expected of them in adhering to policy.
- If the individual at level two remained with the same registered nurse, then with any consecutive medication administration episodes they will adopt seeking behaviours and aim for a level of supervision that meets the needs of both the university and the registered nurse.
### Level 3: Post Conventional Level

**Stage 5 Social Contract or Utility and Individual Rights:**
- What is considered ‘right’ is awareness that people hold a variety of values and opinions and that the values and rules are relative to the group that the individual is in. Rules are usually upheld as they are the social contract.
- What is also considered ‘right’ is that there are some non relative values like life and liberty that must be upheld in any society regardless of majority opinion.
- The reason for ‘doing right’ is the individual’s sense of obligation to law - they have a social contract to abide for the welfare of all and to protect peoples’ rights. The individual has a feeling of a contractual commitment which includes trust and work obligations.
- The social perspective of this stage is a Prior- to Society Perspective. The rational individual is aware of values and rights prior to social attachments and contracts.
- Within the individuals perspective they consider moral and legal points of view and recognize that they sometimes conflict but they find it difficult to integrate the conflict with the moral and legal point of view.

**Stage 6 Universal Ethical Principles:**
- What is right is following self- chosen ethical principles & laws
- When laws violate principles the individual will act in accordance with the principle - the universal principles of justice.
- The social perspective is ‘Perspective of a Moral Point of View’. It is a perspective from which social arrangements derive - the individual recognizes the nature of morality.

(Kohlberg 1984 cited in Kohlberg 1987)

### Level 3: Performing with Absolute Conscience

- The individual will adhere to what they know is required from the university and what is considered lawful. The individual will avoid breaching university requirements at all times.
- The individual will seek supervision and will only accept what is required by the university.
- The golden rule is to be personally supervised by a registered nurse when administering medications at all times.
- If supervision is not granted- the individual will make a decision not to administer medications at all. However, the individual still fears failure from the university if caught administering without supervision.
- In consecutive medication administration episodes the individual will adopt seeking behaviours to gain direct supervision.
- The individual is reluctant to report issues back to the university. For this reason level 6 of Kohlberg’s theory was not included in level three of Contingent Reasoning.

Kohlberg’s (1984 cited in Kohlberg 1987) theory of Moral Reasoning provides clarity to the stages of Contingent Reasoning. In summary, Kohlberg’s (1984 cited in Kohlberg 1987) theory at the pre-conventional level has two stages which can be described as a rather egoistic view of moral behaviour. These stages fit with the student at level one of Contingent Reasoning who avoids failure at all costs. The student will do this by seeking the approval of the registered nurse and do whatever that registered nurse...
requires/expects. At the conventional level, stages three and four of Kohlberg’s theory, decisions made by the individual are based on adhering to the conventions of the immediate group, or society as a whole (Falkenberg 2004). Similarly students at level two of *Contingent Reasoning* will conform to what is expected in the process of trying to be good for all and being liked. When challenges arise they will adapt by identifying the benefits of their chosen action. At the post conventional level of Kohlberg’s (1984 cited in Kohlberg 1987) theory, stages five and six, the individual becomes more autonomous, making decisions based on a set of universal moral principles and follow these because it is right to do so. Similarly, the student at level three of *Contingent Reasoning* will choose a path of action that they believe is morally correct and in the best interest of the patient. However, the results of this study did not reveal sufficient evidence that validated final year nursing students as being able to both reason morally and ethically and implement the resulting ethical decisions consistent with stage six of Kohlberg’s (1984 cited in Kohlberg 1987) theory. Participants feared speaking out to the university therefore Kohlberg’s last stage was not included.

Each level of *Contingent Reasoning* included behaviours and actions taken by participants in response to the decision they had made about *shifting levels of supervision*. A further review of the literature was examined and it was identified that the categorized behaviours had strong links to literature surrounding the professional socialization of nurses. Whilst Kohlberg’s (1984 cited in Kohlberg 1987) theory helped to provide clarity as to how and where decisions and actions were positioned at each level of *Contingent Reasoning*, literature on professional socialization would help to validate the meaning of the behaviours/ actions at each level.
**Professional Socialization**

Professional socialization is the process by which the individual learns the culture of a profession. According to White and Ewan (1991), it is a specialized social interaction whereby students and the people whom they come into contact in the clinical context develop expectations of themselves and each other and then respond to each other with those expectations in mind. Eventually the responses develop into patterns of behaviour.

There is considerable discourse which focuses on the socialization of nursing students into health care professionals (Becker, Greer, Hughes, Strauss 1961; Oleson & Whittaker 1968; Bendall 1975; Hass & Shaffir 1987; Holloway & Penson 1987; Melia 1987). A common thread in the literature is that nursing students have a desire to belong in the clinical setting and to obtain belonging means accepting the norms of the setting. For example, Reilly and Oermann (1992 p 114) stated,

> …every clinical setting has its own cultural values, norms, and expected behaviors. This cultural dimension serves to control the behavior of various individuals in the setting and provides sanctions for those who deviate.

This study revealed that when final year undergraduate nursing students were involved in medication administration they overwhelmingly felt that they had to please the registered nurse. The sanctions perceived by them if they deviated from pleasing the registered nurse, was failing their clinical assessment. The actions/behaviour that participants made at each level of *Contingent Reasoning* will now be discussed in light of the existing literature.
Do Whatever/ Fit In/ Suck Up/ Don't Rock the Boat

To do whatever, fit in, suck up, and not rock the boat were all terms used by participants to represent strategies to deal with shifting levels of supervision. These behaviours were typically applied to level one and, in some situations, level two of Contingent Reasoning and were aimed at pleasing the registered nurse so as to not risk failing their clinical assessment. The student would carry out what was required/ expected by the registered nurse to gain a sense of belonging. They would be obedient, conform to the norms of the clinical setting and not question the registered nurse if shifting levels of supervision were presented to them. Phrases ‘to do whatever’ and ‘suck up’ have previously not been reported in the literature. However ‘fitting in’ and ‘not rocking the boat’ occur in the literature surrounding the professional socialization of nursing students.

Several studies have reported fitting in and not rocking the boat as strategies undertaken by nurses (Melia 1984; Cahill 1996; Chapman & Orb 2001; Gray & Smith 2000; Randle 2002; McKenna, Smith, Poole & Coverdale 2003; Maben, Latter & Clark 2006), especially when they are at odds with what may be expected when conflicting norms exist. In an early study by Melia (1984), fitting in was reported as something that nursing students learnt to do in the clinical setting according to whatever seemed to be expected of them at the time. It was considered the safest way of obtaining a satisfactory ward report and constituted a major part of student negotiations throughout their nursing program. To achieve this, students concentrated their efforts on meeting the expectations of the staff, especially those in authority, and ‘not making waves’ in the clinical area before undertaking patient care (Melia 1984). Whilst Melia’s work may be
considered some what dated, the findings from later research also confirm that students continue to fit in. Gray and Smith (2000) reported this as something that students do to smooth the process of professional socialization. Tiwari, Lam, Yuen, Chan, Fung and Chan (2005) reported that students actually employ tactics to fit in so as to enhance their chances of passing the clinical placement. Further, Calman, Watson, Norman, Redfern and Murrells (2002) reported a link between how well students fitted in to the ward to how well they passed their assessment. Additionally, in a longitudinal study by Randle (2002), fitting in was also identified by nursing students as a strategy employed so as to act according to the dominant norms. Meaning students would act in a way that they perceived fitted in with what others were doing. The findings from Randle’s (2002) study have a striking resemblance to final year students in this study who gave evidence of performing at level one of Contingent Reasoning where they would ‘do whatever’.

Randle (2002) evaluated changes in the self esteem of pre-registration student nurses in a three year diploma in nursing programme. The findings suggested that students began their education with moral awareness which they perceived would guide their practice, but by the end of their course their moral awareness had been superseded by their willingness to conform to the norms and values that existed within the clinical context. The central motivation to fit in was to become like the nurse they worked with and their decision to fit in superseded their desire to act morally (Randle 2002).

‘Not rocking the boat’ was identified in Chapman and Orb’s (2001) study, previously discussed, as a strategy adopted by undergraduate nursing students to get through their clinical placement. This strategy was described by students in Chapman and Orb’s
(2001) study to mean becoming what or who ever the nursing staff wanted them to be. For example, they felt that they had to conform to the status quo in order to pass the clinical placement. The findings reported in this thesis concur with what Chapman and Orb (2001) identified, in that students felt that to ‘not play the game’ or to ‘rock the boat’ could result in a failure.

Fitting in and not rocking the boat at level one of Contingent Reasoning is of concern for safe medication administration. As previously alluded to, if students adopt this behaviour at pre registration level then it becomes questionable as to whether they will role model safe medication administration (as registered nurses) to future undergraduate students. Therefore, this is worthy of further exploration. Moreover, the concern is mirrored in the work of Maben, Latter and Clark (2006) discussed earlier in this chapter. These researchers identified behaviours adopted by newly graduated nurses, when socializing into clinical organizations, included the need to fit in, to not rock the boat and to ‘keep quiet’ during their initial post registration period. The perception to adopt these behaviours emerged from existing staff that had socialized these new nurses into ways of practice which were at odds with the ideals and values they had developed in their pre registration course (Maben et al. 2006). These behaviours also prevented new graduates from influencing or changing practice and from questioning things. Thus, in order to survive they would go along with what ever was expected.

In summary, to do whatever, fit in, suck up, and not rock the boat were strategies used by participants to deal with shifting levels of supervision at level one of Contingent Reasoning. While suck up and to do whatever may be new phrases, fitting in and not
rocking the boat are strategies used by student nurses in the process of socialization to the clinical setting. These strategies are about gaining some level of acceptance in the ward and doing what is required when passing clinical is the desired outcome. This need for acceptance is not a new phenomenon. Studies that date back to the 1950’s confirm that individuals will adapt their judgments and behaviours in order to fit with the people around them (Asch 1951). People will conform to gain acceptance and as Aronson (1999) asserts, conformity is abetted when the group is important to the target person.

The results reported in this thesis have identified that final year undergraduate nursing student’s will, at times, conform to the norms and fit in to the important group, namely the registered nurses, to gain acceptance even if it means compromising patient safety, nursing regulations and the law when administering medications. Whilst Baumeister and Leary (1995) argue that there is nothing wrong with fitting in, it becomes a problem when it becomes more important than doing what is correct in terms of practice. Closely linked to do whatever, fit in, suck up, and not rock the boat was no tell or shutting up. These terms appeared in the data at all levels of Contingent Reasoning and potentially posed the greatest concern for those in tertiary nursing education.

**Shut Up/ No Tell**

No tell, shutting up, not speaking up were phrases used by participants to reflect the behaviour of ‘not telling’ faculty members at the university what was actually happening in the clinical setting because they feared failure and also the consequence of a faculty member raising the concern within the clinical setting. In other words, if the faculty member from the university found out that the student accepted shifting levels of
supervision the student could not only be failed, but the faculty member could address this concern within the clinical setting and the registered nurse responsible for not supervising the student could be reprimanded. Ultimately this could impact on the relationship the student had with the registered nurse who was in turn responsible for the student’s clinical assessment. As a result their clinical assessment could be compromised. ‘No tell’ was identified at every stage of Contingent Reasoning and was reported to relate to supervision and the situation of students being involved in a medication error or near miss.

The concept of not speaking out is not a new phenomenon in hospital culture. The term ‘organization silence’ has been referred to more recently to mean the individuals within an organization or industry doing or saying very little in response to a significant problem facing them (Morrison & Milliken 2000). In a recent report by Maxfield, Grenny, McMillan, Patterson and Switzler (2005), termed ‘Silence Kills-The seven crucial conversations in healthcare’, it was stated that fewer than ten percent of nurses, physicians and other clinical staff confronted their colleagues when they were aware that poor clinical judgment or shortcuts were taken which could have caused patient harm. They reported that a majority of healthcare workers regularly saw some of their colleagues break rules, make mistakes, fail to offer support, or appear incompetent, yet less than one in ten would say anything (Maxfield et al. 2005). Two reasons documented for remaining silent were a lack of confidence and fear of retaliation (Maxfield et al. 2005).
While no studies could be identified that described this phenomenon in relation to shifting levels of supervision, some studies have reported specifically on the silence of nursing students. Randle (2003) reported that when students conformed to behaviour or saw behaviour which they knew was wrong, they experienced emotional turmoil. Even though students wanted help from someone in authority to stop what was occurring, they were scared to report events because of perceived repercussions. Similarly, the participants in this study reported no telling because of not wanting to be in trouble and risking failing the clinical placement by the university. However, Randle (2003) suggested that the social structure in which nursing operates meant that students were often placed in precarious positions and even though they initially knew the actions of nurses were wrong, they felt powerless to act due to their position as a student. Further, Randle (2003) asserts the strength of professional socialization where students assimilate to the norms may transform students into the type of nurse that the context wants them to be. In other words, if the culture of the organization reflects high standards of practice, students will behave accordingly. On the other hand, if practice is less than ideal then students may also adopt inappropriate practice in order to feel part of the team.

The ‘no telling’ in this study is concerning because not only is the student threatening their professional integrity, but by saying nothing they are indirectly consenting to what has occurred. The challenge, however, as suggested by Levett-Jones and Bourgeois (2007), is that by telling or speaking there is the risk of the student experiencing ridicule, rejection and/or social isolation. McKenna, Smith, Poole and Coverdale (2003) reported that the fear of bad evaluations stopped student nurses from taking
action and, the fear of retaliation is a significant factor in under reporting of negative experiences. The risks of failure for the participants in this study outweighed the benefits of reporting. The reporting is what Kelly (1996) describes, as an act of moral courage for students.

The reluctance of students to tell faculty members of the university about what was happening to them in the clinical context is an area that warrants further investigation. The results of this study suggest that faculty members from universities may not be aware of the reality of what occurs for students in the context of the clinical setting when they are administering medications. Lack of awareness may then lead to important elements concerning student preparation for safe medication administration being absent from the nursing curriculum. The missing elements may then be reflective of the theory-practice gap as previously discussed. The perceived consequences of reporting and the desire to protect their clinical assessment, suggests that students may continue to keep quiet about issues in the clinical setting which can ultimately compromise patient safety. A further strategy used by some participants in this study was saying ‘no’.

**Saying ‘No’**

Saying ‘no’ to the registered nurse meaning, the student refused to administer medications without the required supervision was reported at level three of *Contingent Reasoning*. However no participant reported this as being apparent with all of their medication administration experiences. Saying ‘no’ was expressed by participants when sharing stories about their initial medication administration experiences however, was
less apparent towards the end of their placement. Therefore, this suggests that as the clinical placement proceeded students were more inclined to do as the registered nurse required/expected reverting back to a level one or two stage of Contingent Reasoning. As the placement progressed it appeared that the relationship with the registered nurse changed. Part of the change was the confidence and trust that the participants perceived they earned from the registered nurse. When confidence and trust was apparent participants did not want to jeopardize the relationship by saying ‘no’ to the registered nurse if they presented shifting levels of supervision to them. The changing relationship between students and registered nurses during clinical placements was also reported by Robinson, McInerney, Sherring & Marlow (1999) in their study of students in a paediatric practice setting. Robinson et al. (1999) suggest that relationships with preceptors and students change and evolve over time with students developing increased independence and the preceptors having to respond and change their supervisory practices.

Even though relationships may have changed, saying ‘no’ was also dependent on the level of supervision presented/ provided. For example, when participants did speak of saying ‘no’ supervision was absent as opposed to the registered nurse presenting a being near level. No studies that specifically focused on students refusing inappropriate levels of supervision could be found. However, Levett-Jones and Bourgeois (2007) propose that students have a right and a responsibility to refuse practice that is outside of their scope of practice and that they should not feel guilty or have to make excuses. In widening the review of literature, studies on nurses and assertiveness were examined. Literature was identified that suggested why nurses may not be assertive. Poroch and
McIntosh (1995) identified barriers which included a lack of knowledge about personal and professional rights, anxiety from lack of confidence, poor self esteem, concern about what others think and being isolated, disliked or punished by nurse colleagues. Moreover Percival (2001), reported that because nurses are perceived by the public as ‘nice’ people they often behave in ways that are expected of them. Additionally a more recent study of registered nurses by Timmins and McCabe (2005) suggested that assertive behaviour is a skill which is utilized according to interpersonal and role relationships. Timmins and McCabe (2005) reported factors within the work environment that support or prevent assertive behaviour and suggested that other colleagues and the general atmosphere were influential. They also reported that nurses in their study were less skillful at expressing their needs around nursing colleagues. For example, saying ‘no’ was adopted by registered nurses more frequently when disagreeing with medical colleagues rather than with their own nursing colleagues. The findings from this study concur with those of Timmins and McCabe (2005) and help to explain why participants used assertive skills in saying ‘no’ on some occasions with some registered nurses but not with others.

Overall, this study reinforces the need for assertiveness training for students. As Stevenson, Randle and Grayling (2006) suggest, such training is essential in nursing programs and furthermore scenarios should be designed that mimic situations for students as they may occur in the off campus clinical setting. Levett- Jones and Bourgeois (2007), claims that speaking out or standing up is not an easy task for nursing students however, it is one of the most important aspects of personal integrity when faced with a situation which the student understands is incorrect.
The results of this study identified that saying ‘no’ to administering medications with less than appropriate levels of supervision was influenced by the registered nurse who was with the student and the level of supervision presented. In the next part of this chapter the relationship with the registered nurse is considered.

**Conditions Influencing Contingent Reasoning**

**Relationship with the Registered Nurse**

The position of students at each stage of Contingent Reasoning could not be fully understood until the relationship between the student and the registered nurse was considered. The confusion was apparent because participants shared stories in a single interview that reflected them being at differing levels of Contingent Reasoning. For example, at the outset of an interview the participant’s behaviour may have been consistent with level three of Contingent Reasoning but as their story unfolded they provided examples of behaviours consistent with level one or two of Contingent Reasoning. The variation in level was dictated by the decision and behaviour adopted at the time of the medication episode. Although undergraduate nursing students understood the requirements of supervision, it was the registered nurses who were the central players in influencing students’ decisions, actions and behaviours.

Various studies have reported on the significance of the relationship between the student and the registered nurse who assumes the role of preceptor, mentor, supervisor or clinical teacher. For example, Woo-Sook, Cholowski and Williams (2002) reported that interpersonal relationships were the most valued characteristic rated by both
Australian students and clinical educators. However, other studies suggest that good interpersonal relationships in the clinical setting may be more valuable than professional competence (Brown 1981; Hart & Rotem 1994). Moreover, when relationships are not effective, student learning can be influenced.

In a qualitative study by Peirce (1991), factors reported to negatively impact on student learning included unreceptive staff, lack of direction from staff and preceptors who were not attentive or did not like students. Additionally, Johansson, Holm, Lindqvist and Severinsson (2006) argued that students need support from the person in the supervisor/teacher role (such as the preceptor) so that they can integrate theory, practice as well as their own personal experiences. Several studies have reported on important aspects of the interpersonal relationship between the student and supervisor (such as the preceptor). These include respect and responsibility from the supervisors’ ethical stance (Agelii, Kennergren, Severinsson & Berthold 2000) rapport, empathy, being genuine and having a respect for learners (Lowmann 1985; Bergman & Gaitskill 1990; DeYoung 1990; Diekelmann 1990; Beck & Srivastava 1991; Marriott 1991; Reilly & Oermann 1992; Dunn & Hansford 1997). Additionally, some researchers argue that the relationship between the student and supervisor (such as the preceptor) is similar to the caring one that occurs between the nurse and the patient (Holm, Lantz & Severinsson 1998). Furthermore, trust, acceptance, respect, dignity and being listened to by another person were identified as inherent in the relationship (Johansson et al. 2006).

For many participants in this study, trust and confidence was identified as important elements in the relationship between themselves and the registered nurse when
administering medications. Participants spoke of feeling positive about the relationship when the registered nurse trusted and had confidence in them. Participants sought trust and confidence from the registered nurse and once they perceived they had this in the relationship they were reluctant to give it up. As a result participants would respond to the registered nurse in the way that they perceived the registered nurses wanted and (at times) would become desensitized to engaging in safe medication administration practices when confronted with shifting levels of supervision.

When trust and confidence was not obvious, all shifting levels of supervision were problematic. For example, being over was more apparent when the participant perceived they were interrupting the registered nurse who did not want the responsibility of students. Being near occurred because the registered nurse was busy and being absent because the registered nurse did not want the student, was not interested or was too busy. Without the trust and confidence in the relationship, participants were reluctant to question the shifting levels and the deciding behaviour would position them into level one or two of Contingent Reasoning in order to get through the clinical placement. In essence, the registered nurse had the power in the relationship and students believed that they had to succumb to the power if they wanted get through the clinical placement.

The results of this study have added a new dimension to the importance of the registered nurse-student relationship with regard to medication administration. Relationships surrounding trust and confidence are necessary for students to experience a positive clinical experience. However, the relationship can place students in difficult situations if the registered nurse does not adhere to what are expected standards of practice.
Moreover, Grundy (1993) describes that the development of confidence for the student is an important component of nursing education. However, confidence that is afforded to the student by the registered nurse requires that students deliver care within their scope of practice. Registered nurses should continue to show trust and confidence; however, in doing so they should be reminded of their own accountability and responsibility for practice. When trust and confidence is not provided, students can be thwarted in their growth, submissive and undertake practice that is less than ideal all in order to please the registered nurse.

The perceived importance, expressed by participants in this study, of the role that the registered nurse plays as the assessor raises a concern surrounding medication safety. Because participants were, for most parts, willing to compromise patient safety and accept levels of supervision that shifted from what was required by the university; this begs the question whether preceptors/mentors or registered nurses on busy wards are the most ideal individuals to supervise students for medication administration. Therefore, consideration should be given to whether specific registered nurses should be assigned to supervising medication administration. As such their roles would be clear and guided by standards and policy that would not deviate due to the conditions that may otherwise influence the registered nurse on the ward. Such a strategy would allow students to administer medications in a thorough way to meet all safety requirements and creating time to consolidate learning.

Therefore, this study raises concerns as earlier espoused by Holloway and Penson (1987) who argued that the type of nurses students become is directly related to how
they are treated by those around them and what individuals expect. As Greenwood (1993) suggests, when students do what nurses expect of them they can run the risk of becoming habituated to an unquestioning mode of behavior.

**Individual Student Attributes**

Participants spoke briefly about their attributes and what they saw in other students as reasons as to why and how they would respond to *shifting levels of supervision*. Despite making comment about these attributes, participants were not able to articulate being able to say ‘no’ at level three of *Contingent Reasoning* for every medication administration, rather the majority conformed to the requests of the registered nurse. As Swain et al. (2003) suggested, knowingly conforming to bad practice, such as accepting inappropriate levels of supervision, may be seen as a lack of assertiveness. Therefore, it could be argued that participants in this study were aware that they could not be both assertive and get through their clinical placement at the same time.

Furthermore, a review of the literature identified studies that have reported on the relationship between personal attributes and the promotion of student learning in the off-campus clinical setting (O’Shea & Parsons 1979; Eble 1980; Morgan & Knox 1987; Cross 1995). However, no studies have considered student attributes as impacting on the level of supervision accepted for medication administration. The results of this study revealed that some participants considered that their level of confidence, age and communication skills influenced how they responded to the *shifting levels of supervision*. While some participants made comment about their younger peers as not having the assertiveness to stand up for themselves, this was not a reoccurring concept.
Further, no consistent pattern emerged in the data relating to age, rather participants’
decisions and responses changed according to the relationship that they had with the
registered nurse and their desire to get through the clinical placement. The final part of
this chapter discusses the medication errors and near misses reported by participants in
this study and the associated levels of supervision.

**The Consequence of Levels of Contingent Reasoning for**

**Medication Safety**

The results of this study identified that undergraduate nursing students make medication
errors and although it was not the aim of this thesis to examine errors, a clear link
existed between errors reported and supervision levels at the time of the incident.
A review of the literature was conducted to identify if other studies had reported
medication errors made by undergraduate nursing students in association with
supervision levels. No studies could be located. However, a recent study by Wolf et al.
(2006) reported on the enormity of student medication errors. In a five year descriptive
and retrospective study of undergraduate nursing students Wolf et al. (2006) identified
1,305 medication errors reported by students during the administration phase. The errors
made by students included medications being given at the wrong time, to the wrong
patient and via the wrong route (Wolf et al. 2006). The factors contributing to the errors
as reported by Wolf et al. (2006) bear a striking resemblance to the findings in this
study. For instance, these included the student not following procedure and protocol as
well as knowledge and communication deficits. Even though the students in the Wolf et
al.’s (2006) study had the pre-requisite skills and knowledge to perform medication
administration in a safe manner, they failed to discharge their duties successfully.
Unfortunately, no studies in Australia have reported the number of errors made by
students hence, it is impossible to ascertain whether the findings from Wolf et al.’s
(2006) study, or those reported in this study are representative of what is occurring in
Australian health care facilities. Therefore, this is clearly an area that warrants further
examination.

Part of the difficulty in determining what occurs with undergraduate students making
errors is that a true picture is difficult to ascertain. Students are reluctant to reveal errors
for the fear of failing their clinical placement and of those participants who made errors;
none reported the incident back to the university. Furthermore, when students did report
errors to the registered nurse, incident reports were not always completed. It would
appear that there is a level of reluctance for students to report errors because of their
fear of retribution. Wolf et al. (2006) reports that the number of errors being reported in
their study was attributed to the fact that participants did not have to reveal their
identity, rather the students could report errors anonymously through the MEDMARX
data base program- an anonymous internet accessible program. The issue of reporting is
clearly an area for further examination so as to determine the true numbers of students
making medication errors and the contributing factors to the errors. Additionally, the
process of reporting needs closer examination to determine the reluctance by students to
report to the university when an error is made. Studies could not be identified that
confirm that final year undergraduate nursing students’ are reluctant to report
medication errors because of fear of retribution, although studies do report on standards
of perfection that are placed on students in relation to making mistakes that involve
patients (Mclure 1991; Smith & Forster 2000). However, there is some literature that
has examined the reporting of medication errors by registered nurses.
A study by Walker and Lowe (2001) examined nurses’ views and beliefs on medication incidents that were reportable. The results of their study identified that nurse’s fear of being reprimanded from those in authority and therefore are unwilling to accept responsibility for errors. Nurses were more likely to report a medication error if they believed that the incident was life threatening to the patient, but did not want identifying information collected (Walker & Lowe 2001). Similarly, findings from a study by Lawton and Parker (2002) which examined the barriers to incident reporting in a health care system, also suggest that healthcare professionals are reluctant to report adverse events to a superior. For instance, a study conducted by Allan and Barker (1990) and Gladstone (1995) highlighted that past unpleasant disciplinary experiences cumulated in a belief that an error was ‘just not worth reporting’. Moreover, Kalisch and Aebersold (2006) suggest that in most health care facilities, a nurse making an error, like that involving medications, is subject to reprimand, potential dismissal and in severe cases his or her licence could be revoked. In a survey conducted by the Institute for Safe Medication Practices (2004) in the United States of America involving 2,095 health care providers, 1,565 of whom were nurses, 93 percent believed that their licenses would be restricted if they were involved in a fatal medication error. The belief that nurses have about the consequences of making errors, according to Kalisch and Aebersold (2006) causes them to ‘go underground’ and not admit to their errors because amongst other factors, they fear job loss. Furthermore, Kalisch and Aebersold’s (2006) study produced similar results in that, the fear of telling the university about a mistake or a near miss was about the consequence of being failed which equated to not completing their course and not obtaining employment.
The participants’ experiences as a result of making an error, was not surprising and for many it is something that they never wanted to experience again. Like many health care providers, students feel horrified, panicky and apprehensive (Arndt 1994; Wolf 1994; Wolf, Serembus, Smetzer, Cohen & Cohen, 2000). Errors are not a pleasant experience for anyone involved in medication administration however, inevitably they do occur. The findings of this study should alert those involved in nursing education to be mindful that students do make errors however, those errors can be partly attributed to students making decisions as a result of lack of support and supervision.

**Conclusion**

This chapter has considered how the literature has validated the findings from this study with each element of the overall substantive theory (see Figure 17) being considered. This study has identified supervision seeking behaviours adopted by undergraduate nursing students and levels of supervision by registered nurses to students when administering medications that have previously not been reported. The findings do concur with literature that a theory practice gap exists between university teaching and clinical practice for undergraduate nursing students which creates conflict as a result of opposing expectations. However, previous studies have not reported on the theory practice gap in relation to supervision with medication administration or the behaviours adopted by students in response to the conflict they experience when confronted with shifting levels of supervision. Various studies do report on strategies used by students to normalize into the clinical setting, but none have identified an actual process used by students. Finally, this study concurs with the findings from an American study which
reported that undergraduate nursing students do make medication errors however; no previous studies have linked errors with supervision levels. For this reason, this substantive theory has added to a new body of knowledge that is profoundly important for medication safety in Australian health care facilities and to those who are involved in the teaching of this skill to undergraduate nursing students. The following chapter puts forward recommendations based on the findings of this study.

Figure 17: Substantive Theory: Contingent Reasoning Related to Shifting Levels of Supervision for Medication Administration
CHAPTER SIX: RECOMMENDATIONS FOR PRACTICE AND CONCLUDING STATEMENT

The results of this study raise concerns around the safe medication administration practices of undergraduate nursing students when they are undertaking clinical placements in health care facilities. In the light of these findings there is a pressing need for universities and health care facilities to evaluate the processes that exist within their own organizations as a safeguard for patient safety. In this chapter recommendations are offered based on the substantive theory developed. The recommendations are directed towards those in the tertiary sector and clinical areas who are involved in the education of undergraduate nursing students and policy development. The chapter closes with a concluding statement.

Opposing Expectations-The Theory- Practice Gap

Unfortunately not all registered nurses provide direct supervision to undergraduate nursing students when administering medications. While conditions influence the levels of supervision provided, registered nurses remain legally and professionally responsible to provide appropriate supervision. The theory practice gap, as a result of the opposing expectations between what is taught in terms of medication administration at the university and what occurs in the reality of the off campus clinical setting, causes conflict for students. Students respond to such conflict in differing ways and can make inappropriate decisions about their medication administration practices in an effort to pass their clinical placements. The decisions can be dependent on the registered nurse relationship and to a lesser extent the attributes of the individual. Students can adopt a *suck up, shut up, do whatever* approach, a *negotiate but fit in* approach or a *saying no*
approach and fall into one of three levels of *Contingent Reasoning*. The decisions made by students and behaviours they adopt have serious implications for medication safety including students making medication errors or experiencing near misses.

The opposing expectations, in essence the theory practice gap associated with medication administration needs to be narrowed to promote systems of safe medication administration for undergraduate nursing students. It is reasonable to suggest that not all universities are aware of what happens to their final year nursing students when in the off campus clinical setting and reciprocally not all health care facilities are aware of what final year students, who practise in clinical settings, are taught about medication administration. The link between both settings is the student, but while a culture of silence exists amongst students, opposing expectations will remain. This study identified that when students are not supervised, when they make errors or experience near misses they are not likely to inform the university for fear of failing their clinical placement. Errors by students are most often interpreted as failure without consideration or analysis of the circumstances surrounding the incident (Sokol & Cummins 2002). To promote a safer process for students in medication administration it is necessary to look beyond the factors that have influenced an individual in making an error or near miss, but rather broader systemic factors. It could be argued that the lack of supervision for students and resultant errors reported in this study were contributed to by failing systems. To amend systems, universities and health care facilities need to collaborate to broadly examine what procedures surrounding supervision are not working as well as they could be. If this does not occur key stake holders responsible for undergraduate nursing education within universities and health care facilities risk becoming oblivious
to the fact that medication administration may not be practiced safely by students or registered nurses (responsible for supervising students) within their organizations. Ultimately unsafe practice means patient safety is being compromised. Universities might also examine the trend in health care facilities of creating a ‘no blame culture’ whereby individuals are not punished for mistakes but rather learn from them (Wolf et al. 2006).

This study has identified that the context of the clinical setting cannot be ignored. It is well known that health care facilities are under enormous pressure. The undergraduate nursing students in this study perceived that registered nurses’ busy workloads and the time they had to supervise students influenced their decisions and actions. Most commonly, students accepted a *being near* level of supervision which was considered ‘helping’ the busy registered nurse. Both universities and health care facilities have a responsibility to examine the actual numbers of students and ratio of registered nurses willing to provide appropriate supervision in the clinical area and to identify what is both reasonable and safe. There are times when medication administration may not be feasible for the student to undertake with the registered nurse. To identify this, risk assessment processes could be formulated with clear direction for students and registered nurses. Further, student learning should not be compromised therefore, it is necessary that models of medication supervision be examined to ensure that students gain optimal learning experiences surrounding medication administration.

Whatever model of supervision, it is vital that the registered nurses assuming the supervising roles (such as preceptors) are supported. Without support student
supervision can be compromised. Universities and the health care facilities have a responsibility to provide registered nurses with clear communication, adequate resources, guidance and direction in their supervising role, consideration of patient allocation and reward for the position. Sufficient time needs to be given for the registered nurse and the student to be orientated to policies and procedures pertaining to medication administration. It is recommended that health care facilities and universities review policies and procedures that exist in their settings to determine if what occurs is clear, accurate, easily retrievable and relevant.

The information relating to medication administration practices should reflect consistency between what is taught in the university setting and what occurs in the clinical context. To ensure consistency in information, collaboration between universities, health care facilities and State Regulatory Authorities needs to occur so that common documents can be developed including guiding principles for the supervision of students and common strategies which are included in the following recommendations. It is not only universities, health care facilities or students that can benefit from the findings of this study rather this study may challenge State Regulatory Nursing Authorities to review how systems of medication safety and supervision of undergraduate nursing students could be developed in all Australian States and Territories. Such a review would be considered reasonable after all the State Regulatory Authorities have a role in enhancing patient safety within nursing programs (Gregory et al. 2007). Based on the findings, the recommendations of this study to promote a safer system are as follows:
Closing the Opposing Expectations- the Theory- Practice Gap

In closing the gap, issues from the university and clinical setting need addressing.

**The Recommendations for the Tertiary Sector:**

- A revision of the curriculum to ensure that content reflects safe medication administration. Quality Use of Medicines (QUM) principles should be incorporated into all undergraduate nursing programs to promote safe management and administration of medications.
- Education regarding delegation, student accountability and legislation concerning medication administration.
- A review of the definition of ‘scope of practice’ in undergraduate nursing programs with clarification as to how it can be applied in the context of medication administration.
- Reinforcement for students understanding of the need for safety and close/personal supervision in all aspects of the medication administration.
- Education to nurse academics and students as to the *shifting levels of supervision* that exist in the clinical setting. Advice should be given as to how students could respond to each level of supervision so that safe practice is promoted. Education should incorporate conflict management strategies in the teaching of medication administration.
- Incorporation of simulated realistic and unpredictable events in university laboratory settings that mimic the reality of the clinical context when students practice medication administration. Resources should include realistic medications- including all schedules, real medication packages, current medication charts and patient identification bands. Medication charts should
mimic those that are both legal and illegal with students having the opportunity to respond to situations that promote safety. Where possible, the context could also include a busy, noisy environment.

- Caution should be given to nurse educators/ academics/ clinical facilitators/ preceptors in using ‘horror stories’ to undergraduate students that portray negative sequale as a result of errors. Stories should be used to encourage reporting, accountability, integrity and honesty in response to errors.

- The evaluation of student competencies in medication administration prior to permitting students to administer medications in the clinical setting is essential. Evaluation should include calculation competency, the checking of the five rights including an understanding of legislation. Nurse educators should question whether undergraduate students should not be permitted to practise administration until their medication competency is achieved at 100 percent.

- The inclusion of scenarios posing medication errors for students. Education should focus on a ‘no blame’ approach with students learning to manage and deal with errors reflecting accountability. Each error should be used as an opportunity to identify what led to the error and strategies to prevent future errors.

- A mechanism that allows undergraduate students to report concerns/ issues to the university and/or the health care facilities that will not be perceived as impacting on their assessment should be established.

- Encouragement of undergraduate nursing programs to provide or require students to purchase personal digital assistants loaded with relevant
pharmacology information necessary at the point of medication administration (Wolf et al.2006).

**Recommendations for Health Care Facilities:**

- Development and implementation of systems that promote a safe, personal and supportive level of supervision to undergraduate nursing students when administering medications in the off campus clinical setting. An example of a system could be developing a procedure that enables nurse educators within health care facilities to be alerted when resources are not suffice within a clinical setting, such as a ward, to allow sufficient support for students to administer medications safely. The alerting process then enables the educators to identify strategies to reduce the risk so that medications can be administered by students safely.

- Education of registered nurses on their legal responsibilities and accountability in the delegation of medication administration to undergraduate nursing students.

- Education of registered nurses of different levels of supervision that this study has identified including defining characteristics and the potential implications for safe practice.

- Development of resources. For example, visually appealing posters and pamphlets that are strategically located in clinical areas to remind registered nurses of their responsibility for supervising students in medication administration and the correct process to undertake when administering medications. The resources should be easily located and retrievable and include
clear succinct information. Additional resources could include information sheets within ward orientation packages, preceptor information packages outlining medication administration responsibilities and an information sheet with a questionnaire for all registered nurses to complete as part of their mandatory training.

- Development of policies/ guidelines that outline registered nurses’ responsibilities for the supervision of students and actions when errors do occur which promote accountability and integrity.

- Clear reporting mechanisms that alert the university and the health care facilities of medication errors and near misses that students are involved in and the contributing factors.

**Combined Support**

- Increased collaboration between the university and health care facilities in relation to effective models for supervising students for medication administration. Such models must consider the reality of the clinical environment and timing required for students to administer medications.

- Joint appointments between universities and clinical areas for registered nurses who are solely responsible for the supervision of students for medication administration.

- Increased collaboration between the university and health care facilities in relation to having systems in place that allow for the appropriate selection and support of registered nurses who take on supervision of students in medication
administration. For example ensuring clear lines of communication between universities and clinical facilities.

- The development of a system that ensures all registered nurses who are employed by the health care facilities and/or universities and are responsible for supervising and teaching undergraduate nursing students in medication administration, undergo assessment of their own understanding of legislation, types of supervision, conflict management and medication administration competency.

- Clarification of the role that universities play in supporting students and registered nurses with medication administration.

- The development of clear resources that support the registered nurses’ role in the supervising students.

**Policy and Procedures**

- A review of existing documentation and policies in both the university and all health care facilities that outlines the position and process of undergraduate nursing students administering medications.

- A review on existing mechanisms for dealing with medication errors and near misses for undergraduate nursing students that promotes accountability and integrity as opposed to fear of failure.

- The development of resources that direct students and registered nurses to the process that can be followed when patient safety may be compromised due to the context of the clinical setting.
• Lobbying at the State Regulatory Authority level for the development of guiding principles for registered nurses supervising students in medication administration.

• Lobbying at the State Regulatory Authority level for a position description of the undergraduate nursing student during their clinical placement. The position statement should articulate student accountability and responsibility in undertaking the administration of medications.

Further Research

Finally it is recommended that further research be conducted to explore various aspects of medication administration involving undergraduate nursing students that directly or indirectly relate to Contingent Reasoning including:

• Examination of registered nurses’ perception of the level of supervision required for undergraduate nursing students.

• Examination of registered nurses’ understanding of legislation and standards in terms of supervision of medication administration of undergraduate nursing students.

• Reviewing university evaluation tools that are used for students in medication administration.

• Examination of registered nurses’ attitudes towards supervising final year undergraduate nursing students in medication administration.

• Identification of medication errors made by nursing students and causative factors.
• Identification of reporting processes by students when involved in a medication error.

• Identification of existing policies in health care organizations that address medication administration and supervision of nursing students.

• Identification of strategies that facilitate or hinder registered nurses being able to supervise undergraduate nursing students in medication administration.

• Identification of medication calculation checks with undergraduate nursing students during the process of administering medication.

Several expectations now exist from this study. The first is that the substantive theory could be developed as a guide to those in the tertiary and the health care industries to develop recommendations to promote safe medication administration for undergraduate nursing students. For those in the health care settings, this substantive theory may help inform policy development surrounding the supervision of undergraduate nursing students. From this substantive theory, it is hoped that those in education will use this as a guideline to develop strategies in teaching that can guide and direct undergraduate students in medication administration, but importantly these strategies reflect the reality of the off campus clinical context.

**Concluding Statement**

Medication administration is a complex skill that demands nurses adhere to safe practice. The teaching of this skill to undergraduate nursing students requires registered nurses to role model exemplary behaviour. Supervision of students should be close and supportive. Students need to undertake the process in a methodical manner that allows
for the five rights and correct checking to occur. This study has provided data that has allowed a substantive theory to be built to explain final year student experiences in administering medications in the off campus clinical setting. The data has revealed that when supervision is less than adequate, students can experience internal conflict. They become concerned about the consequences of inadequate supervision and how this will impact on them passing their clinical placement. The desire to pass a clinical placement causes some students to make decisions and administer medications without always having the supervision required of them as a learner. Therefore, these decisions can impact on patient safety. This substantive theory has the potential to assist in the development of policies, curriculum and teaching strategies that can facilitate undergraduate nursing students to administer medications safely with the required level of supervision from registered nurses. To have developed a substantive theory that has the potential to promote safe medication administration has been not only a personal achievement but one that can potentially make a difference for many future undergraduate nursing students and the patients whom they administer medications to.
REFERENCES


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APPENDIX A: CATEGORIES/ SCHEDULES OF DRUGS

### Schedules

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schedule 1</td>
<td>Blank</td>
</tr>
<tr>
<td>Schedule 2</td>
<td>Pharmacy Medicine</td>
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<tr>
<td>Schedule 3</td>
<td>Pharmacist Only Medicine</td>
</tr>
<tr>
<td>Schedule 4</td>
<td>Prescription Only Medicine</td>
</tr>
<tr>
<td>Schedule 5</td>
<td>Caution</td>
</tr>
<tr>
<td>Schedule 6</td>
<td>Poison</td>
</tr>
<tr>
<td>Schedule 7</td>
<td>Dangerous Poison</td>
</tr>
<tr>
<td>Schedule 8</td>
<td>Controlled Drug</td>
</tr>
<tr>
<td>Schedule 9</td>
<td>Prohibited Substance</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Schedule</th>
<th>Description Medicines which:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescription Medicines</td>
<td>require a prescription by a veterinary surgeon or a medical practitioner</td>
</tr>
<tr>
<td>Restricted Medicines</td>
<td>may be sold by retail or supplied by a pharmacist-either in a hospital or pharmacy</td>
</tr>
<tr>
<td>Pharmacy Only</td>
<td>may be sold by retail or supplied through a pharmacist-either in a hospital or pharmacy or through shops, issued with a license and situated at least 10 km from the nearest pharmacy</td>
</tr>
</tbody>
</table>

APPENDIX B: APPLICATION TO ETHICS COMMITTEE

HUMAN RESEARCH ETHICS COMMITTEE

REQUEST FOR ETHICAL CLEARANCE

Information Privacy Notice: The Human Research Ethics Committee of Central Queensland University is collecting the information on this form to carry out its functions under the National Statement on Ethical Conduct in Research Involving Humans 1999. The Committee or University staff servicing the Committee must disclose some, or all of this information, to appropriate agencies, including the National Health and Medical Research Council.

NOTE: The references next to questions on this form (e.g. S3.1) relate to the relevant sections of the National Statement on Ethical Conduct in Research Involving Humans.

SECTION 1: RESEARCHER(S) DETAILS

| 1.1. Name of Principal Researcher | Reid Searl, Ms. Kerry |
| Faculty/Division/Organisation | School of Nursing and Health Studies |
| Address | Central Queensland University, Rockhampton |
| Telephone | 49309741 |
| Email | k.reid-searl@cqu.edu.au |

| 1.2. Name of Other Investigator (1) |
| Faculty/Division/Organisation |
| Address |
| Telephone | Email |

| 1.3. Name of Supervisor (1) | Moxham, Dr. Lorna |
| Faculty/Division/Organisation | School of Nursing and Health Studies |
| Address | Central Queensland University, Rockhampton |
| Telephone | 49309894 |
| Email | l.moxham@cqu.edu.au |

| Name of Supervisor (2) | Walker, Dr. Sandra |
| Faculty/Division/Organisation | School of Nursing and Health Studies |
| Address | Central Queensland University, Rockhampton |
### SECTION 2: PROJECT DETAILS

**2.1. Please state the Project Title**

The experiences that influence the process of medication administration for final year undergraduate nursing students when in the off campus clinical setting.

**2.1.1. Please indicate the commencement date and completion date of involvement with human participants**

<table>
<thead>
<tr>
<th>Commencement Date</th>
<th>Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 2005</td>
<td>July 2006</td>
</tr>
</tbody>
</table>

**NOTE:** The project may not begin until clearance is granted by the Human Research Ethics Committee (S1.16).

**2.2. Will this research project be conducted by you or any other researchers at, or in conjunction with, any other institution or research centre which is also subject to the need for ethics approval for research? (S3)**

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
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</thead>
<tbody>
<tr>
<td>Go to question 2.2.1.</td>
<td>Go to question 2.3.</td>
</tr>
</tbody>
</table>

**2.2.1. Provide the full name of the each institution /centre where, or by which, the research will be undertaken, including this University, the name of the lead investigator at each site, advice on whether ethics approval has been sought from or given by the relevant Human Research Ethics Centre for each site and if approval has been granted, the ethics approval number for the research project and the period of approval. (S3.3)**

**2.3. Briefly describe the research purpose (S1.13-1.14).**

The purpose of this study is to explore what influences the process of medication administration for final year undergraduate nursing students when in the off campus clinical setting (OCCS). The off campus clinical setting is the health care setting where students are involved in the administration of real medications to patients. As a result of exploring these experiences the aim is to generate a substantive theory in relation to the influences which shape the process of medication administration for final year undergraduate nursing students when in the OCCS. It is intended that this substantive theory will be used as a guide in both the health care settings and tertiary learning settings for the development of both nursing curriculum and policy concerning safe medication administration practice for undergraduate nursing students.

**2.4. Does this research contribute towards a formal qualification?**

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
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</thead>
<tbody>
<tr>
<td>Go to question 2.4.1.</td>
<td>Go to question 2.5.</td>
</tr>
</tbody>
</table>
2.4.1 Please indicate qualification

| Doctor of Philosophy (PhD) |

2.5. Provide statement of methods in plain English to be adopted and/or implemented for the conduct of the proposed research (methodology) (S1.4, 1.14).

**Step 1**
Conduct a preliminary review of the literature to identify if the study has been conducted and areas of gaps.

**Step 2**
Formulate research questions
Questions will be designed in such a way as to explore the experiences of final year undergraduate nursing students when administering medications in the off campus clinical setting. As grounded theory has been selected as a methodology, questions may change as the study proceeds consistent with theoretical sampling.

**Step 3**
Contact research participants
Letters will be sent to approximately 100 third year Bachelor of Health (Nursing) students who are enrolled for the 2005 period in Bundaberg, Rockhampton, Sunshine Coast and Mackay campuses to inform them of the study and invite them to participate. Information sheets, consent forms and demographic questionnaire will be included in the correspondence and participants willing to be involved in the study will be asked to return the consent form and demographic questionnaire in the reply paid envelope provided.

**Step 4**
Organise interviews
Participant interviews will be organized, including time and venue. The recruitment of participants will occur by sending individual letters of invitation seeking volunteers as per step 3. Participants will be selected based on the theoretical sampling approach of grounded theory. The initial purposive sample of five will be drawn from the willing participants based on identified demographic data to capture a broad sample.

**Step 5** Conduct Interviews
Participants will be provided with an information letter and requested to sign a consent form. Interviews will be conducted by phone or in person and recorded on audiotape. Each interview will be transcribed. Participants may be required to participate in more than one interview.

**Step 6** Data Analysis
Data collection and analysis will occur simultaneously. Constant Comparative analysis will occur. Three levels of coding will occur- namely open, axial and selective. Data collection will continue until saturation is achieved and a substantive theory developed.

**NOTE:** Where an agency (eg, government department, statutory authority and recognised cultural collective) is the source of either participants or confidential information, attach a statement(s) from an authorised officer confirming the agency’s support for the proposed research.

2.6. Please indicate what research instruments will be used.

- [x] (i) Questionnaire
- [ ] (ii) Survey
- [x] (iii) Interviews
- [ ] (iv) Focus Groups
- [ ] (v) Archival Records
- [ ] (vi) Other, please provide details

2.7. What is the duration required for participants to complete the research instrument(s)?
Each interview per participant is expected to take one hour. The demographic questionnaire is expected to take 15 minutes.

2.8. **Briefly describe the research benefits of this project to the participants, community and researcher. Explain how any benefits to participants or others outweigh the perceived risks of the research (S1.13-1.15).**

**Community**
It is intended that the substantive theory developed from this study will be used as a guide in both the health care settings and tertiary learning settings for the development of both nursing curriculum and policy concerning safe medication administration practice for undergraduate nursing students. The theory can thus help to promote safe medication administration practices by undergraduate nursing students who ultimately become Registered nurses.

**Participant**
Benefits to the participant will include a better understanding of factors that influence the process of medication administration when in the off campus clinical setting. Having an understanding from a substantive theory developed, will help guide safe administration for them not only as undergraduates but as Registered nurses. As Registered nurses they in-turn become the future educators of other undergraduate nursing students in the off campus clinical setting.

**Researcher**
The substantive theory will assist the researcher in future development of curriculum for nursing programs, as well help to inform ones practice as a nurse academic in the teaching of medication administration. Additionally as a clinician the substantive theory may form as a basis for future staff development sessions on medication administration as well an opportunity to publish in the area of medication administration.

The risk associated with this research project is minimal with the exception that participants who have been involved in stressful incidents with medication administration may experience some distress. To address this a counselor will be available to debrief participant if deemed necessary by either the researcher or participant.

2.9. **Will participants be deceived about the nature of the research? (S17)**

<table>
<thead>
<tr>
<th>YES</th>
<th>Go to question 2.9.1.</th>
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<tbody>
<tr>
<td>NO ✓</td>
<td>Go to question 2.10.</td>
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</table>

2.9.1. **If yes, please explain why the real purpose needs to be concealed?**

2.10. **How will stakeholders obtain details of outcomes from the proposed research? (S1.18)**

A tear off section will be incorporated into the consent letter, informing participants that if they wish to receive a plain English version of the results they should complete the details on this form. This will then be secured separately from the consent forms and data and will be provided to them at the completion of the study. Upon request from other stakeholders a plain English version will be supplied.

**NOTE:** The Consent Form should include a separate tear off section for participants to fill in if they wish to receive a plain English version of the outcomes of the project.

2.11 **Will the research involve payments/rewards/inducements to participants?**
SECTION 3: PROPOSED PARTICIPANTS

3.1. Who are the proposed participants and what is the sample size? (S1.5)

The participants for this study will be final year Undergraduate Nursing Students enrolled in the Bachelor of Health (Nursing) at Central Queensland University attending Rockhampton, Bundaberg, Sunshine Coast and Mackay campuses. Whilst invitation letters will be sent to 100 potential participants, it is envisaged that approximately 30 participants will be adequate to provide saturation of the data.

3.1.1. Please indicate if people from the following groups will be research participants:

- (i) Children or young humans under 18 years (S4)
- (ii) Humans with an intellectual or mental impairment (S5)
- (iii) Humans highly dependent on medical care (S6)
- (iv) Students taught by the researcher/s or other people who could be regarded as being in dependent relationships with the researcher/s or persons acting on behalf of the researcher/s in helping to inform or select or supervise participants, e.g. doctors and patients, guards and prisoners, supervisors and staff they supervise, employers and employees (S7)
- (v) A Collectivity (distinct human group with its own social structure that links members with a common identity, common customs and with designated leaders or others who represent collective interests, e.g. Philippines) (S8)
- (vi) Indigenous Australians (S9)

The researcher’s relationship with the participants is limited to the researcher having in the previous years, found them clinical placements for their clinical practical component of their undergraduate nursing program. Whilst some students may know of the researcher, they have not been taught by the researcher.

3.2. How will the proposed participants be selected / recruited? (S1.5 (b))

Final Year Undergraduate Nursing Students enrolled in the Bachelor of Health (Nursing) at Central Queensland University attending Rockhampton, Bundaberg, Sunshine Coast and Mackay campuses will be invited to participate. An initial purposive sample of approximately 5 participants will be selected from the respondents to the letters sent out. These participants will be enrolled in their final year of the undergraduate nursing program. Their demographic data reflects diversity across the cohort. The initial sample will help to establish the questions for further participants. Theoretical sampling will guide selection of other participants from respondents who have consented to participate in the research project. If insufficient numbers of final year undergraduate nursing student respond, participants may be directed to first year graduates from the Bachelor of Nursing Program at Central Queensland University for the 2005/2006 period.

3.2.1. Is access to employees/clients of organisations / schools required?

<table>
<thead>
<tr>
<th>YES</th>
<th>If yes, explain why?</th>
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<tbody>
<tr>
<td>NO</td>
<td>✓  Go to question 3.2.2.</td>
</tr>
</tbody>
</table>

3.2.2. Has permission been sought from / or granted by that organisation?
<table>
<thead>
<tr>
<th>3.2.3.</th>
<th>Is the timing of required access to the organisation, appropriate to causing minimal disruption to that organisation?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>YES</strong></td>
<td>✓</td>
</tr>
<tr>
<td><strong>NO</strong></td>
<td></td>
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<tr>
<th>3.3.</th>
<th>What mechanisms will be adopted to protect the rights of those unable to provide informed consent?</th>
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<tbody>
<tr>
<td><strong>Not Applicable</strong></td>
<td></td>
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<tr>
<th>3.4.</th>
<th>What are the processes or steps involved in obtaining informed consent? (S1.7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Ethical clearance will be sought from Central Queensland University Ethics Committee.</td>
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<tr>
<td>✓ Participation in the research study will be voluntary.</td>
<td></td>
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<tr>
<td>✓ Participants will be informed that they can withdraw from the study at any time without prejudice.</td>
<td></td>
</tr>
<tr>
<td>✓ Participants will be given an information letter and requested to sign a consent form prior to participating in the interviews.</td>
<td></td>
</tr>
<tr>
<td>✓ Upon the interviews participants will be asked again to provide informed consent and this will be audio recorded for confirmation of informed consent.</td>
<td></td>
</tr>
<tr>
<td>✓ Participants will be asked to keep confidential any issues discussed.</td>
<td></td>
</tr>
<tr>
<td>✓ Transcripts from the interviews will be given a code so that identification of participants cannot be made and only the researcher will be aware of the coding.</td>
<td></td>
</tr>
<tr>
<td>✓ All data from this study, including transcripts and audiotapes will be kept in a locked filing cabinet in the School of Nursing and Health Studies at CQU for a period of five years and will only be available to the researcher.</td>
<td></td>
</tr>
<tr>
<td>✓ No identifying information about individual participants will be disclosed. Participants will be de-identified in any reports, which will include the dissemination of results. Should direct quotes be included, pseudonyms will be used.</td>
<td></td>
</tr>
<tr>
<td>✓ A plain English summary outlining the results of the research project will be forwarded to each stake holders who have requested a copy at the completion of the final report.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>3.5.</th>
<th>How will the participants be informed of their right to withdraw from the study? (S1.8, 1.12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants will be informed in writing through the consent letter of their right to withdraw form the study. This will be reiterated at the commencement of the interview when participants are asked to reconfirm that informed consent has been provided.</td>
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</tbody>
</table>

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<thead>
<tr>
<th>3.6.</th>
<th>Specify how the results will be used and what the participant is consenting to (including any publications, conferences etc) (S1.18).</th>
</tr>
</thead>
<tbody>
<tr>
<td>The substantive theory developed may be used to guide policy, curriculum and practice in both health care and tertiary learning settings.</td>
<td></td>
</tr>
<tr>
<td>As a result of the research, publications and conference papers will be presented and pseudonyms will be used should data be incorporated to maintain confidentiality of the participants and any reference to organisations.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>3.7.</th>
<th>Have you attached a copy of the Research Instrument(s), Information Sheet and Consent Form (S1.9)?</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Please note that any project proposing to use participants under the age of 18 years must obtain consent from parent/guardians as well as from the participants.</em></td>
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</table>

<table>
<thead>
<tr>
<th>Information Sheet</th>
<th>Consent Form</th>
<th>Research Instrument(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>YES</strong></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>YES</strong></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>YES</strong></td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
NOTE: Any written information provided to a participant or subject must contain the statement, "Please contact Central Queensland University's Office of Research (Tel 07 4923 2607) should there be any concerns about the nature and/or conduct of this research project."

### SECTION 4: CONFIDENTIALITY/ANONYMITY

#### 4.1. Does this project involve gaining access to personal information from a Commonwealth Agency? (S18)

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>NO</th>
</tr>
</thead>
</table>

**Go to question 4.1.1.**

#### 4.1.1. If yes, which Commonwealth Agency and detail how it is proposed to meet provisions of the Privacy Act 1988.

#### 4.2. Please indicate if this project involves the collection, use or disclosure of health information from a private sector organisation for use for research which is related to any of the following:

- [ ] Research relevant to public health or safety
- [ ] The compilation or analysis of statistics relevant to public health or safety
- [ ] Management, funding or monitoring of a health service

#### 4.3. How is it proposed to maintain confidentiality and/or anonymity in respect of collected data/information? (S1.19) Particular attention to detail is necessary in the case of research involving any of the following:

- **structured questionnaires**
- **participant observation**
- **audio or video-taping of participants and/or events**
- **access to personal information (including student, patient or client details)**

- All participants will be provided with an information letter and requested to sign a consent form.
- Consent forms will be kept in a locked filing cabinet in School of Nursing and Health Studies for a period of five years and will only be available to the research investigator.
- Audiotapes will be kept in a locked filing cabinet in the School of Nursing and Health Studies at CQU for a period of five years.
- No identifying information about individual participants will be disclosed. Confidentiality will be assured to participants. In the process of transcribing the interviews from the audiotapes participants will be coded. This information will then be kept separate from the transcripts. No identifying information about individual participants will be disclosed. Participants will be de-identified in any reports including the dissemination of results. Should direct quotes be included, pseudonyms will be used. Any demographic data collected from participants who are not selected for the study will be destroyed.
- At the beginning of each interview participants will be advised of the need to protect the rights of others and ensure that they do not discuss any issues raised in the interviews with anyone not involved in the study.
- Participants will be told from the outset of the interview that they are not to name any individual or facility in the interview process to ensure confidentiality and/or anonymity of third party individuals and organisations.
- Participants will be instructed not to write any identifying features on the demographic questionnaire.

**NOTE:** Please note that all original data arising from the project must be stored in a secure location for a minimum period of five years (This includes audio cassettes that are later transcribed and data relating to identification of participants).

### SECTION 5: RISK MANAGEMENT
5.1. Identify the possible risks, harms, stresses, discomforts etc likely to affect the participants and any interested parties. Particular attention to detail is necessary where the proposed research involves any of the following:
- administration of any stimuli, tasks, investigations or procedures which participants might experience as physically or mentally painful, stressful or unpleasant;
- performance of any acts which might diminish the self esteem of participants or cause them to experience depression, embarrassment or regret;
- deception of participants;
- collection of body tissues or fluid samples.

The risk associated with this study is that participants may reflect on a personal experience in which a negative experience was associated with administering medications. This may cause them personal distress.

5.2. How will the risks of harm or discomfort be minimised (S1.3)?

The interviews will be conducted in a neutral environment where the participant feels secure and comfortable. In the event that a participant becomes distressed the interview will be terminated and support will be offered by the interviewer initially followed by a referral option to qualified health care practitioners if deemed necessary.

5.3. Detail proposed support for participants who experience negative sequelae.

In the event that students who are involved in the interviews need counseling a support service will be made available. Mr Paul Robson, a Registered Psychiatric Nurse and Mathew Johnson, Nursing Director of Mental Health Services in Rockhampton, have offered this service. Both individuals will be available to participants to discuss issues with them and provide support. Participants will be notified that if they have any questions regarding the research process, they can contact Kerry Reid Searl or Dr Lorna Moxham at Central Queensland University, School of Nursing and Health Studies. Additionally if they have any concerns about the way in which this research has been conducted they can contact Research Services Office at Central Queensland University, phone 07 49232602.

Commencement Date; July 2005

NOTE: For monitoring purposes (see National Statement 2001, page 20) the Principal Researcher is required to lodge documentation to the Office of Research as necessary upon completion of the project or annually whichever is sooner, the progress to date or outcome in the case of completed work, maintenance and security of records, compliance with the approved protocol and compliance with any conditions of approval. This may also include immediate reports from researchers in the event of serious or unexpected adverse effects on participants, proposed changes in the protocol, any unforeseeable events or if the project is discontinued before the expected date of completion.

SECTION 6: DECLARATION
6.1. **Principal Researcher and co-investigators to sign and date**

I/We declare that

- I/we am/are qualified and authorised to perform the research and/or procedures described in this application (and associated attachments) submitted for ethics review by the Human Research Ethics Committee; and
- All research assistants, student researchers and other members of the research team for the research project have been briefed on procedures and relevant ethical considerations in the project or will be fully briefed before the project begins; and
- The research project will be conducted consistent with any relevant government legislation, guidelines and policies; the National Statement on Ethical Conduct in Research Involving Humans; Central Queensland University’s Code of Conduct for Research; other relevant University policies, codes, guidelines and procedures; and
- In the event that the proposed research project receives ethics approval, I/We will comply with all conditions of ethics approval for the research project (including any modifications) which the Human Research Ethics Committee might impose.

**Signature(s) of Principal Researcher and Co-Investigator**

<table>
<thead>
<tr>
<th>Name</th>
<th>Signature</th>
<th>Date</th>
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6.2. **Principal Supervisor of a Student Researcher(s) to sign and date**

I declare that

- I am qualified and authorised to supervise the research and/or procedures described in this application (and associated attachments) submitted for ethics review by the Human Research Ethics Committee; and
- All research assistants, student researchers and other members of the research team for the research project have been briefed on procedures and relevant ethical considerations in the project or will be fully briefed before the project begins; and
- The research project will be conducted consistent with any relevant government legislation, guidelines and policies; the National Statement on Ethical Conduct in Research Involving Humans; Central Queensland University’s Code of Conduct for Research; other relevant University policies, codes, guidelines and procedures; and
- If the proposed research project receives ethics approval, I will ensure that the research student/s under my supervision for this project will comply with all conditions of ethics approval for the research which the Human Research Ethics Committee might impose.

**Signature(s) of Supervisor**

<table>
<thead>
<tr>
<th>Name</th>
<th>Signature</th>
<th>Date</th>
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**Office Use Only**

- **Date Received**
- **Registration No.**
- **Cleared**
- **Cleared Subject to provision of further detail to the satisfaction of the Chair**
- **Clearance Not Granted**

- **Period of Approval:**
  - **Signature (HREC Chair)**
  - **Date**

- **Date Certification / Advice Issued**
APPENDIX C: A LETTER OF INVITATION WITH AN EXPLANATION OF THE RESEARCH

Information Sheet

Investigator:  Kerry Reid-Searl  
Address:   School of Nursing and Health Studies  
Central Queensland University  
Rockhampton. 4702.  
Telephone:  07 49309741  
Email:   k.reid-searl@cqu.edu.au

Project Title:  

The experiences that influence the process of medication administration for final year undergraduate nursing students when in the off campus clinical setting.

Dear Student,

I am undertaking a PhD research study to identify and explore the experiences that influence the process of medication administration for final year undergraduate nursing students when in the off campus clinical setting. The medication administration practice of undergraduate nursing students is an area that warrants further investigation. It is hoped that in undertaking this research a clearer understanding will be gained as to what students actually experience when administering medication in the off campus clinical setting. This information may then be helpful for educators in both the tertiary sector and clinical organizations in the development of policies and curriculum surrounding medication administration for nursing students.

As you are a final year student enrolled in the undergraduate Nursing Program, I would like to invite you to participate in this study by consenting to be interviewed. The interviews will be recorded on audiotapes and transcribed at a later date. The recording of the interview will ensure that all points identified in the discussion receive full attention and data is not reliant upon memory. This will allow clear understanding of the issues raised. The interview will take approximately one hour of your time. However you may be required to be involved in a second interview taking no more than one hour of your time.

I recognize that information gained from the interviews may be of a sensitive nature for some participants. However please be assured that your privacy will be protected as personal identification will not be disclosed. Data will be securely stored in accordance with Central Queensland University Policy for 5 years. Under no circumstances will your name or identifying details appear in publications associated with this research.

Should any of the results in publications include direct quotes then pseudonyms will be used. A five-page summary of the results, without the identification of individuals involved in the project, will be offered to all students who participate in the interview and indicate they would like to receive the summary by ticking the appropriate box on the consent form.

Participation in the research project is completely voluntary and you will be free to withdraw from the study at anytime without prejudice. Non participation will not affect your academic standing. If you are willing to participate in the project would you please sign the consent form below, complete the demographic questionnaire and return it to me in the reply paid envelope. Upon receipt of the consent form further correspondence will be sent to you regarding interviews.
If you have any questions regarding the research process, please contact me via post to the School of Nursing and Health Studies, Central Queensland University, Rockhampton, 4702 or via phone on 49309741 or email at k.reid-searl@cqu.edu.au. Additionally you may contact my supervisor Dr Lorna Moxham via post to the School of Nursing and Health Studies, Central Queensland University, Rockhampton, 4702 or phone on 49309862 or email at l.moxham@cqu.edu.au. If you have any concerns about the way in which this research is to be conducted please contact Research Services Office at Central Queensland University, phone 07 49232607.

Thank you for your time and potential interest in the project.

Yours sincerely

Kerry Reid-Searl
CONSENT FORM

Investigator: Kerry Reid-Searl

Address: School of Nursing and Health Studies
          Central Queensland University
          Rockhampton. 4702.

Telephone: 07 49309816

Project Title: The experiences that influence the process of medication administration for final year
undergraduate nursing students when in the off campus clinical setting.

I, .............................................................................................................of ................................................
.............................................................................................................(Address) hereby agree to participate in a research study
explained to me by the researcher. I understand that I am to participate in an interview and possibly two,
in which I will share my experiences in administering medications as a final year undergraduate student
in an off campus clinical setting. I acknowledge that my privacy will be protected and that I am free to
withdraw from the study at anytime.

I understand that:
• Any information that I provide will not be made public in any form that could reveal my identity to
  an outside party i.e. I remain anonymous
• I am free to withdraw my consent at any time during the study without penalty or prejudice
• I have had the opportunity to discuss this study and I am satisfied with the answers I have been given
• I know who to contact if I have any questions about the study

If you have any concerns about the way in which this research has been conducted please contact
Research Services Office at Central Queensland University, phone 07 4930 9777.

Date: .......................................................... ..........................................................

Signature of participant.

Please indicate if you would like to receive a plain English summary of results when the study concludes.

☐ Yes ☐ No

Should you require this summary, please ensure that your contact details remain up to date with the
University Alumni
APPENDIX E: DEMOGRAPHIC QUESTIONNAIRE

Demographic Questionnaire
If you agree to participate in the study could you please complete the following questionnaire and return it with the consent form in the reply paid envelope. Please do not record any identifying details on this form such as your name or address or the names of any organization that you work.

Please tick the relevant boxes.

<table>
<thead>
<tr>
<th>Age</th>
<th>18-20</th>
<th>21-25</th>
<th>26-30</th>
<th>31-34</th>
<th>35-40</th>
<th>41 and above</th>
</tr>
</thead>
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<td>Gender</td>
<td>Male</td>
<td>Female</td>
<td></td>
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Prior Nursing Experience
EN   ☐
EEN  ☐
AIN  ☐
OTHER ☐

Please specify ........................................

Current type of employment ................................

Type of employment in past 5 years ........................

Years in Nursing Program
  two  ☐
  three ☐
  four  ☐
  greater than 5 ☐

Highest level of school
  nine ☐
  ten  ☐
  eleven ☐
  twelve ☐
  other

Please specify ........................................

Is English your first language
  YES ☐
  NO  ☐
**Clinical Placements for final year practicum.**

<table>
<thead>
<tr>
<th>Setting</th>
<th>Medical</th>
<th>Surgical</th>
<th>Paediatrics</th>
<th>Emergency</th>
<th>Operating Rooms</th>
<th>Other</th>
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</thead>
<tbody>
<tr>
<td>Aged care facility</td>
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<tr>
<td>Community setting</td>
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<tr>
<td>Rural/ Remote setting</td>
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<tr>
<td>Public Acute Care</td>
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<td>Paediatrics</td>
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<td>Emergency</td>
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<tr>
<td>Operating Rooms</td>
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<tr>
<td>Other</td>
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<td>Private Acute care org</td>
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<tr>
<td>Medical</td>
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<td>Surgical</td>
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<td>Operating Rooms</td>
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<tr>
<td>Other</td>
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APPENDIX F: LETTERS OF SUPPORT

Central Queensland University
Faculty of Arts Health and Science
Ethics Committee

To whom it may concern

This is to certify that I, Mathew Johnson, hereby agree to provide counseling for any participant who requires this service as a result of participation in the research study conducted by Kerry Reid Searl. As a current clinician, practicing in the Mental Health Setting, I am qualified to undertake such an activity. Should any participant require counseling beyond my capabilities, I am able to direct them to the most appropriate persons.

I also understand the nature of the research being conducted by Ms Kerry Reid Searl and acknowledge the need to ensure confidentiality of both the participants and the content of which they disclose in any counseling required.

My offer of counseling will be in place for the duration of the project. Should you require further questions from me please contact me at 49206211.

Yours Sincerely

Mathew Johnson.
Director of Nursing
Mental Health Services
Rockhampton Health Service District
To whom it may concern

This is to certify that I, Paul Robson, hereby agree to provide counseling for any participant who requires this service as a result of participation in the research study conducted by Kerry Reid Searl. As a current clinician, practicing in the Acute Care Assessment Team at the Rockhampton District Mental Health Service, I am qualified to undertake such an activity. Should any participant require counseling beyond my capabilities, I am able to direct them to the most appropriate persons. I also understand the nature of the research being conducted by Ms Kerry Reid Searl and acknowledge the need to ensure confidentiality of both the participants and the content of which they disclose in any counseling required.

My offer of counseling will be in place for the duration of the project. Should you require further questions from me please contact me at 49206211.

Yours Sincerely

Paul Robson
Acute Care Assessment Team
RDMS Rockhampton
APPENDIX G: INFORMATION IN RESOURCES SUPPLIED TO FINAL YEAR NURSING STUDENTS

Students’ Professional Responsibilities
In order to meet professional standards, students are expected to meet the following responsibilities.

- The student must be punctual.
- If the student is to be late, they should notify the clinical area.
- Students are required to wear uniforms as specified by School code.
- Shoulder length hair is to be tied back.
- Shoes are to be closed and clean with the colour as required by ***.
- Only clear nail polish is to be worn.
- Jewellery is not permitted except wedding rings, sleepers or studs.
- Nametags are to be worn above waist level.
- Students address clinical agency staff according to staff preferences.
- Clients should be addressed by their title until otherwise invited.
- When leaving the clinical area report to a delegated staff member.
- Ward telephones should not be used for private use.
- Students should negotiate with the agency staff re telephone policy.
- Information about clients should never be given out over the phone.
- Confidentiality must be observed at all times
- Code names (i.e. Mrs 'L') must be used on all student documentation
- Any incident or accident, which the student witnesses or is involved in, should be reported to the facilitator/preceptor or clinical nurse consultant followed with appropriate agency procedures. Copies of incident reports should be sent to the Clinical Coordinator at ***. *** incident reports should also be completed.
- Students should follow the policy of the organization in regards to documenting in nursing notes and clinical pathways/care plans
- Nursing notes must not be removed from the ward
- Students should request permission when accessing client charts.
- Students should access charts only for clients they are designated to.
- Students are not to deliver care beyond their scope of practice.
- Skills should be negotiated with client, facilitator and agency staff.
- Students can only be delegated nursing care by a registered nurse.
- Students should deliver care only within their scope of practice.
- **STUDENTS ARE NEVER TO ADMINISTER MEDICATIONS UNLESS DIRECTLY SUPERVISED BY A REGISTERED NURSE.**
- Students should be aware and guided by all organization policy.
- Students should adhere to the recommended time between shifts for safe practice-students who work should be taking sufficient time breaks between clinical placements and their workplace.
- The No Lift Policy is observed within the School of Nursing
- Students should adhere to the organization OH&S policies.
REMEMBER ALL MEDICATIONS MUST BE ADMINISTERED UNDER THE DIRECT CLOSE SUPERVISION OF A REGISTERED NURSE. YOU SHOULD ONLY ADMINISTER MEDICATIONS IF THE ORGANIZATION PERMITS YOU TO DO SO AND AGAIN ONLY UNDER THE DIRECT SUPERVISION OF THE REGISTERED NURSE.

When completing skills remember there are those, which need direct supervision. In being allocated responsibility it is important that you revisit the Guiding Principles of Delegation.

As a student you can only be delegated nursing responsibilities by the Registered nurse and not an Enrolled Nurse.

As stated by QNC, (2002) “The Registered nurse may delegate a function(s) to another nurse based on knowledge of the Guiding Principles for Delegation among Nurses. Where a function is beyond the current scope of practice of the nurse, the registered nurse will need to consider whether delegation is appropriate” (p12). This can often be the case with students for whom the preceptor has been assigned.

The Guiding Principles for Delegation among Nurses are as follows:

<table>
<thead>
<tr>
<th>Principle</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Principle 1</td>
<td>The primary motivation for delegating nursing function(s) is to meet the health needs of people and to improve health outcomes.</td>
</tr>
<tr>
<td>Principle 2</td>
<td>Delegation of nursing function(s) is based on appropriate consultation and planning.</td>
</tr>
<tr>
<td>Principle 3</td>
<td>Acceptance of the delegated function(s) is based on readiness to accept function(s), education and assessed competence.</td>
</tr>
<tr>
<td>Principle 4</td>
<td>Processes exist for ensuring that continuing education and assessment of competence for the delegated function(s) are undertaken. This responsibility lies with the nurse to whom the function(s) are being delegated, the registered nurse and the service provider.</td>
</tr>
<tr>
<td>Principle 5</td>
<td>The practice of the nurse is lawful and consistent with standards acceptable to the nursing profession and nursing organizations and with policy requirements of service providers.</td>
</tr>
<tr>
<td>Principle 6</td>
<td>Education and competence assessment to enable the nurse to adopt the delegated function(s) are conducted by a registered nurse.</td>
</tr>
</tbody>
</table>

(Source QNC 2002, Scope of Nursing Practice Decision Making Framework)

Based on the principles, questions you may consider prior to accepting delegation includes:

- Is the delegation going to improve health outcomes?
- Has planning and consultation occurred with those in the clinical milieu- i.e. the patient, other staff and the student?
- Have you had sufficient education, experience and practice to be given the delegation?
- Are you willing to accept the delegation?
- Is the delegation within your scope of practice?
- Is the delegation acceptable to the given agency- i.e. is the practice lawful and within the organization’s policies?

Source: School of Nursing and Health Studies, Central Queensland University, 2005 Student Guide For a Preceptored/ Mentored Relationship, Bachelor of Health, Nursing, Rockhampton, Queensland pp. 10, 12, 13.
GLOSSARY OF WORDS

Adverse Event: An unintended injury which results in disability, death or prolonged hospitalization to the patient and is caused by health care management as opposed to the patient’s disease (Wilson et al. 1995).

ANMC: Australian Nursing and Midwifery Council. “A national organization established for the purpose of facilitating a national approach to the regulation of nursing and midwifery in Australia. The ANMC works with State and Territory nurse and midwifery regulatory authorities to develop standards for regulation and to provide a collective voice for these authorities” (Levett-Jones & Bourgeois 2007 pp 241).

ANMC Competency Standards: “A national benchmark for registered nurses that reinforces responsibility and accountability in delivering quality nursing care through safe and effective work practice. The competencies are organized into four domains: Professional Practice, Critical Thinking and Analysis, Provision and Coordination of Care, and Collaborative and Therapeutic Practice” (Levett-Jones & Bourgeois 2007 pp 241).

Clinical Coordinator: A person within the university or health care facility who is responsible for the coordination of clinical placements for undergraduate nursing students. Additionally this individual provides ongoing staff development for preceptors.

Clinical Placement: The clinical setting in which the student is undertaking their off campus clinical experience.

Code of Ethics for Nurses in Australia: “A framework that outlines the nursing profession’s intention to accept the rights of individuals and to uphold these rights in practice. The code provides guidelines for ethical practice and identifies the
fundamental moral commitments of the nursing profession” (Levett-Jones & Bourgeois 2007 pp 241).

**Code of Professional Conduct for Nurses in Australia:** “A set of national standards of nursing conduct for Nurses in Australia that identifies the minimum requirements for conduct in the profession” (Levett-Jones & Bourgeois 2007 pp 241).

**Enrolled Nurse:** “A person licensed under an Australian State or Territory Nurses Act or Health Professionals Act to provide nursing care under the supervision of a registered nurse” (ANMC 2006 pp 8).

**Faculty Educator:** A person employed by the faculty/ university who is responsible for the teaching and the assessment of students for their on campus laboratory learning.

**Generic Name of Medication:** “A simplified chemical name or artificial name given to a drug by its original manufacturer” (Bullock et al. 2007 pp 1099).

**Medication Endorsed Enrolled Nurse:** An enrolled nurse (see above) with specific educational credentials that permits them to administer certain medications to a patient under the supervision of the registered nurse.

**MIMS:** This is a resource containing information about medications including actions, interactions, dosages, routes of administrations, side effects and special precautions for use. It is available in different formats- for example online and in hard copy and should be referred to by all nurses prior to administering medications to a patient.

**Nursing Experience:** This refers to experiences that undergraduate nursing students have gained in caring for an individual requiring nursing care outside of their role as a student.

**Route for Medication:** The avenue in which a medication is administered to a person.
**Scope of Practice Framework for Nurses and Midwives**: A decision-making tool used by nurses and midwives in Queensland. The framework builds on the Australian core competency standards to advance or expand nurses’ and midwives’ scope of practice in a planned and structured way. Additionally, the framework supports professional accountability when each individual uses their professional discretion to make scope of practice decisions. (QNC 2005 b p 3)

**Trade name of Medication**: This is also known as the proprietary name and is that given to the drug by the manufacturer as a kind of trademark (Bullock et al. 2007).

**Unregulated Care Provider**: An individual who is not regulated by a professional body and who is providing direct patient care within a health care setting under the direct/indirect supervision of a registered nurse or midwife. The individual may or may not have formal qualifications.