What educational and other experiences assist recently qualified nurses to understand and deal with clinical risk and patient safety?

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Abstract

This research was undertaken to investigate how newly graduated nurses recognise and develop skills relating to clinical risk and patient safety. I set out to understand how and where new graduates learn those skills and what would help future undergraduate nurses better prepare for the complexities of the clinical setting.

A qualitative research study using Appreciative Inquiry (AI) was the chosen methodology. This was selected for its aspirational outlook, which allows positive conclusions to be drawn from the study's findings. Nine nurses in their first year of clinical practice participated in the study and they were interviewed on a one-to-one basis.

The key findings demonstrated that the approaches to teaching clinical risk and safe patient care and experiences of these in the undergraduate setting were variable, with many participants describing that they were ill prepared for the rigours of the clinical environment. They identified workplace culture, clinical role models, exposure to the clinical environment; experiential learning, narrative story sharing, debriefing and simulation as contributing factors to their ability to learn and understand clinical risk and safe patient care.

Despite their initial uncertainty, the participants were able to describe safe patient care and clinical risk. They identified cultures of safe patient care, safe teaching and safe learning. The participants further identified their preferred learning styles and recommended strategies that educationalists and clinical stakeholders employ to facilitate their professional development and understanding of clinical risk and patient safety.

The participants identified a more thoughtful, structured and overt approach to teaching the subject of clinical risk and patient safety to prepare for the clinical environment. They desired more experiential exposure, either clinical or simulated. They highlighted the need for effective preceptors and role models, alongside opportunities for sharing their clinical experiences and debriefing critical incidents. Furthermore, they recognised aspects of workplace cultures that facilitated or hindered effective clinical practice and safe patient care.

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Chapter One: Introduction

> "The transition from student to nurse has been described as traumatic, confusing and shocking" (Chandler, 2012, p.103)

Newly qualified nurses and the organisations that educate and employ them are concerned with patient safety and the novice nurses' ability to assess, manage and prioritise safe patient care (Pellico, Djukic, Tassone-Kovner, & Brewer, 2010). The report 'To Err is Human' by Kohn, Corrigan and Donaldson (1999) highlighted medical error within the United States of America (USA) healthcare system and reported preventable deaths were estimated as 10% of hospitalised patients or the equivalent of two fully loaded Jumbo Jets crashing every week.

In the report by Kohn et al., (1999) the importance of leadership, communication, workplace culture and human factors were identified as contributing to medical error. Equally important were issues of patient assessment, prioritisation and management of care by all health professionals. Patient safety has become a commonly used expression within healthcare settings and Kohn et al., (1999) defined patient safety as: "Freedom from accidental injury; ensuring patient safety involves the establishment of operational systems and processes that minimise the likelihood of errors and maximizes the likelihood of intercepting them when they occur" (p.211). Watcher (2009) identified that the publication of 'To Err is Human' heralded the rise of the patient safety agenda within the modern healthcare setting. Since the publication of this report, the patient safety agenda and understanding safety culture has become a priority for many healthcare organisations (Sammer et al., 2009).

Similar to other international studies, the study by Davis et al., (2002) identified similar rates of injury within the New Zealand public hospital setting, with 12.9% of patients reported to have experienced at least one preventable adverse event during their admission. New Zealand has invested in this patient safety agenda. The Health and Disability Commissioner (HDC) was established to address the problem of adverse outcome from clinical care and providing recourse for patients who feel that they or their family have been subjected to medical error. This recourse is manifest in The Code of Rights which establishes health consumer rights, legislated in 1996 (HDC, 2009). Furthermore, The New Zealand Health Practitioners Disciplinary Tribunal

ensures healthcare practitioners are accountable for their practice and adjudicates hearings concerning clinical errors and malpractice (2009).

The Nursing Council of New Zealand (NCNZ) also has a role in the patient safety agenda. The NCNZ integrates patient safety within undergraduate nursing education through the Educational Programme Standards (NCNZ, 2011), that require tertiary education providers to include concepts of patient safety in the curricula. As a response to the concerns of enhancing and promoting patient safety, the World Health Organisation (WHO) produced a patient safety curriculum guide, available to educators, supporting the development for teaching patient safety (WHO, 2009). An additional feature of the undergraduate nursing curriculum is the rapid growth in the use of immersive simulation. This medium attempts to replicate any desired clinical situation, where learners can practice skills, problem solve in real time and recreate interactions that they may encounter in the clinical environment (Hovancsek, 2007). Simulation is a method to educate healthcare professionals, to understand the concepts of clinical risk and patient safety addressing the problems raised by Kohn et al in 1999 (Berragan, 2011; Gantt & Webb-Corbett, 2010; Hovancsek, 2007).

Researcher's background and interests

I have been involved with using simulation as an educational tool for the last 15 years. Starting as a Nurse Educator in the Post Anaesthetic Care Unit (PACU) at Capital Coast District Health Board in Wellington, developing and teaching PACU courses at the then National Patient Simulation Centre. My professional interest, experience and expertise have led me to become involved with the simulation community both nationally and internationally. I became the Clinical Laboratory Manager at Whitireia Polytechnic in 2011. This role incorporates all aspects of simulation within Whitireia; I am responsible for the maintenance, running and budgetary management of the simulation laboratories. My responsibilities also include the use and integration of simulation throughout all health programmes that are offered by the Polytechnic. These include three Bachelor of Nursing programmes, Paramedicine, Enrolled Nursing and Post Graduate courses and external workshops, which are offered to the general health community. I am also responsible for educating and developing staff in the use of simulation as an educational pedagogy, and assist them in applying and embedding simulation within their programmes.

I am the only New Zealand member of the Innovation in Simulation Pedagogy Implementation Research Evaluation (InSPIRE). This is a collaborative alliance of academics with interest in health simulation with a focus on advancing simulation education, practice, research; and the promotion of patient safety and improving patient outcomes through the use of simulation. The InSPIRE alliance runs masterclass workshops throughout Australasia to further the use of best practice in simulation.

Whitireia Community Polytechnic has invested heavily, both financially and educationally, in simulation and Context Based Learning (CBL). The teaching method of CBL is ideally suited to simulation and is also referred to as Problem Based Learning (Trimmer & Hawes, 2015). I was the first person within the New Zealand nursing tertiary system to be employed, with the sole focus to develop and lead simulation. I contributed to the Polytechnics' design of the multimillion dollar simulation suite that was built in 2012. I have presented both nationally and internationally, in the United States of America (USA), United Kingdom (UK), Singapore and Australia, on the subject of simulation and CBL, as well as being published both within and outside New Zealand.

The research aims and objectives

This research was undertaken to investigate how newly graduated nurses recognise and develop skills relating to clinical risk and patient safety. I set out to understand how and where new graduates learn those skills and what would help future undergraduate nurses better prepare for the stresses and complexities of the clinical setting. The study also investigates the relevance of simulation as an educational tool for undergraduate nurses in preparing them for clinical practice, and whether it promotes their understanding of the concepts of clinical risk and patient safety. Appreciative Inquiry (AI) was chosen for the research. This methodology incorporates the 4D phases of A.I., which are Discovery, Dreaming, Design, and Destiny, enabling the researcher to envisage an aspirational curriculum that can prepare undergraduate nurses for the clinical environment.

The objectives of the research were:

- To gain an understanding of the relevant literature concerning the subject under investigation.
- To gain an appreciation of the participants' understanding of the notions of clinical risk and patient safety.
- To explore how undergraduate nurses recognise situations of clinical risk and patient safety.
- To understand what skills the participants brought to situations of clinical risk and patient safety and how they managed those situations.
- To discover how the participants' learnt the skills to manage incidents of clinical risk and patient safety.
- To identify what the participants themselves considered the effective methods by which they were taught the concepts of clinical risk and patient safety.
- To discover whether they had experienced simulation in their undergraduate education and whether this had assisted the participants to prepare for situations concerning clinical risk and patient safety.
- Following the methodological principles of A.I. and the 4D cycle, the research will allow the participants to dream and imagine the most effective way of teaching the concepts of clinical risk and patient safety.

Note regarding terminology.

Within the educational setting the use of simulation is divided into two major components. Firstly, a focus on skill acquisition, including psycho-motor skills or physical skills, such as injections or catheterising patients, that can be referred to as 'hard skills'. These skills can be performed on task trainers such as arms for cannulating and buttocks for injection practice. Simulation used to teach the 'softer skills', which are cognitive and conceptual in nature, is often referred to in research literature as using immersive or high fidelity simulation. For this research, unless specifically stated, the term simulation is referring to the immersive form.

Organisation of the thesis

The thesis is ordered into chapters as summarised below:

Chapter Two: The literature review

This chapter reviews the current literature related to clinical risk and patient safety, the impact and implications on healthcare professionals and patients. It highlights the strategies healthcare and educational organisations have developed to minimise clinical risk and promote patient safety, including the use of simulation as an educational medium for preparing the undergraduate nurses for professional qualification. This chapter also identifies workplace and educational cultures and their influence on incidents of clinical risk and patient safety. Other factors identified as important are the clinical environment, notions of preceptorship, leadership, role modelling and the influence of human factors on the healthcare practitioners' clinical environment.

Chapter Three: Methodology

Chapter Three outlines the use of AI as the methodology which was chosen for this research. It will describe why this methodology was selected, its origins and its components, the 4D cycle of Discovery, Dreaming, Design and Destiny which is central to its application as a research method. Chapter three will also describe the research process that I followed; from the initial proposal through to ethical approval, recruitment process, as well as the provisions to ensure academic rigour.

Chapter Four: Findings

This chapter forms the Discovery Phase of AI, describing the participants' understanding of the concepts of clinical risk and patient safety. It identifies how the participants encountered events related to clinical risk and patient safety, as well as how they manged such incidents. The participants' experience of the clinical environment is explored, along with descriptive examples related to patient safety. The chapter explores how the participants learnt about the concepts of clinical risk and safe patient care in their undergraduate education, as well as their exposure to simulation as a learning strategy. Finally, the focus shifts into the Dreaming Phase of AI, where the participants are allowed to envisage a future that would better prepare them for the rigours of the clinical environment.

Chapter Five: Discussion and recommendations

In Chapter Five, the themes identified in the research are discussed, alongside the current literature. The Design and Destiny Phases of AI will be explored under the recommendations, where an outline is presented, identifying what would be required in order for the research's aspirations to be realised. Also the limitations of the research study, as well as its implications for future research in the subject matter will be identified.

Chapter Two: Literature Review

Patient safety agenda

In 1999 a seminal report by Kohn, Corrigan and Donaldson was published in the USA, the report and subsequent publication was titled: 'To Err is Human'. This report was an integrated analysis of preventable sentinel events occurring within the USA healthcare system. The authors called for a systematic approach to changing healthcare organisations, which were identified as failing to ensure that safe patient care was delivered to the general population. This report had ramifications for all healthcare systems, resulting in recommendations designed to monitor and promote safe patient outcomes. The problem of preventable harm is not unique to the USA and has been recognised internationally and in New Zealand.

Davis et al., (2002) reported a retrospective study within New Zealand which reviewed 6579 medical records. The study found 12.9% of patients admitted to New Zealand Public Hospitals experienced at least one adverse event during their hospital admission. These adverse events ranged from minor to serious consequences, including permanent injury and death. The authors concluded that an increased workload and complex nature of the workplace contributed to the risk. The report also identified that the New Zealand statistics are comparable to other western healthcare systems (Vincent, 2010).

Colla, Bracken, Kinney and Weeks (2005) compared safety between different high risk industries, such as nuclear, aviation and healthcare. They identified that the healthcare industry has traditionally not held accurate data when investigating issues of patient safety. Furthermore, any action and change of practice is often undertaken by healthcare providers as a reaction to a negative event, rather than a more proactive response of anticipation. Colla et al., (2005) believe that a proactive approach is required to understand issues of clinical risk and patient safety, so healthcare organisations can develop an effective approach to the problem. Duhn et al., (2012) identified that the majority of first world countries have instigated programmes aimed at teaching health professionals the concepts of patient safety to prepare them for the clinical environment. In 2011 The WHO published a curriculum guide for teaching inter-professional healthcare workers concepts of patient safety. The guide is a

comprehensive framework designed to assist health educationalists to integrate and teach patient safety in their curricula. Ginsburg, Tregunno, and Norton (2012) recognise new methods of educating undergraduate nurses such as understanding patient safety as socio-cultural phenomena, including aspects of inter-professional team work, communication, human factors and environmental influences on clinical risk and patient safety. Furthermore, understanding these concepts is essential to prepare the undergraduates for an environment that is risk laden, both for the client and the healthcare practitioner. Curriculum frameworks such as the WHO patient safety curriculum guide (2011), identify effective teaching and learning strategies, that assist undergraduate nurses with understanding clinical risk and patient safety are essential for the development of a resilient, safe and prepared nursing workforce.

Despite these attempts to address the issues of teaching patient safety to healthcare professionals, research suggests that new graduate nurses are still entering the workforce inadequately prepared for the clinical environment. Theisen and Sandau (2013) demonstrated that newly graduated nurses lack necessary critical thinking skills, decision making, clinical competence and a poor understanding of clinical risk and patient safety. In order to create a safe clinical environment undergraduate and post graduate education support is required to focus on reducing clinical risk and ensuring safe patient care (Bratt & Felzer, 2011).

At the undergraduate level there is little evidence that focuses on the issue of patient safety. Patient safety is not specifically mentioned in the NCNZ Educational Programme Standards for Undergraduate Nursing Programmes, with a reference to safe environment mentioned (2011). There are components that influence patient safety covered in the Educational Standards, such as communication, teamwork, assessment, decision making and safe medication administration. In an attempt to address the lack of undergraduate nurse readiness for the clinical environment, New Zealand has created the Nurse Entry To Practice (NETP) programme (Health Workforce New Zealand, 2016). All District Health Boards (DHB's) offer this one year programme which is designed to assist the new graduate with their transition from student to qualified registered nurse. The programme provides academic and clinical mentoring; creating a network of support for the newly qualified nurse, developing the necessary skills to perform in the clinical setting (Workforce New Zealand, 2016).

One of the joint responses from some educational institutions and DHB's within New Zealand has been the development of Dedicated Education Units (DEUs). These units are designed to focus on the nurses clinical skills, with skilled mentoring support from both clinical and tutor preceptors. This is a collaborative partnership where clinical staff act as designated mentors to undergraduate students within the clinical setting, with faculty tutors providing support for clinical teaching and learning (Freundl et al., 2012). These units require a closer collaboration between clinical mentors and academic tutors, than traditional clinical placement models. Researchers Freundl et al., (2012) found that the DEU model improved the learning experience for the undergraduate nurse and promoted a closer working relationship between the clinical and educational sectors.

Organisational culture and human factors

Since the publication of 'To Err is Human' (1999), understanding workplace culture, human factors and the significant role they play in clinical errors, has become a priority for stakeholders wishing to see a decrease in preventative sentinel events. The importance of the subject is often highlighted and included in the mission statements of healthcare institutions. Organisational culture is concerned with how organisations and teams work towards common goals, highlighting shared values and behaviours within organisations, along with notions of leadership and professional role modelling (Kaufman & McCaughan, 2013). Human factors describe the relationships between people in a workplace and the human characteristics that are commonly shared. These human characteristics include the tendency for people to fixate, become distracted, the effects of fatigue on practitioners and the contribution of communication, teamwork and leadership in errors (Khon et al., 1999).

Sammer et al., (2009) identify organisational culture within the healthcare system as complex and the study identifies key characteristics that describe a safe organisational culture. These characteristics include awareness of leadership, teamwork, communication and a workplace culture that recognises error within healthcare organisations. Understanding how multi-disciplinary teams (MDT's) function, communicate and interact with each other is pivotal for improving patient safety. Ridelberg, Roback, and Nilsen (2014) also discuss the hierarchical nature of MDT's and how these cultural hierarchies can be barriers to improving safe patient care and

reducing incidents of clinical risk and patient safety. These barriers were reported in a study by Ridelberg et al., (2014) which highlighted nurses who identified a lack of collaboration between themselves and physicians due to a culture of hierarchical behaviours, behaviours which the nurses believed increased clinical risk. The authors acknowledged a correlation between effective communication and MDT collaboration and patient safety, with some professional groups withholding or modifying information dependent on the professional status of the recipient.

Leadership

The release of the Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry (2013) by the Department of Health in the UK was a response to systematic failings in healthcare within a tertiary hospital. The report exposed a perceived disconnect between senior practitioners and frontline staff, concerns included issues of communication, leadership and mentorship. Recommendations of the report included regular audits, maintenance of technical equipment and appropriate training for staff that are required to operate the equipment. Furthermore, the report recommended an increase of nursing staff, to combat reported workload issues which would add resources and combat low nursing morale, including effective leadership, modelled by senior nursing staff. Davis (2013) recognises the need for senior staff to show visibility and to interact with junior staff in the clinical environment. While there is not yet enough evidence to prove the effectiveness of this strategy, Davis (2013) believes that anecdotal evidence suggests this re-engagement will create positive benefits for patient safety. Wong, Cummings, and Ducharme (2013) conducted a systematic review of proactive engaged leadership within nursing and its impact on patient outcomes. This review identified effective leadership and team engagement as having positive effects on patient outcomes.

Preceptorship and Patient safety

From the perspective of the student nurse, the preceptor is both a teacher and a leader. This role has been recognised as pivotal for the professional development of the novice nurse (Crick, White, Shaw & Ross, 2015). Pitcher (2016) also acknowledges the importance of the preceptor/preceptee relationship, where the novice nurse learns the professional clinical skills and professional behaviours, such as leadership, clinical

decision making, prioritising care and time management, facilitating their transition from undergraduate to professional registration. The preceptor/preceptee relationship requires an experienced clinical role model working alongside a less experienced colleague, facilitating their clinical development in a safe and controlled setting (Cheek, Dotson, & Ogilvie, 2016). However, Pitcher (2016) identifies that preceptorship training is variable and at times inadequate, resulting in a novice nurse who is less prepared for the clinical setting. Lack of effective preceptorship training for preceptors may not prepare preceptees for the rigours of the clinical environment, making them more prone to making errors and incorrect decisions. Saintsing, Gibson and Pennington (2011) undertook an integrated review examining the relationships of newly qualified nurses' critical thinking skills and how they relate to clinical error. The authors identified the preceptor/preceptee relationship as essential in preparing novice nurses to make sound clinical decisions. However, Pitcher (2016) and Saintsing et al., (2011) noticed inconsistencies in the training of preceptors, with poorly prepared preceptors impacting negatively on the preceptees clinical learning. In order to increase the effectiveness of the preceptor/preceptee relationship, the authors recommended an organised and systematic approach for educating nursing preceptors.

Educational environment, the teaching of clinical risk and patient safety

Tella et al., (2014) undertook a literature review identifying how undergraduate nursing students are taught the concepts of patient safety within the classroom environment. The authors stated that the teaching of the subject of patient safety was inconsistent, and therefore experiences for the undergraduate nurses were variable. The findings, from the literature review, demonstrate that students learn more effectively when multiple teaching methods are employed to teach concepts of patient safety. The authors noted that when the subject of patient safety is not taught as a specific topic, but rather, integrated within the curricula, it become 'less than recognisable' as a concept for the student nurse. The report suggests that curriculum guidelines designed to teach patient safety, such as the WHO (2011) are not being utilised or embedded into nursing curricula. Duhn et al., (2012) suggest that the reason many educators do not fully engage in teaching concepts of clinical risk and patient safety in their curricula is because the concepts are difficult to teach. It is possible educators are more

comfortable teaching psycho motor skills rather than the more cognitive and conceptual skills related to clinical risk and patient safety.

Simulation and patient safety

Over the last 30 years simulation has been utilised and developed in undergraduate nursing education as a learning strategy. It is seen by many supporters as an effective way of contributing to undergraduate preparedness for clinical practice (Kaddoura, 2010). McCaughey and Traynor (2010) describe that manikins and actors used to simulate patients and clinical scenarios have been recognised as a successful learning experience for undergraduate nurses. Simulation undertaken in a controlled and safe environment, where reflective debriefing is utilised as a therapeutic learning tool, leads to an increase in the student's clinical confidence and competence, as well as their ability to assess risk and cope with stressful situations (McCaughey & Traynor, 2010). Simulation allows the student to learn and be exposed to scenarios which the undergraduate nurse may not have encountered in the clinical placements. Bambini, Washburn, and Perkins (2009) conducted an integrated quasi-experimental study, where student nurses self-reported on the effectiveness of their exposure to simulation scenarios. The results of the study found that the students reported an increase in confidence in clinical assessment, judgement and communication skills. The results also showed that experiences the students had encountered in their simulated scenarios were similar to their clinical experiences. As a result of this recognition, they felt better prepared to deal with such encounters and believed that it enabled them to be safer practitioners. The ability for the students to transfer their learning from the simulated environment into the clinical setting demonstrated the value of simulation. The author recognises the need to produce safe, competent and confident nurses, has been one of the main drivers behind the use of simulation as a learning strategy and recommends that these strategies should be utilised to prepare undergraduate nurses for the rigours of the clinical environment.

Blum, Borgland, and Parcells (2010) conducted a literature review relating to the use of simulation as a teaching method. The authors believe that nurses of all levels of competencies could benefit from exposure to simulation as a means of experiential learning. These educational opportunities allow nurses to develop clinical competencies, including effective teamwork and communication skills, in a safe

controlled environment. Kaddoura (2010) utilised an exploratory qualitative descriptive study, which investigated how newly qualified critical care nurses reported experiences of exposure to simulation and how this affected their critical thinking and confidence. The nurses reported that they benefited from simulation in terms of an increased ability to learn from debriefing and being allowed to make errors. Kaddoura (2010) concludes that simulation is an effective tool for the nurse educator to increase the reasoning abilities and confidence of students, along with development of communication and leadership skills. In contrast a qualitative study by Endacott et al., (2010) reported on undergraduate nurses' ability to recognise clinical cues relating to deterioration of simulated patients. The research found that some participants failed to respond to single cues within the scenarios. Whereas, the students did respond when numerous cues were recognised. Endacott et al., (2010) identified that scenarios should be realistic in order for students to develop the required systematic responses. They recommend that recorded video of the scenarios are useful for achieving a positive outcome for the participants.

Salas et al., (2008) recognise that simulation can greatly benefit healthcare practitioners, when systematically organised and well planned. Clear guidelines are required in order for the simulation experience to be effective. These simulation guidelines require the provider's organisation to be supportive of the medium, including time and resources being made available for effective design and implementation of simulation. Furthermore Salas et al., (2008) state that if simulation is to reach its full potential, then educational staff be immersed in the pedagogical principles of simulation and skilled in the design and delivery of the medium.

The debriefing process after a simulation is regarded as essential; any issues arising from the scenario can be unpacked by a skilled facilitator in a safe environment (Jefferies & Rogers, 2007). The debriefing encourages understanding of how the student perceived the experience and how they would perform in future similar situations. Jefferies and Rogers (2007) describes the debriefing as the moment meaningful learning takes place and is considered by many simulation users to be where reasoning and the understanding of the simulation experience can take place.

Another benefit of simulation is that participants can be allowed to experience errors and actively learn from them, preparing them for when they encounter similar scenarios

in the clinical environment (Jeffries & Rogers, 2007). Simulation can be used to teach cognitive and conceptual skills including ethical decision making. This allows participants to negotiate moral conundrums in a simulated environment. Therefore, enabling the participants to develop ethical judgement and leading to successful decision making in the clinical arena (Dierckx de Casterle, Grypdonck, Vuylsteke-Wauters, & Janssen, 1997).

Limitations of simulation are identified in the research literature. McCaughey and Traynor (2010) highlight that there has been no conclusive research which demonstrates that simulation is the definitive answer to the problems of teaching clinical risk and patient safety. Another concern is the cost of buying adequate simulation equipment, as it is expensive and budget constraints may prohibit institutions from being able to engage in the medium. Simulation is resource intensive compared to traditional didactic teaching methods. A smaller student group is more effective when using simulation; this requires more teaching and resources than traditional teaching methods (Mahoney et al., 2013). McCaughey and Traynor (2010) describe how the UK and certain States in the USA recognise simulation as being part of the undergraduate nurses' clinical experience. Recognition of simulation as clinical experience is becoming popular internationally, as accessing clinical placements becomes more difficult. However, research and in particular longitudinal studies need to be undertaken, in order to add to the volume of evidence regarding the effectiveness of simulation (Blum et al., 2010; Kaddoura, 2010).

The National Council of State Boards of Nursing (NCSBN) (2014) conducted a major longitudinal study of undergraduate training in the USA, identifying the impact of simulation as a substitute for clinical practice. Twenty undergraduate nursing programmes from within the USA participated in the study. The study confirmed that participants who had half of the clinical experience augmented by simulation were as clinically competent and prepared for professional registration as those receiving traditional undergraduate nursing education. These results are significant as they identify the effectiveness of simulation in preparing student nurses for the clinical environment. The authors Hayden, Smiley, Alexander, Kardong-Edgren and Jeffries (2014) concluded the NCSBN report with this summary:

> ‘‘The most significant finding of this study is the effectiveness of two types of educational methods: traditional clinical and simulation experiences. In both environments, when structure, an adequately prepared faculty with appropriate resources, dedication, foresight, and vision are incorporated into the prelicensure nursing program, excellent student outcomes are achieved’’. (p. S38)

The literature review outlines the research relevant to the question of how undergraduate nursing students understand issues of clinical risk and patient safety. This includes the development of the patient safety agenda and the role of the healthcare practitioner, including the newly qualified nurse and their exposure to an environment which is complex and risk laden. This environment includes complex workplace cultures, the importance of role models and leadership as factors that influence the undergraduates’ clinical development. The literature review highlights the traditional methods undergraduate nurses learn, both in the classroom and clinical setting. The effectiveness of simulation both as a teaching method and possible substitute for clinical experience is included in this section, emphasising this emerging teaching methodology.

Chapter Three will describe the chosen methodology for the research, a qualitative research approach using Appreciative Inquiry (AI). This method is an aspirational research tool which allows participants to dream of a future and enables myself to understand and point to a possible future that would effectively prepare undergraduate nurses for the rigours of the clinical environment, and understanding the vital concepts of clinical risk and patient safety.

Chapter Three: Methodology

Introduction

Within this chapter I will explain the qualitative methodology that was chosen for the research, explaining its origins and how it is used in academia. The process for selecting the participants will be discussed; a description of the participants will be given, along with the questions that were asked during the interviews. I will identify the practicalities of arranging the interviews and the environment in which they took place, and the measures that were employed to ensure the findings accurately reflected the participants' descriptions. The relevance of the research to health will be explained, as well as the relevance to particular cultural groups and the ethical considerations which were necessary in order for the research to be approved.

The qualitative research approach

A qualitative research methodology was chosen to gain an understanding of how the participants learnt concepts of clinical risk and patient safety, to understand how the participants identified, described, and experienced clinical risk and patient safety in the clinical setting. Another focus of the research was to gain insight into the participants' experiences of simulation during their undergraduate education, in relation to clinical risk and patient safety.

Creswell (2009) states that the qualitative researchers world view requires them to be open to the different perspectives that may exist in a given social construct. Qualitative research analysis incorporates inductive reasoning, reasoning that looks at constituent components of the subject in order to then create a clearer understanding of the topic being researched. The qualitative researcher attempts to make sense and give meaning to the subject of their observations (Crotty, 1998). The qualitative approach consists of various interrelated methodologies. There are multiple ways in which researchers can explore and describe phenomena that they are investigating (Schneider, Whitehead, & Elliot, 2007). I felt that the qualitative approach would be best suited for the research I was undertaking. The research consisted of one-on-one interviews with the participants, from these interviews themes were identified, analysed and explored. It is important as the researcher I remained neutral when undertaking

the interviews, allowing the participants to explore and describe their experiences (Munhall, 2012).

Appreciative Inquiry

The method of choice for this research is Appreciative Inquiry (AI), which originated in organisations that were interested in change management. The design was first developed and used in the 1980's and 1990's by David Cooperrider at the Case Western Reserve University in Cleveland, Ohio, USA. The method is dynamic, resulting in different approaches to applying the method, dependent on the research and the application (Bushe, 2012). It was perceived as an energetic and effective methodology, creating positive change within troubled systems (Carter et al., 2007; Ludema & Fry, 2008).

I was originally proposing to undertake a purely descriptive study, but was introduced to the notion of AI and was attracted to its aspirational approach to research. Appreciative Inquiry is an aspirational methodology and can be described as action research (Crotty, 1998). This is a methodology that moves away from the problems found in the research findings, identifying what works for the subject, building upon the positives discovered in the inquiry and instigating change that will be seen as transformational (Trajkovski, Schmied, Vickers, & Jackson, 2013). Furthermore, AI is an egalitarian approach, allowing change to be grassroots driven and values every viewpoint, holding no one perspective above any other.

An example of how this methodology works is described by Munhall (2012), regarding a case of changing a workplace culture, that had problems with some of its members being sexually harassed. Instead of just concentrating on removing poor conduct, the investigation identified behaviours considered as positive with cross gender interactions, placing the focus on positive relationships and associated behaviours.

Appreciative Inquiry as a research tool in nursing

Increasingly, AI has been used as a research methodology by the nursing community, becoming popular because of its celebration of the positive (Munhall, 2008). With researchers applying the methodology to a host of subjects within the healthcare sector, developing fresh outlooks for traditional healthcare issues (Harmon, Fontaine,

Plews-Ogan, & Williams, 2012; Meyer et al., 2006; Moody, Horton- Deutsch, & Pesut, 2007).

My professional interest is concerned with how the nursing undergraduate teaching community can develop and evolve use and application of simulation. Through using the positivity of AI from the perspective of the participant's experience, creating an aspirational vision for simulation (Preskill & Coghlan, 2003; Reed, 2007). The methodology allows participants to articulate what is positive, allowing both the researcher and the participants to explore a desired future (Carter et al., 2007).

The Four-D Cycle

Appreciative Inquiry utilises a four D cycle: Discovery, Dreaming, Designing and Destiny. Through this four D cycle the researcher can reach a desirable conclusion. The methodology itself is steeped in a desire for positive outcomes and does not always utilise the Four-D cycle (Ludema & Fry, 2008). For the purpose of this research I identified the Four-D cycle as being both an appropriate and effective tool for achieving participant centred outcomes.

Discovery

Discovery is the initial stage of the AI process; this allows participants to describe an understanding of the research topic (Bushe, 2012). The subject being investigated had the potential to be viewed in an adverse manner, as clinical risk and patient safety can often be a negative experience for the clinical practitioner. It was therefore important to focus the conversations to the learning experiences participants considered as effective and safe preparation for the clinical environment.

Dreaming

Dreaming is a phase of AI that allows the participants to envisage what would and could be the solutions to the issues under investigation. This process allows participants and the researcher to dream of a future which is positive and aspirational (Harmon et al., 2012). A section of the interview was intentionally allocated for this phase, allowing the participants to imagine and describe what an effective future could hold.

Design

The Design phase of AI is linked to the Dreaming Phase by allowing the participants to both anticipate what the future should look like, and describe changes necessary in order to achieve the desired future (Bushe, 2012). This phase facilitates the participants and the researcher to recognise the necessary changes for the dream to be realised (Moody et al., 2007).

Destiny

The final component of the Four D Design is Destiny. This phase is concerned with constructing the appropriate mechanisms to achieve the desired outcomes, creating the means to turn the vision into reality (Luedema & Fry, 2008). In the early origins of AI, the Destiny Phase was referred to as the 'Delivery Phase' and over time has changed to Destiny (Harmon et al., 2012). This reflects its aspirational focus, with AI becoming less grounded in traditional change management methodologies.

Data collection methods

The data gathering entailed the use of semi-structured interviews, undertaken on a face-to-face and one-on-one format. The structure of the interview was made transparent to the participants along with how the results would be disseminated. The researcher was responsible for the initial questions and allowed the participants to explore issues they perceived or identified as being significant. The researcher was responsible for recordings and hand written notes taken at the interviews. Although I had preconceived areas to explore, it was important to be flexible as the participants, at times, may express concerns and describe their experiences that I did not consider as being significant to them (Schneider et al., 2007).

Recruitment of participants

The participants recruited were from a different region of New Zealand to that in which I worked; this was necessary to avoid any conflict of interests with regards to the participants having been taught by myself. For the purpose of the research a NETP programme was identified, I was aware that both of the local undergraduate tertiary education providers offered simulation as a teaching medium. Therefore, I was able to recruit volunteers who had experienced simulation as part of their undergraduate

education. I contacted the lead educator of the local NETP programme, explained the purpose of the research and my interest in recruiting participants from their programme. She was supportive of the project and recruited volunteers by providing them with my email address in which they could contact me. This ensured their anonymity to the lead educator of the NETP programme. All potential participants were give an information sheet explaining the purpose of the study (appendix 1) and were required to sign a consent form (appendix 2).

Those responsible for granting access to the participants for the research appeared cautious with questions concerning clinical risk and patient safety. Assurances were given that the research was investigating the nature of how new graduates recognised and learnt about the phenomena of clinical risk and patient safety, not specific incidents of risk and safety which may embarrass the local health body. Locality sign off was granted, though the prolonged process was stressful for myself, as the success or failure of the entire project was dependent on this approval. Perhaps their reticence to approve the study illustrates that health providers are reluctant to engage with issues of risk and safety, because they fear negative publicity.

Sample description

Purposeful sampling was undertaken when recruiting the participants. All participants were in their first year of practice and were enrolled on a NETP programme. Nine volunteers were invited to participate; the rationale for selecting nurses in their first year of practice was that they would have recent experience of undergraduate education and their first year as registered nurse. The participants would have an understanding of how their undergraduate education had prepared them for issues of clinical risk and patient safety. As novice nurses their exposure to the clinical environment, their lived experience, would provide rich material for the research study.

The participants had graduated from four Schools of Nursing within New Zealand, ensuring a varied representation from a small sample size. All participants had experienced simulation as part of their undergraduate education, as well as preceptorship models and a tertiary experience that had Nursing Council of New Zealand (NCNZ) accreditation. Seven of the nine participants were young adult females and of European New Zealand descent. The remaining two were of East Asian

ethnicity, with one being a mature male participant. None of the volunteers identified as being Maori.

Location and structure of the interviews

Interviews took place on the DHB's educational campus in a private, quiet room. Participants were aware of the nature and format of the interview and had been provided the research question. Interviews had an allocated time of forty-five minutes and all interviews were completed within this timeframe. The interviews themselves were conducted over a period of two weeks at a time convenient for the participants. Interview questions are in Appendix 3. While having structured questions, it was necessary for the interview process to have a semi-structured nature, so exploration of the participants' individual responses and experiences could be pursued. A series of questions were asked related to their understanding of the concepts, their experience of the phenomena, how they learnt about the subject and what they felt prepared them for clinical risk and patient safety.

Data Analysis

The interviews were transcribed by a third party who had signed a confidentiality agreement, (see Appendix 4). *Once transcribed, the interviews were read and reread and placed into a* thematic structure. This was achieved by recognising the common themes that were raised by the participants and ones that were considered important by them and the researcher. Several themes identified were anticipated by the researcher prior to the research being undertaken, other themes were less anticipated. The majority of the themes reached saturation point, where it became evident that they were describing shared experiences. In chapter three themes are described, interpreted, and illustrated with quotes from participants.

Measures to ensure rigour

DePoy and Gitlin (2011) state rigour is an important component if the research is to be considered reliable and accurate. Borbasi, Jackson and Langford, (2005) argue that member checking is an important aspect in order to establish rigour in qualitative research. All participants were given the chance to verify the accuracy of what they

described by being offered the transcripts to read. These were sent by email and no issues regarding accuracy were reported.

Audit Trail

An audit trail was utilised to maintain the rigour of the research (DePoy & Gitlin, 2011). This consisted of a comprehensive trail of thought processes and a description of how the knowledge was developed, the logical steps of the research process and how any conclusions were reached. This enables the trail to be checked by peers, auditors or any other interested groups. The research data, such as documentation, interview recordings and personal written thoughts of the author will be open to study which will illustrate how the research process evolved. This audit trail will add to the credibility of a study, as it can be independently verified.

Relevance to health

Understanding issues of clinical risk and patient safety is a major driver in modern healthcare settings. All research that describes, explores and investigates the subject, informing healthcare institutions in recognising how undergraduate nurses perceive, cope and learn about the concepts of clinical risk and patient safety is valuable. This understanding will enable nursing educationalists and stakeholders to prepare undergraduate nurses for encountering the notions of clinical risk and patient safety. Importantly, this will assist stakeholders in developing effective education strategies, resulting in a safe and work ready health practitioner.

Relevance to Māori health outcomes

When undertaking research within New Zealand it is important that the researcher considers the cultural needs and requirements of any Māori participants (Walker, Eketone, & Gibbs, 2006). The research proposal was consistent with the principles of Te Tiriti o Waitangi; covering the areas of partnership, protection and participation. The fact that none of the participants identified as being Maori does not detract from the importance that this must be considered when undertaking any research.

Partnership

By using egalitarian underpinnings of AI, I attempted to form a relationship with the participants that were as equal as possible. I endeavoured to create an environment that was relaxed, and where they could feel comfortable in discussing their experiences.

Protection

The participants were protected by anonymity and I ensured that I adhered to all ethical guidelines set out by Victoria University of Wellingtons' Human Ethics Policy.

Participation

All members of the NETP programme that were chosen for the research were eligible for the study. No volunteers were discounted from being participants related to gender, ethnicity or age. The only exclusion criteria would be centred on any possibility that I may have taught the participants during their undergraduate or post-graduate career.

Ethical considerations

The need to protect participants from harm; trauma and stress both physical and psychological must be of paramount concern of the researcher (Schneider et al., 2007). Ethics approval was obtained from Victoria University of Wellington. Locality approval was also received from the DHB where the research was undertaken and the participants' were employed.

Anonymity and confidentiality

Pseudonyms were used for the participants throughout, ensuring that their anonymity was protected. Recorded and written data has been securely stored in a locked drawer, all computer information is password protected. The data will be stored for a period of ten years and will then be destroyed.

Chapter Four: Findings

Introduction

Having conducted the interviews, the next step was to analyse the data and identify relevant themes that were raised. The aim of the research was to gain an understanding of how the participants identified examples of clinical risk and safe patient care and gain insight into what prepared them for these events. Did simulation have an impact on preparing them for coping with events that contained elements of clinical risk and safe patient care? Were there any educational strategies or experiences that could have prepared them for encounters of clinical risk and safe patient care?

I began by asking the participants to describe what they thought the terms ‘clinical risk’ and ‘patient safety’ meant. Many of the participants had difficulty articulating the difference between clinical risk and patient safety. This may be because patient safety and clinical risk are interlinked and not easily disentangled. While they may have initially struggled to articulate the differences, it was clear when they recalled their experiences, that they were describing incidences of risk and safe patient care.

When analysing the results certain themes emerged as being central to the participants’ experiences. These included the importance of doing no harm to the patient, descriptions of tasks and procedures, consequences of actions, an understanding of their clinical environment. They also identified good fortune and described their distress that accompanied exposure to clinical risk, as well as the impact of the work place culture. Were they empowered to speak up and question behaviour? The influences of human factors, such as workload, staffing levels and distractions was also evident; as well as the importance of clinical role models. The majority of the findings will form the Discovery Phase of the AI Four-D Cycle, with the last part of the findings relating to the Dreaming phase, where the participants were allowed to explore and imagine a more effective preparation for encounters of clinical risk and safe patient care.

Understanding patient safety- 'It's everything'

Paula could only describe clinical risk as being something to do with danger; when asked to explain in more depth she couldn't. Claire's response to whether or not she had heard of either concept was that she had not. Jane described the problem in terms of patients and their conditions and also identified other aspects such as the clinical environment. Paula stated "the clinical environment" as her understanding of clinical risk but could not elaborate on this. Looking at the answers certain themes began to materialise.

While some participants struggled to describe their understanding of the term 'clinical risk' they readily identified patient safety as an integral part of nursing practice.

> [Patient safety] *should be one of your top priorities…*
>
> *(Sarah)*

> *It's everything in our ward*
>
> *(Miriam)*

> *Patient safety is everything…*
>
> *(Jo)*

These responses illustrate how the idea of patient safety is ingrained within the nursing profession and that the subject is given emphasis both in the clinical and educational environment.

Non- maleficence-'Do no harm'

Another common response included the notion of non- maleficence, the idea that nurses should, do no harm to their patients. Several of the participants alluded to this:

> *Make sure they are in good health; do not do any harm to them.*
>
> (Paula)
>
> *We're there to do good and not any harm… not sending them out worse that when we got them*
>
> (Lesley)
>
> *Patient safety is that they're always free from harm and, if possible, make sure that they are in good quality of life.*
>
> (Charles)
>
> The sentiment was also repeated by Claire:
>
> *To keep the patient free from harm…*

They describe their understanding of patient safety in a moral and ethical sense, a kind of mantra to be adhered to. To gain the depth of their understanding it was necessary to explore whether they understood what this 'mantra' meant.

Tasks, procedures, policies and skills- 'Like manual handling'

Participants could recognise and describe situations of clinical risk and safe patient care that they had encountered. Their descriptions centred on the notion that clinical risk and safe patient care was related to certain tasks and procedures, tied in with the use of policies and guidelines. Sarah described her awareness of patient safety centred on time constraints, when undertaking tasks, that can lead to errors being made, or clinical risk being increased. Describing how it is often better to wait before appropriate resources are present before performing a task. She also discussed that

there appeared to be a reluctance with nurses speaking up, even though they were aware of the potential for risk to the patients and themselves:

> *Like manual handling, like we do lots of transferring from the operating table on to their beds...and sometimes it's sort of rushed and no one really speaks up and says, oh I think we should use a Patslide[1].* [Patient safety] *should be one of your top priorities….like everything, like when you are transferring your patients you need to do it, not the way that's going to be easiest and quickest for you, but the way that's going to be safest for the patient. So if that means being able to… wait and get something or someone to come in and help you, if that's going to be the safest for the patient then you should do that.*

Tasks, skills and the importance of monitoring and observing patients' conditions were also discussed by Lesley. She described how she provided safe patient care on a day to day basis in her place of work, the Emergency Department (ED). Touching on the importance of vigilance as an aspect of risk management:

> *In the ED you want to check on people and eyeball them every half hour, just to make sure that you're looking at their trends. It's not safe if you're leaving someone with chest pain without observations for two hours*

The use of vigilance in order to manage safe patient care was highlighted by Miriam. She described her perspective as a nurse who works in a rehabilitation unit, providing an explanation that anticipated issues of patient safety. This was evident in her awareness of what risks her patients could be exposed to, understanding what could happen to the patient if appropriate interventions were not considered:

[1] A device used to safely transfer a patient between trolley and bed

Because we are a rehab ward, we want to get people back to their selves, back home, that sort of thing. So we want to minimise their risk…by assessing their mobility, making sure they are wearing the right footwear…making sure they are able to swallow properly, making sure their medications are the right ones. A lot of it is from clinical practice and working with patients because they aren't all health literate. They don't think about their immediate surroundings, they just think about "Oh, I'm in pain", or "I'm in hospital". You have to think … in steps, they are going to stand up, they're going to put their shoes on and they're going to walk.

The need for vigilance, as well as appropriately skilled and qualified staff, was raised by Jane:

If they've come in … acutely and need ... monitor[ing] *… closely,…making sure the nurse looking after them is qualified…*[and] *has the knowledge to effectively and safely look after somebody.*

Both Miriam and Jane describe the need for a structured approach to patient care, by insuring all tasks are considered and, if needed, undertaken.

By referring to the use of protocols and procedures relating to the administration of medications, which are designed to mitigate risk; Charles described and explained how he managed safe patient care:

Well if they are in danger then they are not safe. I will give you an example. I can make errors … giving medications. I can say the person is safe with the medication as long as I have not given it. But before that, to make the patient safe, I have to go to those five plus three rights of medication [administration].

Unlike Charles, Claire could only mention ‘medications’ as being relevant to her understanding of clinical risk and safe patient care. Louise’s answer also focused on medication administration, along with the importance of time management and not rushing tasks. This example also identified health and safety along with infection control and standard operating procedures that are in place to ensure safe drug administration, such as correct patient, correct medication, correct dose, correct time and safe aseptic delivery of the drug. Important steps that if missed can lead to harm:

> *Giving IV antibiotics… there’s a risk of introducing infection… You* [also] *need good time management.*

This relationship to the clinical environment was demonstrated by Louise, where she acknowledged that a safe environment requires the consideration of risk assessment and appropriate responses in order to mitigate risk:

> *Trying to keep them safe; making sure, if … you’re going to be mobilising on their own … their environment is safe.*

The notion of correct documentation and its link to patient safety was noted by Claire, who recalled that at her educational institution the subject of clinical risk and safe patient care was a high priority:

> *At university you got hammered about documentation and patient safety.*

Responsibilities, both professional and personal, along with the consequences of failing to fulfil these responsibilities, were recognised by many of the participants as being essential in understanding their relationship to clinical risk and safe patient care.

Consequences and responsibility- 'The nurse has so much responsibility'

Participants described the consequences of failing to deal with issues of clinical risk and safe patient care, consequences that could directly affect both the patient and their own professional status. They understood that the responsibility for managing patient safety was their professional responsibility. Charles' understanding was that in his professional practice, he had responsibility for direction and delegation of auxiliary staff. An awareness of his scope of practice and expertise, as well as an understanding of the expertise and scope of practice of other health care workers:

> *Some of the* [care givers] *don't understand those clinical things… the nurse has more clinical experience…they can see…whereas the caregivers don't see it.*

In addition to professional responsibility, Miriam described patient advocacy as also being an essential aspect of safe patient care:

> *With our training…you know to be an advocate for your patient…You're it for them, you're responsible for them*

The responsibility that nurses have regarding the safe care of their patient was repeated by Lesley:

> *You're looking at potential harm to a patient…It's not safe if you are leaving someone in chest pain without* [observations] *for two hours… it's your responsibility.*

This professional responsibility was also echoed by Jo:

> *The nurse has so much responsibility…it falls back on the nurse*

This understanding of professional responsibility and advocacy as a responsibility was described by the participants. It would be the clinical environment that would generate significant stress on the participants, testing their ability to recognise and cope with incidences of clinical risk and safe patient care, with workload and time constraints featuring prominently in their descriptions.

Workload- 'It gets quite frustrating'

Workload, pace, complexity and inadequate staffing were factors that were present in the examples given by the participants of clinical risk and safe patient care. Participants described a sense of powerlessness when dealing with incidences of clinical risk and safe patient care as well as feeling that only good fortune had affected positive outcomes. Participants described staffing shortages and inappropriate staffing as a signal that they were going to be facing an unsafe environment. They recalled moments of uncertainty, where the clinical risk increased and vigilance was necessary in order to ensure safe patient care.

Staffing shortage and the frustrations this brings to the clinical environment, was identified by Jo. She described a situation that required extra resources and highlighted the fact that those resources were not always available:

> *It gets quite frustrating being a new grad and you've got six patients and four of those patients are heavy[2] and you know you are not able to spend the right amount of time with them. Staffing levels are crazy… most of the time we've got 29 beds, it's usually full. We've only got six nurses on, that's a lot of patients for*

[2] 'Heavy' referring to workload and patient acuity

a surgical ward and a few nurses. We occasionally have a floating [3]nurse if ICU is quiet, they'll bring up a floating nurse. It takes a heck of a load off

Claire, who indicated she had not previously heard the term clinical risk, also recalled an incidence of staffing shortage, where resources were stretched to unsafe levels:

We had to go into safe staffing … a couple of weeks ago because there were only two nurses on the ward, me [a nursing student]*, a new grad and another registered nurse. There were no casual staff available so the Charge Nurse came and helped.*

Workload, staffing levels and patient acuity, which creates an unsafe environment was recalled by Jo. Several factors were present, creating a 'tipping point' where the staff had potential to have become overwhelmed, generating clinical risk:

We had a really busy day, we have one patient come up, [who] *just needs a lot of work. It's more a "one-on-one" patient and she's coming on to the ward where we have about six patients per nurse. When you have a couple of patients that are quite sick and you have another patient who just needs full on attention…it just seems to snowball and gets quite bad for that particular patient. You can't get to them in a timely manner and providing care for them is extremely hard, if you're not given the support from the doctors… So it's the nurse that has so much responsibility… and it's putting the patient at risk.*

An incident of clinical risk due to staff shortage was described by Miriam. She highlighted patient safety measures that were part of the system, which allowed staff

[3] A nurse that is placed on wards to respond to low staff to patient ratios.

to alert senior managers of an unsafe environment. Miriam was able to recognise and respond to the perceived risk; in order to mitigate the potential for harm:

> *We had a few staff call in sick and to a point where there were too many patients for the number of staff. So we had to notify the Duty Nurse Manager and say that this was the situation and she put in place* [the policy] *we couldn't admit any more patients to that ward until we had enough staff, which was not until the night shift* [arrived].

This action by the staff enabled the manager to implement the policy that allowed no more patients to be admitted to the ward and thus helping control the risk to the patients. These types of policies and procedures are designed to reduce clinical risk and ensure safe patient care.

An example which highlighted workload and patient acuity was recalled by Louise:

> *We had six patients and two of them started having post-op complications. One old lady had had some sort of nasal surgery…and her nose was just bleeding and bleeding… and just wouldn't stop. Another man…hadn't passed urine since before the surgery and the doctors didn't want to come up and put a catheter in…*[and] *you've got the meds and the regular* [observations] *you have to do on the other postop patients…that was probably the most unsafe situation.*

Numerous tasks that the nursing staff had to complete in order for patients to be safe and clinical risk to be managed were described by Louise. She commented that the registered nurse was grateful to Louise, for her help. This example is in contrast to Jo's (page 32) where no policy or action was used to mitigate the situation:

She wouldn't have been able to do any of that if I hadn't been there… if she had just been on her own it would have been a nightmare. Even with me, I was in the second year of my studies then. It was probably the most unsafe situation.

Concern about staffing numbers and the pressure to perform tasks, without the appropriate clinical support, was described by Jo. Relating to a situation where a patient had fallen:

There was a patient who had a knee amputated…he's still very independent but very impulsive, wanting to get up and just do things for himself. But he's a big man and he would need at least two nurses to help him [to] *get on and off a commode, but he tries to do it himself and ends up on the floor.*

Jo suggested that this patient's behaviour, which resulted in a fall, was a burden to nurses, as all falls reflect badly on the ward and the care provided by the staff. Jo stated:

It will come down as a fall and then that gets put back on the nurses because 'it's the nurse's fault'.

Sarah worked in an operating theatre and described an example of clinical risk. Though this could also be considered an example of a health and safety incident and potential harm to staff, there was no mention of the potential harm to the patient. It is a clear example of staff not following the policies and procedures designed to keep them safe, as a result putting them in an unsafe situation:

One of the nurses I was working with went to lift a patient … and hurt her back and she was off work for a couple of days.

When asked to comment further why she thought this happened and why the nurse had not sought assistance, she replied that the nurse was “too busy so just got on with the task” as no immediate help was available.

The idea that clinical risk can be graduated or that a certain amount of clinical risk can be tolerable, was described by Paula:

One of the patients was bedridden…when we transferred the patient to the commode, the nurses didn’t use the hoist or anything [else]*…it was a bit risky for the staff and the patient. When we transferred the patient to the commode chair, because the patient couldn’t really move much he and we just put our backs at risk.*

When asked if she knew at the time whether it was a risky situation, her response appears contradictory, she described an awareness that came after the event rather than prior to it:

Yes I did, I mean yes a bit because I hurt my back after I lifted the patient…so I realised that was not safe.

Contrary to Miriam’s example (page 28) it became evident that many other participants had also experienced situations where they impulsively responded. On reflection, they would have preferred a more planned approach, rather than relying on good fortune to achieve a safe outcome. This reflex approach is undesirable, as the outcome is unpredictable.

Accepting risk and good fortune- 'I feel like we were lucky'

Three of the participants felt that at times their exposure to risks and some of the situations they witnessed were reliant on good fortune rather than good judgement and good fortune was the only factor that prevented harm occurring to either their patients or themselves. Highlighting the clinical risk where workload and complexity created an unsafe environment, Jane commented:

> *It was a full on shift, but it actually went OK… We were just lucky that none of our patients had gone off… I feel like we were lucky.*

When asked how the problem was managed, she reported that there was no clear leadership and management of the situation. Although there were no negative outcomes, good fortune was the major reason for this. Lacks of leadership, poor communication, lack of decision making are often related to incidences of negative patient outcomes:

> *It was pretty crazy at the start, we just worked together… Pretty much just split the ward… It was a full on shift, but it actually went OK. We were just lucky that none of our patients had gone off* [deteriorated].

A description of care rationing, where luck, workload, fatigue and production pressure, were present was recalled by Louise. Priorities had to be made and certain tasks deemed as less important were dropped. This is a deliberate strategy and is another example of policies and procedures designed to cope with such incidents:

> *Our ward was quite lucky, the people on the night shift managed to get in. But I know in lots of other wards nurses had to do double shifts to cover the nights.*

The nurses are tired; when you're tired you're more likely to make mistakes. Then if you're short staffed you're more likely to miss things and not give the patients the care they need. You have to like skip out some of the more non-essential things that really the patient might need, but you might just not have time.

Care rationing during her undergraduate education had been encountered by Jo and she described the actions that she and fellow nurses did when faced with such situations:

When you have to just do the totally essential things and really plan your care, because you don't have enough time to do everything your patient needs, got to skip … anything that you can. I remember being on placements and being short staffed and things being [missed] *but there were nothing you could really do.*

Through acknowledging and identifying the risk, Jo described that care rationing and careful planning was required to manage the situation. This type of mitigation is a manifestation of a clinical environment's positive safety culture and the research will now focus on the safety culture that was described by the participants in their clinical experience.

Workplace culture, asking for help- 'You know you can trust her'

When describing their experiences, it became evident that once the participants had seen or been directly involved in an incident, they were faced with the challenge of what they would then do. Did the culture of their clinical environment encourage questioning and asking for help, or was assertion perceived as negative? It was also necessary to examine the experiences of the role models who were precepting them. When looking at the responses of the participants the majority of those understood the need to speak up around issues of safe patient care and risk, but whether they were empowered to was dependent on the culture of the environment.

The importance of advocating for the patient appeared strong, as well as realising that their registration was also at risk if they failed to advocate. Some of the participants still found themselves unable to highlight and share their awareness of clinical risk and safe patient care. Others described feeling 'embarrassed' when speaking up as staff may perceive them as incompetent or unable to cope with their workload. These feelings of embarrassment were a barrier to assertion. Several participants described an awareness of the need to speak up, but many of them had trouble doing so. Some recalled just 'getting on with it', as it was just an unfortunate reality of the work place. Louise stated:

> *I got the impression that it's always like that.*

Other participants also described a lack of confidence in their ability to assert themselves. Jo reported witnessing incidents of clinical risk and safe patient care in her undergraduate training, but felt as if she was not in a position to question or raise concerns, because she was just a student:

> *I was a student, I couldn't really do much but it opened my eyes as to how things can actually happen in a stressful situation.*

However, once qualified Jo felt as if she was obligated to speak up and assert herself, as it was part of her professional responsibility. She highlighted the importance of multi-disciplinary team work and the necessity of being confident in communication with the medical team:

> *I've grown more confident in my practice and being able to go to doctors. The transition is quite hard from a student to a graduate nurse, there is so much more*

responsibility. But now I feel I've grown in confidence, where I can just go straight to the doctors and say this needs to be done, no mucking around.

When asked what she had learnt from a situation, Jo described a sense of powerlessness related to her junior status. Despite this she appears to have processed the experience, where she watched and absorbed the event and actively learnt from it:

I was a student and I couldn't really do much, but it opened my eyes as to how things can actually happen in a stressful situation when you've got so much going on.

A task, which disregarded the potential clinical risk to patient and staff, was recalled by Sarah. She described an inability to challenge senior colleagues when observing poor practice. Despite knowing that what she was doing had substantial risk, personally, professionally and for her patient; her inability to assert herself resulted in a breach of rules and policy:

I was sort of aware, it's better to use another method instead of lifting the patient. But when I asked the nurse if any other method [is used]*, the nurse* [said] *'just lift him', so I just followed the nurse's orders.*

Claire provided an example, very similar to Sarah's, where she described a nurse ignoring the policies in place that cover the Health and Safety requirements relating to moving and handling. These policies seem to have been ignored for expedience; Claire did not have the confidence to question the care with regard to the clinical risk:

I was working with a nurse. A lady couldn't walk properly. So he picked her up and … carried her across the room and I was just standing there... literally carried her across the room. I was like "oh gosh, so many things could go wrong".

When asked why she felt unable to intervene or question the nurse's actions, her response was:

As a student I was too nervous to say anything... I wasn't like "that's so not safe, what are you doing?" but I was pretty shocked because, I'd never seen [it before] *nor … seen … it since.*

In contrast to Claire's inability to speak up, Miriam described a time when she did ask a question only for it to be dismissed by a doctor as being unimportant:

I just thought OK I won't ask you that again, I'll ask someone else, or look it up myself.

This negative role modelling resulted in Miriam disengaging from this staff member, leading her to avoid them in the future, creating a less than ideal working relationship. In contrast to this, Jo (page 38) recalled how she learnt from observing interactions between members of the Multi-Disciplinary Team (MDT).

Charles described a complex situation where he was frustrated by a clinical culture, which he believed stifled creative thought and initiative. Leading to an environment that was risk laden and unsafe:

We had a patient who had a chronic wound, it was more than six weeks old, and they've (the rest-home staff) *never done much with it, just kept doing what they could do. But I think, if* [the patient was] *no better, they could do something else. Since I saw it… I started to do something for him, because I* [knew] *who I can call outside the facilities. First I talked to the nurse in charge and since nothing was [changing], I* [was] *not happy with the answer she gave me… so I stepped* [up] *further… I contacted [an] outside [wound specialist] and one of [them] came forward and checked the wound.*

He summarised:

They had done everything, but I think we should go with the other professionals…like the district nurse…We can ask for some support…we can do better with what we have [otherwise] *it looks like we are stuck on one thing and why don't you go outside the practice?*

Charles showed initiative with regards to his patients' care, by contacting and requesting outside expertise. He was proactive, compassionate and resourceful and persisted despite a lack of shared awareness or planning from his colleagues.

Certain colleagues working in the clinical environment were not always supportive of the new graduates; Lesley recalled a negative experience with the older nurses on the ward. When she asked her preceptor, why some of them were at times a little hostile towards the new graduate. She was told that:

Sometimes they are [like that] *because you're new and you're educated.*

Claire reported that the more senior the staff member the more likely she was to receive a negative and unsupportive response when requesting help with potentially unsafe situations:

> *The higher up you go* [with concerns] *it was sort of brushed off, like you guys will be fine, just do your jobs. I felt that the higher up the hierarchy the less sympathetic* [and] *less helpful* [they were].

These examples highlight the stress that the participants would often feel, realising that at times help was not forthcoming and they had 'to just get on with it and make do'. Those that found themselves in less than ideal environments would often describe being stressed and distressed and it is necessary to acknowledge these feelings.

Stress, distress, frustrations and feelings of being unsafe-'I felt helpless'

The majority of participants described negative emotions and feelings, which would often be an indication that they were exposed to unsafe practice. Describing encounters with workplace cultures through fresh eyes, where certain behaviours and practices, while not safe were accepted:

> *I thought my workload was much bigger than the experienced nurses.*
>
> *(Louise)*

> *It's almost like intuition, like you feel it's not safe.*
>
> *(Lesley)*

I felt helpless… You get to that point where… I don't know what to do.

(Jo)

How am I going to be able to do this when I am by myself [qualified]?

(Sarah)

Oh God what am I going to do with this patient? So I formulated a plan, a terrifying scary plan.

(Jane)

I was shocked

(Claire)

Workload and acuity that could be considered a clinical risk, relating to the experience and competence of the novice nurse was recognised by Louise. She described how she felt on one such occasion:

Oh I was a little bit worried; I was like oh my goodness this is going to be one hell of a shift, how am I going to do all of this? [I was] b*ound to miss things or forget things.*

She expressed anger and frustration and demonstrated a sense of distress and despair that novice nurses can experience:

> *I went home that night and I was quite angry when I got home… That was such an unsafe situation; the patient shouldn't have been in that situation…. I thought the nurses and staff deserve better working conditions and that to be put under that much pressure and the patients deserve the time with their staff members to be looked after.*

While acknowledging the emotional responses that the participants inevitably felt when faced with unsafe environments, it became clear that role models such as clinical and college preceptors played an important function. This relationship appeared pivotal for the undergraduates understanding of the clinical experience and ultimately their development as a practitioner.

Disclosure: 'You need to hide your actions'

While Lesley had a positive experience with regards to preceptors in post graduate level, she described an alarming encounter in her undergraduate placement. Lesley recalled how she and other students felt intimidated by preceptors that were employed by their tertiary provider to visit and evaluate them on the wards. She described that students would deliberately not disclose issues, as they feared punitive action with regard to failing their clinical placement. This resulted in disengagement with the preceptors, an increase of clinical risk and a greater threat to safe patient care:

> *I really struggled with some of them because you feel like they're almost out to get you if you do something wrong… you need to hide your actions.*

She described how students often felt intimidated by these preceptors and that the ones to avoid were well known amongst the students. If the students knew they had

such a preceptor they would spend the whole placement trying to avoid them as much as was possible:

> *I feel like anything I tell this lady she's going to hammer me.*

She went on to state that when students realised they had a poor preceptor they knew that:

> *You were going to have a shit time on that placement.*

This example of hiding from preceptors is concerning, Claire was educated at the same tertiary institute as Lesley and was also aware of colleagues' problems with preceptors. While Claire said she had a good relationship with her external preceptor, she was aware of other students who had opposite experiences:

> *A few of my flatmates…didn't enjoy their preceptors and the whole placement was seen in a negative way… some changed their preceptors and others just sucked it up*

Dysfunctional relationships described by some of the participants can only raise concerns for the quality of care and student development. Other participants reported more positive encounters with their preceptors, ones which nurtured and developed the undergraduate nurse.

Role models: 'She helped me out so much'

Unlike the participants who felt unable to speak up and assert themselves, or were faced with barriers from clinical staff, several reported how they were empowered to

raise concerns by proactive preceptors and peers on the wards. Creating a positive climate in relation to safe patient care, describing a culture where questioning was encouraged by ward staff:

> *During our clinical practice our preceptors always encouraged us to ask questions. If you are not sure of anything ask the question because if you don't you could make a mistake. I think our wards were quite supportive and we in our teams were quite comfortable about asking questions. You know any question is not a stupid question. (Miriam)*

Louise noted that at times when she felt unable to speak up that other nurses working alongside her would approach her and offer help. This shows a healthy understanding of clinical risk and safe patient care:

> *One nurse actually, was like I'll be your buddy for the shift…she helped me out as much as she could.*

A positive safety culture, where senior staff were approachable holding formal meetings, where issues of clinical risk and safe patient care could be raised, was recalled by Lesley. She stated that this made them feel safer in their practice and less afraid to raise concerns:

> *She was the educator… she was just so open because she had been checking on me every day and you know you can trust her with this sort of thing. She's not going to say come on you're a nurse now.*

Lesley described a supportive environment related to a medication administration error. She recognised the incident and took action to mitigate potential harm through asking for help and adhering to the appropriate policy:

> [I was asked to administer] a *medication that I haven't heard of before and I'm given a complex prescription,* [it] *was a new iron infusion on the ward. But you give it in only 15 minutes instead of two hours and I said "Oh I haven't done that before can someone come and watch me?" You're looking at potential harm to a patient, if you put it through too quickly because you could lose your registration if you're not doing the right protocol. But it was good we found the new protocol for it and a senior nurse walked me through it.*

Lesley identified and anticipated clinical risk, as well as recognising the potential consequences for safe patient care by accessing protocols to reduce any harm.

An experience of a positive workplace culture which allowed the novice to speak up was described by Miriam. She recalled a situation where she made an error due to distraction, demonstrating how positive action can be taken after an error has been recognised, action designed to minimise any potential harm:

> *I gave two* [doses] *of paracetamol by mistake. I was distracted by the patient's son who was talking to me and the patient's son requested liquid Panadol, which I gave and then I gave the other pills including the two tablets of Panadol which I'd already [prepared]. I realised and told the preceptor and asked her what should I do? And she said to notify the Duty House Officer, which I did and they said to monitor the patient, check their [observations] and keep an eye on them and they came down and had a quick check as well and everything was fine. And I documented it in the notes and did an [incident report]*

Miriam described a clinical culture which encouraged her to speak up and admit her error. The fact that errors were able to be recovered and potential damage limited is an indication of a strong safety culture:

> *During my training, as my preceptor told me on previous times, to ask if there was always a problem and she was the … go to person, to speak to if there were any kind of issues.*

The dangers of a workplace environment that was busy and had potential for distractions, specifically from other members of the multi-disciplinary team, who may not have appreciated the complex tasks that nurses often undertook, was described by Miriam. Asked if she had ever been taught the concepts of human factors, which include the dangers of distraction, she responded 'probably not'. When asked what she had learnt from the situation, she replied:

> *I feel more aware of how easily it can happen. Things like distractions, to make sure you keep focused., our drug room is quite large and we share it with another ward and at drug times there's a million people in there… and people knock on the door when they don't have access, like the Occupational Therapists and they tell you things and they're talking to you and you're trying to do things.*

Jane recalled an incident in which she was aware of the clinical risk and would have acted if required to. However, other staff on the ward also assessed the clinical risk and acted in order to reduce the risk, creating a learning experience for her:

> *A patient had been deemed too clinically ill for somebody with my limited abilities. They were swapped…from me to another nurse. I was assigned to that room and one of the nurses had a list and decided I did not have enough clinical experience*

to effectively care for that patient. At the time I wrote down on my handover and I was like 'Oh God what am I going to do with this patient?'

Describing what she would have done if the staff member had not intervened, she indicated she would have spoken up and asked for assistance. These experiences would identify a positive safety culture within the clinical environments and shows that students perceived these experiences as valuable with regards to their learning and development. In order to understand more the participants' experiences it was necessary to now focus on ways the undergraduate nurses learnt about clinical risk and safe patient care.

How did the participants learn about the subjects of patient safety and clinical risk?

The next segment is concerned with how the participants learnt the skills to recognise and respond to incidences of clinical risk and safe patient care. Areas such as clinical placements, role models were highlighted, as well as the classroom environment and narrative storytelling. The importance of debriefing was also raised, along with life experience and personal attributes as contributing to preparing them for the clinical environment. From an AI perspective this continues the Discovery Phase and indicates what elements the Dreaming Phase may contain.

Clinical experience and positive role models 'That's how I learn, by doing'

All of those interviewed stated that the best preparation for dealing with situations of clinical risk and safe patient care derived from clinical experience. The participants described the clinical experience as an essential component of learning. The presence of positive role models within the clinical environment was a pivotal element with regards to preparing the undergraduate nurses for the clinical environment. Charles said that clinical role models had the following effect on his development:

I learnt those skills through other nurses that taught me.

Identifying the importance of proactive and engaged preceptors and role models, who would teach strategies regarding clinical risk and safe patient care, was highlighted by Louise. Describing her clinical experience and her relationship with her preceptor as essential with regards to her learning about clinical risk and safe patient care:

> *One of the nurses I worked with* [did] *our risk assessments…and the falls risk… you can print out a piece of paper* [showing] *low level lighting on a night, bed close to ground, area clutter free* [etc.]. *She was very big at minimising risk of falls and making sure all of those things could be ticked off, so I definitely learnt from her.*

Lesley's response was emphatic with regard to how she felt that she learnt, identifying clinical preceptors as essential. She was dismissive of the value of her classroom teaching:

> *The placements, the most, and seeing how the other nurses cope with it when you're on placement. It's the preceptors that are the main positive role models… I honestly think that you are better prepared when you've got those role models and preceptors on the floor, rather than being preached at in a lecture theatre.*

Educators could be concerned to hear that Lesley was less engaged by theory and academic teaching. However, later in the interview, Lesley acknowledged that clinical risk and safe patient care was underpinned in all aspects of her education, including the classroom.

Identifying the clinical environment as an important setting in which to develop skill sets, was recalled by Claire:

> *Placements help…You don't learn things like that from sitting in a classroom. You get taught strategies* [of] *time management… until you have actually been there* [you pick up your own skills].

Noticing aspects such as MDT communication, Jo believed that most of her development came from clinical placements and observing other nurses:

> *You are out on placement watching what those nurses do and how they come across to the doctors and other staff… Because you are buddied up with the senior nurse, you can… discuss situations with them and how they would go and approach it, or what they would do differently.*

This example contrasted with Miriam's encounter with a member of the MDT (page 40), leading to Miriam disengagement with the medical staff. Jo actively learnt from observing MDT interactions.

The importance of the clinical environment as a setting, in which to develop necessary skills, for coping with incidences of clinical risk and understanding safe patient care, was described by Claire:

> *Kind of… cements it when you go into placement* [and] *see all the stuff happening…. Being able to make the decisions for yourself and then knowing that there is someone there if you get it wrong and they will be like 'oh why don't you think about doing this instead'.*

These reflections by the participants echo earlier descriptions given by Lesley, Jane, Miriam and Louise (pages 47-48). These examples underline the importance of

proactive and approachable preceptors, as a positive influence on both the participants learning and ability to cope with situations of clinical risk and safe patient care.

Experiential learning, learning by doing, was an effective method for her to learn, Sarah recalled:

> *I've always found that by experiencing myself it make me understand it better…makes you remember it and you can know what happened and what led up to how it happened.*

Jo however, reported that some staff nurses would leave the new graduates to learn by 'throwing them in the deep end:

> *Sometimes you are on a really good team, sometimes you have nurses who aren't so forthcoming with help…the idea that it's a new grad, they will learn one way or another…it's the whole senior nurses eating their young kind of thing, which isn't cool.*

This method of allowing novices to cope without appropriate support is a risk laden strategy, one that can result in negative consequences for both the nurse and patient (Coast, 2013). While clinical exposure was overwhelmingly popular with the participant's as an environment to learn about clinical risk and safe patient care, their classroom experience with regards to preparation was less certain.

The classroom, 'there wasn't any specific paper'

It was important to understand whether the participants felt that the classroom prepared them for the concepts of clinical risk and safe patient care. Were the subjects taught in the classroom and if so how was this embedded in the curriculum? Did

participants perceive the classroom environment as a useful preparation for their clinical experience? Many of the participants recalled that the concepts of clinical risk and safe patient care were to be found in the classroom setting. They described the teaching as covert rather than overt. None of the participants could recall being formally taught the subject of clinical risk and safe patient care as a specific concept.

Jo responded '*nothing at all'*. In the classroom environment prepared her for incidences of clinical risk and safe patient care.

Clinical judgement was discussed in the classroom and Paula recalled that it contributed to her professional development. These experiences were echoed by Claire and Charles; they described problem solving scenarios in the classroom which assisted in their preparation for clinical reality. Claire stated:

> *In the actual classroom they would talk to you about how to approach situations… which I found useful and we did communication role play things and I think that was quite good.*

Jane could not recall whether there was anything formally taught around notions of clinical risk and safe patient care:

> *I don't know, I mean being aware of your own scope and your own skills was a really good reminder… But that was sort of dotted throughout; there wasn't any specific paper that I can recall.*

Charles described how in his undergraduate education the tutors would often debrief the students in the classroom. He felt that this formal debriefing was beneficial with regards to his personal and professional development. He mentioned that when growing up in the Philippines he was accustomed to a different style of learning, with an emphasis on facts and didactic teaching, rather than utilising a reflective model, to

develop insight into his clinical experience. When asked about the effectiveness of using this technique he was enthusiastic, believing that it had a positive effect on his learning:

> *Just talking about… your experience during your clinical placement… it's like a reflection of what you have done…. Mostly in the class we would just talk about it and then we would do some group things as well. Dealing with… what you have learnt or what you have done in… your clinical placements and in the reflection we would discuss about it and given some information and assuring* [us that we] *done well… It does have a positive effect on me because once you are out from the school or Uni' it's just you; no one is there, no safety net* [that] *you had when you were a student.*

Whilst the participants were divided about the usefulness of the classroom environment, as preparing them for clinical reality, the utilisation of debriefing and sharing experiences of clinical risk and safe patient care was reported as having a positive effect on their understanding and professional development.

Learning by sharing, reflecting and debriefing-'it's OK, we are all in the same boat'

An important component of nursing theory is the ability for the nurse to reflect and learn from experience. Reflection enables the subject to learn, grow, understand, modify and adapt future behaviour. Theorists suggest that without this ability to reflect the practitioner is unable to attain their full potential, making them unable to reach an expert level of practice (Tanner, 2006). The participants reflected on their experiences of clinical risk and safe patient care and this affected their understanding of their encounters. Debriefing, both formal and informal were noted, as well as the sharing of stories and narrative story telling.

Sharing and debriefing in the classroom setting assisted Jane with her preparation for clinical reality. Sarah described debriefing and story sharing:

Just hearing other people's stories about what happened to them previously and the outcomes of when they did something wrong, or they saw something go wrong and of hearing like how bad things can go…like mistakes and how to avoid them.

Nurses can learn by sharing stories, remembering what others have told them and applying the lessons to their own experiences was described by Jane. This use of narrative storytelling is a recognised learning tool, particularly within the nursing profession and is seen by many as an important teaching strategy (Mangino, 2013).

Formal debriefing in Lesley's clinical placement reflected a positive safety culture. She praised the educator on the ward and that her positive caring attitudes and approachability made Lesley feel safer in the clinical setting:

You got a formal 12 week meeting with the Charge Nurse, where you bring up all that sort of stuff. And they will [also] *come and check on you on every shift.*

Reflecting on a medication error, Miriam described how she attempted to make sense of her experience. She found the support given by her Charge Nurse as particularly helpful, illustrating the effectiveness of formalised debriefing:

I talked to my preceptor; I talked with people at home, freaking out. I spoke with my charge nurse after she received the incident report and she debriefed me, what would you [do] *if it happened again, what would you do to prevent this? It was nice… she acknowledged that it's not, you know the end of the world. You know, you're OK, nobody died.*

When faced with a similar experience, Sarah recalled that conversations with other nurses on the ward helped her learn and formulate future strategies. She described a colleague who came to her to discuss the incident and this developed her understanding that in future she needed to be more assertive. Sarah also mentioned that her sister was a nurse and that she often asked her for advice, using her as an informal debriefing 'buddie'.

The majority of the participants had no formal way of reflecting and debriefing their experiences. Some participants did not consider debriefing as an option, Claire stated that after her problematic and risky encounter she went home and discussed it with her flatmates. When asked if this had helped she said 'Yes'.

Informal debriefing with other new graduates helped Lesley:

> *We really enjoy catching up, there are three of us and we used to love catching up over lunch break or whatever and just saying 'Oh this is so hard' and they're like 'don't worry it's OK, we're all in the same boat'.*

Debriefing after a stressful encounter, with friends in an informal setting assisted Louise with processing her experiences:

> *If I've been in a stressful situation, I'll go and debrief to a close friend or something and I'll just angrily rant and just get it off my chest. Or sometimes if I can't find a friend or if they are all busy, I'll go for a walk and think things over and get things out of my head.*

Louise described that she discussed an event with a fellow nurse; though the nurse was empathetic she was busy, so the conversation was short and not helpful. It would seem that Louise was not offered, or failed to access any formal debriefing and relied

on her informal network of friends or family in order to try and make sense of her experiences.

Charles was more self-assured and self-contained when reflecting on issues of clinical risk and safe patient care. He had a self-belief that his clinical actions to the problems he encountered were correct. He asserted that, if he felt it necessary, he would fall back on an informal method of debriefing and confer with old classmates, in order to get their opinions:

> *I'm still connected with other classmates of mine, yes and it is really good because I discuss with them and say, 'Oh I have the same experience'.*

Acknowledging that reflection was an effective tool for the participants, the focus of the research would now turn to simulation and whether their experiences of simulation had assisted them with preparation for the clinical environment.

Value of simulation: 'It gets you thinking'

As a leading proponent of simulation within New Zealand's nursing tertiary system, I have a professional interest in exploring how undergraduate nurses experience simulation. Whether simulation has a positive effect on their understanding of clinical risk and safe patient care and does simulation prepare them for the clinical environment. My experience has led me to believe that simulation if used correctly can be a powerful tool in preparing undergraduate nurses for encounters of clinical risk and safe patient care. There appears to be a belief that clinical risk can be taught but safe patient care is experienced in the clinical environment. The participants I interviewed were educated at several tertiary institutions, allowing insight into a range of simulation experiences. They all, stated that they had encountered simulation in one form or other and their descriptions were extremely valuable. While some had experienced negative encounters, others reported positive experiences. Certain themes did arise that deserve discussing, including preparation for the simulation, notions of fidelity and realism, problem solving in real time and the value of debriefing.

Preparation, lack of preparation- 'I've felt that I have learnt more'

It became evident that the preparation the participants received prior to their simulation was pivotal. Such as knowing that they were going to be undertaking simulation, knowing the learning outcomes and being orientated to the physical lab space, this assisted with their learning and helped them develop clinical skills and confidence. Poor preparation had the opposite effect, resulting in negative experiences and a reduction in clinical confidence.

No preparation for simulation was given to Lesley and her cohort, resulting in a negative experience:

> *We felt so out of our depth. I remember plainly, we had a dummy there was about six of us third year nurses…We completely screwed it up and we got hammered for it and we went away and we were like: 'Oh God we need to figure out what we've done so wrong'.*

Asked how the tutor responded to the negative outcome, she recalled that the tutor was matter of fact and made no attempt to assist the participants in making sense of their experience:

> [The tutor] *pointed out that the patient had died while you were doing your handover, you missed this and that…we were all standing there like: 'Oh my God what have we done'? It was awful.*

An experience at a different tertiary provider was reported by Jane:

> *Some of it was actually a little bit mean…She* [the tutor] *stepped back and critiqued us about all the things we did wrong… I didn't know the patient's history,*

I didn't know how much morphine they had in the past… It was just really mean and I just walked away from that feeling [like] *a really useless person.*

Lesley and Jane were not prepared for the scenarios, consequently the outcomes were negative. They were not informed that they were undertaking a simulation until they walked into the classroom and received no orientation to the area.

Jane also noted that this scenario was experienced in her first year as a student and that she felt unprepared for the level at which the scenario was set. When asked whether simulation had helped prepare her for situations of clinical risk and safe patient care, she responded 'No'! Had this simulation occurred in her third year, she believed it would have been more beneficial, in so much as her level of skill and preparedness would have more closely matched the scenario that she was undertaking:

I would have had more tools in my box. If I had done that same simulation in my third year, I would have rocked it. That lady [the actor] *would have felt comfortable, she would've got hugged, would have got a cup of tea.*

Jane felt that some learning had taken place, she described a negative experience in order to gain a positive outcome and that the learning occurred through good fortune rather than good scenario design and delivery. She described the problem with the simulation as the tutor, who appeared unmotivated and unskilled in the use of simulation:

She seemed over her job and just really over everything that was happening.

The benefits of working through scenarios, which were rare and not commonly experienced in clinical practice, assisted Miriam in learning from her simulation

experience. Miriam described it as being helpful in preparing her for the clinical environment:

> *Especially for resuscitation because you don't see a lot of that in practice, usually…It was good to see what, you know, what you should be doing at certain times, like when you should call the doctor, when you should start doing compressions.*

When asked whether Miriam had encountered a resuscitation incidence in clinical practice, she said she had not, but thought that the simulation had prepared her for the eventuality.

Performance anxiety, from being observed by tutors and peers affected Louise. However, she recalled, that retrospectively it was beneficial foe development and a safe environment in which to make an error:

> *A little bit of stage fright, but now looking back it was quite helpful. I think it can prepare you for …just knowing how to do an intervention and everything, by doing it on a manikin and maybe getting it wrong there.*

Claire described that during her undergraduate education she had received little exposure to simulation, but believed that simulation would have benefited her, with regards to preparation for the clinical area:

> *We never had to problem solve things… Which I think would have been cool…because it gets you thinking.*

Lack of preparation for the scenarios and no orientation to the simulated area was also described by Paula. She believed that simulation was a better preparation for clinical reality than the classroom, highlighting the theme that she was a kinaesthetic learner who retained more by experiencing an event rather than reading about it:

> *I prefer simulation…you don't get very much from textbooks.*

Another component of simulation which held importance for the participants was one of authenticity and fidelity.

Fidelity-'it's talking to a dead body'

A key component of simulation is that the more realistic the experience, the higher fidelity of the scenarios, the more likely participants are to engage and actively learn from the experience (ref). Paula described an indifferent encounter with simulation in her undergraduate education. She thought simulation had the potential to be useful, but found it hard to engage with the experience. Paula recalled that it was a lack of fidelity that made the scenario challenging:

> *It's talking to a dead body; you know…it's a bit helpful…but it's not really connected that much, it's not like talking to a real person…for example the patient's oxygen is low and we need to put the mask on him…there's not really oxygen on him, it's not really real.*

When undertaking a mental health scenario Paula stated that she felt awkward when discussing personal feelings with an actor who was playing a mental health patient:

> *Very awkward, I didn't know what to do with the information the patient provided to me.*

Paula was from South East Asia and due to having English as a second language it is possible that she struggled with ‘soft skills’ such as communication, interpersonal relationships and cultural subtleties.

There is a distinction between skill acquisitions, compared to immersive simulation. Immersive simulation involves real time problem solving, using scenarios that are as realistic as possible. Paula seemed unsure about the value of immersive simulation, but reiterated that she felt that skill acquisition, especially so called ‘hard skills’ like Cardio Pulmonary Resuscitation and venepuncture were great ways to learn and felt that she became a safer practitioner. Paula valued her postgraduate experience of simulated venepuncture, saying that she found it enjoyable and worthwhile. When asked if she had ever performed venepuncture in a clinical setting she said ‘No’, it is incongruent that she would want to learn a skill the she rarely or never uses. Clearly she desired and felt more comfortable with learning practical or ‘hard skills’ and gained confidence and felt safer when learning certain skills.

Charles also described simulation as part of his undergraduate training, which he found useful. When asked why it was effective, he stated that it was because it reflected the clinical environment in a realistic manner. Charles described that he saw similar events happen in the clinical setting and as a result was better prepared to deal with these situations. Simulation educators would be delighted with this description, as it validates the use of simulation and shows that Charles had a valuable learning experience. Charles explained that a lot of the simulation scenarios he was exposed to were based more on ‘hard skills’ rather than ‘softer skills’.

Learning by doing: ‘Not everybody is a sit down and read a book learner’

A recurring theme throughout the study, was that many of the participants felt that they learnt better by actually solving problems in real time, ‘learning by doing’ (Sarah, Lesley, Jo and Claire (pages 50-52). As in their clinical area participants identified the same benefit with simulation, in that simulation allowed participants to learn in a kinaesthetic environment. Jo recalled that she had been exposed to simulation in her post graduate experience and recalled the benefit of this simulation:

It's more hands on, explanations as to why this has happened and why they do things…there's always different ways of doing things and I've felt that I have learnt more.

Experiential learning was identified by Miriam as being valuable; she felt that simulation had a positive influence on her practice with regards to her safety and confidence. Noting that she was a person that liked to learn by doing:

Because you are doing it you know, in practice, rather than reading it in a text book which is helpful for some people, but I find doing things is helpful for my learning.

Miriam discussed a simulation she had encountered in her postgraduate experience, relating to skills and familiarisation with equipment. Developing familiarity with equipment that she would be using in clinical practice made her feel prepared, competent and safer.

Experiential learning as an effective way for understanding clinical encounters was also described by Jo. She had mixed feelings with regards to simulation; saying her undergraduate experience of simulation had not particularly helped her prepare for the clinical environment. However, Jo felt she had not had enough simulation to make a difference and that she would have benefited from more simulation, as she was someone who learnt effectively by doing:

I am a visual hands on learner….Not everybody is a sit down and read a book learner. So for me sitting and down and reading a book, I can write up an assignment, I can do that but then you forget about it…But if I was in the situation where I had to act then I would retain it more, I would know what to do… It would have been more beneficial because it would have prepared us more… Doing it

> [simulation] *once in your last year for half an hour is not going to prepare you very well.*

Jo described the simulation that she had experienced in her NETP and that it had been beneficial:

> *Because it's more hands on explanation as to why this has happened and why they've done things…I feel like I have learnt from my days here… Showing you how to do things, instead of just watching it or reading about it. Yeah it's been really good; I love the study days here.*

More preparation for her simulation would have resulted in a better outcome for Lesley, who reported a negative experience. She suggested that:

> *If you were given your frameworks and what to expect and then go in and practice them, rather than being thrown in the deep end.*

Being allowed to make errors in scenarios and understand the consequences of their mistakes, some participants believed such exposure would have facilitated their development. Sarah stated:

> *You would always be corrected before you did anything…but maybe like just letting them go through it…seeing how bad the outcome could be from doing something wrong.*

Learning from mistakes raises an interesting perspective, as it touches on the idea that health practitioners can learn from experiencing error. The next theme to emerge was the level and effectiveness of the debriefing within their simulation experience.

Debriefing- 'Knowing that what you thought you were doing was right'

Debriefing is considered as one of the major components of simulation, hence it was important to understand the debriefing experience that the participants received. Lesley described a lengthy debriefing of her scenario, however; the feeling from the participants was that the tutor had lost the students as they were unable to focus on the debriefing because of their perception of their perceived poor performance. Lesley described that the participants were all *'pretty quiet'* during the debriefing. After the debriefing the general feeling was that the whole session had been *'ridiculous'.* That she remembered the simulation so clearly illustrates how negative experiences affect students. This also relates to the experiences of Lesley and Jane (pages 58-69).

An experience of poor debriefing was reported by Jane, where the students were just criticised for their performance and made to feel incompetent. She described what she thought would have been a more beneficial experience:

> *The debriefing could have been a little bit more positive… We're first years… have not had this experience…next time you could have done something a little more differently, talk about what you could have done differently. As opposed to what you did wrong… All I did was just sort of like quietly panicked; it was just like 'oh my goodness'. It just gave me a negative self-image, though in the long run I am sure it helped.*

She continued to describe how each scenario lasted around fifteen minutes and that the debriefing lasted somewhere between five and ten minutes, the debriefing seemed short and inadequate for the tutor to unpack and assist the participants in understanding their experience.

In contrast to Jane's experience, Sarah described a positive encounter which gave confidence. Her group was prepared for the simulation and a lengthy debriefing was undertaken in order to allow the participants to reflect on the scenario:

> *Just sort of knowing that what you thought you were doing was right, or if it wasn't right, knowing how to change it… At placement you don't always have time to sit down after and get the rationale for why you are doing things, but after that you sit down as a group with the lecturer be able to go in-depth to why you were doing everything… I probably learnt more from the complex ones, when you actually have to sit there and discuss it with your group.*

Acknowledging the benefit of the simulation debriefing, Charles, believed it had improved his clinical practice. The debriefing played an important role in allowing him to make sense of what he had seen, preparing him for future clinical encounters:

> *Somebody in the debriefing told me that maybe I would be better doing this or better doing that, and that helps.*

These examples illustrates that an effective debriefing can have a positive effect on participants, validating their experience and facilitating learning. Some participants described experiences outside the clinical and classroom environment as preparing them for situations of clinical risk and safe patient care.

Learning outside the clinical and classroom environment- 'I guess I learnt that growing up'

Several participants believed that they had predeveloped skill sets, along with personal qualities and experiences which equipped the participants for managing situations of clinical risk and safe patient care. They felt that these skills were developed before

they commenced their nursing education and were a product of environment, a result of life experience or innate qualities that they possessed.

Jane discussed that before her training she had clinical work experience as a Health Care Assistant (HCA) within the aged care sector and how this experience prepared her for the rigours of clinical placements. Jane described her clinical competence, sowing awareness in recognising risk and knowing when to call for assistance:

> *While I was doing my degree I worked as a HCA… which I think is brilliant and I think every single nursing student should do it… We did special training days on how to calm down patients… when to call for help.*

Describing notions of empathy, based on how he would want older members off his family to be treated, Charles described his experience:

> *It's just me because, well I am dealing with old people, I have my parents, they are old as well.*

Sarah described that for her an advantage was that her sister was a nurse and this enabled her to utilise her as a guide, and to some extent, as a mentor:

> *I was quite lucky because my older sister is a nurse. She had gone through all of that, so being able to talk to her made me feel a lot better.*

Louise also described personal attributes which she believed made her capable of dealing with stressful clinical situations. Louise felt that some people were naturally

skilled at dealing with difficult scenarios and that these skills were part of their personality, rather than something that could be taught and learnt:

> *Well I think some people are just better in stressful situations, at handling it naturally. I don't think you can really learn to be better in those situations. Like over years with experience you'd be faster at what you are doing you'd hopefully have better time management and things. But I think if you're someone who freaks out in stressful situations you'll always freak out a bit, even if you have got lots of knowledge and experience.*

Parents and her upbringing influenced Jo's ability to manage situations of clinical risk and safe patient care:

> *I've always been kind of a person that can pick up on what people, their reactions, and their moods. I have always been quick; I guess I learnt that as growing up.*

Having come to the end of the Discovery Phase of the methodology, it was now necessary to move into the Dreaming Phase. Enabling the researcher to understand what a positive experience would look like for undergraduate nurses, exploring what they consider to be desirable with understanding and dealing with clinical risk and safe patient care.

Dreaming

Using AI as a methodological theory, the participants were asked to report what they desired as an effective educational experience, an undergraduate experience that would have better prepared them for encounters of clinical risk and safe patient care. This enables the researcher and the participants to engage in the Dreaming Phase of AI, leading into the Destiny Phase and an aspirational vision for future education. As a simulation educator, this is a vital component of the research, in terms of how we

develop an effective simulation experience. In a broader sense it is also essential to understand what is needed for the undergraduate nurses to gain an understanding of the concepts of clinical risk and safe patient care. Making the participants work ready, resilient and safe for the clinical environment. Themes that emerged related to learning by experiencing, the importance of positive role models, narrative sharing, being overtly taught the concepts of clinical risk and safe patient care and the acknowledgment of cultural learning styles.

More hands on- 'it's more useful for me'

The main area identified by the participants as contributing to their development was concerned with experiential learning. The participants felt that they learnt best by actually doing (pages 58-59). This translated not only in a desire for more clinical exposure but also quality simulated experience. Sarah noted that her clinical experience was a strong place to learn and develop her skills, showing that direct experience had a profound effect on her learning and professional development:

> *I have always found that by experiencing it myself, it makes me be able to understand it better and make it stick. Just experiencing it yourself makes you remember it and you know what happened and what led up to why it happened.*

Not enough clinical placement experience in undergraduate education was a concern for Jane. This indicated that Jane gained effective understanding of concepts of clinical risk and safe patient care, from experiential learning:

> *More placements that would have been amazing… I just don't think we had enough… there's just too many students… because I'm so hands on, like that's how I learn, by doing.*

Experiential learning was effective for Jo, echoing other participants who viewed ‘hands on’ learning as essential to their development:

> *For me it would be more hands on experience.*

Charles’s response was:

> C*linical placement is more useful for me… more of hands on.*

More simulation would have helped Jo; she described how her institution had ‘amazing’ simulation labs, but very rarely used them. This raises issues of having facilities but without the appropriate expertise to utilise them. For Jo more simulation would have helped because:

> *In a situation where I act* [simulation] *then I retain it more, I know what to do more.*

‘More hands on’ was Jane’s response and although Jane had had a negative experience with simulation, she believed that when used effectively, simulation could have helped her prepare for her clinical placements and postgraduate experience. She explained that the preparation for simulation scenarios had been inadequate, both in length and detail and that a more thorough preparation would have resulted in a more positive experience:

> *I would have been given a lot more information and ten minutes to prepare before the simulation.*

Simulation had a positive impact on Sarah's development. However, she felt strongly that she would have benefited from her simulation experience, if she had been allowed to experience mistakes in the scenarios. Sarah highlights that experiencing error has a place with teaching novices and experience this in a safe and controlled simulated environment:

> *Like a negative simulation…Like everything was sort of, not positive, but like what you should do. But maybe what happened if you do something wrong and how serious the outcome could actually be… you would always be corrected before you would do it…So you wouldn't get to the point of doing anything wrong. But maybe like just letting them go through what they would do and then seeing… how bad the outcome could be from doing something wrong.*

Experiencing error during simulation would also have helped prepare Miriam for clinical practice. She believed that experiencing clinical errors would have been a valuable learning opportunity:

> *Yeah, if you were in… a clinical risk scenario, like a medication error or something. Would be quite cool, yeah what to do when you have done it.*

While the recognition of the clinical experience, hands on learning, experiential learning and simulation was clear, the importance of role models was also deemed pivotal, in their development as qualified staff nurses. Understanding this vital relationship and how effective it can be is essential to creating a more positive educational experience.

Positive role modelling

The value of role modelling was an important aspect of the undergraduate's nurse's ability to learn and professionally develop. Claire, like Lesley, Miriam, Louise and Jane,

identified strong and effective preceptors as being valuable to her undergraduate experience. She described how she would value a more formalised and organised approach with the preceptor/preceptee relationship:

> *The preceptors needed to do a lot more of actually assessing in the placements…Say you'd see your preceptor every day, but you'd see them in the corridor and yeah I'm doing really well, ra, ra, ra. But they'd never actually watch you assess someone. It wouldn't be a sit down…you're going to tell me what's not safe about this, what's going on here? I think that would be useful, hard but useful.*

Effective preceptors and role models were identified by Lesley as being essential in supporting her professional development. Such role models would establish an effective relationship where she would feel comfortable, safe and able to speak honestly about her clinical practice:

> *Maybe more honest debriefs* [with preceptors] *rather than being too scared to say I think I've stuffed up.*

Within the area of role modelling, the notion that sharing stories and learning from other nurses personal experiences, played a part in helping participants make sense of their clinical exposure. Enabling them to understand, develop strategies and realise that they were not alone in experiencing incidences of clinical risk and safe patient care.

Narrative storytelling

Storytelling, narrative and the sharing of experiences was recognised as a benefit by participants and better prepared the participants for the clinical environment. Lesley described what an ideal education experience would look like for her:

What helped me most is the storytelling

Shared stories from colleagues and peers as being beneficial was identified by Sarah, believing that this helped her understand and manage clinical risk and safe patient care. This narrative storytelling helped her to formulate strategies for future clinical practice:

Getting everyone else's ideas…Just hearing how they dealt with similar problems and getting ideas on how to solve them… I learn more when you sit there and discuss it as a group…stories from other people.

Learning from sharing stories with other nurses was recognised by Jo, describing how more of this narrative learning would have benefited her:

Listening to different people because not everything works for everyone, there's always different things or different ways of doing things… Talking about real [events] *instead of just reading about it.*

Sharing experiences and learning by narrative, appeared to be effective, several of the participants suggested that the topics of clinical risk and patient safety should be taught as specific subjects in their undergraduate education.

Overt teaching of clinical risk and patient safety

The participants experiences of being overtly taught subjects related to clinical risk and patient safety were variable. Miriam commented that there was no set paper on the

subjects; she believed that if they had been formally taught then this would have had a more beneficial effect on her practice:

> *Maybe a little bit more information about it, I mean the subject of clinical risk and what it means and what it means to you as a nurse. Maybe a yeah, a small part of a paper or something like that, just to discuss what it would be like as a nurse in a situation where you are going to come across clinical risk… Maybe just a talk, have a discussion about what things can you know, impact your safety, you know like you're distracted.*

Specific topics or modules that focused on areas of clinical risk and safe patient care were identified by Sarah, as being desirable for her professional development. She acknowledged that the subjects were raised in her education, but it was covert rather than overt. She described that it would have been a positive and valuable experience if it had been more explicit:

> *Especially around…how to cope with clinical risk and patient safety*

Louise thought that her education was not comprehensive enough and if she could redesign her experience it would be a longer degree:

> *I think there is so much more that could be included in to the Bachelor of Nursing. I think it should be a four year degree, because there is so much that we miss out and* [you] *get your job and then you realise like wow I don't know anything. Even though I feel like over the three years… I learnt so much and did so much. But you come to the ward and it's like well I don't know what to do in this situation, or I don't know how to do this intervention.*

While some of the participants wanted to have the subjects explicitly taught, the two participants who grew up in South East Asia also raised issues around cultural learning styles and how these differences impacted on their undergraduate experience.

Acknowledging cultural differences

Charles seemed a little unsure of what would constitute a more effective educational experience. He stated that the clinical placements were where he learnt most and that 'hands on' learning was an effective medium for him. Charles discussed an interesting aspect of his experience. As someone who had English as a second language he admitted that he often struggled with academic writing. He went on to discuss that things were taught very differently to what he was accustomed to in his country of origin:

> *Maybe I'm still in cultural shock here, but in my country, that is your teachers* [tell] *you, you should know this, you should know that this is how it's going, blah blah blah. Here they will give you* [this]*, I am not saying it's positive or negative, but here they have books you have to read and that you have to focus with. And when you go back to uni teacher is there, just ok what do you know? And they just kind of write it on the board.*

What Charles is alluding to was that he was accustomed to a more formal and didactic approach to teaching and learning, rather than an approach which was more student-centred. He desired more structure with regards to his education and seemed concerned that he did not know enough factual knowledge, especially pathophysiology:

> *Everyone kept saying that, well you will know better, you will know more once you enter training, once you are working. But for me I think I need a little more knowledge.*

This perspective raised interesting points to how people from different cultures learn and what their expectations are from an educational environment.

Paula, like Charles who was brought up in a culture outside of New Zealand, also appeared to have different learning needs. Paula's primary focus was concerned with factual knowledge:

> *The skill that a normal RN would need in a ward, like working in a medical ward…Like the. ECG, how to do ECG, the cannula line insertion,* [and] *medication administration.*

Paula's described her priorities for learning and clinical development as skills based rather than communication and cultural safety.

Conclusion

Exposure to clinical risk and safe patient care was prevalent in the recollections of the participants. The experiences described by the participants ranged in variability, from positive to negative. They described role modelling, clinical exposure, storytelling; debriefing and experiential learning as being important in developing their ability to deal with issues of clinical risk and safe patient care. There appeared to be little overt preparation in the undergraduate experience for the rigours of clinical reality, leaving the participants vulnerable to mistakes and errors. It is necessary to discuss these findings and compare them to what the current educational literature informs readers of the issues relating to clinical risk and safe patient care within the undergraduate setting. This allows the research to be contextualised, enabling the research to progress into the Design and Destiny Phases of AI.

Chapter Five: Discussion and Recommendations

Introduction

The aim of the research was to investigate how newly graduated nurses identified situations of clinical risk and patient safety. The research would also examine how the participants managed such situations, and what in their undergraduate experience prepared them for such encounters. The research determined the impact of simulation on their preparation for recognising and understanding incidents of clinical risk, and patient safety.

When participants were asked if they could define patient safety they initially struggled to do so. However, it was apparent that they recognised the concept, through describing experiences and recalling examples of safe patient care. In this discussion patient safety will be referred to as safe patient care. Safe patient care is how the participants described examples of patient safety in their everyday clinical encounters, and how patient safety manifests itself in the clinical environment. Participants described a range of experiences, from culture of safe patient care, to a culture of acceptance that allowed risk to be tolerated. Several aspects of organisational culture that influenced the participants' professional development were evident in the research. Three aspects of culture were described by the participants: clinical culture, educational culture and learning culture. Clinical culture was a description of their clinical setting, where the participants were exposed to the clinical environment and the behaviour that was valued by healthcare professionals and health organisations. The educational culture described the classroom environment where the subjects of clinical risk and safe patient care were taught, discussed and valued. The description of the learning culture relates to how the participants best learnt, along with educational teaching mediums that they valued and perceived as effective preparation for clinical practice.

Four major themes that were identified by the participants were the benefits of experiential learning, role modelling, debriefing and preparation. Experiential learning, 'learning by doing' was seen as essential to their understanding of clinical risk and safe patient care. Role modelling and the role of preceptors, educators, colleagues and how these role models demonstrated best clinical practice were valued. The importance of

debriefing and reflection enabling them to unpack, deconstruct and make sense of their experiences of clinical risk and patient safety were also described as being effective learning opportunities. Preparation for encounters of clinical risk and safe patient care whether in the classroom or simulated environment, were also identified by the participants as being desirable. Sub themes such as communication, fatigue, leadership, assertion, preparedness, workload, decision making and safe staffing were often described by the participants as examples of their exposure to clinical risk and safe patient care.

However, I identified a larger theme, one that appeared to overarch the other recognised themes. The overarching theme can be described as organisational culture, and is concerned with how organisations and teams work towards common goals, highlighting shared values and behaviours within organisations, along with notions of leadership and professional role modelling (Kaufman & McCaughan, 2013). Patient safety has been described as containing elements of leadership, communication, teamwork and the ability for organisations to learn from error. Elements of patient safety also include the development of clinical systems that are specifically designed to mitigate risk and promote safe patient care; patient safety is inextricably linked to organisational culture (Weinger & Slagle, 2002, Sammer et al., 2010).

Finally, the participants identified their learning culture, what they valued as being effective learning strategies to understand clinical risk and safe patient care. Understanding this learning culture has enabled the researcher to develop an aspirational conclusion. This learning culture relates to the Dreaming Phase of AI and allowed the participants to envisage a more effective undergraduate experience, which would successfully prepare the undergraduate nurse for the complex issues of clinical risk and safe patient care.

Workplace culture and human factors

When recounting incidents of clinical risk and safe patient care, the respondents described examples influenced by human factors. The participants were recalling their exposure to the clinical environment and therefore workplace culture. In order to deconstruct their descriptions it was necessary to highlight the examples and place

them in the workplace culture and human factors context. Weinger, Pantiskas, Wiklund, and Carstensen, (1998) described human factors as:

'*Human factors is defined as the study of the interrelationships between humans, the tools they use, and the environment in which they live and work'. (*p.1484).

Issues of communication, fatigue, leadership, fixation, decision making, assertion, appropriate resource allocation, workload and staffing pressures are all encompassed within the notion of human factors (Scrivener & Brown, 2012). Human factors and how they contribute to error was first recognised by psychologists in the 1940's, and this understanding of human factors, has been applied to high risk areas such as the aviation and nuclear industries (Flanagan, 1954). Principles of human factors have also been adopted by researchers in the health industry and are seen as central to understanding errors within the health care system (Catchpole, 2013; Kohn, Corrigan, & Molla, 1999). Acknowledging the influence of human factors has led to systems being designed and training implemented to diminish risk, creating a safer clinical environment, for both patient and practitioner in health care (Norris, Currie, & Lecko, 2012).

Distraction and safe patient care

Distraction was recognised where a participant described making a medication error due to being distracted in a conversation with the patient's relative, while attempting to administer a medication. This resulted in the wrong dose being given to the patient and a situation where the patient had potential to suffer harm. Distraction is a major contributor to medical error and can occur when a practitioner is required to multi-task, or is repeatedly interrupted while performing a task (Chesire, 2015). Errors related to medication administration are a common factor within healthcare with nurses spending up to 40% of their clinical workload directly related to medication issues (Karavasiliadou & Athanasakis, 2014). Strategies have been formulated and guidelines created to mitigate the potential for medication administration errors (Pape et al., 2005).These include safety checks, standard operating procedures and nurses

wearing bibs which identify they are not to be interrupted while administrating medications. These strategies have helped reduce the number of incidences of medication administration errors (Treiber & Jones, 2012). However, Treiber and Jones (2012) identify that medication errors remain one of the major causes of harm, including death, within the healthcare setting.

Unsafe staffing and safe patient care

Unsafe staffing within the clinical environment was described by the participants, identifying a workplace culture which tolerates hazardous practice and greater risk taking. Unsafe staffing contributes to errors and negative patient outcomes (Recio-Saucedo et al., 2015). These issues concern appropriate staff numbers and or adequate skill mix. This resource allocation, places stress on staff and workload expectations. Unsafe staffing has become a source of concern in many countries, with legislation being introduced to support safe patient care, through limiting the number of patients a nurse is allowed to care for (Robins, 2013). Within New Zealand, acuity tools such as TrendCare® have been initiated; this acuity tool identifies requirements for safe staffing, to support safe patient care (Hunt, 2014). This has resulted in several District Health Boards creating guidelines for nurses and nurse managers, addressing issues of unsafe staffing and workload (Hunt, 2014).

The participants reported their first-hand experiences of unsafe staffing, workload acuity and production pressure, recognising it as commonplace and unaddressed within their clinical experience. The examples highlighted that nursing staff were required to accept a workload which at the time they considered was unsafe. Such situations reported by participants pointed to unsafe staffing as a major concern with regards to clinical risk and safe patient care. Their examples related to the number of staff available, including the appropriate skills and experience of the nurses on duty. Cheshire, (2012); Karavasiliadou and Athanasakis (2014) identify that the likelihood of error increases when the nurses' are required to perform more rapid and complex tasks, creating an unsafe clinical environment and potential for patient harm.

Production pressure and safe patient care

Several of the participants recalled that they were often required to multitask and identified a work environment that had become too fast and complex for them to

perform clinical tasks safely. The participants described a workload that was perceived as ‘too much’ and therefore unsafe, in one case resulting in harm to a member of staff. Other examples recalled by the participants led to a patient falling, or where the Charge Nurse was required to work clinically in order to maintain safe patient care. Another incident involved staff having to work double shifts because the night staff were unable to travel to work due to flooding, and the effect of fatigue on the staff was acknowledged as a risk. An inevitable by-product of being overworked with an increased complexity of workload, is that staff will become tired and therefore prone to error (Martin, 2015). Literature describes a close correlation between fatigue and error (Karavasiliadou & Athanasakis, 2014). The participants again described a culture of acceptance, where unsafe staffing is normalised and part of clinical reality.

The participants described a workplace culture where they were exposed to incidents of clinical risk and safe patient care. Participants regarded their clinical experience as pivotal to their professional development, but recognised that the clinical environment was also risk laden, and could potentially compromise their professional growth. It was this clinical exposure and the effect it had on the participants that will now be investigated.

Clinical environment

It is accepted that the clinical placement and positive role models are vital for the development of the student nurse, and the majority of nursing educational institutions throughout the world are designed around this notion (Amsrud, Lyberg, & Severinsson, 2015). Porter, Morphet, Missen, and Raymond (2013) discuss the clinical placement as the environment where the student nurse develops the confidence and competence to become a work-ready nurse. Hegenbarth, Rawe, Murray, Arnaert, and Chambers-Evans (2015) recognise clinical exposure and mentorship as an important component of the clinical experience, where the student nurse learns the skills and coping mechanisms to create the necessary resilience to prepare them for clinical practice.

Speaking up and patient advocacy

When raising issues of clinical risk and safe patient care while in their clinical placements, several participants described receiving negative and antagonistic responses from health care staff. Participants identified negative workplace cultures,

which did not empower them to raise concerns of unsafe clinical care. The participants felt that certain staff would not have supported them if they had made an error or witnessed unsafe patient care. The participants described a sense of alienation, isolation and as a result their professional behaviour was affected, making them less likely to admit to error or question unsafe clinical practice. Assertion and speaking up are related to the concept of patient advocacy and the important role that this plays in nursing today. Moore and McAuliffe (2012) describe nurses who highlight incidents of clinical risk and unsafe patient care within the clinical team, can find the whole experience extremely stressful. Fear becomes a barrier, where the nurse becomes unsure of what actions to take. This feeling of disempowerment is magnified when the nurse is a student or newly qualified, as self-belief and confidence are underdeveloped (Belcher & Jones, 2009).

Participants recalled events when they and other undergraduates had not reported errors and the reasons they identified for failing to report these errors were related to issues of feeling embarrassed and or being perceived as clinically incompetent or unsafe. Kim, Kang, Kim, and You, (2014) describe the reluctance to disclose errors as 'defensive silence'. The person who has made an error is unlikely to report the event because they fear shame, loss of professional credibility and of being punished or sanctioned. The larger the fear, the more likely it is that the clinical error made by the novice nurse will go unreported. It became clear advocating for their patient could be source of stress for the participants.

The majority of the participants recognised stress and distress as a major indicator that they were experiencing clinical risk and unsafe environments. Woods, Rodgers, Towers, and La Grow (2015) describe the moral distress experienced by the novice nurse when faced with the need to speak up when witnessing unsafe clinical practice. Moral distress is described by Woods et al., (2015) as where the nurse cannot clinically function in a moral sense because of either internal or external limitations. The authors observed that younger nurses were more susceptible to moral distress than older nurses, which resulted in moral despair and an inability for the junior nurse to cope and remain in the nursing profession. Lavoie-Tremblay et al., (2008) also acknowledge the stress and distress that novice nurses experience in the clinical setting, linking the stress that novice nurses experience to burn out and leaving the profession (Boehm &

Alice, 2013; Aburn, Gott, & Hoare 2016). Mark and Smith (2012) acknowledged that stress was triggered by human factors such as complex workload and being required to work at a faster pace. The stress experienced by the novice nurse could result in personal negative outcomes, such as low self-esteem, poor confidence and errors, along with physical and psychological symptoms, such as insomnia (Lavoie- Tremblay et al., 2008).

Patient advocacy is embedded in the nursing Codes of Conduct regulated by Nursing Councils worldwide, requiring nurses to act as advocates for their patients (Simmonds, 2008). The nurse is legally obligated to advocate for the patient and the nurse is open to disciplinary action if they fail to do so. The requirements are clear and point to expected behaviour from nurses (Welchman & Griener, 2005). A number of the participants admitted failing to advocate for their patient. However, it would appear that some of the participants quickly learned the skill, as they recognised the possible consequences of not speaking up. The participants were aware of their responsibilities both legally and morally, which obligate them to advocate for their patients and the concept of patient advocacy had been taught and reinforced from an early stage of their nursing education.

The impression that the participants were left 'to sink or swim' seemed to be a prevalent perception for some of the participants. The effects of such experiences are researched and the consequences can be serious, for both the new graduate and the patients they are caring for. This exposure to clinical risk and unsafe environments creates a potential for new graduates to become overwhelmed and therefore safe patient care being compromised (Green & Jackson, 2014). Research highlights health practitioners who are involved in clinical error are extremely vulnerable. Scott, et al,. (2009) describes healthcare workers as the 'second victim' of clinical error and the author recognises the moral distress that can arise when the healthcare worker believes that they have harmed their patient and highlights the necessity for health organisations to recognise this distress and the potential consequences. Furthermore, they argue for a workplace culture that addresses this problem, with interventions designed to assist the 'second victim', including peer and institutional support, allowing affected healthcare workers to return to the workforce. The example given by Lesley (page 47) was an excellent illustration of a supportive workplace culture where junior

nursing staff were empowered to speak up, to report error and recover the mistake and minimise harm.

Bratt and Felzer (2011) report that healthcare providers in the USA now operate with less financial resources than in the past, with less staff and a higher acuity of patients. Graduate nurses are exposed to these intense settings and are required to learn more quickly than is desired. This environment exposes the novice nurse to greater levels of stress, making the nurse more likely to commit errors. Due to the intensity of the modern healthcare environment, many new graduate nurses are not work ready when qualifying and are unfairly exposing themselves and the patient to clinical risk (Hartigan, Murphy, Flynn, & Walshe, 2010). Hartigan et al., (2010) recognise that there is no international consensus on what constitutes a competent and work ready graduate. This adds to the confusion for what constitutes a newly registered, work ready nurse.

Role modelling and preceptors

As a response to the perceived problem of unprepared new graduate nurses, many countries including New Zealand have developed transitional programmes for newly qualified nurses. These programmes are designed to support the novice nurse to cope with the 'reality shock' of the clinical arena, and create a safer practitioner (Bratt & Felzer, 2011). Researchers discuss the importance of having effective preceptor programmes, which help educate and support the preceptor to understand the needs of the new graduate and the reality that the new graduates face. These programmes are designed to create effective preceptors, positive role models that the undergraduate nurse requires, in order to develop into a safe practitioner (Tsai et al., 2014).

Some of the participants described instances of support that they received during their undergraduate and post graduate experience. They were supported by their preceptors and colleagues and were encouraged to speak up and to report errors; describing a workplace culture that role modelled safe practice. The participants recalled feeling empowered by these positive role models and reported an increase in clinical confidence, when faced with the need to speak up.

Kim, Lee, Eudey, and Dea (2014) define the preceptor/preceptee relationship as one where the student can learn and be guided by a named experienced nurse. This relationship enables the novice to acquire the clinical skills that are required of a registered nurse, while using the preceptor as a clinical resource (Crick et al., 2015). Wolff, Pesut, and Regan (2010) describe that the expectations and perceptions of staff nurses who are precepting the new graduates are often different to those of the educational institutions. Preceptors, especially in high acuity areas, express dissatisfaction with the performance of new graduates. This dissatisfaction and misunderstanding regarding expectations of the new graduate, can lead to the preceptor/preceptee relationship becoming fractured and less effective (Baumberger-Henry, 2012).

The preceptor-learner relationship is a pivotal component of nursing education (Crick et al., 2015). The importance of a positive relationship between the preceptor and learner has been recognised as a major influence in the development of the undergraduate nurse. It is essential for the professional growth and development of the novice nurse (Levett- Jones, & Lathlean, 2008). Haggerty, Holloway, and Wilson (2012) identified that many healthcare organisations within New Zealand offer preceptorship training for their staff. The authors noted that 50% of preceptors in New Zealand received preceptor training and adequate preparation for the preceptor role. Henderson and Eaton (2013) identify the role of the preceptor as an added workload to the nurse, with no reward or reduction of duty, as compensation. Because of this, preceptorship can be perceived as more of a burden, than an opportunity to develop the next generation of nursing professionals. Madhavanpraphakaran, Shukri, and Balachandran (2014) suggest that preceptors receive dedicated time away from their normal workload, in order to prepare for their role, allowing preceptors to be more effective, for teaching and facilitating the professional development of their students.

One preceptorship model that nursing faculties utilise, requires tutors who teach the academic curriculum to also act as assessors in the student's clinical placement. In this model the tutor has a detailed knowledge of the curriculum and the nursing outcomes that are required in order for the student to develop their professional nursing practice (Crick et al, 2015).

Another preceptorship model that nursing institutions utilise is one where external assessors are employed specifically by the institution to visit the students in their placements, making sure the nursing students are meeting their developmental goals, as well assessing their clinical progress (Rahnavard, Nodeh & Hosseini, 2013). Participants that were exposed to this model reported problems that they and other undergraduates had with the experience. They had no prior relationship with the assessor, the assessor was perceived as being punitive, where the preceptor was likely to punish the student if any clinical mistakes were observed. This resulted in participants hiding and withholding information from the preceptor. Other participants cited colleagues being aware of the assessors who had a poor reputation amongst the nursing students, resulting in avoidance and at times deception. What the participants were describing was an unsafe culture, both clinical and educational, where hiding was a consequence of a dysfunctional relationship between the preceptee and preceptor.

Having described the clinical experience and workplace culture, the discussion now focuses on the classroom experience. Describing the educational culture that the participants' were exposed to and how notions of clinical risk and patient safety were taught.

The educational culture and preparedness

Many participants struggled to articulate clear answers when asked whether concepts of clinical risk and safe patient care had been discussed in the classroom. Their responses were at times vague when recalling whether they had encountered the subjects in a classroom context. However, several participants reported that clinical risk and safe patient care were discussed in the classroom and helped prepare them for such encounters. Other participants reported that the subjects were in the background and covert, that nothing specific on the subject was formally taught. One participant described that she was aware of standard operating procedures and safety guidelines which were taught in her undergraduate training, guidelines and procedures which are designed by organisations in order to mitigate clinical risk.

Girdley, Johnsen, and Kwekkeboom (2009) demonstrate that in the USA most nurse educators recognise the importance of teaching clinical risk and safe patient care. The WHO (2011) called for tertiary institutions to include the subjects as an essential

component of an undergraduate nursing curriculum. Researchers have described a lack of education of undergraduate nurses understanding issues of clinical risk and safe patient care. Nursing educational institutions need to integrate the concepts more clearly into the curricula, in order to fully prepare the student nurses for professional qualification (Duhn et al., 2012).

Narrative learning and patient safety

Several participants described how listening to stories told to them by nursing educators enabled them to develop skills for understanding incidents of clinical risk and safe patient care. Learning through the use of narrative story sharing, enables both teacher and student to collectively discuss and find solutions to problems (Ironside, 2015). Narrative learning is a recognised pedagogy within the nursing profession; this pedagogy is a phenomenological construct that is well grounded within the nursing fraternity (Diekelmann & Diekelmann, 2009). Proponents of narrative learning believe that it is a construct that has been with mankind for centuries, and educationalists see it as an effective way for teaching the novice (Walsh, 2011). Narrative story telling is an ideal tool to use within a simulation framework, and is used by simulation educators to add authenticity and believability to scenarios. Through creating comprehensive backstories for simulated patients; including medical history, social and cultural contexts of the simulated patient, simulation users add fidelity to the scenarios, resulting in a stronger engagement from participants (Walsh, 2011). Several participants highlighted a difference to what was taught in the classroom, in relation to what was experienced in the clinical setting. It is this difference, 'the theory practice gap' that the discussion will now explore.

Theory practice gap and patient safety

Gaballah, Almotairy, Abdulhaq, Aldosary, and Alrabie (2016) describe the theory practice gap as the comparison between what is taught in the classroom, compared to what is experienced and practiced in the clinical setting. What impact does this difference have on the student nurse and their clinical practice? The perceived widening of the theory practice gap by some healthcare professionals has led to the topic being raised within the nursing community. This discussion has been more pronounced since the education of undergraduate nurses was moved from the traditional hospital environment and into the tertiary education system (Levett-Jones &

FitzGerald, 2005). One belief is that undergraduate nurses are inadequately prepared for clinical practice (Woods et al., 2015). In the present study one participant described a disconnect between teaching in the classroom and its perceived usefulness in the clinical environment. The participant believed that the teaching content was heavily weighted towards academic understanding rather than practical application. The participant was frustrated by what they perceived was a lack of clinical relevance of some topics. However, several participants reported that they received classroom teaching which complemented their clinical learning, using immersive simulation that assisted them in preparation for their clinical experience. This variance of experience could be related to the participants being taught at different tertiary institutions, were absent when the topics were discussed, or alternatively not exposed to the issues within the nursing curricula.

Attention now turns to simulation and what influence this had on the participants' understanding and preparation for clinical risk and patient safety. Was immersive simulation able to prepare the participants for the clinical environment and bridge the gap between theory and practice?

Simulation as preparation for clinical practice

The idea that simulation is a powerful tool for teaching and preparing people for situations of clinical risk and safe patient care, has become popular over the last two decades (Berragan, 2011). Since the publication of '*To Err is Human*' in 1999, simulation has been promoted in teaching concepts of clinical risk and patient safety (Blum & Parcells, 2012). Many tertiary and hospital institutions use simulation as a means of teaching students how to react to situations which could put both their patients and themselves at risk. The use of simulation, creating scenarios which appear as real as possible, allows participants to experience real time problem solving exercises (Gantt & Webb-Corbett, 2010).

Studies illustrate that simulation, when done skilfully, has positive effects on participants' critical thinking and problem solving skills (Flo, Flaathen, & Fagerström, 2013; Kaddoura, 2010; Owen & Ward-Smith, 2014). However, Blum and Parcells (2012) recognise that although there is a body of literature describing this increase in student confidence, there is little evidence that links the use of simulation to improving

patient outcomes. The authors argue that until more research is published, then the value of simulation is no more effective than other methods that educators employ and cannot be promoted as the solution to effective teaching of clinical risk and safe patient care. Simulation, taught without expertise can have a negative effect on participants and a decrease confidence and clinical performance (Elfrink, Nininger, Rohig, & Lee, 2009). All of the participants' reported a variety of experiences of simulation as an educational tool, with a variety of experiences being reported. Some participants described profoundly poor experiences. In contrast other participants reported positive exposures. The participants were unanimous in the belief that immersive simulation had the potential to prepare them for clinical reality.

While acknowledging the anxiety that students experience when participating in simulation, studies have shown that when simulation is delivered skilfully, these anxieties can be mitigated, overcome and positive learning gained (McCaughey & Traynor, 2010; Tosterud, Hedelin, & Hall-Lord, 2013). Meyer et al., (2014) also point to the necessity of the skilled educator, who is immersed in the pedagogy of simulation and adept in its use. An educator that is able to facilitate learning, enabling the participant to safely navigate a scenario and reach a meaningful learning experience. The more effective the facilitator the more profound the learning will be, creating a nurse who is prepared for the clinical setting (Tupper, Pearson, Meinersmann, & Dvorak, 2013).

Positive experiences of simulation were reported by some participants, where they appeared to be exposed to well-planned simulated scenarios. They were prepared appropriately, with clear learning outcomes which were articulated and relevant to their level of experience. In contrast to those who received a negative experience, the participant's recorded an increase in confidence and a belief that simulation had a positive impact on preparing them for the clinical environment. This confidence and preparedness would translate into their clinical practice, enabling the participants to recognise and cope with incidences of clinical risk and safe patient care.

Fidelity

Participants, who described a positive simulation experience, believed that the more the scenarios resembled real life clinical situations, the easier it was for them to engage and learn. Ballangrud, Hall-Lord, Persenius, and Hedelin (2014) identify that the more

realistic the students perceive the simulation the more likely they are to gain meaningful learning from the simulation. Fidelity is not just how realistic the event is visually perceived, but whether or not the scenario itself is likely to occur in the clinical environment. Ballangrud et al., (2014) state that the more realistic the scenario, the more likely it is to produce a safer practitioner. One participant who reported a poor simulation experience stated that they had difficulty in engaging with the scenario and in particular the manikins, as she struggled to recognise them as real patients.

The next theme that was described as valuable by the participants was related to debriefing, the opportunity for the participants to make sense of and understand their experiences. It was noticed that different forms of debriefing were utilised by the participants, and it was important to understand how these forms of debriefings were accessed by the participants.

Debriefing

Debriefing is a process where learners can review and deconstruct challenging experiences, making sense of what they have encountered, as well as processing information and formulating responses for future challenging clinical practice. Formal debriefing requires skilled facilitation and is considered the most effective way to assist novice nurses to cope with stressful, clinical experiences (Cant & Cooper, 2011; Overstreet, 2010). The participants in the research described debriefing as a valuable resource for unpacking their experiences and recalled the different ways in which they engaged in debriefing.

Formal debriefing as a reflective tool

Participants gave examples of formal debriefings within the classroom environment and several reported the positive effects of these debriefings. The participants recalled that when returning to the classroom from a clinical placement the undergraduates were debriefed by their tutors and were encouraged to discuss issues they had seen in their placement and raise any concerns from these experiences.

Formal debriefing is thought to be effective for both teams and individuals. If structured correctly formal debriefing can have positive effects on the nursing students and result in an increase in quality of care. It is also perceived as an effective way of allowing

people to process and understand their experiences (Salas et al., 2005). Cant and Cooper (2011) make the observation that in order for formal debriefing and reflection to be effective, the person leading the debrief needs to be skilled and appropriately trained in the different debriefing techniques. Creating a non-judgmental and safe environment is seen as essential, if this method of debriefing is to be effective (Loos, Willetts, & Kempe, 2014)

One participant reported regular meetings in the clinical environment where staff were encouraged to discuss concerns, as well as any difficulties they had seen or were experiencing. This is an example of a workplace culture that values safe patient care and shows a proactive attitude towards clinical risk. With an absence of formal debriefing the majority of participants accessed informal methods in order to understand and deconstruct their clinical experiences.

Informal debriefing as reflective tool

The most common form of reflection and debrief reported by the participants was that of an informal method. This constituted several types of experience, such as discussing clinical incidents with staff members and preceptors, reflecting with peers from the same educational cohorts, talking to family, or just attempting to make sense of what they had witnessed through self-reflection.

Informal debriefing is commonplace within the nursing profession and for many nurses this is their major source of debriefing and making sense of their clinical experience (Wilson & Krishbaum, 2011). Research suggests that many nurses prefer, or at least become accustomed to utilising informal support mechanisms (Wilson & Krishbaum, 2011). Literature also highlights that formal debriefing after a major event, for example a death of a patient is estimated to occur in only 50% of cases (Heise & Gilplin, 2016). The findings identify gaps in the formal debriefing process leaves some nursing students to rely on informal networks for debriefing, rather than recognised and formalised methods.

Debriefing in simulation

Debriefing is a component of simulation that is used to unpack and understand what occurred during a simulation exercise and is considered as one of the most vital components of simulation. One of the most difficult simulation skills to master,

debriefing can cause stress for the tutor who is leading the debrief (Flanagan, 2008). However, a skilled facilitator is able to unravel what occurred in a scenario and offset any negative experience that the participant may have encountered. This allows participants to reflect on performance and feelings, enabling them to make sense of what they were exposed to; the skilled facilitator will guide them towards a positive and meaningful outcome (Overstreet, 2010). Through effective debriefing, participants are able to develop the essential clinical skills which they will require in the clinical setting (Ryoo & Ho, 2015).

Some participants had positive experiences of simulation debriefing. They reported that the debriefing helped them unravel and make sense of what they had experienced in their scenario. When recalling their encounters of debriefing, it became clear that the debriefing experience could be considered as modelling best practice, in terms of time dedicated to the debriefing, as well as the skill of the facilitator (Jeffries, 2007). Participants' reported that they found the debriefing useful, because it occurred immediately after the simulated scenario, in contrast to the clinical environment, where this is not always possible. This use of immediate feedback is a recognised advantage of using simulation, as it allows for meaningful debriefing, in a timely manner and in a controlled environment (Jeffries, 2007). While some of the participants' identified cultural impact on their learning, they also identified another aspect that influenced their ability to cope with issues of clinical risk and safe patient care. This theme described a more unpredictable topic, one of life experience and cognitive maturity.

Intuition, life experiences and cultural expectations

Life experiences were highlighted as important factors by some participants, perceiving that these experiences prepared them for their professional role. One participant had worked as a health care worker and other participants had worked in non-related professions, where their abilities to assess risk and make decisions were developed. These participants described feeling confident when faced with situations of clinical risk and safe patient care. Participants believed that their ability to successfully navigate these situations was simply down to upbringing and personality type. Several participants suggested that is just the 'way they were' and identified family members, particularly parents who were role models and problem solvers. The notions discussed by the participants related to aptitude, life experience, personality, resilience and prior

learning as influencing their ability to cope with clinical reality, through developing appropriate strategies.

Cognitive maturity and how this affects a person's ability to problem solve is also recognised within the literature (Nickerson & Thurkettle, 2013). Stillwell, Fineout-Overholt, Melnyk, and Williamson, (2010) suggests that cognitive maturity creates a nurse who is inquisitive and more capable of solving complex problems. The authors highlight the idea that a person can intuitively know when a situation is risky and dangerous has been recognised within nursing and other professions. Research argues that intuition can play an important part in guiding the practitioner through situations that are dangerous and risk laden, and that nurse educators need to understand the nature and advantages of intuitive learning and employ it into their curricula (Robert et al., 2014). How this can be achieved is a moot point and one that needs further investigation. The results of this study support the idea of intuition guiding practice, with participants identifying that they themselves brought something intrinsic to the situation, which assisted them in recognising instances of clinical risk and safe patient care. An additional theme participants highlighted was related to cultural learning and the acknowledgment of how people from different cultures are accustomed to learning.

Alalshaikh, (2015) acknowledges the difficulties that learners from different cultural experiences face when they are exposed to a style of teaching that they are unaccustomed to. The author identifies that this cultural difference can lead to stress and a reduction in meaningful learning. Two participants found Problem Based Learning and simulation scenarios as challenging their own cultural educational experiences and learning expectations. Both of the participants were from South East Asia, and described that the educational system they were accustomed to was very different to the one they were exposed to in New Zealand. One participant discussed how they struggled with aspects of simulation that required 'softer skills' to negotiate the scenario. This is understandable in the sense that being required to use linguistic subtleties in a language that is not your native tongue is challenging. Both described how they were accustomed to learning by rote and felt more comfortable learning facts and 'hard skills'. They believed it was these 'hard skills' that made them a safer practitioner.

There are cultural considerations when teaching problem based learning activities such as simulated scenarios. Augustus (2015) emphasises the need for educators to understand their students' cultural perspectives, the changing diversity of the students and align teaching methods that allow learners to gain the full benefits of their education.

The research will now move on to the recommendations, focusing on the participants' responses to the Dreaming Phase of AI. Describing what the participants felt would have benefited their professional development and what the participants identified as essential for an educational programme that prepares future students for clinical reality. This enables the researcher to move into the Design and Destiny Phases of. AI, the research will envisage an achievable future, discussing what will be required in order for the participants' vision to be realised.

Recommendations: Design and Destiny

Experiential learning, clinical placement and simulation

The participants identified the clinical placement as the most valuable environment for learning the concepts of clinical risk and safe patient care. Participants said that they desired more clinical exposure than they were allocated. However, this desire for more clinical placement is difficult to fulfil. Jefferies, (2007) points to the world wide problem of accessing clinical placements. High patient turnover, increased workload for qualified staff and a lack of experienced staff have all affected the access for clinical placements for nursing students (Barnett et al., 2008). Throughout the first world, clinical placements are becoming harder to access as the demand for clinical placements appears to be outstripping the supply (Hayden et al., 2014) This has resulted in intense competition to access clinical placements. A concern amongst nursing academics and nursing educational institutions is that student nurses are not receiving adequate clinical exposure, or enough quality clinical experience. Institutions are being forced to become more inventive, in what constitutes a clinical placement (Spetz, 2005).

The consequences of students not accessing quality clinical experiences are sombre. If the clinical setting is where the novice nurse develops the necessary skills to survive in the clinical arena, then a lack of effective exposure will inevitably result in a poorer

product, resulting in a less prepared graduate and a real potential for negative patient outcomes. Barring an intervention at Government level and a ground shift in attitude from the healthcare providers, the future regarding accessing clinical placements looks bleak. It was noted that the main reason the participants wanted more clinical exposure was because the felt that they learnt better 'by doing'. If accessing clinical placements is becoming too difficult, considerations of alternative experiential methods that can augment the clinical experience must be contemplated. In particular, does simulation hold a possibility augmenting some clinical exposure?

Simulation as clinical experience

Part of the reason for the increase of simulation within nursing education institutions worldwide has been as a response to the crisis in clinical placement availability (Jefferies, 2007). If simulation can be shown to be effective in teaching skills and concepts of clinical risk and safe patient care, then it should follow that the medium could be used to augment and be a part of the clinical experience. This has the potential to solve what has become a significant problem for the educational institutions and the health industry. Several countries as well as certain States within the USA already recognise this phenomenon and include simulation as part of the nursing student's clinical exposure (Spetz, 2005). A major study by the NCSBN (2013) undertaken in the USA has shown that students who have had significant clinical placement time, augmented by simulation, are as prepared and work ready as those who were not given such exposure (Hayden, Smiley, Alexander, Kardong-Edgren, & Jefferies, 2013). In New Zealand, 200 hours of simulation are acknowledged in the Enrolled Nurses curriculum, as part of the clinical experience (Nursing Council of New Zealand, 2014). However, it has to be noted that just as an inferior clinical placement can have a negative impact on a student's learning, then an inferior simulation experience can also have a similar effect.

Skilled and knowledgeable simulation tutors are essential for teaching within the simulated environment, in order for learning to be safe and meaningful (Glavin & Gabba, 2008; Guimond, Sole, & Salas, 2006). The dangers of having ill prepared and unskilled facilitators incorporating simulation into their curriculum is a worldwide issue and one that has ramifications for both the use and effectiveness of the medium. Guimond et al., (2006) believe that insufficient research has been undertaken within

the nursing profession to understand the effectiveness of skilled simulation facilitators. Participants who engage in simulation often report being exposed to negative feedback around their scenario performance. This negative feedback can lead to a decrease in learning and confidence, which impacts on their ability to create meaningful learning (Elfrink et al., 2009). In this research participants also noted that, ill delivered simulation had a negative impact on their learning. The challenge for the tertiary and healthcare systems is to provide a product that is effective, robust and reflects best practice. It is necessary that tertiary providers employ educators who are skilled in the medium, understand the pedagogy and deliver all of this in an environment that is safe for the learner.

One method to achieve this aspiration could be to require tertiary institutions to demonstrate evidence based practice in the use of simulation. The educational institutions would be required to ensure all staff involved in the medium, receive appropriate education relevant to the topics of patient safety, in addition to understanding human factors in healthcare, clinical skill acquisition, assessment and the pedagogical underpinnings of simulation. This would include guidelines to assess the delivery of immersive simulation, along with student evaluation to collaboratively appraise the effectiveness of the medium. This research has shown that without this assurance, students are exposed to simulation experiences that are variable. If the benefits of undergraduate nurses experiencing real time problem solving exercises and participating in experiential learning in safe simulated environments are to be realised, correct processes ensuring quality and consistency of learning outcomes are required. This would require development, evaluation and review by an appropriate accreditation body, such as the Society for Simulation in Healthcare (SSH) accrediting simulation programmes in the US (SSH, 2016). It is also necessary to acknowledge the rapidly changing technological environment both in the clinical and educational settings and the need for educators to be adaptable for future educational advancements.

Positive role modelling was identified as pivotal to the participants' professional and clinical development. The participants reported that a desirable future would require this role modelling to be more organised and thoughtfully prepared. Requiring focus on the clinical needs of the undergraduate nursing student, it is this aspirational vision that will now be discussed.

Positive role models

Nursing students desire a positive relationship with the ward preceptors, to create an environment that is conducive to learning (Löfmark, Thorkildsen, Råholm, & Natvig, 2012). Nursing students perceive the relationship as an opportunity to develop socialisation skills, with regards to being part of a team (Billay & Myrick, 2008). Kelly, Forber, Conlon, Roche, and Stasa (2014) stress the importance of the preceptor student relationship, and that the failure to have a positive experience can have negative effects on the students' ability to learn the necessary skills for their professional preparation and development.

I believe it is essential that healthcare providers and tertiary institutions review the role of the preceptor, in order to develop their effectiveness, ensuring that preceptors are trained and that the training is of a high standard. Preceptor training would be more effective if it was standardised, to ensure consistency and quality throughout the healthcare system. Tertiary institutions and health care providers are required to work closely, in order to ensure that there is a clear understanding of the students' learning needs. Allocations of appropriate resources are desired by preceptors in order to compensate their time, ensuring that preceptoring it is not seen as a chore. These changes would allow preceptors to engage with the student and develop the necessary relationships that can result in a positive experience for the undergraduate nurse. Within the notion of effective role modelling is the need for the novice nurse to share and debrief challenging experiences, with an experienced preceptor.

Debriefing

Debriefing was identified as being important to the participants in assisting them to unpack and deconstruct their clinical experiences. These experiences were often stressful, distressing and potentially disruptive and harmful to the undergraduate nurses' professional development. As stated in the discussion the prominent form of debriefing undertaken by the participants was of the informal manner.

There are several areas where debriefing can be employed in order to assist junior nursing staff to make sense of their undergraduate experiences. The clinical setting is where the undergraduate nurse encounters stressful situations, therefore it is necessary for formal debriefing to be timely, organised and led by staff from within the

clinical area (Cant & Cooper, 2011). Access to regular formal debriefing sessions should be a standard requirement and available to all nursing staff within the clinical setting. This would enable staff to share concerns and discuss emotional responses that are related to their clinical practice. The challenge of debriefing in the clinical setting is the unpredictability of the environment. Therefore, when distressing incidents occur that require debriefing, an ability to be flexible and responsive is essential to support the affected nursing staff. For this to be effective, senior clinical staff would be required to understand the debriefing process, be skilled in its use and appropriate training be designed for this purpose.

Debriefing is an essential component of the immersive simulation experience, unlike the clinical environment, this form of debriefing is easier to anticipate and plan for (Overstreet, 2010). It is necessary for all educational staff involved in teaching immersive simulation to be educated in the principles and techniques of best practice of the debriefing process.

The classroom environment is another setting for the use of formal debriefing. This debriefing process should be systematic and offered to all student nurses returning from their clinical placement. The importance for educators to be trained in current best practice in the use of debriefing is pivotal for this to be effective (Overstreet, 2010,). Another aspect of classroom debriefing is the use of narrative learning and how narrative teaching can be utilised as part of the debriefing process (Waring, 2009). The recommendations will now focus on the use of narrative story telling as a positive learning tool for the participants.

Narrative pedagogy

The participants' identified a desire to see a greater use of narrative teaching in their undergraduate education, to assist them in understanding issues of clinical risk and safe patient care. Storytelling and the sharing of experiences enables the novice nurse to learn from these recollections, understanding that they are not alone in experiencing them (Waring, 2009). This enables the nurse to develop strategies to deal with encounters that they may experience in the future (Ironside, 2015). The challenge for educational institutions is to provide an effective framework in which to utilise narrative

learning to its full potential. The utilisation of narrative story sharing allows the novice nurse to develop as a skilled and safe practitioner.

To achieve these aims, health faculties would be wise to understand the nature of narrative learning and integrate it into their curriculum. Simulation has often used narrative learning as a concept and is popular in the use of virtual simulation. Virtual healthcare platforms allow the users to become engaged with the characters that the student nurses interact with, adding a level of fidelity to the experience, interacting and responding to the virtual patient's realistic background narrative and health history.

Specific teaching of clinical risk and patient safety

The Nursing Council of New Zealand (2014) requires undergraduate nursing students to understand issues of clinical risk and safe patient care and recognise how these issues impact both the patient and the healthcare professional. The Patient Safety Curriculum Guide published by the WHO in 2011, advocates strongly for the specific teaching of the subjects of clinical risk and patient safety to all healthcare workers. The WHO acknowledges the significant problems with issues of healthcare staff understanding the concepts of clinical risk and patient safety. By developing the Safety Curriculum Guide for key stakeholders, supports the tertiary institutions, enabling them to embed the concepts of clinical risk and patient safety into the nursing curriculum. However, Mansour, Skull and Parker (2015) conducted a study which evaluated two aspects of the WHO patient safety curriculum, using student and staff evaluation, to determine the effectiveness of the teaching. They found that there was no conclusive evidence to demonstrate that the students understanding of patient safety had increased after exposure to the content. The authors recommended that more vigorous research related to curriculum design and evaluation be undertaken, before a final conclusion can be drawn on the educational effectiveness of the WHO curriculum.

In order to achieve this desired outcome, all tertiary institutions should overtly target clinical risk and patient safety, teaching these concepts as specific subjects embedded into the nursing curriculum. This content would focus on teaching undergraduate nurses how to recognise and manage incidents of clinical risk and safe patient care in the clinical environment. The teaching would also target subjects of human factors, patient safety culture, highlighting case examples such as the findings from the Mid-

Staffordshire inquiry and New Zealand Health and Disability Commissioner Recommendations. This would require educational staff to have a clear and cogent understanding of the subjects of clinical risk and patient safety, as well as the necessary skills to effectively teach the subjects. The WHO guide (2011) sets out aims and strategies for institutions to follow in order to integrate the topics into the undergraduate curriculum. By accessing such resources as the WHO guide, a consistent and standardised approach could ensure that all undergraduate nursing students receive a solid foundation in understanding concepts of clinical risk and patient safety.

Limitations

The main limitation of this study is the small sample size. Due to this, caution is required generalising the findings to larger populations of newly qualified nurses. It is also possible that different findings could have been generated by representative groups from other undergraduate nursing programmes or exposure to other clinical environments. It is also important to note that the research solely concentrates on the perspectives of the newly qualified nurses. The research does not focus on the understandings of their educators or preceptors, who may have different understandings, or experiences to those of the participants.

When undertaking the literature review I became aware of different methodologies that could have been applied to this study. The rational for choosing AI as a methodology, was the desire to incorporate the study through a positive and aspirational lens. During the interviews many of the descriptions and examples of clinical risk and safe patient care that were given by the participants were often recalling negative events. This created a challenge for the researcher, while the participants' recollections were pertinent and interesting, it was important to focus on what worked for the participants and what it was that prepared them for experiences of clinical risk and safe patient care. The use of AI as the methodology was necessary in order to create a future vision, one that can be both effective and meaningful, teaching and supporting the vulnerable novice nurse to survive and thrive in today's modern clinical environment.

Implications for future research

To gain a more detailed understanding of the reported findings, further research into the subject of how undergraduate nurses identify, understand and learn about clinical risk and safe patient care is both desirable and necessary. Understanding clinical risk and safe patient care is pivotal for the health industry. The more that is understood, the more likely it is that strategies can be developed, that reduce incidents of clinical risk and safe patient care, creating a safer environment for the patients and healthcare professionals.

Conclusion

The purpose of this study was to investigate newly qualified nurses' understanding of the concepts of clinical risk and patient safety, how they learnt about the concepts and how they experienced and managed such incidents in the clinical environment. Another research aim was to understand what prepared them for such incidents and what they considered the most effective way to learn about the concepts of clinical risk and patient safety. Finally, the study identified the participants' perceptions of simulation as a teaching tool and the mediums impact on their ability to understand and manage incidents of clinical risk and safe patient care. Throughout the thesis, I have attempted to report and describe the experiences that the participants recalled, along with their perceptions and desires for a more effective undergraduate educational experience.

An inevitable consequence of a clinical environment that is complex and unpredictable is that there will be moments of risk and danger for both the health practitioner and their patients. What is concerning, is how unprepared some of the participants reported they were for understanding and managing such an unpredictable setting. The research showed that undergraduate nurses' preparation for the clinical environment is variable, with some taught to understand and cope with moments of danger and risk, while other participants described how they were poorly prepared, and struggled to cope with the clinical stressors. Participants described their exposure to highly variable clinical and educational cultures. In some clinical areas minimal change has occurred concerning workplace culture and its direct impact on patient safety, despite the large amount of research published since the publication of '*To Err is Human'* in 1999.

Encouragingly other workplace cultures reported by participants recognised issues of clinical risk and patient safety. These workplaces actively prepared and empowered the participants, enabling them to safely navigate incidents of clinical risk and patient safety, creating a culture which prioritised safe patient care.

There was also variable use and experiences of simulation based teaching in the undergraduate setting identified by the participants. Listening to the participants' descriptions of exposure to simulation based teaching that was not reflective of evidence based practice principles identified significant gaps in the educational techniques and patient safety concepts of some educators. It was, however, reassuring that other participants' reported simulation as a positive learning experience that followed evidence based practice. This resulted in an increase in clinical confidence and self-belief, which enabled these participants to learn how to safely manage clinical risks and provide safe patient care. All of the participants reported that, when delivered effectively, simulation had the ability to prepare and enhance their clinical practice.

The research reported in this thesis has reinforced my belief that effective preparation for newly qualified nurses to manage clinical risk and safe patient care is essential to produce work-ready nursing graduates. Educators must develop and design thoughtful, focussed educational curricula, to teach and facilitate the subjects of clinical risk and patient safety. This can be achieved by utilising a range of methods including narrative learning techniques, post-clinical debriefing and simulation based education. Finally, there remains an urgent requirement to promote a positive culture in the clinical and educational environment. Enabling healthcare providers to understand and manage clinical risk and patient safety, establishing a clinical environment that is safe for both health professionals and their patients.

Appendices

Appendix One

Participant Information Sheet for a Study around perceptions of clinical risk and patient safety

Appendix Two

Consent to participate in research

Appendix Three

Interview Questions

Appendix Four

Transcribing Confidentiality Agreement

Participant Information Sheet for a Study around perceptions of clinical risk and patient safety.

Researcher: Philip Hawes. School of Midwifery & Health Victoria University of Wellington

I am a Masters student in the School of Midwifery and Health at Victoria University of Wellington. As part of this degree I am undertaking a research project leading to a thesis. The project I am undertaking is examining recently qualified nurse's perceptions around clinical risk and patient safety, and looking at how they learnt about these concepts. This research project has received approval from the Victoria University Human Ethics Committee.

I am inviting registered nurses who have been qualified for less than two years to participate in this study. Participants will be interviewed in a semi structured manner, where they can explore their understanding of the concepts and what worked for them with regards preparation for the clinical environment. The interviews will last approximately 45 minutes. The interviews will be audio recorded and participants will be provided a copy on request for their own review.

Should any participants feel the need to withdraw from the project, they may do so without question at any time before April 2016. Just let me know at the time.

Responses will form the basis of my research project and will be put into a written report on an anonymous basis. It will not be possible for you to be identified personally. All material collected will be kept confidential. No other person besides me and my supervisors Doctor Brian Robinson and Professor Jo Walton see the interview transcripts. The thesis will be submitted for marking to the School of Midwifery and Health and deposited in the University Library. It is intended that one or more articles will be submitted for publication in scholarly journals. Tapes of the interviews will be destroyed after the end of the project.

If you have any further questions or would like to receive further information about the project, please contact me at Whitireia New Zealand on 04-2373100 extension 6290, or via email at Hawesphil@myvuw.ac.nz or my supervisor Dr Brian Robinson at the School of Midwifery and Health at Victoria University 04-4636155 or email at brian.robinson@vuw.ac.nz

Philip Hawes

CONSENT TO PARTICIPATE IN RESEARCH

Title of project:

What educational and other experiences assist recently qualified nurses understand and deal with clinical risk and patient safety? In particular did simulation have an impact on their ability to prepare, understand and cope with incidences of clinical risk and patient safety?

I have been given and have understood an explanation of this research project. I have had an opportunity to ask questions and have them answered to my satisfaction. I understand that I may withdraw myself (or any information I have provided) from this project before March 2016 without having to give reasons. I understand that any information I provide will be kept confidential to the researcher, the supervisor and the person who transcribes the tape recordings of our interview. I understand the published results will not use my name, and that no opinions will be attributed to me in any way that will identify me. I understand that the tape recording of interviews will be wiped at the end of the project unless I indicate that I would like them returned to me. I will have the opportunity to read a summary of the work before it is published

□ I agree to take part in this research.

Signed:

Name of participant:

Date:

Interview questions:

What do you understand clinical risk to be?

What is your understanding around the notion of patient safety?

Have you come across situations of clinical risk and patient safety?

Tell me how you dealt with these situations?

What knowledge and understanding did you bring to these situations?

How did you recognise them?

Where did you learn about them?

Did any part of your undergraduate or NETP education prepare you for them?

What worked?

What would have helped?

Did you experience simulation?

Did simulation help prepare you for these situations?

What aspect of simulation was useful?

Transcribing Confidentiality Agreement

Project Title: What educational and other experiences assist recently qualified nurses understand and deal with clinical risk and patient safety.

Principal Investigator: Philip Hawes

I , _____, agree to ensure that the audiotapes I transcribe will remain confidential to _____and myself.

I agree to take the following precautions:

1. I will ensure that no person, other than_____, hears the recording.

2. I will ensure that no other person has access to my PC.

3. I will delete the files from my pc once the transcription has been completed.

4. I will not discuss any aspect of the recording with anyone except_____

Signature: _____

Date: _____

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