Learning between the real and the unreal: The lived experience of high fidelity simulation

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Attestation of Authorship

"I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning"

Signature: …………………………..

Sally Louise Hollis

Date: 22nd June 2012

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Abstract

The use of high fidelity simulation (HFS) as an educational tool is already well grounded in the academic and clinical health care context. There has been an exponential growth in its use over the past decade, the basis for which is well documented in the literature. Despite this increase there has been little research which explores the lived experience of HFS for its participants, especially the meaning of the experience for the new graduate nurse (NGN). By gaining a better understanding of the nature of the phenomenon as experienced by NGN, methods and strategies can be developed to advance HFS as an educational tool in undergraduate nursing education. This signifies the importance of this study to explore the lived experience of HFS for its participants. Semi structured interviews were carried out with eight NGN and their narratives were explored utilising van Manen's hermeneutic phenomenological approach. Three themes which uncovered the meaning of HFS for the NGN were identified: between the real and the unreal, being watched and being assessed and the experience of learning. There are several recommendations from this study. This includes the integration of a reality framework in HFS to enhance the engagement and learning outcomes of participants. Further attention must be paid to the preparation, debriefing and the position and frequency of HFS within the undergraduate nursing curriculum to further develop learning outcomes. The key finding and recommendation of this study is the need for the increased use of HFS throughout the undergraduate nursing programme.

Chapter One: Introduction

The use of high fidelity simulation (HFS) as an educational tool is already well grounded in the academic and clinical health care environment. There has been an exponential growth in its use over the past decade, the basis for which is well documented in the literature. Despite this increase there has been little research which explores the lived experience of HFS for its participants, especially the meaning of the experience for the new graduate nurse (NGN). Their experiences of the phenomenon of HFS are the focus of this research study.

A hermeneutic phenomenological approach informed by Max van Manen (1997b) will be used to explore the experiences of eight NGN who have participated in HFS learning. The research question posed is:

> *"What is the meaning of the lived experience of high fidelity simulation for New Graduate Nurses?"*

How HFS is experienced by others is of interest to me because of my enthusiasm and drive to develop this learning modality. The initial idea proposed for this study was to explore the lived experience of HFS and its impact on the NGN practice now that they are Registered Nurses. Of course a phenomenological methodology does not allow for such a limited view. If I was to engage in this study with such a narrow focus it would not uncover the full meaning of the phenomenon for the NGN and would not be consistent with my methodology. Thus the research question is presented with a much wider scope.

Background

Defining high fidelity simulation

Simulation is a very broad term when used within the health care context as indicated by Rosen's (2008) definition. She described medical simulation as "an imitation of some real thing, state of affairs, or process for the practice of skills,

problem solving, and judgment" (p. 157). Therefore the term can be applied to anything from models which replicate parts of human anatomy, simple role plays of medical scenarios right through to the HFS which this study is exploring (Rosen, 2008). How the term high fidelity simulation is defined within the literature was more challenging to explicate. Due to the ever evolving advancement in simulation technology there were many factors, such as the year it was written and geographical location of study, which impacted on how HFS was defined. Certainly simulation which requires the participant to engage and interact, or to immerse themselves in the scenario as they would in the real clinical setting is a recurrent descriptor of HFS (Gaba, 2004). Ziv, Wolpe, Small, and Glick (2003) offer the following definition of HFS which is the one which directed this study "Computer-driven, full-length mannequins. Simulated anatomy and physiology that allow handling of complex and high-risk clinical situations in lifelike settings, including team training and integration of multiple simulation devices" (p. 784).

For the purpose of this study HFS is defined as the use of full body manikins with integrated computer software. These manikins have the ability to display chest movement, have palpable pulses, can be connected to and will display vital sign monitoring and have the ability to be defibrillated. The integrated computer software allows for physiological changes to be displayed, such as normal pulse volumes or tachycardia, in response to participant interventions. It is necessary to explicate this definition to differentiate between the use of high fidelity manikins and the more low fidelity models. Low fidelity manikins include basic manikins and part task trainers which are anatomical replicas of single body parts used for practicing tasks such as intravenous cannulation. For ease of reading, this study will use the term human patient simulators (HPS) to refer to these high fidelity manikins.

The history and development of HFS
Although HFS is well established within the health care context, this is not where the foundations for its use were developed. The pioneer of HFS is the aviation industry as the first flight simulator was patented in 1929 but there was limited use in these initial years. After several sentinel events in 1934, the

military purchased several of these simulators. The start of World War II also increased the need for en masse flight training hence the integration of technology with in situ training and the conception of HFS (Rosen, 2008). HFS was first introduced into health care within anaesthetics where it was utilised to practice airway management in 1969 (Howard, Ross, Mitchell, & Nelson, 2010). It has since been integrated into education throughout the clinical and academic setting (Beyea, von Reyn, & Slattery, 2007).

To orientate the reader to the phenomenon of HFS as the focus of this study, it is important to explicate exactly what current HPS are capable of. The development of HPS utilised within healthcare has been immense in the last decade. Current HPS have many advanced features which add to the reality of the experience. They have the capability to take advanced airway management manoeuvres such as endotracheal intubation and display airway complications such as tongue odema and trismus. They exhibit both normal and abnormal respiratory noises such as wheeze and stridor and can show bilateral as well as unilateral chest rise. They have multiple pulse palpation sites and the facilitator has the capability to manipulate the vital signs and pulse volumes to correspond with the clinical condition of the "patient". Amongst the many other features of the modern HPS, they can produce secretions from the nose, mouth, eyes and ears and can blink, sweat, bleed and talk. The participants are able to pass intravenous cannulas, uretheral catheters and naso gastric tubes. It must be noted that this is not by any means a full list of the functions of current HPS. It is merely an attempt to convey the advanced properties of the manikins and give the context of the experience of HFS (Laerdal, 2012).

The research setting

Within this study the NGN experienced HFS in the context of a three year undergraduate Bachelor of Health Science nursing degree. The university has two dedicated simulation laboratories as well as equipment to set up mobile HFS. The NGN experienced a range of HFS scenarios including CPR, diabetes and bronchiolitis. There is full monitoring equipment available and defibrillator and other advanced equipment is available if required. HFS is utilised in this

undergraduate programme throughout the three years; once in first year, three times in second year and third year has five HFS sessions.

The NGN also experienced HFS in the clinical context in an onsite dedicated simulation room. This was set up as a patient room with piped oxygen, suction and an emergency bell. This HFS was implemented in the NGN mandatory cardio pulmonary resuscitation training. The HFS that the NGN experienced in this context was a sudden collapse scenario where the patient was in ventricular fibrillation. Standard resuscitation equipment from the clinical setting was available including a resuscitation trolley with appropriate medications, airway equipment and the standard defibrillator machine utilised throughout the hospital. The defibrillator machine provides electrocardiogram monitoring including waveforms and alarms but there was no other vital sign monitoring available. Blood pressure and oxygen saturation recordings were provided verbally by the facilitator at the participants' request. This study will mostly discuss and provide recommendations for HFS in the undergraduate nursing programme. Despite this the hospital experience of HFS provided an excellent comparison and some compelling themes that were applicable across the two contexts.

Study researcher and HFS

As a health professional and educator, the educational modality of HFS is very much a part of my practice. As I listened to other health professionals thoughts on HFS, especially those of the NGN within my organisation, I realised it to be quite a polarising learning modality. It appeared that not everyone found HFS to be the valuable pedagogical tool that I did. Hence my interest in exploring the factors that provide meaning to the experience of HFS for others. My interest in under graduate nursing education led me to the subject of HFS and NGN as this was the perfect integration of my clinical and academic pedagogical pursuits.

I have had extensive experience of HFS both as a learner and a facilitator within the clinical context. My experience mostly involves multi-disciplinary HFS within the context of a paediatric emergency department. HFS is implemented within

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the department in the actual resuscitation rooms and real equipment is utilised. My experience of using HFS is only with emergency scenarios and I have had no involvement with HFS within the academic environment.

To ensure that my beliefs and values in regards to HFS did not affect or bias the findings of this study, it was first necessary to uncover and explicate them. This was achieved through the completion of an interview, in which my supervisor utilised a phenomenological interviewing approach to expose my pre assumptions of HFS. The findings from the interview narratives were that I believe HFS to be an extremely effective and enjoyable mode of learning due to its tactile nature. I am aware that not everyone shares my view of HFS being enjoyable though. I believe it to be a safe environment for learning which builds confidence and promotes teamwork amongst participants. I believe HFS is best if it is practiced within the clinical area of the participant team and it is important for connecting individuals and building communication within the team. I feel strongly that learning in the HFS environment can never replace learning in clinical practice and the patient and family interactions that occur there. I see a huge potential for the growth of the use of HFS, both within the academic and the clinical context.

The structure of this thesis

The purpose of this chapter is to introduce the reader to the key ideas and topics of this thesis. I have also presented the terminology and definitions which are central to the phenomenon of HFS within the context of this study. I have introduced myself as the principal researcher and my experience and pre assumptions of HFS. I have made my theories and thoughts on HFS explicit, to ensure they are in my conscious thought whilst interpreting the stories of the NGN. This is in an attempt to try and remain open thus allowing the participants experience of HFS to be brought forward in my interpretation and not my own preconceived theories and notions. Chapter Two will address the literature which is currently available on HFS within health care, both in the clinical and academic setting. This will provide the reader with the pedagogical principles which underpin HFS and explore the research which has already been implemented about the topic. This will include a critical analysis and explore the

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gaps in the literature thus identifying the rationale and importance of this study. The methodology and study design will be discussed in Chapter Three. This includes a description of hermeneutical phenomenology and why it is an appropriate methodology to explore the phenomenon of HFS. It will also discuss the methods utilised in the study including; ethical considerations, the participants and their recruitment, methods of interviewing and transcribing, the analysis of the NGN stories and how rigour was attained. The next three chapters are concerned with the findings of my study. The NGN stories are analysed utilising van Manen's (1997b, 1998) approach and apportioned into three themes, each making up a chapter. Chapter Four is between the real and the unreal, Chapter Five is being watched and being assessed and Chapter Six is entitled the experience of learning. Discussion and recommendations are outlined in Chapter Seven. This chapter will bring together the key thesis and findings of the study and I will provide my recommendations for the implementation of HFS in the undergraduate nursing programme. The limitations of this study will also be discussed in this chapter.

Chapter Two: Literature review

Introduction

As already discussed there has been a vast growth in the use of HFS in the health care context, both within the educational and clinical setting. This is evidenced by the extensive literature available regarding HFS and its application. For the purpose of this study I have looked at the literature which relates to high fidelity simulation, under graduate nursing education and new graduate nurses. The relevant literature will be discussed and analysed in this chapter to support the implementation of the study.

HFS and undergraduate nursing education

Worldwide there has been a rapid increase in the use of HFS in under graduate nursing education. Rationale for this is varied and well documented in the literature. This includes an increased demand for clinical placements due to higher numbers of students and the reduction of clinical experience opportunities within the health care context (Beyer, 2009). In some states in the United States of America, HFS experiences replace up to 15% of clinical placements (Smith & Roehrs, 2009). The fact that the learner can readily transfer skills obtained from HFS to the clinical setting was considered as extremely advantageous and has led to an increase in its use (Schoening, Sittner, & Todd, 2006). There is also a belief that HFS can prepare NGN for the highly technological clinical environment as well as the increased acuity of patients that they will experience in the clinical setting (Feingold, Calaluce, & Kallen, 2004). This is augmented by the notion that HFS reduces the theory to practice gap for nursing students and thus better prepares them for the complexity and dynamic reality of the clinical setting (Sullivan-Mann, Perron, & Fellner, 2009). The belief that HFS may be part of the solution for many of these issues means that there have been multiple studies looking at the impact of HFS within under graduate nursing education.

What is also compelling in the literature as rationale for the growth of HFS, is its ability to provide a safe learning environment for both the leaner and the patient (Maran & Glavin, 2003). Ziv et al. (2003) argue that HFS offers the opportunity to train and educate learning practitioners without exposing the patient or learner to unnecessary risk. Ziv et al. (2003) opinion is that health professionals have an ethical obligation to develop HFS. Utilising the principle of non-maleficence or "first do no harm" they argue the case for beginning practitioners to learn and practice on high fidelity HPS to support learning in the apprenticeship paradigm. The ability to practice in a safe and secure environment along with enhanced participant confidence, effectiveness and critical thinking was a significant finding in a mixed methodology study by Schoening et al. (2006). This study explored the perceptions of nursing students of HFS within a simulated clinical experience in which they utilised part task trainers as well as HFS to learn about pre-term labour. Another tangible outcome of this study was the acquirement of basic skills such as intramuscular injections and blood pressure recording, through hands-on practice. The fact that these skills are practiced in the context of holistic patient care and not just as a stand-alone skill helps to consolidate knowledge and encourages deep learning (Schoening et al., 2006). The population demographics in the Schoening et al. (2006) study were very narrow though as they were mostly young female participants therefore the findings are not representative of the general population.

The development of an undergraduate nursing student's confidence and competence in practice is seen as an important element that can be developed in HFS (Howard et al., 2010). A study by Bambini, Washburn and Perkins (2009) found that, when part of a simulated learning programme, HFS positively affected these two factors in their performance of skills in the clinical setting. Students found HFS useful for preparing them for clinical practice as it improved their problem solving and clinical decision making skills in an obstetrics module.

A multi-site study by Ironside, Jeffries and Martin (2009) explored undergraduate nursing student's achievement in safety competencies in relation to the implementation of HFS. This quantitative study utilised a patient safety scale to score the students' performance in a multi-patient simulated

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environment. The students showed a marked improvement between the first and the second HFS indicating that HFS had a significant effect on their ability to safely care for multiple patients. In contrast were the findings of a quantitative study by Blum, Borglund, and Parcells (2010). They compared HFS with a traditional simulation programme of task trainers and student actors. Although they reported an increase in student self-confidence and clinical competence, there was no statistically significant difference between the two participant groups.

Critical thinking is considered to be a key nursing attribute and the ability to make critical clinical decisions and problem solve are seen as one of the cornerstones of safe and effective nursing care. HFS is widely described within the literature as an effective means to foster critical thinking and clinical reasoning skills (Beyea & Kobokovich, 2004; Kaddoura, 2010). The development of these essential skills in undergraduate nursing students was reported by Sullivan-Mann et al. (2009). They found that critical thinking scores increased in relation to the number of HFS scenarios the students participated in. There were many limitations identified in this quantitative study though, the most noteworthy being a small sample size of less than 60 across the control and experimental groups.

According to a qualitative case report study by Reilly and Spratt (2007) the opportunity to practice patient care repetitively and in a non-threatening and safe environment is particularly pertinent to nursing students. This leads to increased self-confidence and a sense of self proficiency when caring for patients and subsequently they were able to apply their HFS learning to the clinical environment (Reilly & Spratt, 2007; Schoening et al., 2006). The study by Reilly and Spratt (2007) also found that HFS was an active learning modality in which the students were engaged in their own learning. This is one element which is considered to be pedagogically significant for the millennial generation. Generation Y are broadly defined as being born between 1977 and 2002 (Armour, 2005) and make up a large proportion of current under graduate nursing students. As a generation they are extremely familiar with technology and embrace its use in education. Also considered to be of pedagogical relevance to this generation are factors such as a collaborative learning

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environment which is immersive and realistic. All of these factors are consistent with learning in the HFS environment (Parker & Myrick, 2009).

Although the majority of the literature shows a positive view of HFS, some participants in a study by Baxter, Akhtar-Danesh, Valaitis, Stanyon and Sproul (2009) had differing perceptions. This mixed methodology study in Canada looked at under graduate nursing student's perspectives of a mixed simulation programme which included HFS. This study had mixed findings regarding student's perceptions of simulation and was able to separate the students into four groups. The first of the viewpoints identified were a group of students who through reflection on HFS were able to identify their strengths and weaknesses. This resulted in feelings of an improved confidence and skills level balanced with a reduced anxiety level and the authors classified this group as "reflectors" (Baxter et al., 2009, p. 861). The second group that Baxter et al. (2009, p. 861) identified were "reality sceptics". They acknowledged a difficulty in accepting the HPS as a real patient and therefore felt they could not apply the learning in the clinical setting. The next group identified were "comfort seekers" (Baxter et al., 2009, p. 861). This group expressed concerns that simulation made them feel extremely anxious especially when it was being used for assessment purposes. They denied that simulation sessions increased their independence in the clinical setting. The fourth group or "technology savvies" (Baxter et al., 2009, p. 862) believed that the HFS improved their independence in the clinical setting but felt it was not being used to its full potential. One key consistency in the findings was that the majority of students who participated in the studies were willing to undertake HFS sessions and utilise the technology involved. It is essential though that these differing student perspectives are taken into account and that students are given adequate time and opportunity to familiarise themselves with the technology involved. Facilitators must also be open to the differing responses of the students and incorporate this into their teaching process (Baxter et al., 2009). One major limitation of this study was that participants were from a range of different universities. This meant that the quality and quantity of the HFS scenarios they participated in were not consistent and this could potentially have had an effect on the study's findings.

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A study by Lasater (2007, p. 271) utilised focus groups to explore the experience of HFS for "non-traditional" students. "Non-traditional" students were over 25 years of age, male, had graduated with a degree and were of ethnic minority. This study found that HFS enabled the integration of the many different learning modalities which nursing students experience in their education. The students valued the manikin's life-like response to treatment and felt this provided them with immediate feedback on their performance. Other key findings were the value of group learning therefore allowing for students to learn from others in the simulation environment including learning from others mistakes. The development of team work was also identified as an advantage of HFS. All of these factors were considered to improve the clinical judgement skills of the participants. Although it was not the aim of this study, the nursing students sampled were not typical of the general nursing population, thus the generalizability of the study is not considered to be robust.

Team work and communication, especially between health care disciplines, is considered to be an extremely important factor in critical patient events. HFS is believed to be an important learning modality in the development of this key element and as Weinstock and Halamek (2008, p. 1014) describe "unfortunately teams of experts do not necessarily make an expert team". A study by Dillon, Noble, and Kaplan (2009) explored this concept of inter-disciplinary teamwork in nursing and medical undergraduate education. This study had very interesting findings in that both groups of students showed an improved understanding and appreciation of the others role post the HFS scenarios. They also agreed that collaboration between the two professions was essential and that development of this relationship should be the focus of future education. The authors concluded that the study supports the value of education which develops inter-disciplinary collaboration and that HFS is an effective means to do this (Dillon et al., 2009). A similar study by Baker, Pulling, McGraw, Dagnone, Hopkins-Rosseel and Medves (2008) also emphasised the value that undergraduate nursing and medical students place on inter-professional HFS and indicated their desire for further collaborative HFS education. Both of these studies utilised a pre and post-test questionnaire in which the participants rated the experience and answered open ended questions. This means the depth and quality of the qualitative data would have to be examined further as

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questionnaires rarely extrapolate in depth views from the participants (Polit & Tatano Beck, 2010).

There were many differing research findings in relation to HFS in the undergraduate nursing programme. What was significant throughout the literature was the general view that nursing students believe that there is a place for HFS in the undergraduate programme and that it should be utilised more to advance their learning (Baker et al., 2008; Bremner, Aduddell, Bennett, & VanGeest, 2006; Haigh, 2007; Howard et al., 2010).

Although the studies discussed all demonstrate the many benefits of HFS and support its implementation within the undergraduate nursing context, very little in depth qualitative data is considered. All of these studies except two utilise a quantitative or mixed methodology approach using questionnaires or likert scales to measure the impact of HFS on the learner. Therefore they do not fully uncover the effects of HFS on clinical proficiency from the perspective of the learner as they do not allow for their experience to be openly discussed. The two qualitatively informed studies utilised a focus group approach. Although focus groups are an effective way to generate discussion and interview a larger sample group they may not always uncover the participants true feelings on an experience. This is because of the unnerving nature of talking in front of peers and others being present may influence responses (Polit & Tatano Beck, 2010). Therefore this identifies a need for more research to truly explore the experience of HFS for this group of learners.

HFS and NGN clinical pedagogy

The period of orientation to a new practice area is often an uncomfortable and uncertain time for nurses, no more so than for the NGN. During this transition into practice the NGN is inundated with new experiences as they try and familiarise themselves with a new environment and team. They must adapt to being a practising Registered Nurse and the responsibilities that this brings as well as incorporate all of their previous learning into their fledgling career. It is no wonder that this entry into practice is considered to be the most stressful and difficult period of a nurse's career. (Dodge Ackermann, Kenny, & Walker, 2007).

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There were several articles within the literature that looked at the role of HFS in relation to the experience of NGN orientation.

An article by Dodge Ackermann et al. (2007) described the implementation and evaluation of a nursing orientation programme in which they utilised HFS as an adjunct to patient care to prepare NGN for the realities of clinical practice. They also engaged experienced nurses into some of the HFS scenarios to promote realism and the socialisation of the NGN to their new team. This approach to orientating NGN was viewed very positively by the participants and facilitators alike. All of the 21 NGN involved expressed their satisfaction with the programme. They found it to be a realistic learning experience which assisted with the application of knowledge to practice and increased their confidence in the clinical setting. They appreciated the opportunity to develop these skills in a safe environment and would like to further utilise the technology of HFS. Although this programme developed some useful learning points for facilitators of HFS it was not a formalised research study, therefore the validity and reliability of the evaluation tool was not discussed.

The positive outcomes of increased confidence and competence were also reported in a study by Beyea et al. (2007) along with critical thinking, problem solving and clinical decision making skills. They described the implementation of a structured NGN orientation programme which incorporated didactic lecture sessions, HFS and clinical experience with a linked preceptor. This study also discussed the value of the ability of unit managers and educators to identify areas of poor performance which would provide a framework for learning within the clinical setting (Beyea et al., 2007). As this was a pilot study for a new nursing orientation programme the sample group was small and the authors identified the need for further research into this area. These findings were also supported in a study by Kaddoura (2010) as he found that the ability of HFS to assist NGN with linking theory and class room learning to clinical practice was invaluable. This study also found that HFS assists with the management of personal stress levels in critical situations.

The programme described by Dodge Ackermann et al. (2007) also found that HFS provides an opportunity to repeat a task, skill or scenario and this is an

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excellent opportunity for the learner to develop deep learning and consolidate knowledge. Unfortunately the opportunity to repeat a learning experience multiple times in the clinical area is inappropriate and infrequent especially if it is a rare circumstance. The ability to provide an environment in which learners can repeat an experience, as many times as is deemed necessary, is undoubtedly a benefit of HFS as highlighted in the literature. Coupled with this is the ability of both the learner and the facilitator to identify learning deficits in the HFS scenario and then repeat relevant scenarios so that these deficits can be addressed (Dodge Ackermann et al., 2007; Feingold et al., 2004). Another perceived benefit is the ability of the facilitator to create learning experiences which are specific to the learners educational needs (Barry Issenberg & Scalese, 2007; Beyea & Kobokovich, 2004).

The findings of Beyea and Kobokovich's (2004) study were also supported by an article which described the implementation of an inter-professional HFS programme in an Emergency Department. Orientating NGN were included in the programme and the authors identified the evaluation of their performance as a learning objective. This programme proved to be beneficial for both the NGN and the facilitators. The NGN found that the HFS scenarios provided them with a clear outline of their learning deficits and priorities for learning in their orientation. It also gave them the opportunity to experience complex emergency situations within a safe environment. Although this was a descriptive article and not a research study, the nursing facilitator found the HFS programme to be an extremely effective means to evaluate critical thinking and problem solving skills in the NGN (Zekonis & Gantt, 2007).

Although this section has described several articles which describe the implementation of HFS with NGN, there is a lack of structured studies which offer robust rigour within the research process. This study goes some way to addressing this gap.

Facilitating effective HFS

David Gaba (2004), a widely regarded expert on simulation, describes simulation as a "technique – not a technology" (p. i2). This emphasises the fact

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that increasing fidelity in simulation will not necessarily lead to improved HFS experiences or enhanced learning outcomes. The literature describes effective facilitation in several ways including: the development of a safe learning environment, considering frameworks to enhance reality, the application of adult learning principles and effective feedback and debriefing. The facilitation process will not be explored in any depth within the findings of this study as they are informed by the experiences of the NGN. Despite this it is important to consider the facilitation process as these concepts will frame and inform the discussion and recommendations. There appears to be little research on the matter, but there are several opinion pieces on the effective facilitation of HFS which will be discussed in this section.

Learners within HFS have the potential to feel extremely vulnerable as they are placed in an environment in which their skills and knowledge are laid bare for their peers and faculty to see (Savoldelli, Naik, Hamstra, & Morgan, 2005). It is fundamental that a safe learning environment is established prior to commencing HFS (Fanning & Gaba, 2007). Participants need to be briefed on the purpose of HFS and what the learning objectives are with an acknowledgement of the experience they bring to the scenario. Clear ground rules must be set especially around confidentiality of what occurs in the HFS room and the participants must be aware that a non-judgemental, supportive and collegial manner is expected. Participants must also be made aware of the debriefing process and if any videotaping is being performed and the rationale for its use (Fanning & Gaba, 2007). Introductions to the manikin and its functions and capabilities and also to the HFS room were described by Weinstock (2011) as essential to reduce participant anxiety and assist in their immersion in the learning experience. Dieckmann, Gaba, and Rall (2007) supported this by describing how there must be a clear explanation of what is expected of the participants within the room, including communication with other participants and which clinical procedures they are able to perform on the HPS. Weinstock (2011) also noted the importance of only expecting participants to perform roles within the scenario that they would normally perform in that situation and not be asked to "act" in an unfamiliar role. If the scenario includes an actor the participants need to be made aware of this (Weinstock, 2011).

Throughout the literature one of the fundamental elements discussed for enhancing HFS is ensuring that the experience is as realistic as possible. Dieckmann et al. (2007) describe a conceptual reality framework to apply to HFS. They argue that realism in HFS is provided by a multidimensional model and not purely through physical elements such as equipment or environment. Within this framework there are three modes of reality which individuals or groups consider in the life world which are considered essential to engage learners in HFS. The first is the "physical mode" which means the physical environment including technical equipment and the ability to recognise clinical signs such as respiratory sounds (Dieckmann et al., 2007, p. 184). The next mode of reality is the "semantical" mode which means ensuring the conceptual elements of HFS are realistic (Dieckmann et al., 2007, p. 184). In particular, it is essential that the correlation between an event and the physiological response is correct and that processes appear to occur as they would in the clinical setting. Rudolph, Simon and Raemer (2007) describe this reality as the "if – then" (p. 162) aspects of HFS, "if" the baby becomes apnoeic "then" their oxygen saturations and heart rate will drop. This can also be intervention driven, that is "if" I give diazepam, "then" central nervous system depression will occur. Lastly is the "phenomenal mode" (Dieckmann et al., 2007) or as Rudolph et al. (2007) refer to it the "emotional and experiential mode" (p. 162). This is how the individual psychologically feels in the experience and includes factors such as ensuring realistic timeframes. It is also concerned with relationships and how they contribute to the experience. The development of these modes of reality to promote participant engagement and immersion are an essential component of effective HFS (Dieckmann et al., 2007).

HFS literature supports the view that adult learning principles must be taken into account when planning HFS scenarios. Adult learners respond to self-directed and problem-centred learning in which they must be able to identify the relevance to their practice. An educational experience is optimal for this group of learners when they are engaged and can directly and immediately apply their learning. These factors have been attributed to the effectiveness of HFS as a learning modality for adult learners. However it is also vital that the learner's previous emotional, social and clinical experiences are acknowledged and taken into account. Therefore ensuring the learning objectives and the content

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of the scenarios are at an appropriate level for the participant is essential. If the participant is able to make sense of the experience and relate it with their world and existence deep learning will occur (Fanning & Gaba, 2007). This can be achieved through involving the participants and unit managers in planning for the scenarios and utilising real clinical cases (Alinier, 2011). Certainly the researcher has integrated these adult learning principles into an educational programme within the clinical context with great success and therefore concurs with the views of the Fanning and Gaba (2007) and Alinier (2011).

Several authors have suggested that the integration of HFS into an education programme and linking theoretical learning sessions with HFS is an important element of effective facilitation. HFS should not be an isolated experience which is unrelated to other current learning experiences. To be effective it needs to be a standard inclusion in the educational curriculum in both the clinical and academic context (Barry Issenberg & Scalese, 2007; Beyea et al., 2007). This idea is supported by the literature already discussed in this review.

Experiential learning is the process of learning through experience whether personal or shared and integrating the learning outcomes into practice (Leberman, McDonald, & Doyle, 2006). Kolb's (1984) experiential learning cycle has been applied to HFS learning. This model acknowledges the belief that learning does not simply occur through a concrete experience such as taking part in HFS. There must also be reflection and consideration of the experience to allow for the consolidation of learning. Kolb (1984) describes experiential learning as a cyclical model with four stages which all apply to the HFS experience. The first stage is the experiencing of the actual learning event which in the HFS model is the actual session with the manikin. Next is the observation and reflection stage when the learner reflects on the experience and this may occur in the debriefing session. By discussing the experience as a group participants are able to reflect and critically analyse outcomes. The third stage of Kolb's (1984) cycle is identifying relevant concepts and drawing conclusions and this involves deciding the significance of the experience, the synthesis of knowledge and its suitability for future application. The fourth stage is when this knowledge or experience is applied in practice thus allowing for the continuation of the cycle. To ensure constructive reflection and

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conceptualization in HFS, the effective facilitation of debriefing is fundamental (Fanning & Gaba, 2007). Participants have identified debriefing as the most valuable learning event within HFS (Dodge Ackermann et al., 2007; Gordon & Buckley, 2009; Lasater, 2007) and Weinstock (2011) refers to it as the "pivot point" (p. 98) of learning in HFS. Reflection on a HFS experience may occur in an unconstructive way within the group and it is the role of the facilitator to provide a structure to this process.

Rudolph, Simon, Dufresne, and Raemer (2006) propose a model for debriefing which they call "debriefing with good judgement" (p. 52). This approach is based both on the author's personal experience as well as a long term research study on reflective practice. The model of debriefing described by Rudolph et al. (2006) involves the facilitator as a participant in the learning through an advocacy and inquiry approach. The facilitator starts by offering a clear and objective statement of the behaviour they wish to debrief. They then express their view on the action and the reason why they were concerned by it. They then inquire as to the participant's rationale for their actions (Rudolph et al., 2006). By framing the debriefing in this way it opens the facilitator's perspective up for discussion as opposed to stating their view as automatically correct. This assists in involving the facilitator in the learning culture and offers the participant an opportunity to uncover and explain the rationale for their actions. This acknowledges and respects their prior experience and does not automatically render the participant's actions as incorrect. Rather it opens a group discussion as to why the debriefing point occurred in the way it did and how it could be done better (Rudolph et al., 2006). Fanning and Gaba's (2007) framework then supports the generalisation of these concepts by asking the group if they have ever experienced a comparable real life situation.

To support their "debriefing with good judgement" approach, Rudolph et al. (2006, p. 52) argue that it is essential that facilitators do not create an atmosphere of blame. Despite this, attempting to be completely non-judgemental is also an ineffective framework for debriefing. Non-judgemental debriefing uses approaches such as asking leading questions in the hope that the participants will uncover their own mistakes. Other methods include using a framing approach of sandwiching the negative feedback between two positive

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comments or not addressing the critical issue at all. Although these approaches means the facilitator is not being overtly judgemental, by not addressing the issue directly it implies mistakes cannot be discussed and learnt from as a group. A debriefing model where judgement is not passed can also create a culture where learners are ashamed to discuss their mistakes. Another weakness is that by asking leading, as opposed to direct questions, the facilitator can create an environment of confusion and mistrust if the learner is unable to decipher what they are implying (Rudolph et al., 2006). Rudolph et al. (2006) argue that it is impossible for debriefing facilitators to be completely non-judgemental as they are still in the position of having to pass judgement on the student's performance therefore supporting the "debriefing with good judgement" (p. 52) model previously discussed. The researcher is aware that this approach to debriefing has been effectively accepted by clinicians and integrated into HFS within the clinical context thus supporting its use. Through a critical review of the literature and personal experience, Fanning and Gaba (2007) offer a framework which also supports Rudolph et al. (2006) work which can be applied to group debriefing. They describe three phases which starts with a description of what actually occurred within the scenario followed by an examination and analysis of what occurred. As already discussed creating a safe environment is essential for learning within HFS and this is particularly important in the debriefing stage. It is important that participants learn from the scenario and subsequent debriefing but this needs to be done without adversely affecting the individual's confidence and relationship with the facilitator (Fanning & Gaba, 2007).

The literature pertaining to HFS supports the application of careful thought and consideration into how HFS is implemented effectively. In particular, attention must be paid to creating safe environments, enhancing reality, applying adult learning principles and effective debriefing.

The identified issues of HFS

Although in general the research studies discussed in this chapter support the use of HFS, there were some issues identified which need to be discussed. Participant anxiety was frequently reported within the literature and there were

many different causes of this. Participants in a study by Henrichs, Rule, Grady, and Ellis (2002) reported that anxiety was induced by a feeling that there was always going to be a critical event within HFS. They found that throughout the scenario they were waiting for the event to occur and they worried about whether they would identify and treat it accordingly. This also took away from the reality of the scenario. The participants were videotaped in this study and interestedly this did not add to their anxiety. Contrary to feeling anxious by being watched and recorded, the ability to observe themselves and others was identified as one the advantages of HFS. In contrast, a study that explored the lived experience of HFS for novice nursing students showed that students felt very apprehensive prior to the scenario (Cordeau, 2010). This was because they were being watched and videotaped and also because the manikin was voiced by one of faculty, meaning they had a very well-informed patient. These nursing students also felt extremely anxious about the debriefing phase and being watched by faculty so they could facilitate this debriefing. However these feelings were eased when they realised that the debriefing included both positive and negative feedback and that they were involved in elucidating the solution. They also reported very positively about the ability to view the video of their performance (Cordeau, 2010).

Anxiety has also been reported in relation to a lack of preparation for HFS and unfamiliarity with the HFS manikin (Beischel & Pettigrew, 2011). The ability to prepare for HFS by having practice scenarios and having time to research the diagnosis and treatment prior to HFS has been shown to reduce but not completely eliminate this anxiety (Cordeau, 2010). Concern that performance would be part of summative assessment despite faculty's reassurances that this was not the case was also a great source of anxiety (Cordeau, 2010). It has been suggested that repeated exposure to HFS may alleviate this anxiety (Hoffmann, O'Donnell, & Kim, 2007). These studies show the anxiety that participants associate with HFS but given the subjective nature of the anxiety it is interesting that all but two of these studies utilised a quantitative or mixed methodology approach. The study by Henrichs et al. (2002) utilised a qualitative methodology which included the triangulation of observation, participant journals and focus groups. Although the use of three data collection approaches enhances the rigour of the study, these methods do not always have the ability

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to explore the study phenomenon in as much depth. The other qualitative study by Cordeau (2010) utilised a hermeneutic phenomenological approach to uncover the meaning of HFS but the nursing students in this study were participating in their first HFS experience. This may impact on the meaning of anxiety for these participants as they will be naturally anxious about utilising a new learning modality.

Technology failure and the unreality of HFS were also identified as issues. Difficulties with assessing physiological indicators such skin colour and warmth have been reported to hinder the reality of the scenario in a study by Henrichs et al. (2002). This may lead to a participant tendency to focus on the monitoring as opposed to the actual patient. Unrealistic communication and interaction with other team members have also been noted in a quantitative study by Hotchkiss, Biddle, and Fallacaro (2002). Another quantitative study by Kiat, Mei, Nagammal, and Jonnie (2007) identified difficulties in engaging in a realistic therapeutic communication with the HPS. These concepts of the difficulty in communicating within HFS are once again based in the human sciences therefore the methodology of this studies do not allow for an in depth view of the phenomenon.

Perhaps one of the most inhibiting factors on the use of HFS is the high monetary cost of the human patient simulators. The initial cost of purchasing the equipment as well as servicing and the purchase of on-going consumables must also be considered. The high number of trained faculty required in both preparation and facilitating of HFS and the cost of training them is also extremely restrictive (Lathrop, Winningham, & VandeVusse, 2007; Nehring, Ellis, & Lashley, 2001). Another consideration is the relatively small number of participants who can use the equipment concurrently (Feingold et al., 2004). What the majority of the studies expressed though, was that although HFS is an expensive learning modality to facilitate, this high financial cost was worth it in terms of the learning outcomes for the participants (Barry Issenberg, McGaghie, Petrusa, Lee Gordon, & Scalese, 2005; Lathrop et al., 2007; Maran & Glavin, 2003). Whether HFS is financially viable compared to a traditional skills laboratory was the focus of an economic analysis by Harlow and Sportsman (2007). They considered both the set up and operational costs of a HFS

laboratory and found them financially unfavourable compared to a traditional skills laboratory. The authors identified that a limitation of this study was that it was investigating cash expenditure only. They concluded that the potential improved competence of HFS participants may lead to improved health outcomes for health care consumers and the subsequent financial gains this would generate. Unfortunately these factors were outside of the scope of study and therefore were not examined in this economic analysis (Harlow & Sportsman, 2007). No cost benefit analyses of HFS were identified in the literature search.

Gaps in literature

The value of HFS within the health care context is supported by the literature that has been discussed in this chapter. The focus is mostly on the perceived and actual outcomes of HFS such as improved confidence and decision making. There are also several issues identified in the literature that learners face within the HFS encounter. What these studies do not explore is the lived experience of HFS and whether this is a positive learning experience for the participant group.

Searches conducted through the databases CINAHL Plus and Google Scholar identified no research articles which studied HFS within the New Zealand nursing context. It also found many quantitative research studies pertaining to HFS but there were few which utilised a qualitative approach. Of the qualitative studies, there was only one which was informed by a hermeneutic phenomenological approach. This was a study by Cordeau (2010) which explored the lived experience of HFS of first year nursing students. This study was carried out in Quinnipiac, United States of America with nursing students participating in their first HFS scenario. This study utilised journal entries to explore the experience of HFS for this group of learners. This study explored the experience of first time users of HFS who had very limited clinical experience to compare the scenario with. Therefore it is in a very different context to the one proposed for this study. One major limitation of Cordeau's (2010) study was that the researcher was also the HFS facilitator for the institute. Although measures were taken to ensure confidentiality and voluntary

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participation, this may have influenced the student's written narratives and study findings.

This literature review has also identified that structured and rigorous research studies exploring NGN and HFS are also lacking. This fact along with those discussed above identifies a gap in the current literature on HFS and provide rationale for the completion of this research study. I believe further research is required to understand the lived experience of HFS for NGN and that if we explore the meaning of simulation for participants we can develop the learning experience by improving the way that HFS is implemented. By gaining a better understanding of the nature of the phenomenon as experienced by NGN, we can develop methods and strategies to advance HFS as an educational tool (van Manen, 1997b).

Chapter Three: Methodology and study design

Introduction

This chapter will describe the methodology and design of this qualitative research study. It will start by describing the philosophy which underpins the research study and discuss the rationale for the use of this methodology. It will discuss van Manen's (1997b) approach to hermeneutic phenomenology as this is the guiding philosophy for this study. Study design will then be considered including ethical issues and how these were addressed. Participant recruitment, the data collection methods including transcription, data analysis and the maintenance of rigour will also be illustrated in this chapter.

Methodology

"We gather other people's experiences because they allow us to become more experienced ourselves" (van Manen, 1997b, p. 62).

Philosophical approach

Phenomenology is a qualitative research methodology which falls within the interpretive paradigm. It is grounded in philosophy and the works of Edmund Husserl and later Martin Heidegger provide the foundation for modern phenomenological methodology (Grant & Giddings, 2002). This study will utilise a hermeneutic phenomenological approach informed by the work of Max van Manen (1997b).

Everyday life is full of meaning; it governs who we are and what we do. Despite this, meaning is often not contemplated or considered as it is usually not consciously reflected on. Yet meaning is vitally important, as it drives our actions, interactions and language within the world as we experience it. This is the endeavour of phenomenological research, to take the unconsidered meaning of one's world and make it explicit, so that we can better understand the phenomenon of interest (Polit & Tatano Beck, 2010). In this study, through the NGN narratives, I strive to uncover the meaning they apply to HFS, to understand their experience of this learning modality as they live it. Utilising van

Manen's (1997b) descriptive interpretative approach to phenomenological inquiry; I am also interested in the NGN interpretations and their understanding of the HFS experience (Dowling, 2007). van Manen (1997b) maintains that it is impossible to obtain a purely descriptive narrative as an interpretation has already occurred in the recollection and retelling of the story by the NGN. Thus the utilisation of a descriptive interpretive approach within his methodology (van Manen, 1997b).

The aim of this study is to uncover both the individual meaning of the HFS experience for the NGN and highlight the essences which are mutually shared. The "lifeworld" (van Manen, 1997b, p. 7) or our everyday world in it's unconsidered and natural state, is experienced and shaped by the individual. Making explicit the shared meaning of these everyday experiences is the underpinning principle within the human science of hermeneutic phenomenology (van Manen, 1997b). van Manen (1997a) states that "a powerful phenomenological text thrives on a certain irrevocable tension between what is unique and what is shared" (p. 346) thus acknowledges the balance between personal and collective meaning. van Manen (1997b) describes four contexts through which we individually and collectively experience and find meaning in the lifeworld. These "existentials" (van Manen, 1997b, p. 101) are universal regardless of social and cultural diversity therefore they offer a framework through which phenomenological researchers can reflect on the lived world. These are described as "lived body or corporeality", "lived time or temporality", "lived space or spatiality" and "lived human relation or relationality" (van Manen, 1997b, p. 101). Corporeality illustrates the notion that as a human being we are always a physical presence within this world. Spatiality refers to the space in which our body is within the world and how this space effects how our body feels. A hospital or health care space can make us feel anxious and stressed whereas the lived space of our home usually makes us feel relaxed and at ease. Temporality describes the feeling of the passing of time. Time passes slowly as we sit and anxiously wait for a loved one's prognosis within the health care setting, yet the same amount of time may pass quickly as we relax on the couch with our family at home. Relationality is the interactions and relations that occur with others within our lifeworld and this allows for the shared meaning that we apply to our experiences. All of these

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existentials of our lifeworld are interwoven and interconnected as illustrated by the examples above. One cannot exist without the other and although they are explored separately within this study they are in fact all "form an intricate unity" to shape our lifeworld (van Manen, 1997b, p. 105).

As illustrated in the literature review there has been very little research into the lived experience of HFS for the participant. I believe that the participant or the learner is the key element in HFS, without them it would be an empty and pointless exercise. I believe their experiences and understanding of HFS should be fundamental in shaping and guiding the development of the implementation and facilitation of this learning modality. Therefore due to my desire to make explicit the meaning of the HFS experience for the NGN, a hermeneutic phenomenological methodology was the obvious choice.

The process and methods of the research study

The research process for this study is guided by the work of van Manen (1997b). He provides a structure to direct the research study, therefore in this this section I will use van Manen's (1997b) framework as a way of explaining the methods I used in this study.

Taking the first steps

The first step in van Manen's (1997b) approach is "turning to the nature of lived experience" (p. 31). This describes the first step in my research process of selecting a phenomenon which I am truly committed to as a researcher. van Manen proposes that the personal experiences of the researcher should form the basis for hermeneutic phenomenological study (Dowling, 2007). He suggests that instead of attempting to put aside personal beliefs and experiences the researcher should instead use them as the basis for their research (van Manen, 1997b). HFS was the obvious choice as I have a passion to discover the true sense of the phenomenon of HFS as experienced by others and see if the essence of HFS for the NGN is comparable to my own. I came to this study wondering if NGN became as fully immersed in the HFS experience as I do, so much so that you forget that the HPS is not real. Whether my

interpretation of HFS as an excellent and valuable learning resource was the same as the NGN and whether an understanding of the NGN experience of HFS could inform my practice as a HFS facilitator.

My commitment and interest in HFS is possibly best illustrated by a crafted story from my pre assumptions interview.

> *I have had a lot of exposure to HFS and it was something I really enjoyed and found I got a lot out of as a learner, felt I learnt a lot through it. I'm interested in how other people perceive it, if they find it to be such a great learning tool as I do*

My passion for HFS as a learning modality for my own practice is evident in this extract which also illustrates how my interest in HFS is linked with my passion for teaching and student learning. I have had extensive experience with using HFS both as a learner and as a facilitator in my clinical context and I believe it is an effective and exciting learning tool for the future. I am also driven by a commitment to developing nursing education and student learning; especially in the under graduate setting as this is my aspired career pathway. Consequently my interest in exploring the meaning of these two areas of nursing pedagogy in relation to each other provides the rationale for my choice of study.

Another important initial step in any research study is the consideration of participant safety and ensuring ethical principles are maintained. Prior to any participant recruitment, research approval was obtained through the New Zealand National Ethics Advisory Committee (NTX/10/EXP/177), the AUT University Ethics Committee (10/259) and the Auckland District Health Board Research Review Committee (A+4895). This study was considered to be of low risk to the participants and few ethical issues were identified. The key principles of research ethics that were applicable to this study were ensuring the NGN decision to participate in the study was informed and voluntary. The NGN privacy and confidentiality in terms of their participation and narratives also needed to be upheld (AUT Ethics Committee, 2010). How this was achieved is explicated in the following sections.

Rigour and validity within qualitative research is a widely debated topic with some arguing that these terms are not appropriate for this form of research

(Polit & Tatano Beck, 2010). Lincoln and Guba (1989, as cited in Koch, 2006) suggest trustworthiness is a more appropriate term and suggest this is achieved by effecting three criteria; credibility, dependability and transferability. These methods and their application to ensure the trustworthiness of my study are also discussed within the sections below.

Uncovering the NGN lived experiences of HFS

The next phase in van Manen's (1997b) framework is "investigating experience as we live it" (p. 31). This refers to the all-important task of uncovering the NGN stories and narratives of their HFS experience. The first step in this process was to decide the selection criteria for the study participants. NGN were chosen for this study as it was decided that, as practicing nurses, they now had a solid comprehension of clinical reality to compare their HFS experience to. As NGN they were close enough to the HFS experience from their undergraduate programme to explore it fully. Therefore it was decided that the NGN in this study needed to be practising registered nurses who were all taken from the same cohort within one organisation's new graduate programme. This meant they would have completed the requirements to obtain a Bachelor of Health Science in Nursing within six months. This inclusion criterion was chosen to ensure the NGN were interviewed within a timely manner to ensure they were as close to the experience of HFS as possible. NGN from the same undergraduate nursing education institute were also chosen ensuring the NGN were all discussing the same HFS programme. An important aspect of ensuring that participation was fully voluntary was by ensuring there were no power imbalances in the recruitment and interviewing process. As I am a Senior Nurse within the organisation, the NGN who work within my clinical area were excluded from the study. NGN from the University where I work as a clinical lecturer were also not included in the participant group as they may have felt obligated or pressurised to participate and this may distort their stories of the study phenomenon.

Study recruitment was the next step in the process. This was commenced by discussing the optimal recruitment strategy with the New Graduate Coordinators (NGC) from the designated organisation. The NGC facilitate the new graduate

programme and are in regular communication with the NGN therefore they were an important contact in the recruitment for this study. I personally met with the NGC and a collaborative decision was made to use email communication as this was how the NGN were normally contacted by the NGC. I supplied the NGC with the information sheet and consent form for my study which they then emailed to the NGN group. This was an important step in ensuring that the NGN were able to make an informed decision to participate in my study. The information sheet provided the research purpose and process. It also explicated the NGN rights in terms of voluntary participation and the ability to withdraw from the study at any time without providing rationale for doing so. The consent form was provided at this time so that the NGN had adequate time to read it and formulate any questions prior to signing. The NGN were also provided with my contact details including email address, cell phone for texting and internal phone number. This ensured that there was little or no cost in terms of contacting me and took into account the likely communication modalities of the participants. Several of the participants contacted me via text and we were able to communicate in this way. This was especially valuable as an unobtrusive way to remind them of our interview time.

Initial recruitment to the study was slow as this opening participant request provided no responses. Therefore a follow up email was sent three weeks later by the NGC providing the same information. I augmented this communication by contacting the Clinical Nurse Educators within the organisation to act as intermediaries and promote my study with the NGN in their clinical areas. I also encouraged word of mouth recruitment by discussing my study with the NGN within my clinical area and with each NGN as I interviewed them. The goal of a total of eight participants were recruited and interviewed within 10 weeks. It was decided to stop recruiting at eight participants due to time constraints and also on review of the data as it was sufficient to describe the phenomenon. This meant they were interviewed within the first 15 weeks of commencing their nursing career and within eight months of their last undergraduate HFS experience. They also had had recent exposure to HFS in their orientation programme at their place of employment. The participant group was made up of seven females and one male, all of which were approximately 21 to 35 years of

age. The NGN were employed across a wide range of speciality areas throughout the hospital.

Participant interviewing was the next step in this process and this was in the form of semi-structured one on one interviews. The length of these sessions varied from 20 through to 60 minutes but there was no time limit placed on the interviews. Each participant was only interviewed once for the study but I obtained their consent to email them if I required clarification of any points brought up in the interview. The taped interviews followed a topic guide and open ended questions were discussed. The interviews all took place in the NGN workplace by mutual agreement. Although I wanted to make the interview as accessible as possible for the NGN, I soon found that interviewing over their lunch break was not a conducive strategy as the NGN was still very much in work mode. The one interview which was carried out over the lunch break accounted for the 20 minute interview previously mentioned. There was limited discussion generated in this interview as the interviewee appeared distracted by her work commitments and the time limitations. Subsequently all interviews were carried out either after a morning shift or prior to an afternoon shift.

I commenced the interview by reviewing the information sheet and consent form with the NGN and giving them an opportunity to ask questions. This was to ensure they were fully informed of the study process and they were able to sign the consent forms which were then kept in my supervisor's office. To ensure we were discussing the same phenomenon, I explained to the NGN the definition of HFS within the context of the study. I commenced the interview with a lead in question such as "so how many simulation experiences have you had in total?" to get them thinking about all the different experiences they have had. I would then move onto an open ended question such as "can you describe one of those experiences to me?" This technique was modified version of my interview process as in my first three interviews I commenced with the question "tell me what it was like to participate in a simulated learning experience" This question was too generalised and the response was very much a hermeneutic interpretation of HFS as a concept. The goal of my study was to uncover the meaning of HFS for this group and to do this I required primordial descriptions of their experience (van Manen, 1997b). Thus I was constantly reflecting on and

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modifying my interview approach to ensure the narratives were as close to the NGN HFS experience as possible. As described in van Manen's (1997b) approach I found it important to keep orienting myself to the research question throughout the interviews. Generally I found that rapport and a "conversational relation" (van Manen, 1997b, p. 66) was quickly established and therefore at times the NGN would start talking beyond the scope of my study. Although I didn't want to disrupt their story it was important to remain focused on the phenomenon of HFS. Thus I soon found it useful to write down key words or prompts as we talked of the areas I wished to explore in more depth. I kept these notes to a minimum as I wanted to remain engaged in the interview and maintain the conversational tone. This meant that if the NGN started to digress I could ask refocusing questions such as "So when you said it made you feel weird before, describe to me what it was that made it feel like a weird experience?" Although I wished to compare the NGN experience with the themes or meaning I applied to HFS it was important that the interviews were not directed to proving or disproving my own beliefs (Wojnar & Swanson, 2007). As these key words were taken from the NGN stories it meant that they were guiding the interview and the story remained true to their experience of HFS. Therefore this approach provided me with a strategy to return and discuss themes that I wanted to explore further without directing or leading the interview. Despite the strategies discussed, I still found the NGN were very much inclined to give hermeneutic responses. Many had great difficulty in remembering specific HFS scenarios and would have the tendency to generalise despite my attempts to attain descriptive narratives.

Uncovering the meaning of HFS for the NGN

The next step in the framework is "reflecting on essential themes" (van Manen, 1997b, p. 32). It should be noted that my reflection on the NGN stories of HFS began in the interview process as we discussed their lived experiences but a more formalised analysis occurred afterwards (Nieswiadomy, 2008). I endeavoured to complete the data analysis of each interview before the next interview was completed but due to time constraints this did not always occur.

Of course to commence the next step in my research endeavour, it was necessary to transcribe the lived experiences of the NGN. The recordings of each interview were professionally transcribed as I found this to be an extremely time consuming process when I attempted it myself. The transcriber signed a confidentiality agreement prior to commencing and pseudonyms were used to protect the participant's identity and to ensure confidentiality. The handwritten pseudonym list was kept in a locked and separate location from any of the other study material.

As these raw transcripts were transcribed verbatim, it was necessary to craft them into a more manageable form through which I could interpret their meaning. This was achieved through the utilisation of Caelli's (2001) approach. The first step in reflecting on the NGN narratives was to read the raw transcripts at least twice and make notes of any themes or subthemes evident that required follow up. I would also make any corrections including spelling, grammar and punctuation. The decision to not transcribe my own interviews meant that I had missed an important opportunity to familiarise myself with the NGN stories. Therefore I would go back and listen to each interview and read the transcription. I would then correct any mistakes and ensure I did not miss any word emphasis or silences that would affect the NGN meaning; this of course was a further step in the process of the interpretation of the data. I found that further subthemes were identified in this process of listening and reading and these were noted. To craft the stories into a more manageable form, irrelevant data from the participant was first highlighted on the transcripts. Irrelevant data was deemed as pieces of narrative which strayed off the study phenomenon, filling or repeated words and any conversational pieces which were not significant to the study. Any necessary comments were added to the transcript to assist with the development of the crafted story. My questions and dialogue were also then highlighted and any questions that could be considered leading were marked for review. I then reread and reviewed the highlighted transcript several times to ensure that the highlighted sections contained no important meanings. I also made note of any further sub themes that were identified in the rereading. I then deleted the highlighted sections that were still deemed irrelevant as well as any leading questions and responses. The crafted story was then created from the remaining text, using verbatim the participant's

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words and statements but reorganising them so that they were in a clear and logical order. Correct punctuation was added as well as any text necessary to ensure the story made sense and the participant's meaning was clear. These additions were made in bold so that the NGN could identify them and validate or disprove the meaning when they reread the crafted story (Caelli, 2001). This version of the crafted story was then returned to the participant to ensure I had not lost the essence of their experience in the crafting of the story. This process was adopted to ensure trustworthiness of the study. Credibility refers to ensuring the research data is genuine and credible to the reader and this method of providing the participants with their narratives is considered an effective method to ensure credibility (Koch, 2006). The NGN was encouraged to read the narrative and make any corrections that were required to ensure the crafted story captured the essence of the experience of HFS for them. None of the NGN made any changes to their story with one commenting that *"That was strange reading my transcript but it definitely captured my thoughts and experiences"*. The NGN were also offered the opportunity to be provided with the study report at the completion of the study.

Thematic analysis then commenced using the crafted story. van Manen's (1997b) selective approach was utilised to identify key themes. Using this approach I highlighted the phrases and statements in each crafted story that I considered contained the essence of the experience of HFS for the NGN and key themes were identified. I then checked that my earlier notes from the creation of the crafted story supported the themes I had uncovered. These key themes were then discussed and reviewed with my supervisor to ensure my analyses of the crafted stories were plausible and supported by the data.

The on-going protection of the participant's privacy and confidentiality was considered at every stage of the research process. During the crafted story process, all names and identifying features of the individuals and the institutes where HFS occurred were removed. For the duration of the study all of the narratives will be kept in a locked filing cabinet, separate to the pseudonym list and all computer files are password protected. The signed consent forms and an electronic copy of the data collected will be stored on the university premises for six years. All remaining copies of the data will be destroyed.

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Understanding and expressing the NGN experiences

Data analysis leads on to the descriptive phase (Polit & Tatano Beck, 2010) or the "art of writing and rewriting" as defined by van Manen (1997b, p. 32). This is the phase when through careful analysis of themes identified I attempted to define and describe the essence or meanings of HFS as lived by the NGN (Polit & Tatano Beck, 2010). According to Wojnar and Swanson (2007) the descriptive framework or model should allow all that have experienced the phenomenon to identify their own lived experience within my written material.

This stage of the research process was achieved through the continual reading and rereading of the narratives in conjunction with van Manen's (1997b, 1998) work. The selected narratives were thematically grouped on a separate document and these documents became the basis for Chapters Four, Five and Six. I then wrote my findings around the participant's narratives thus ensuring I stayed true to the NGN stories whilst I was writing these chapters. I found part way through this process that I needed to go back and review all of the crafted stories as I now had a much better understanding of my themes and what I was looking for. During this review I found several narratives which had been highlighted to the incorrect themes. I believe this could have been due to two factors. The first was my wish to assign whole sections of narratives to a single theme. When I first assigned the narratives to themes my inexperience made me feel that I shouldn't split up the narratives into sections. This led to not all of the data being present when I wrote up the findings chapter and encumbered my ability to write the findings accurately. This method also led to a tendency to try and make my data fit the themes hence the importance of my decision to review my crafted stories. The second factor which influenced the incorrect placement of data was my initial lack of familiarity with my data and themes. Hence the reviewing of the crafted stories when writing my findings chapters was an extremely beneficial endeavour. My experience and familiarity with the themes and narratives meant I was able to correctly identify and reallocate sections of narratives to a more appropriate chapter.

I started this project with the rather naïve idea that I would finish each chapter in its entirety, have it reviewed and signed off and never revisit it. I soon found that this method was unrealistic and would compromise the quality of my study. It is also not congruent with my chosen methodology. The process of writing and rewriting is essential to ensure my interpretation of the meaning that the NGN applied to HFS is true to the phenomenon as they experienced it (Grant & Giddings, 2002). My ever increasing experience and familiarity with the NGN stories of HFS gave me an enhanced insight into HFS as they experienced it and improved the quality of my findings and how I wrote about them. Thus the on-going reading of my crafted stories and review of my writing meant I was able to uncover the meaning of the lived experience of HFS for the NGN.

I also found this applied to the reading of van Manen's work. I found it necessary to read and reread his writings as the more work I did the more I came to understand his meaning. Each time I read his many pieces of work I would pick up on different meanings and essences that I could apply to my study. I believe this was due to my greater understanding as I became more immersed in his work. I found this to be an extremely rewarding exercise as I felt a great feeling of achievement as I became more familiar with his philosophy and the essence of his writing. This occurrence is perhaps unsurprising given that van Manen (1997b) himself talked of an individual's inability to truly understand hermeneutic phenomenology unless they were actually immersed in the act of doing it.

Throughout the process of writing and rewriting my interpretations of the NGN experience of HFS, my study supervisor was constantly reviewing my writing and providing an alternative view. An example of this process is the impact that the recording of HFS sessions had on the NGN in this study. My interpretation was that the presence of the camera induced anxiety for the NGN due to a feeling of having to "perform" for the camera. My supervisor's understanding was of the all seeing eye of the camera, it could identify events that were missed in the initial direct visual encounter. By having an independent individual examine the narratives, a different dimension of the same encounter was exposed. Thus enhancing the dependability of my interpretation and maintain the trustworthiness of my study. Dependability is concerned with the reliability of

data if it was repeated over time and in other contexts (Koch, 2006). In this study this was achieved by the on-going review and input of my study supervisor. Throughout the entire study process my decision making and process was appraised by my supervisor. She reviewed my narratives, analysis, findings and writing to ensure my focus on the interpretation of the NGN was not narrowed by my own pre assumptions. This was clearly an invaluable process as she would not only confirm my interpretations but also question them and provide insights that I had not considered.

Remaining orientated to the meaning of HFS

This section is concerned with what van Manen (1997b) calls "maintaining a strong and oriented relation" (p. 33). This describes how important it was that I remain orientated to the primary research question of *"what is the meaning of the lived experience of high fidelity simulation for NGN"* I did find myself getting diverted to matters which were not central to the HFS experience of the NGN through the process of research. Initially I required constant refocusing to my fundamental study purpose by my supervisor but as I progressed I was able to do this myself. I would constantly be asking myself questions such as "what is the meaning of this experience for the NGN" and "what does this mean for Anna" to try and re orientate to the study question. I initially found myself trying to jump forward to my discussion points when interpreting the narratives and this perhaps signifies an attempt to make my data fit to my own pre conceived ideas. Clearly this was not the object of the study and through asking myself the questions above, reading and rereading the narratives, as well as van Manen's (1997b, 1998) work, I refocused myself back to the meaning of the experience for the NGN.

Maintaining the view of the parts and the whole

The final consideration in van Manen's (1997b) approach is "balancing the research context by considering parts and whole" (p. 33).This describes the importance of examining your research process as it evolves to ensure the end goal is being served by the individual steps in the process. Never before has the idiom "unable to see the forest for the trees" held so much meaning for me than when I was completing this research study. I often found myself so engrossed

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and engaged in the narrative and analysis, or the "trees" that I was studying, I lost sight of what I was actually trying to achieve with it. I needed to take a step back and view the "forest" of my study. I achieved this through several ways. One way was through van Manen's work. If I was particularly stuck on an idea I would go back to rereading van Manen's work. This would return my focus to the overarching goal or the "whole" and I would often be able to return to my "part" and produce some good writing. Another perhaps unorthodox but effective method to clear my mind and re orientate myself was through exercise. Through doing something that comes naturally or unconsciously such as running, the concepts or ideas I had previously been struggling to put into words were brought forward to my conscious thought. I soon learnt the benefit of taking some kind of recording device while I was running. My supervisor was also invaluable in re orientating me to the goals of my study and curbing my tendency to over think things.

The last principle to ensure trustworthiness of my study is transferability. Transferability refers to the ability of the data or findings to be applicable to other subjects or contexts. This was achieved through two methods, the first of which is through the provision of descriptive narratives within the writing of the study. This means the reader can assess its transferability to their own experiences by comparing the NGN narratives with the meaning they apply to the experience of HFS (Polit & Tatano Beck, 2010). Transferability was also achieved by frequently discussing my interpretation with other members of the HFS fraternity. Whenever possible I would discuss my understanding of the NGN experiences with other users of HFS and they would confirm the meaning I had applied. This is referred to as the "phenomenological nod" when one is able to recognise their personal experience in the experience of others (van Manen, 1997b, p. 27).

Conclusion

This chapter has shown my commitment to the methodology of hermeneutic phenomenology as described by van Manen (1997b) within this study. It has presented my research methods and the utilisation of van Manen's (1997b) framework to ensure they were congruent with my chosen methodology. It has

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given example of how trustworthiness and ethical considerations were maintained throughout the study process.

Chapter Four: Between the real and the unreal

Introduction

From the beginning of this study a theme involving reality in the HFS experience was obvious. Participants frequently spoke of HFS as feeling real or unreal and they often swapped between the two interpretations as they were talking. This continual exchange within the narratives led to the emergence of the theme 'between the real and the unreal'. This chapter describes the concept of reality within the HFS experience for the NGN. van Manen's (1997b, p. 101) life experience classifications of "lived body", "lived space", "lived time", and "lived other", as discussed in the methodology chapter, will be utilised to organise, analyse and discuss participant narratives. These classifications are also referred to as corporeality, spatiality, temporality and relationality.

The Oxford Dictionary defines real as: *"actually existing as a thing or occurring in fact; not imagined or supposed"* (Oxford University Press, 2011b) and unreal is defined as "*imaginary or illusory*" (Oxford University Press, 2011a) These definitions are thought provoking when they are applied to the HFS experience. Although the HPS is a physical presence with many physical characteristics of a real patient, such as breathing and pulses, there is still a certain amount of imagination required to make it authentic or real. So even when we apply the dictionary definitions of unreal and real to HFS there is ambiguity or doubt as to which is the correct adjective to best describe the experience. It is no wonder then that the NGN frequently refers to HFS as both real and unreal, often within the same narrative.

Lived body

As human beings we are always corporally in the world and our interaction with each other is through our bodily senses. van Manen (1997b, p. 101) refers to this fundamental of our life world as "lived body or corporeality". It soon became apparent through analysis of the NGN stories that HFS was a very sensory experience and that the lived experience of HFS was linked to van Manen's (1997b) idea of corporeality. Through the auditory, tactile and visual senses the

HFS experience became valid or invalid for the NGN. The feeling of reality was not static though and the NGN appeared to find the experience frequently swapping between being real and unreal. In fact at times there almost appeared to be conflict between the two different states of minds. The NGN frequently switched between talking about the HPS as if it was a real infant and then reinforcing, whether to me as an interviewer or to themselves, that it was a fake baby.

> *It was a bit of a weird experience mainly because I think that the baby wasn't a real baby and it was just like, it looked like a real baby and it wasn't a real baby. It was a fake baby but you almost felt the rush to cure the baby, but it was a fake baby. It just felt a little bit weird, mainly because it wasn't a real situation, but it was a fake, real situation. I don't know; it's hard to describe, sorry. Like when the baby was crying, you almost wanted to cuddle it, but not like pick it up and cuddle it, I don't know, you just felt bad for the baby, even though it was fake. So you've kind of got that whole real sense anyway. So you see the purpose of (the HPS) because you do get that real effect but you're still in the back of your mind going, this is kind of weird. "Okay, this is a fake real situation. Just go with it." But in the beginning it took me a while to get into it just because you know nothing is going to happen to the baby.*
> Anna

For Anna the verbal call or the cry of the baby is very much real but when she looks at the baby there is a mismatch in her senses as the baby doesn't look as she would expect. The NGN primary response to a crying baby is to pick it up; this is her natural response, to calm and sooth an upset infant, she does this without even thinking. It is only when the mismatch between the real auditory sense and the unreal appearance of the HPS occurs that Anna actually thinks about her actions and overrides her natural instinct. At this stage the experience becomes unreal for her. van Manen (1998, p. 11) refers to this as "the body of self as an aspect of the world". It is only when something is wrong within our unconscious actions that we actually think about what we are doing. For this NGN the way the HPS looks is the stimulus that makes her stop and think (van Manen, 1998).

This narrative shows that the NGN still feels a responsibility for the infant as soon as she hears its cry. This is almost an involuntary response or as van Manen (2000) terms it "a response that was direct and unmediated by my intentions or thinking" (p. 320). Levinas (1981, as cited in van Manen, 2000)

philosophises that it is through these every day and unconscious interactions that we engage in a relationship with each other. If the interaction is with one in need, such as is the case with a crying baby we immediately feel an obligation to help and develop a caring bond with the individual. Therefore although this NGN appears to hear the verbal call and assume responsibility for the infant, as discussed in the paragraph above this is in contrast with the other senses and she overrides her innate response. This is in direct contrast to the NGN narrative below who clearly does not hear the call of the baby at all.

> *They would kind of talk the experience. I don't know how to explain it. There's a microphone and they talk the baby, it's really weird, like they make the noises through a microphone. They're making the noises, like crying, that the baby would make, it's really funny. Yeah the* (HPS) *didn't actually make respiratory noises. The lecturer is saying "The baby is wheezing now." It's like "okay".*
> Andrea

The notion that the voice of the HPS created an unreal experience for the NGN was a reoccurring theme within the narratives. The NGN often spoke of the voice over as being unreal and adjectives such as 'weird' and 'silly' were frequently used. Components such as the gender and age of the voice conflicting with the scenario and the actual manikin were a factor in creating an unreal experience.

> *It feels silly using (*the HPS) *just because it's not real. You're talking to a plastic man and it's talking back and it's the lecturer's voice and it's often a boy* (HPS) *and a girl lecturer. They make it cough and so they're coughing into the microphone. It's a little bit weird. You feel a little bit silly, especially when you first start.*
> Dianne

The functions and capabilities of HPS were often discussed as contributing to the reality of the simulation experience and the more advanced the HPS was the more real the HFS was perceived to be. Although the unreal respiratory sounds as described in the narrative above should be negated by the development of simulation technology (Laerdal, 2012) this is not always the case. The ability to evaluate such things as tone, colour and level of consciousness are an essential component to patient assessment but it would be difficult to imagine a manikin ever being able to display these manifestations in a realistic way. The absence of these visual and tactile prompts that we almost subconsciously assess every time we look at a patient was a repeated

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frustration for the NGN in HFS. Therefore this was one of the aspects of HFS which diminished the reality of the experience for the NGN.

Peter also struggled without being able to see and feel certain cues from the HPS.

> *I think the difficultly was that you don't get any feeling and that's sometimes what's missing. When you look at someone you get all these non-verbal clues that just fire off unconsciously in your head, and I think that's the big problem with* (the HPS)*, you don't get those non-verbal clues. Things like looking at the rash, the look on their face and their breathing. You'd look at* (the patient) *and something in your head makes a judgement.*
> Peter

Peter is describing his difficulty in assessing the HPS because of the absence of "non-verbal clues". van Manen (1998) discusses the experienced nurse's ability to sense a patient's impairment or illness, at times even before the patient is aware of it them self. This occurs through indicators such as skin colour, facial expression and body position and van Manen (1998) refers to this as "the experience of encumbrance of the other's body" (p. 13). Peter describes them as "non-verbal cues" and identifies the difficulty in not recognising them in HFS. Although van Manen (1998) describes this as a skill which is associated with an experienced nurse, it is clearly a developing skill in some NGN.

Another of van Manen's (1998) modalities of body experience is evident in Peter's narrative which is reflected in Dianne's narrative below and throughout the other transcripts.

> *With the* (HPS) *I can't remember what the diagnosis was or anything, I just remember that we had a mother holding the baby; the person had been briefed as well as to what to say. We were more assessing the mum than the baby. We did physical assessments on the baby but obviously it can't talk, so we more assessed the mother and asked her what had been going on.*
> Dianne

Dianne's memory of the HFS scenario is associated with the interactions she had with the actor who was playing the mother. She describes discussing the history of the child but does also touch briefly on the physical assessment she completed on the HPS. When we meet someone the interface between us is these visual, tactile and verbal communications, this is what connects people

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and forms relationships between individuals (van Manen, 2002). These connections are referred to by van Manen (1998) as "the body of other experienced as call of the other" (p. 20) and this is what appears to be missing for the NGN in the HFS experience. The importance of these social connections between humans is evident in Dianne's narrative as she skims over the physical assessment she completed on the HPS and instead focuses on the interaction with the other living individual in the room, the mother. Of course in real life a baby cannot talk and obtaining an accurate clinical history from the caregiver is an extremely important component of paediatric assessment (Robinson & Roberton, 1999). It may be that Dianne is alluding to this but I think it is more likely that the call of the other is stronger from the mother as a human being than it is from the HPS. Thus Dianne's focus is on the interaction with the mother and not the examination of the HPS. Whether this is an issue that is unique to HFS is an interesting discussion. I have experienced in the clinical setting the tendency of some health professionals, usually those that are inexperienced in paediatrics, to interact with the adult in the room and not the child or baby. This detrimental practice is not exclusive to paediatrics and in other health settings the exact opposite can occur. Health professionals can also perceive the older patient to be incapacitated and therefore talk around the patient to the younger members of the family which totally undermines the patient's opinion and autonomy.

Another aspect of HFS that felt unreal to the NGN was the feeling of being underprepared to be caring for their "patient".

> *To make simulation sessions more beneficial I would probably like to do some sort of research on the topic first. Maybe don't give us a handover but just give us some questions about the diagnosis so when can research it prior and then give us a handout. Do that directly before the simulation and then give the handover, so we get a better idea what the diagnosis is. Because if I was to get a patient that I didn't know about what they had, I would look it up before I even went into the room. I would go and say hi, then I would definitely go and look it up just so I know what I'm dealing with rather than just going in there without any idea. I would not go into a room and start doing something on a baby that I had no idea of what they had and what sort of obs or what care needs to be done for them.*
> Jo

Jo appears encumbered by her lack of knowledge to deal with the HPS. She compares this to her clinical practice and explains how she would never go into a clinical situation with little or no knowledge on her patient's illness. She would always research it prior therefore she feels if she was able to apply this to HFS she could enhance her learning outcomes. van Manen (1998) describes the encumbered body in his life modality of "the body of self experienced as encumbered" (p. 12). He talks of the body existing in a state of unconsciousness unless ones equilibrium is shifted by illness. It is then that one reflects on the body and becomes aware of the encumbrance that illness has caused. For Jo it is the lack of knowledge that has caused her to reflect and brought about the awareness of the encumbered state of her body. Although this is in a different context to van Manen's (1998) theory as he refers to the body as encumbered with illness, it is a comparable principle. Jo is hindered by her lack of knowledge on how to attend to her patient and this affects her ability to deliver care in a natural and instinctive way. She states that this would not occur in the ward environment but this is an interesting discussion point as health professionals can never be taught every eventuality of a clinical situation. They frequently encounter situations where they are required to think on their feet as they do not know how each patient and their family will react.

In stark contrast is Jane's narrative below.

> *I liked the way they did it as far as throwing you in the deep end and then going back to you and saying, this could happen or in real life you could have this situation.*
> Jane

Jane felt the preparation was very real in that you were just thrown into HFS unprepared. It may be that Jane's clinical practice was in a different context to Jo's and therefore she could see the reality of being unprepared for a situation. An example of this would be an Emergency Department where patient's often present without warning and the acuity of their condition means there is little or no time to research their condition in any depth.

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Lived space

van Manen's (1997b) life world fundamental of lived space or spatiality refers to both the physical space as well as the feeling of our body within a space. This appeared to be a significant factor in creating a real or unreal experience for the NGN. They frequently spoke of the HFS environment and how it contributed to making it real or unreal. Reality appeared to be created by having a setting which most closely resembled a hospital environment including the room and the equipment available and the more they physically used the equipment the more real it seemed.

> *The CPR one was more realistic because it was in the hospital and it was the actual use of, not real drugs, but we got to draw up everything and give them. Put the paddles on and press the button and everything. It was more like you actually don't have to fake a whole lot. There was more beeping, more sensory things. That made it a little bit more realistic, whereas the other one; they sometimes tell you the answers to the questions. So this one you could figure them out and you had to read the defib machine and it had an actual traceable heart rhythm on it. That was more real because we had to actually pick up on that. So that's way better. So you had the real equipment you would have in a real code.*
> Dianne

Dianne's terminology in this narrative is notable. She talks about the defibrillator having "*an actual traceable heart rhythm on it*" and the fact she had to "*actually pick up on that*" This indicates her active involvement in the learning experience and the use of diagnostic reasoning is evident as she actually had to interpret the rhythm strip and act on it appropriately. She also talks of the sensory aspects that made HFS more real and increased her engagement in the scenario. To return to van Manen's (1998) life modalities the space called out to Dianne because the hospital setting and the use of real drugs and equipment ensured the learning space was congruent with reality.

I discussed the importance of the sensory aspects of HFS in the section on "lived body" but this is also applicable to "lived space" (van Manen, 1997b, p. 101). The world is full of sounds and noises which create the experience of everyday life. These sounds acquire meaning through the situation we are in (van Manen, 2007), take for example the siren of an ambulance. If you were to hear one outside your house, your heart would jump – who has it come for? Is it one of your neighbours? Are they okay? Take the same example of you were in

an emergency department, you probably wouldn't even think twice about it, this is just one of the sounds associated with the hospital experience. The significance of the siren is diminished compared to the experience of hearing it outside your own house. Another of these sounds of the hospital setting is referred to in Dianne's narrative. She talks of the *"stimulatory things"*, examples are the beeping of the monitors or the 'voice' of the defibrillator. Hospitals and especially emergency situations are never quiet and as health professionals engage in these situations these sounds acquire meaning. For the NGN in HFS these sounds are significant as they are the sounds they would experience in the real clinical setting, they are another modality through which they can assess the condition of their patient.

The visual and olfactory senses are also significant to the reality of HFS. People frequently speak of the unique smell of a hospital thus making HFS in the university setting less realistic. Hospital signage and the paraphernalia of the clinical setting also assist visually to create a lifelike clinical space. Likewise there should not be any pedagogical equipment visible in the room. These sensory aspects also develop meaning specific to the situation and these are the things that contextualise the HFS space and make it feel more real.

The physical aspects of the HFS room also felt very unreal for Andrea.

> *The room, the set up, it doesn't flow. It's just a baby lying on a table in a room; mum sitting in a chair, that's it, there's not really much.*
> Andrea

The emptiness of the HFS room felt unreal for Andrea. She felt as if there was no flow to the room and there was none of the clinical paraphernalia as discussed in the previous paragraph. The "lived space" (van Manen, 1997b, p. 101) of the HFS setting lacked the equipment and other visual cues that make the clinical setting real.

> *The environment felt unreal because it wasn't hospital, it was Uni work. It felt like it was learning not a real situation. Here at work in a simulation they would expect you to participate more, but at Uni they could of say "oh yeah" they do it but it's not as hard core. Here they would expect us to actually participate and do everything right, but at Uni I think they're just quite relaxed. I guess here you need to know what to do and at Uni it's just not that environment. I mean like after the Sim experience a lot of*

people were going like, "Oh yeah, our baby died. We didn't save it" It was a bit of a joke. But here you'd get into so much trouble if that happened.
    Andrea

For Andrea the context of the University for HFS felt unreal because this space is purely a place of learning. Andrea feels that the university environment is such that it is okay to make mistakes as it is a place of learning but this appears to be affecting the reality of HFS for her. She feels the clinical setting is a space where mistakes are not permitted therefore the environment is less relaxed and her participation in HFS feels more realistic. van Manen (1997b) talks of a place for undertaking certain activities, the setting that you undertake it in is an integral part of the experience itself. This is despite the fact that the surroundings to an experience are not usually reflected on. Each experience that is undertaken requires a certain space. For the NGN, nursing or medicine occurs in the clinical setting, whether this be a hospital or in the community. This is where the experience finds meaning and for it to occur in the university setting feels unreal, it feels out of place and unfamiliar. University is a place of learning not a clinical setting and the NGN obviously see these two spaces as very different and separate.

van Manen (2007) discusses the spatiality of the world as both cognitive and pathic. The cognitive facet of any space is the measurable component, elements such as the height of the ceiling and the position of the door. Pathic refers to the ethos or feeling of the space and it is the pathic aspect of the clinical setting which is difficult to replicate in an HFS laboratory. How do you recreate the adrenaline and tension filled atmosphere of a major resuscitation? To the NGN the ethos of the university environment is more relaxed and a place of learning whereas the hospital is serious and real life. It appears that this atmosphere even applies to the HFS room. Adults also learn to apply social and cultural rules to a setting (van Manen, 1997b). It is obvious in Andrea's narrative that she believes the university setting has a different set of rules to that of a hospital, thus the idea of a clinical experience occurring in the university setting feels unreal.

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Lived time

To explain the principle of "lived time" (van Manen, 1997b, p. 101) I will use an example from nursing. Nurses will often comment during a busy shift on how fast it is going; compare this with a slow shift which appears to drag. This is the concept of "lived time" (p. 101) or temporality; it is the perception of time to the individual despite the actual time frame being exactly the same (van Manen, 1997b). In fact nurses will even comment on differing perceptions of time in the same shift – to one nurse it felt fast and to the other slow. van Manan (1997b) refers to these individual perceptions of time as "subjective time" (p. 104) as opposed to the "objective time" (p. 104) of an interval timed by a clock.

This is applicable to the HFS experience for the NGN, in that their perception of time during the experience feels real or unreal in comparison to the clinical environment. In Peter's narrative below he discusses the importance of a realistic feeling timeframe in HFS.

> *That* (HFS) *session at* (the hospital) *was superb, that was really, really good because it felt really lifelike, realistic and they kept it simple. The time frame felt realistic and they kept it simple. There wasn't all this massive build-up* (in) *this one on CPR day, it was just, "This is what happens. This is the scenario. Go." And it was very realistic and very quick and I suppose a bit fast.*
> Peter

Peter's perception of time in this HFS experience was that it passed quickly and was therefore realistic. This may be due to the pace of the scenarios that are usually presented in HFS. Often emergency scenarios are utilised and therefore the NGN perceive these scenarios as fast and life like. It is also worth discussing from Peter's narrative the fact that his interpretation of the hospital HFS was that it was superb and lifelike. This is probably due to the realistic timeframe and the simplicity of the scenario as he states but it is interesting to consider if there are any links to the previous discussion on "lived space" (van Manen, 1997b, p. 101). Previous narratives compared the differing perceptions of the ethos of the university setting and the clinical setting and what that meant in HFS. It is interesting to consider whether the notion of spatiality is also contributing to Peter's experience of HFS perhaps demonstrating the "intricate unity" (van Manen, 1997b, p. 104) between the different lifeworld existentials.

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Peter's narrative illustrates subjective time but van Manen's (1997b) concept of objective time was also evident in the narratives.

> *Definitely simulation can tie it all together a bit more, just getting used to drawing up drugs under pressure or doing things quickly under pressure, which you don't get exposed to. Yeah I think simulation feels real in terms of the pressure. Like, okay I'll take the blood pressure, so that's what you're concentrating on; you're not looking at anything else. You're not listening, talking, that's all that's your focus, because you've never done it. Whereas in reality you do multi task, I don't know if it's the word but muscle memory. You know like when you are learning to drive a car manually, you can either concentrate on the steering or the gear stick? Not at the same time, well you start to learn that you can drive and do the gears at the same time. Simulation starts to kick in that, or could do if I had more of it. Simulation must have started me thinking about it because you realise they've stopped breathing and I'm still trying to get a blood pressure. Yeah, I haven't got it quite right, "I think it's 124, 126. So I just better do it again." It starts you thinking* (about) *the reality of prioritising.*
>   Peter

Peter is speaking of the pressure of time constraints in an emergency situation. He feels that HFS is a setting that allows you to perform essential skills in a pressurised environment that you would otherwise not get to practice. He talks of the necessity of completing several tasks at the same time and how the ability to practice multi-tasking in HFS makes it feel real. He also believes that HFS has made him realise the importance of prioritisation. In many healthcare situations the pressure of real objective time does not allow for tasks to be carried out individually and independent of each other. There are often a number of tasks that need to be completed in a certain time necessitating the need to prioritise and multi task. Peter talks about the realisation through HFS of the necessity of both multi-tasking and prioritisation and how it has developed his learning in this essential skill. There has been a lot written about the concept of prioritisation of nursing cares, especially by the nursing phenomenologist Patricia Benner (1984). She suggests that nurses move through five stages of clinical performance from beginner to expert. As a NGN with some clinical experience Peter would be at the advanced beginner stage which is characterized by a beginning understanding of the prioritisation of nursing cares. As the novice undergraduate student that Peter described in his narrative, he had little personal clinical experience to compare his current HFS situation to. This meant he adhered to the strict guidelines and rules he had

been taught, that he had to obtain vital signs, therefore he didn't consider the wider picture of the patient having a respiratory arrest. He is so focused on his assigned task of obtaining a blood pressure that he is unable to concentrate or focus on anything else. It is interesting to consider whether his realization that HFS taught him this occurred at the time or since he has moved into the advanced beginner paradigm. It is also thought provoking as to whether HFS has had any impact on his transition from novice to advanced beginner (Benner, 1984).

Andrea also provides an example of the pressures of both chronological and perceived time.

> *The mum was distressed and she wanted to know what was happening all the time. We had to deal with the mum and the baby at the same time. That's how I remember it.*
> Andrea

This describes Andrea's perception that she does not have the chronological time to meet the demands of both the baby and the mother. Her sense is that the mother is wanting every minute of her time and she feels almost a conflict of how to divide her time effectively between the mother and the baby. She sees the time for the mother and the time for the baby as quite separate. Perhaps as a new practitioner, she is not yet experienced enough to cope with the dynamic management of time which is required to prioritize and multi task. van Manen's (1997b) theory of "lived time" (p. 101) is very much evident in both Peter and Andrea's narratives.

Lived other

Each time we interact with someone, whether it is bodily or through other forms of communication, we form an impression of them and subsequently some form of a relationship. This development of human relations is what van Manen (1997b) refers to as "lived other" (p. 101) or relationality and this was evident in the NGN lived experience of HFS. This is not surprising given that relationality is an important element of empathy and caring for others and is inherent in the nursing profession. The NGN spoke of relationality within the HFS room in several different contexts. They spoke of the interaction between the student

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and the HPS and between the students within the room. They discussed "lived other" (van Manen, 1997b, p. 101) in the wider scope of the multi-disciplinary team, in particular senior nursing staff and the medical team and their roles within the scenario.

Jane speaks of her difficulty in developing any form of relationality with the HPS.

> *I know myself and some of the other students I worked with found it very difficult because they felt it was unrealistic because you've not got the emotions of the person. You've not got the physiology that you are actually looking at something that is wrong and so you're probably not really thinking in depth as much as you could have. Or you're not seeing a patient who is actually in pain, which you relate to.*
> Jane

The meaning of unreality in HFS for Jane was through her difficulty in relating to the HPS. Relationality with her patients is through things such as their emotional state and she was unable to see this in the HPS. Therefore an important aspect of patient assessment was missing for her. She also talks of the inability to make a real connection because of the lack of the indicators which would normally accompany physiological changes. This affects Jane's ability to assess her patient accurately. Jane is calling attention to her difficulty in being able to see the HPS as another, or as discussed in the section on "lived body" (van Manen, 1997b, p. 101) her inability to recognise and respond to the call of the other (van Manen, 1998). In this narrative Jane appears to be describing to us the meaning she applies to relationality, to her it means connecting with the emotions and being able to relate with one another. The unreality of the experience is confirmed by her inability to form a relationship with the HPS and this lack of relationship impedes her ability to form an accurate impression of the patient. The relationship formed between the NGN and the patient is interlinked with the concepts discussed in "lived body" (van Manen, 1997b, p. 101).

There is also another element of relationality described in Jane's narrative. van Manen (1997b) refers to our ability to go beyond just thinking about ourselves in the lifeworld. When we meet someone or form a relationship we cease thinking about ourselves as an individual entity. Instead our view of the world is with the

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other present in it and the social interactions that then occur. Jane appears to recognise this and that the meaning of relationship involves a two way process. She is unable to develop a relationship with the HPS as she cannot form a social connection or relate to him and this indicates the reciprocal relationship and empathy which is fundamental in effective client care.

Peter also considered the reciprocal relationship between nurse and patient but had a different understanding of the meaning of HFS.

> *I think it just gets you into the head space of the process of investigation. The assessment, the planning, the implementation* (and) *the review. I mean it gets you into the mind set of, "Yeah, this is what needs to happen." Not just rush in there and bang - give them 5 milligrams of morphine. It's not just the broken leg that hurts, he's got a bit of a headache. So I think it just sort of starts to lead you down that path*
> Peter

Peter appears to have recognised a social sense of purpose in the interaction and describes the beginnings of the very important element of nursing care. That is the ability to work in partnership with a patient and actively involve them in the planning of their health care. He is also describing key nursing abilities such as assessment and clinical decision making. In contrast to Jane, HFS got Peter reflecting on the importance of relationality and working in partnership with the patient and was an important learning outcome of HFS for him.

The relationship between the students in the room was also considered by the NGN.

> *Also because we went in groups of seven or eight sometimes and also eight other nurses that don't know what they are doing because we are all at the same level. We'd all just sort of stand around and be like "What will you do?" to each other. If you were in that situation by yourself it would be totally different, that would definitely be scarier as a student but it probably would improve the learning experience.*
> Kim

Kim is unable to link this scenario to reality as it feels unrealistic for there to be seven or eight learner practitioners with a patient. Although Kim does acknowledge that the support of the group makes the experience less intimidating this makes it more artificial as this would not occur in the real clinical setting. She believes the solution to this unrealistic aspect would be

experiencing HFS individually but the time and resources to run individual scenarios would be very difficult in any setting. The narratives in this study did reflect the success of HFS scenarios in which the individual nurse commenced the scenario on their own. They then would call other disciplines into the scenario as required as it would happen in practice. The NGN felt this method of experiencing relationality with the multi-disciplinary team was much more realistic than having numerous learning practitioners in the room. To make HFS real, the number and type of learners participating together in an HFS scenario need to be as close to reality as possible.

The effectiveness of staggering the arrival of different members of the multi-disciplinary team was also reflected in Melanie's narrative.

> *You had to actually ring somebody and then they came in and say, "Have you done this? Yeah carry on with whatever you're doing," and walk off, that was actually quite effective. Having people present that have roles outside of nursing, such as doctors, not just people pretending to be those people. So have it as a multi-disciplinary simulation. Having somebody come in and do that makes it more real in a way. It's definitely about the balance of experience of the people in the room. It would make it more real which would make doing the actual simulation more effective rather than just the debrief being where all the learning occurs. Yeah and even having to actually use the phone and ring a cell phone and tell the doctor what was going on with the patient. Then they made the decision whether they were going to come to the patient or not. Whereas at Uni it's like you ring up and they go, "Okay that's fine." It just didn't feel the same sort of situation I guess. It's definitely about the balance of experience of the people in the room. You'd have the actual team who knew what they were doing, not just eight New Grads.*
> Melanie

Melanie discusses reality in terms of having the correct balance of expertise and experience of health professionals in the room. She felt that it is important to actually have the multi-disciplinary team present, as it would occur in the clinical setting, not just having people playing these roles. Reality meant actually using the telephone to talk to the doctor, having to give them a handover and then they would decide whether to attend or not. Melanie has identified the ability of HFS to explore the dynamic and complex reality of inter professional communication and teamwork that is so important to ensure effective care for our patients (Beyea & Kobokovich, 2004). The ability of the participants to hear the call of the other team members, if not the HPS is

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evident in this narrative. The other unreal factor that Melanie presents relates to van Manen's (1997b) "conversational relation" (p. 105). The conversation she had with the doctor in the first HFS she described was more consistent with clinical practice as it took into consideration the contextual factors. She was expected to handover the patient and justify why the doctor needed to be present so that the doctor could prioritise their workload. This seems more real to her and this is how it would occur in the clinical setting whereas the second response of "okay that's fine" was unexpected and unrealistic. It is also important for the NGN that when participating in HFS as a group that it is consistent with the team that would be present in the clinical setting. As Melanie and earlier Kim correctly identified a group of learning practitioners lack the leadership and direction which is present in the clinical situation that HFS is trying to represent. This means that without this leadership and guidance that expert practitioners provide, HFS becomes an awkward and uncomfortable exercise for the NGN.

Melanie's feelings of relationality in HFS were congruent with Andrea's who went on to compare it to an actual clinical resuscitation.

> *My first real code, I had no idea what to do, I just called for help. I put oxygen on and by the time I'd done that other people had come in. They took over and I kind of stood back. I guess there are more senior people that took that role. Whereas in (HFS) at Uni because we are all quite inexperienced we didn't really know what to do. But on the ward there's more experienced nurses that came in, just took their role, like they knew what to do and they just knew what role to take. Like, "Alright, I'll go call this person, you stay here." I guess there was a delegator that would do that, a leader. But there is not really a leader in a (HFS) at Uni because we are all the same level. Everyone just does what they're told. So it was like, "Shall I do this?" Or "Shall I do that?" It's like, "Okay." No one really delegated, no one took the lead. I think it would be quite good to have a simulation here at work and be guided by the experienced nurses, yeah it would make it easier.*
>   Andrea

Once again Andrea is discussing the lack of reality in having numerous beginning practitioners around the bedside as there was no obvious leader to take control. She valued the input of the senior staff on the ward that could direct and lead the situation. van Manen's (1997b) previously discussed notion of an individual's ability to see beyond oneself when placed in a group situation is also evident in Andrea's narrative. What is also apparent is the importance

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and value of learning she places in a differentiated model of nursing care. This model allows for the development of nursing levels dependent on proficiency, responsibility, clinical experience and educational level. This allows the expert practitioner to provide clinical role modelling and teaching for the beginner (Benner, Tanner, & Chesla, 1992). She is also explaining the complex and extremely important role of teamwork and communication.

> *Like although you're allocated roles, it's kind of like do you wait for someone else to say something or do you just get in there? Often there is somebody who is really outgoing and they take over the whole scenario, then it's quite hard to get in there. Often it's like, "Who's doing the blood pressure? Are you the doing blood pressure? I'm doing the blood pressure. Oh, oh well somebody needs to do it." And it doesn't actually ever get done. It just sort of feels really disorganised to me in a way. If it was a real patient and you were in there, you kind of have a list of things that you tick off in your brain and then it feels more organised. I don't know, simulation just doesn't feel that natural and that kind of adds to the haphazard-ness of it.*
> Melanie

Although Melanie's narrative shows there was some leadership evident in HFS, she describes its inefficiency. Leadership is taken by someone who is confident and outgoing who then takes over the scenario. She feels devalued by this as she is not able to "*get in there*" and perform her role in the HFS. Melanie's reflection highlights the fact that although relationality offers opportunities for understanding amongst individuals it can also bring about misunderstanding or miscommunication (van Manen, 1997b).

Conclusion

In conclusion van Manen's (1997b) "lived body, lived space, lived time and lived other" (p. 101) have provided a framework to discuss the reality of the lived experience of HFS for the NGN. Although these four lifeworld existentials have been discussed separately in this chapter it is important to observe that they are actually interwoven and indivisible in creating meaning in the lifeworld.

Although van Manen's "lived time" and "lived space" (p. 101) have demonstrated some important concepts regarding reality in HFS, the most significant findings were through "lived body" and "lived other" (p. 101). This is

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best illustrated through Anna's statement in the opening narrative. "*Because you know nothing is going to happen to the baby*". This is significant because underneath it all, no matter what you do, the HPS is not a real human being. Although the NGN altruistic drive is evident through the wish to "cure" the HPS, the humanity which connects individuals to one another is not present. Although it has been demonstrated that the visual, verbal and tactile senses are essential in connecting people, it is more than these three elements alone. The unconscious bond or relationship between patient and nurse is absent in HFS and for the NGN in this study this made the situation feel unreal. As I sit here at my computer, my son is in bed. Despite this I am still thinking to myself, when will he wake? Will he be hungry on waking? What will I feed him? The call to me as a mother is still very much evident even though I am not with him. This is what is missing for the NGN with HFS, they are not hearing the call as a nurse and this is why there is a constant shift between the experience being real and unreal (van Manen, 1998).

Chapter Five: Being watched and being assessed

Introduction

The NGN often referred to the feeling of being watched throughout HFS and there was also an element of watching others within the narratives. Watching others was generally interpreted as a positive learning experience by the NGN therefore this will be discussed in Chapter Six. In comparison being watched gave the majority of the NGN a feeling of unease and a sense of being assessed by faculty or judged by their friends. This led to nervousness in case they made a mistake and a fear of looking silly in front of their peers. The reason for this is well summed up in the following quote from Sartre (1956, as cited in van Manen, 1997b):

> However, when all of a sudden I hear footsteps and realize that somebody is looking at me, an essential change occurs in my mode of awareness. Where moments before my mode of being was governed by unreflective consciousness, now I see myself because somebody sees me. I experience myself as an object for the other. (p. 25)

In this chapter van Manen's (1998) body modalities of "the body of self as self-observed" (p. 14) and "the body of self as observed by the glance of the other" (p. 16) will be utilised to further unpack the NGN feeling of being observed. These are two of the life modalities through which the world is experienced. The first refers to personal reflection on one's own body and the fact that we can never be separated from our body. It is often through illness or injury that we are prompted to reflect on our own body but this can also occur in a state of wellness. Normally we go along in a state of unconsciousness in regards to the body and this was evident in the NGN stories of HFS.

> *Once you get into it, you just do it and you're not even thinking about "Do I look like an idiot?" You just don't even think. You're just doing it and feedback and it's just like, "Have we done this? Oh we'll go do this."*
> Jo

Jo provides a good example in this study of this transition from unconscious to conscious thought. It is not until the debrief that Jo actively begins to reflect on her experience and the actions of her body move back into her consciousness.

The narratives of the NGN presented in this chapter describe this process of self-examination which is usually triggered by the presence of others in the HFS situation. This relates to van Manen's (1998) concept of "the body of self as observed by the glance of the other" (p. 16). This life modality is experienced when the individual becomes aware that they are being watched. van Manen (1998) states that the observation by another can be experienced in different ways and this was certainly true for the participants in this study. Some found the glance of the other to be affirming and very much supporting their learning. Some felt the judgmental eye of the watchers and this was extremely anxiety-inducing. Others felt the need to be doing something because others were watching and some worried that they would look silly in front of their peers. The NGN spoke a lot of this feeling of being watched and how they felt in the glance of another and this will be explored in depth in this chapter.

Being watched

The idea of being watched was evident in many of the narratives and was an inherent part of the meaning of the experience of HFS for the NGN in this study.

> *I just felt I was being watched. And also the students you're working with are also watching how you are interacting with the* (HPS) *and with each other and I just felt a little bit anxious. I was thinking, "Okay, you know, I've done all this training I should know what I am doing." but then to go into a scenario and be totally lost.*
> Jane

For Jane the overriding feeling of HFS is one of being watched. She feels all of her interactions, both with her peers and with the HPS are being viewed and scrutinised. The experience of being observed prompts Jane to think about whether her view matches how her peers interpret the same encounter. The fear of a mismatch in these views causes Jane to become anxious and uncomfortable as she worries she will look silly in the eyes of her fellow students. Both of the life modalities 'the body of self as self-observed' (van Manen, 1998, p. 14) and 'the body of self as observed in the glance of the other' (van Manen, 1998, p. 16) are evident in Jane's narrative. Personal experience, culture, beliefs and background all affect how individuals view the lifeworld eventuating in differing perceptions of the same experience (van Manen, 1998). For Jane being under the watchful eye of her colleagues has created an

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awareness of her ability or perceived inability to function in HFS. Being in the glance of the other has formed a self-consciousness which makes Jane feel anxious and doubt her actions. This in turn has compelled Jane to examine or scrutinise her own body to identify if there is a problem that explains why despite having studied hard she is still unable to perform in this situation. For Jane the anxiety that is created by the observation of her peers may in fact add to her inability to focus on the HFS scenario. This results in a vicious cycle of self-doubt and poor performance (van Manen, 1998).

What seems to be evident in Jane's narrative and indeed many of the NGN descriptions is an idea that HFS is a performance, that they are acting out the scenario for others to watch. This notion is very much brought about by the NGN awareness of being watched or observed by their peers and lecturers. Also the unreal elements discussed in the previous chapter appear to be a factor.

> *It's just not realistic. The voices aren't real and just the room, the set up, it doesn't flow. It's just a baby lying on a table in a room; mum sitting in a chair, that's it, there's not really much. There's a sat machine, blood pressure machine, that's about it really, there's not much. When you call the doctor it's like "Hello" you are just acting.*
> Andrea

The dictionary definition of the word performance is "a musical, dramatic, or other entertainment presented before an audience" (Dictionary.com, 2012) which seems to fit with the NGN perception of HFS in this study. The experience of HFS as a performance or as Melanie referred to it *"play acting"* means that the NGN are consciously thinking of their "lines" or their actions are driven by a script. As Peter termed it "*this is what they want to see you do"*. It appears that the NGN actions in HFS are not being driven by their own knowledge and clinical judgement, rather by what they believe the lecturer wants them to do. This is interesting when you consider Jo's description below.

> *Honestly, everyone just stood around looking at each other, until someone went, "I'll do the respirations." Yeah, then it just flowed from there. Not doing the correct things, but just wanting to do something.*
> Jo

The feeling of having to perform or wanting to do something for Jo was so strong she would rather be doing incorrect things then nothing at all. These feelings are also reflected in her narrative below.

> *Yeah, it feels unreal because of the number of people, the fact that people are watching. It's in the back of your mind, like I need to do something, make it look like I'm doing something because everyone is watching*
> Jo

Because of the large number of people watching Jo she feels the need to be doing something in the HFS scenario. She doesn't want to appear lazy or that she doesn't know what she is doing. She is not so worried about doing something wrong, just that she needs to make it look like she is actively participating in the scenario. Once again the glance of another has caused Jo to reflect on her actions and made her aware of her inaction or her lack of involvement (van Manen, 1998). This feeling of wanting to be doing something is not unique to Jo's narrative. This may be due to the previously discussed idea that the NGN saw HFS as a performance. This meant they needed to be seen to be doing something or else there is nothing for the observers to watch. It may also be due to the idea that a good nurse is a busy nurse that must be attending to patient cares at all times (Manias & Street, 2000). The culture of nursing is such that there is an expected level of patient-related activity which must be maintained. Nursing is a hands-on and some argue task-orientated profession and this often manifests in a need to be busy around the patient bedside (Street, 1995). Perhaps this principle is what is being reflected in Jo's narrative and her need to be busy.

Jo soon forgets the performance aspect of HFS in the narrative below.

> *Knowing it was coming up I got nervous. Like, "I don't want everyone watching me." I do get quite nervous. Once you get into it, you just do it and you're not even thinking about "Do I look like an idiot?" You just don't even think. You're just doing it and feedback and it's just like, "Have we done this? Oh we'll go do this." You know. It's just making that first move to start with that is the hard bit and then before you're even doing anything you're like "Oh." But once you're in it I didn't even think about it.*
> Jo

For Jo the anticipation of being watched in HFS appears to be a lot more nerve racking then the actual experience. She worries in advance about looking like

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an idiot in front of her peers but this soon dissipates once she is participating. It is only through the feedback that she actually reflects on what she has carried out and what still needs to be done (van Manen, 1997b). She states that "*you just do it and you're not even thinking about*" or in other words her body is participating in a state of forgetfulness. It appears that the experience takes over and being observed no longer an issue This is possible because once she gets into the HFS experience being watched is not in her awareness therefore she is relieved of the self-observation of her body (van Manen, 1998).

The NGN interpretation of being watched did seem to be influenced by the context it occurred in though.

> *It would have made it more relevant when you are actually working with the patients and not having to annoy the staff so much. But going back in there now I'd be a lot more confident as far as I would understand it as a learning tool rather than being assessed. For me I don't like people watching what I'm doing unless it's on the unit where I'll say, "I'm not sure, I need you to watch me while I do it", but I've always had that very anxious feeling that people are watching. You feel like you're being judged.*
> Jane

Jane believes that HFS would be more relevant now that she is working in the health care setting as it would help her develop her practice. This means she wouldn't have to ask staff for assistance so much. Being watched by her colleagues at work is a lot less anxiety inducing and does not carry that feeling of being assessed like being watched at university. As discussed in Chapter Four, adults apply different social and cultural rules to a setting which develops different milieus (van Manen, 1997b). For some of the NGN in this study the feeling of being watched in practice is associated with learning whereas in university it means assessment or being judged. Certainly in the healthcare setting this may be due to the engagement of the colleague in the patients care and the subsequent confirmation of the NGN skills (van Manen, 1998). It may also be attributed to the feeling that the watcher is taking in the whole setting; the patient, the vital signs monitor, the rest of a busy ward as opposed to just watching the NGN (van Manen, 1998). In the HFS experience the NGN feels the look of the facilitator is centred purely on them as learners and not the surroundings or the HPS. Therefore the NGN experiences a feeling of

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objectification of their body creating a sense of nervousness and anxiety in relation to HFS (van Manen, 1998).

Jo also felt the objectification of her body through the glance of the other.

> *There would probably be about 10 to 12 people in the sessions at Uni. It's quite big which makes it really difficult. So you get split into two groups and you go in and what makes it really nerve racking is there's a camera and the other group is sitting in a separate room watching you through the TV. They can see everything.*
> Jo

Because of the high number of people watching Jo is feeling that every move she makes is being watched and examined. The knowledge of the camera and the television in the other room is heightening this awareness of being watched. This of course has links to the issues raised with unreality in the "lived space" (van Manen, 1997b, p. 101) of HFS in the previous chapter. The camera and the microphone as well as the ability for others to watch felt very unreal for the participants. It is also congruent with the feelings expressed above by Jane that the glance of the watchers is exclusively on them, not the entire scenario and setting (van Manen, 1998). This creates the feeling of intense scrutiny and the feeling that "*they can see everything*". Perhaps they are also feeling the glance of the camera. What is observed in the initial direct visual encounter by the human eye is very different to the all-encompassing eye of the camera. Whilst the watchful eye of the human being is unlikely to see every move of every participant in HFS, the camera truly can see everything. The camera allows the observer to re watch the scenario numerous times thus allowing multiple interpretations of the same event. Whether this is being done or not, it is no wonder that there is such a strong feeling of being watched and being assessed in the HFS environment.

Several of the NGN commented on the number of people in the room, in relation to both reality and being watched.

> *Simulation once every year, I think it's probably a good amount, because everyone dreads it. A lot of people are like, "Oh no." I think it's just getting up in front of everyone and doing it. That's what makes everyone not so keen on it. Yeah, but it would be worse if it was one on one so, I guess we are kind of lucky that there is at least a few of us doing it.*
> Jo

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Although Jo talked in depth about her dislike of being watched and having so many people in the room, for her there is also an element of safety in numbers. There appeared to be a real conflict for Jo between the discomfort of being watched and the security of having others participate with her. For Jo the idea of being one on one with the lecturer means they may truly see everything and the feeling of being watched and assessed would be intensified. This would indicate that although she feels that she is the sole recipient of the watchers glance in a group setting there is an awareness that the glance is apportioned amongst her fellow participants (van Manen, 1998). This also relates to the previous discussion on the inability of the human eye to watch everything in the HFS setting. With so many participants in the room Jo feels that the watching isn't focused directly on her therefore the eye of the lecturer is less intense and less uncomfortable.

Being assessed

Although being assessed is an intrinsic component of being watched for the NGN in this study, it was such a strong subtheme within the narratives it merits discussion as a separate entity. Being assessed was also a significant essence in the experience of HFS for the NGN.

> *I think it was just nerve racking having someone watching, you were wondering if you were being assessed more than anything. Not wanting to say or do the wrong thing I guess, which would make you stand back a little bit because you know* (the HPS) *is just not a real person, whereas the lecturer is.*
>   Jane

Jane once again feels the pressure of being observed. In this example it is anxiety created by the fear of doing the wrong thing and falling short of the lecturer's expectations. Although she is not sure even whether she is being assessed, the presence of the lecturer is enough to bring it to her conscious thought. Thus she feels it is better to minimise her participation and reduce the likelihood of making a mistake which would lead to poor assessment outcomes. van Manen (1998) observes that the anxiety produced by a teacher's glance can unnerve the student so much that it impedes the process of learning and this is exactly what is occurring for Jane. This narrative shows very clearly Jane's hesitancy in participating in HFS due to the appraising eye of the

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lecturer. What is also evident is Jane's narrative is her tendency to focus on the real person in the room. She feels that the lecturer takes priority and therefore concentrates on what they want to see and hear. She feels this is more important than the outcome of the scenario for the HPS and her own learning outcomes. This has obvious links to the discussion in the previous chapter in which the NGN described focusing on the mother instead of assessing the HPS. As van Manen (1998) would describe it, the call of the other is far stronger from the lecturer as a human being than it is from the HPS.

Dianne also discusses the feeling of being assessed in HFS but her interpretation was very different.

> *Yeah, I wasn't worried about being watched so much, I was used to that. It was the end of our degree and through the whole time you get assessed so I put the lecturers in the background when I was assessing people. That's why it was easier for me to do simulation.*
> Dianne

Although it is not explicit whether Dianne actually thought she was being assessed or not in HFS, she was able to put the lecturers in the background. Being watched or being assessed does not go away but Dianne is able to make a conscious decision that this will not affect the experience of HFS for her.

Although Jane felt very strongly the over scrutinising glance of the lecturer, Peter's narrative below shows a very contrasting view.

> *Because it was never a test or an exam, it was just sort of a learning experience, so there's no pressure, so for some people it was just one of those things you just had to turn up and do. I never felt like I was being assessed personally. I always saw it for what it was. The teachers who took it weren't like that. It wasn't judging you. It was generally a learning experience. I think that does depend on the teacher. I think some of them; just as lecturers you've got all these different types of people. Looking back it was probably one of the most useful things we did, to be honest. I think we should maybe do more of it.*
> Peter

Peter found HFS to be purely a learning experience and did not feel the judging or assessing eye of the lecturer. He does acknowledge that the feeling of being assessed could differ between individual lecturers though. Although in this study there are many consistencies between the NGN lived experience of HFS, there are also some, as van Manen (1997b) terms it, "unique views" (p. 346). Peter's

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unique view shows how an affirmative glance from the lecturer allows him to disregard that feeling of being assessed and focus on the task of learning. According to van Manen (1998) a participatory glance from other students and the teacher confirms a mutual engagement in learning. This means the individual is able to forget the watchful eye of the other and is therefore relieved from the self-examination of their body. This enables a spontaneity and naturalness of their actions and allows them to focus on the task at hand. This affirms to Peter the meaning of HFS as a learning modality as opposed to one of assessment and judgement and is why he is so transparent in his view of HFS as a learning tool. If this is how Peter is experiencing the glance of his lecturers then clearly some teachers have the ability to engage in the HFS experience and promote a positive learning environment.

As already discussed an individual's perception of an experience is very much shaped by their upbringing, personal encounters, culture and beliefs. This is why there is such a variance between Jane, Dianne and Peter's experience of exactly the same event (van Manen, 1998). Although it is not possible in this study to explore the personal influences that shape the NGN individual experiences of being watched, they no doubt have had an effect on the perception of HFS for the NGN. Once again although being watching was a constant in HFS, it brought different meaning to the experience for different participants. This resulted in the differing perceptions of the purpose of HFS that are evident in the narratives. For Jane being watched meant being assessed and this negatively impacted on the experience for her. For Dianne, whether she was being assessed or not, she was able to put the lecturers out of her conscious thought and make the most of her HFS experience. Being watched for Peter was not viewed negatively and therefore he perceived HFS to be very much a learning experience.

The NGN experience of being watched and assessed in HFS

What has been evident in all of the NGN narratives discussed in this chapter is the overwhelming feeling of being watched or being assessed. In HFS the observation of the participant is a very overt or transparent form of observation. Not only is there a large group within the HFS room but there are also factors

such as the large window and the microphone in the middle of the room that heighten the NGN awareness of being observed. These were also some of the aspects that the NGN identified as adding to the unreality of the HFS experience. Some participants were able to put aside being watched in HFS and act in an unconscious way but most were not able to. Thus being watched was very much in their awareness.

The reality is that being watched or indeed being assessed is inherent to the healthcare setting. This form of being watched is a much more subtle form of observation as opposed to the overt or transparent observation in HFS though. Healthcare workers are constantly under the watchful eye; whether it is from patients and their significant others or from their colleagues. Their performance is always being measured and assessed, whether it is from the senior nursing team through performance management, the organisation through health care outcomes and clinical effectiveness initiatives or by the clientele. Because being watched in the workplace is such a subtle form of observation it is not bought to the consciousness of the individual and they do not feel the pressure such as being watched in HFS. This is well illustrated by the example in clinical practice of when we are required to care for another health professional. All of sudden we feel extremely conscious of our actions and subsequently we feel anxious and aware of what we are doing. Tasks which are usually familiar and routine can become foreign and awkward. What is not clear from this study is whether the NGN are unaware of this constant observation in the clinical setting or whether some of van Manen's (1998) previously discussed notions are in play. It may be that the glance of the other indicates engagement in learning or that the focus of the observer is contextual as opposed to individual in the clinical setting and this allows them to practice in an unconscious way. Perhaps there is also a link here to the discussion in the previous chapter regarding the pathic state of the university as opposed to the healthcare setting. The university environment is considered to be a place of learning and therefore this could also be interpreted as a place of assessment.

Conclusion

This chapter has uncovered many different feelings of the experience of being observed in HFS. It has to be mentioned that these feelings are predominantly negative. The key feeling of the participants was anxiety but there was also nervousness, embarrassment and they also felt silly. For the NGN in this study the feeling of being watched was strongly connected with the feeling of being assessed and looking silly in front of their peers. van Manen's (1998) experiential modalities of the body as self-observed and observed by the other were very much evident in the experience and the meaning of HFS for the NGN.

Chapter Six: The experience of learning

Introduction

It was apparent throughout the NGN narratives that the experience of HFS was very closely linked with learning. The meaning of learning in HFS for the NGN varied hence the development of several subthemes in this chapter. These include: learning in the doing, uncovering what I don't know, preparing for practice and filling the gaps, learning together, learning through watching, reflecting and reasoning and making the connections. Although these different subthemes are discussed separately in this chapter, they all are in fact interconnected throughout the narratives.

The fact that the experience of learning is a key theme in this study is unsurprising given that learning underpins HFS. What was interesting throughout the narratives was the way in which HFS was intertwined with other learning modalities such as didactic teaching, case studies and clinical experience. For the NGN in this study HFS appears not to be a separate entity but rather a valued part of the whole learning programme. This is consistent with van Manen's (1997b) world view as he emphasises the importance of maintaining sight of the whole or the overall goal. In the case of the NGN in this study, the whole is the development of learning and HFS is merely a part of a very intricate process. This indicates the importance of HFS being fully integrated into a teaching programme as opposed to being a separate experience unrelated to the other parts of the programme.

In the doing

There is no doubt that nursing is a hands-on and at times task-orientated profession (Street, 1995). In the clinical setting the majority of nursing time is spent corporeally with the patient and therefore it is no wonder that the tactile nature of learning through HFS was reflected on by the NGN. Anna encapsulates this idea in the quote below.

> *I really thought there should be more* (HFS in the undergraduate programme) *because it wasn't a boring lecture it was interactive, getting to do this, this is completely relevant. This is what nursing is I suppose.*
> Anna

All of the learning that occurs in HFS is experienced in the practice of the skills or as Jane described it "*hands-on*" learning. Although the experience of learning in the doing is being discussed here as a separate entity, it really is interwoven throughout all of the subthemes in this chapter.

The interactive nature of HFS certainly assisted Jane in her learning in a scenario in the hospital setting.

> *It was like we can draw up the drugs and I needed to do documentation. I didn't even know how to break into the drug trolley until that scenario. I'm trying to unlock the doors but because it was a scenario I learnt. So if it did happen in real life, I'm not going to be fumbling.*
> Jane

Jane talks about physically drawing up drugs and documenting in real time. She is unsure of how to get into the crash trolley and she awkwardly attempts to do so. van Manen (1998) refers to this awkwardness of Jane's fingers as "the body of self experienced as encumbered" (p. 12). Through the experience of actually opening the crash trolley Jane has created a familiarity with the equipment and therefore learns how to handle it. This has then diminished the feeling of encumbrance that she previously felt.

Peter also spoke of the familiarity created through learning by doing.

> *You knew CPR, you knew what you were doing, getting the crash trolley, but it really helped me with all the roles. I think everybody else was like, "Oh yeah, I'll be drawing up the drugs." Someone was doing that and just that whole process of what would actually happen because you can be told it, but you have to live it to understand* (it). *I think we did actually start working as a team in that scenario.*
> Peter

Peter explains that he already knows the guidelines for cardio pulmonary resuscitation (CPR) but he recognises that the application of these principles is different in the clinical context. He talks of the importance of learning role allocation and the functionality of a team approach in an emergency situation. Through the experience of HFS he is able to "*live*" and put into practice these principles of relationality. A realistic conversational relationship is developed with the other participants in HFS, one that can never be practiced or understood unless he actively engages in it. Because Peter has experienced

the lived other within HFS the meaning he applies to CPR now encompasses the whole team as opposed to just his individual view (van Manen, 1997b). This means that next time he is in a similar situation he will have that experience which will help him guide his actions. This is congruent with Benner's (1984) view of the progression from the novice nurse to advanced beginner. The practice of the novice nurse is governed by the strict guidelines they have been taught such as the CPR principles that Peter describes. Through HFS Peter now has the concrete experience of teamwork in the application of these principles which assists in his progression to the advanced beginner stage.

Another of van Manen's lifeworld existentials was also evident in Peter's narrative.

> *"Oh yeah, this is next, this is next," then I think that makes you better. So I'd know how quickly these things happen, "Okay, this is the first thing, now I know to put the pads on. Then I'd draw up these drugs." But actually it all sort of happens a bit concurrently and I think that was a really great learning exercise. Superb.*
> Peter

Peter is again describing the processes involved in emergency treatment and how a HFS CPR scenario has helped him develop his skills. The feeling of reality and therefore learning is enhanced because the tasks are practiced in real time. They were performed in the correct context of a CPR scenario and they are performed in a multi linear way that could never truly be realised in other learning modalities. Once again learning has occurred through the act of doing and the fact that it has occurred in real time has augmented the learning experience. van Manen's (1997b) lifeworld existential of "lived time" (p. 101) is once again evident and brings meaning to the experience of learning in HFS for the NGN.

Anna explored self-assessment in HFS.

> *It would have been good to have one* (HFS) *then three weeks later have another* (HFS)*, because I think the thing was that you had one* (HFS) *but we never did another one to see if we had improved. You know you'd improve in different ways but everyone improved because you are gaining that extra confidence every semester as you go, just by working in clinical areas so it would be useful to see that improvement through repeated simulation.*
> Anna

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Anna felt the opportunity to assess and gauge one's own performance using HFS was underutilised. She felt that through the corporeal action of doing HFS repeatedly she would be able to measure her clinical improvement and application of knowledge thus resulting in increased confidence. Anna also discusses the ability of HFS to provide an environment in which skills and scenarios can be repeated.

Uncovering what I don't know

Once again the concept of learning through doing in HFS is a significant factor in this subtheme. Learning through the corporeal actions of HFS occurs concurrently with a journey of self-discovery as the NGN uncover their knowledge deficits. Through HFS the NGN make the transition from being unaware of what they don't know to being aware of their knowledge gaps as described by Jane.

> *It highlighted how much you didn't know. You thought you may have been focusing on one thing and there was something totally different. I remember a situation with a baby and we had the mother who was obviously very upset. We knew there were breathing difficulties and the baby also had a rash. Because we knew we were dealing with the breathing, we didn't focus on asking questions with the rash. So it sort of made you think more about dealing with the complete person than just one specific pathophysiology.* Jane

Jane is describing an experience in HFS in which there was an actor present who was playing the mother of the child. What this HFS scenario has highlighted for Jane is her lack of understanding about patient assessment. Through the experience of HFS she has discovered the importance of holistic patient assessment and not becoming focused on the most obvious physiological manifestation. This leads her to an important learning outcome for Jane, an understanding of the importance of integrating her assessment findings and viewing the patient as a whole. This is consistent with van Manen's (1997b) view of human sciences as he talks of the importance of maintaining sight of the complete picture. He talks of the need to frequently reconsider the parts and consequently incorporate them into the whole as is reflected in Jane's narrative above. Jane describes how through the HFS experience she begins to

recognise the history from caregivers as a part of holistic patient care. She must also learn to integrate the mother's assessment into her understanding of the child's illness.

> *In that scenario we also had to look at the mother, how she was feeling and asking other questions that could have led to a diagnosis. Rather than trying to diagnose the problem ourselves actually talking to the mother about different things. My example was I asked the question, "Have you washed the baby recently? Was it allergic to a soap or something, or is it possible a partner or someone else could have?" It does start getting you thinking along the lines of what you should be doing.*
>   Jane

What this narrative and also the one above show is that even though Jane is explaining the parts of the assessment she is also recognising the importance of the feelings or the mood of the mother. She recognises the fact that the mother is upset and takes this into consideration as she asks questions. HFS has also called Jane's attention to the huge amount of diagnostic information that the caregiver holds in terms of the paediatric patient. She has touched on the concept of working in partnership with the mother when she talks about asking the mother how she was feeling and involving her in developing the child's diagnosis. This has parallels to van Manen's (1998) "the experience of the other's body as an aspect of the world" (p. 11). HFS appears to have brought to Jane's conscious thought the meaning of the experience for the mother as shown by Jane considering her feelings and asking how she felt. The HFS has also brought to Jane's consciousness the importance of working in partnership with the mother and in doing so she has learnt the importance of encouraging parental participation when working with children and families.

HFS also brought to Anna's conscious thought her lack of paediatric knowledge.

> *I didn't feel that comfortable, it wasn't the comfortable-est thing. I mean there were a few of us in there, but it would have been nice if we'd got more of an idea of what could happen. I mean, I'd never worked in paeds at that stage. I didn't have any idea of paeds and so I didn't really know what was going on. It was a baby, I'd only worked with older adults at that stage and I don't know, I think I felt a little bit like "Crap what do I do?"*
>   Anna

For Anna she entered the HFS experience with a level of discomfort because she could already recognize gaps in her knowledge of paediatric care. However

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the HFS experience enabled her to identify and learn about the specific deficits in her knowledge as well as the questions she needed to answer before she could confidently provide care in the paediatric setting.

> *I think I held back because at that stage I wasn't very confident. Like I didn't know what I was doing. I was like, "Oh okay." Even with all my adult experience, I don't know what to do, you know. It was more just the confidence thing, just like I don't know if I'm asking the right question or is this a silly question or should I even bother asking it? That was one thing I did think about. I mean eventually you kind of get over it and you start asking because there's nothing else to ask. Well when you get to the end of the line, after we had done the initial assessment, head to toe, then okay, now what? So it was like okay baby's dehydrated and he's vomiting, now as a more experienced RN I'd think "oh okay, fluids" But it took us a while to get there because we were all still very inexperienced. We got there eventually but it took a lot of prompting to get there.*
> Anna

Anna's perception of her lack of paediatric knowledge and subsequent lack of confidence has resulted in her holding back in the HFS scenario. Anna was so concerned about asking the wrong question or doing the wrong thing she hesitated and did not initially get involved in the HFS scenario. This links to the themes discussed in Chapter Five where being watched caused the NGN to hold back. In this context it is the knowledge deficits that HFS has uncovered which is the stimulus for Anna holding back. Although she was aware of her lack of paediatric knowledge, it appears that HFS has assisted Anna by explicating her specific expertise gaps. Although it took a lot of encouragement, presumably from both the facilitator and each other, the group was eventually able to identify a diagnosis and initiate a treatment plan.

Melanie also discussed the ability of HFS to identify her knowledge gaps.

> *What they did sometimes when I was at Uni was that, you'd do the scenario, then you'd actually go away and do some research about the condition and what happened in the scenario and why it happened. Then you'd come back and talk about it and that was really, really good. To be able to just go away and actually go, "Shoot! I didn't know anything about what they did in there," but at least I know I can look it up and figure it out, then go back and go, "Okay, we found this out and this is what we would have done if we had had some knowledge behind us before we came into this room". Which we perhaps should have had a little bit more. Simulation was definitely more about discovering what you didn't know as opposed to consolidating what you did know.*
> Melanie

For Melanie uncovering her knowledge gaps in HFS was very beneficial if the structure of the lesson meant she was able to address these learning deficits immediately. The ability to go away and research the subject in a timely manner and then come back and discuss them with her lecturer and peers was an extremely beneficial model of learning. This also appeared to give her confidence in addressing this type of scenario should she encounter it again.

Maximization of learning in HFS was also discussed by Peter.

> *Oh definitely there's a huge gap between theory and practice. I found my course didn't necessarily prepare me for a new graduate career. I thought most of the stuff we learnt wasn't, not appropriate but it was a bit wasted. For instance that CPR day with the* (HPS) *we started with just normal sinus rhythm and you know most people knew what normal sinus rhythm looks like then they changed rhythm and no one knew what they were. Then the tutor said, what does asystole look like? Most people didn't have a clue. Well you pick it up but no one had ever said asystole and of course that's that we all have all these other skills, but you're not helping the patient first. And that's in the SimMan when she says, "Right I'm going to flick it into VT or whatever," and that was useful for that. Don't shock, shock. I really learnt something from that. It's just bizarre that it's not used enough. You know it costs a fortune. They've got two simulation rooms at* (the university) *and I used it what? Six times, that's what? Six hours?*
> Peter

Peter felt that HFS was a very effective tool for uncovering what he didn't know which was underutilized at the University he attended. He also talks about the ability of HFS to prepare him for practice and how it wasn't until he was actually looking at the cardiac rhythms that he understood what it was that he didn't know. He believes that through more frequent access to HFS in the undergraduate program he would have been able to maximize his learning and reduce the theory to practice gap.

Preparing for practice and filling the gaps

As already described, HFS allowed the NGN to identify knowledge gaps but it also enabled them to fill these gaps in their learning. The NGN certainly viewed praxis as an important part of the learning process and felt it was important in preparing them for clinical practice. HFS was identified as a significant factor in the application of theoretical knowledge to practice.

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I definitely think that you learn more when it's a real patient but there are aspects of (HFS) *that would be helpful, especially when you're very first starting your degree. Because then you need to learn the basics like this is what you do, you need to ring the emergency, knowing the emergency codes and stuff. I guess it's just hard to prepare for all the different areas as well.*
        Kim

Kim recognizes the ability of HFS to simulate many different clinical areas. Different types of emergent events occur in different clinical areas and in some examples the response to them will be managed differently. For example an episode of supraventricular tachycardia would be managed very differently on a medical ward as opposed to a cardiac ward. Although the medical treatment would remain the same, the personnel present and the emergency code call would vary between the areas. What Kim has identified is that HFS has the ability to simulate each of these clinical areas and allow the participants to experience the different responses within them. She has identified the fact that clinical placements in the undergraduate program can not cover all of the specialist areas of health care and that HFS can potentially fill this gap in learning.

What Kim has also identified is how an emergency HFS scenario has helped her to learn basic but essential skills. Although she states that learning with patients is optimal, she signals her belief that HFS is the next best thing. She is referring to the fact that she believes HFS is the best way to learn basic skills such as calling an emergency code call before these skills are needed in the clinical setting. A tension filled resuscitation room is not the place to not know or to learn how to put out a code call and by practicing this in the HFS room Kim feels more confident and comfortable with this skill. Kim appears to be making a distinction between what she believes can be more efficiently taught in HFS as opposed to the clinical setting; that is the basic skills of nursing.

Melanie also discusses praxis and learning basic skills in HFS.

I think that practical experience is really, really important. I felt as a New Grad that I didn't have enough practical knowledge, enough clinical skills. I think (HFS) *would probably be the most practical way to learn that really. Clinical skills that would be useful for practicing on* (the HPS) *would be things like putting in an* (indwelling catheter) *and cannulation, doing just those basic skills. Also if you had to do those things on the*

(HPS) *I think you would then feel more comfortable if something happened to* (the HPS) *while you were doing it. Like if he crashed or if the rash suddenly showed up. Those sorts of things wouldn't seem so unreal. Rather than doing it on patients. If it was used more, simulation could reduce the theory to practice gap.*
Melanie

Melanie places a lot of emphasis and importance on praxis as a NGN especially around the basic skills that she feels were necessary to prepare her for practice. She feels that she was unable to apply her knowledge and skills to practice as a student and that HFS is one way of addressing this. Furthermore Melanie indicates the value of repeatedly being able to practice these skills with HFS without subjecting a patient to unnecessary disturbance or risk. What is also evident in Melanie's narrative is the link back to the discussion in the "uncovering what I don't know" section regarding van Manen's (1997b) notion of many parts making up the whole. Melanie is explaining the ability of HFS to assist her in viewing her patient as a whole entity. She explains that if the HPS was to deteriorate during her intervention then this would seem lifelike and real. This signals her ability to maintain focus on the overall task of keeping her patient well and that she is aware that her small task of catherisation or cannulation is just one small part of this undertaking. What Melanie appears to be saying is that although she recognises the parts as important to enable her to see and manage the whole, she is aware that her overarching goal is that of patient well-being (van Manen, 1997b).

Peter also discusses the ability of HFS to develop a range of skills but he sees HFS as useful in addressing specialist skills as well.

I just think it's bizarre that it's not used, when you don't have access to ill patients all the time. It just seems silly to me because you can go and work on these wards and you do washes, PIXIS, dressings and that's what you do, and by the tenth week you've got that down, but you know you don't necessarily get that variety of patients you need to see. Things like putting up a line, my friend had never put up a line until pre-reg, just because of her placements. So it depends on your placements of course. So some people just had really bad placements where as I was very lucky. I had Orthopaedic Ward, then PACU, then DCC. So I got to do all these skills, but others had like, Dermatology and primary health care or something. Not that it's bad, it's just that it's completely different. It's almost specialised. I definitely think that simulation can fill that gap in clinical skills.
Peter

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Peter discusses the wide scope of clinical areas that nursing occurs in and the many different skills that are associated with them. He feels the opportunity to assess and care for ill patients and see a variety of clinical presentations is lacking in clinical placements and that HFS can fill this gap. Peter believes that the learning disparities in fundamental skills that can occur, such as priming an intravenous line, can be filled with HFS if the student has not experienced them within their clinical placements.

Learning together

The ability to learn together and learn off each other was an important essence of HFS for the NGN.

> *I mean from a diabetic* (HFS) *I knew that that person needed something sweet to reverse but also there was one thing* (in HFS) *that my friend did point out, that you have got to give them something sweet initially but then you've got to actually give them a bit of time before they have the cheese and crackers or something. You can't just say, "Have a drink, here's the cheese and crackers." But little things like that could be discussed more in a scenario situation. I think that's what Sim' scenario brought. It gave you an opportunity to share what you did know.*
> Jane

Jane is describing how a diabetic HFS scenario has assisted her to understand the realities of treating a hypoglycemic episode. This has been achieved as her friend has observed her in the corporeal act of caring for the "patient" which of course has links to the first subtheme of learning in the doing. When Jane went to give the carbohydrate too early her friend assisted her learning by pointing out her mistake. Therefore Jane was able to not only draw from her own knowledge base to apply to the scenario but also that of her peers.

Learning together in HFS was also very beneficial for Anna.

> *You do get your input and it's really, really good learning because it's like "Okay that's a good idea." Kind of like combined minds you can work it out* Anna

Anna's narrative also shows strengths and benefits of "*combined minds*" in an HFS scenario. van Manen's (1997b) idea of "lived other" (p. 101) is very much evident in this experience of learning together. In this study, participant

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narratives appear to show van Manen's (1997b) collaborative relationality developed between the participants with the mutual purpose of learning. This signals that learning together is one advantage of HFS as opposed to the clinical setting. It is very rare that nursing students or NGN would participate in a situation like those offered in HFS together in the health care setting and therefore the opportunity to learn together is lost. Although as discussed in Chapter Four, the NGN found it unreal to be participating in HFS with large groups of their peers, they also recognized the learning advantages.

The experience of learning together in HFS also conveyed the principle of teamwork.

> *A lot of people would initially* (in HFS)*, rather than clarifying different roles as to you do this, you do that, everyone would jump in and just think about what they needed to do rather than actually having a clear leader. It worked better when there was a clear leader, if someone came in and took the lead. Those dominant roles, I guess they didn't really say, "You do this, you do that, I'm going to do this." They just came in and did their own thing, what they thought needed to be done, then everyone around is thinking, "Hmm what can I do? I know this needs to be done. I think I'll check the blood sugar". So you really weren't collaborating as a team.*
> Jane

Jane is exploring the experience of working with others within the HFS context. While it appears she was aware of the need to communicate with each other and to have a clear leader she was conscious that this did not occur in this example. Without this, each participant was working in a silo unaware of what the other was doing. If this was to occur in the clinical setting, time and resources would be wasted and an unsafe environment would develop. Learning together has brought to Jane's awareness the idea of others in terms of her colleagues within the health care context (van Manen, 1997b). Whilst there is an element of autonomy within nursing, relationality and the ability to work within a team is essential. HFS and learning together has uncovered for Jane the importance of allocating a team leader, team work, communication and role clarification.

Although learning together was generally viewed positively it did have some more negative consequences.

> *There was one girl that didn't really do much you know. She said a few words and that would be it. So you would feel that you didn't really know what to do yourself.*
> Anna

Anna found that as her colleague appeared uncertain it caused her to doubt her own ability, negatively affecting her confidence and ability to perform in HFS. van Manen (1998) talks about engaging in the life world with others and how meaning is discovered through mutually encountering an experience. As van Manen (1998) terms it "we participate so much with the other person's embodied existence that their words become our words, their gestures our gestures" (p. 11). Unfortunately for Anna this meant she lacked confidence when her colleague's actions made her doubt her own knowledge.

Although Jane previously discussed the lack of leadership and teamwork within HFS, learning clearly occurred from this experience as evidenced in the narrative below. Jane appears to show van Manen's notion as discussed above in a positive way.

> *It did make you in some ways feel a little bit better that other people were at the same point as you. There are still other people who are questioning. Okay they're thinking as well, "What can I do?" You'd talk more, you'd say to* (your) *colleagues, "Okay, I will take her blood pressure," or, "I'm going to document the vital signs," or other people might say, "Okay we need someone to do this and they'd get someone else". It was like, "Can you reassure the mother?" Usually someone would probably just jump into that leading role. I think as far as working in a team it certainly made you think. It certainly did.*
> Jane

For Jane being able to observe her peers within HFS provided her with reassurance as seeing them being hesitant and unsure indicated that she was at the same level of learning as her peer group. This has the reverse effect to being watched as discussed in Chapter Five as it made Jane feel confident as opposed to anxious. In terms of the experience of learning, the feeling of looking silly was no longer in Jane's consciousness allowing her the confidence to take ownership of the scenario. Due to Jane's leadership the energy within the room appears to change as the team became confident to communicate with each other and ask questions. This leads to the development of a team environment and a mood of confidence within the room. This is in contrast to

the previous narrative where a lack of confidence within the team left Anna doubting her own skills. This narrative also illustrates how Jane taking ownership of the scenario has shown the group the importance of leadership and working together as a team.

Peter had a different view of teamwork within the HFS context.

> *Team work - there's a lot of focus on the team working skills which to me wasn't applicable because you'd never be in that team again. In reality I've found there's very defined roles, so you know the more senior nurses would take over anyway. Just from lots of experience and they know what's going on. They can do it quicker and not that you'd be pushed out, but there would be all this assistance. Not take over but more assistance and guiding.*
> Peter

Peter felt that the teamwork experience within HFS was not applicable as a group of inexperienced practitioners were not a team he would work in again. Without the senior nurses to guide and assist he felt the team skills he learnt in HFS were not transferrable to the clinical setting. Teamwork is defined as "the behaviours that facilitate effective team member interaction" (Weinstock & Halamek, 2008, p. 1013) Therefore it could be argued that the broad principles that Jane discussed above; leadership, teamwork, communication and role clarification are very much transferrable as they can be applied to any group environment. Peter could not see beyond the unreal composition of the team in HFS as discussed in Chapter Four which hindered him in acknowledging the broader concepts that were evident.

In contrast to Peter, Jane recognises the transferability of the principles of teamwork.

> *I guess for me simulation is applicable to clinical practice because it just made the relevance of having to tell other people what you were doing or what needs to be done. If you've got those people standing back who are a bit unsure what to do and you know what to do, then you can tell them. There is always a job for somebody to do I guess and if they're standing back it's because they are unsure, it's not that they just want you to do the work. So I guess that's where that team work principle comes in, they want to do something so it's actually making them feel that they're part of it. So I think when you brought up the team work before, that is something that simulation put more emphasis on for me as opposed to what we were actually doing to the (HPS).*
> Jane

What appears to be apparent in most of the narratives is the collegial unity which is developed through learning together. Although HFS gave the individual NGN the opportunity to learn it also offered them the ability to contribute to the learning of others thus developing a real community of learning. Therefore the meaning of the HFS experience of learning is not just about individual learning outcomes, the NGN were able to see past themselves and not just focus on their personal learning but the communal learning of the group. Relationality or the "lived other" within HFS offers them a purpose or a meaning to learning that would not be present in traditional solitary study (van Manen, 1997b, p. 101). This satisfaction and sense of community is shown in Dianne's comment below.

> "*It was quite good to know that I was picking up on things and then you can tell others, so I can sort of share my knowledge*"
> Dianne

Watching

While being watched was generally portrayed unenthusiastically in the previous chapter, watching was seen as a very positive and advantageous component of learning in HFS. This is interesting as watching and being watched are very much interdependent as it is not possible to have one without the other. That is, it is not possible to be watching an HFS experience unless someone is being watched and vice versa. Although the experience of being watched and being assessed and that of watching were very different for the NGN, the meaning of the experiences are driven by the same of van Manen's lifeworld modalities (1998).

> *You could actually watch it in real time, what was happening in the room as well. So you could be watching it and saying, "I would be at this point doing this and I would be asking this question." Or "Why aren't they doing this?" So that was useful to actually watch and listen from a distance without them realising* (they) *are being watched. I guess it wasn't so intimidating because you're actually relaxed, so you're not thinking about what should I be doing? You are looking at it from a different perspective and you're saying, "Well they haven't done this yet?" and "That should be done." So that was very relevant too.*
> Jane

Once Jane realised she could watch and listen to others in HFS she found this contributed to her learning. She found she was relieved of the pressure of

performing and could relax and learn by reflecting on both her own practice and that of her peers. Without the objectifying glance of the other, be it her peers or her lecturer, Jane was released from the need to observe her own actions, as evidenced by her comment *"you're not sort of thinking about what should I be doing"* She found that when she was participating in the HFS scenario she had to constantly think about what she needed to be doing as the discomfort of being watched brought her actions to her conscious thought (van Manen, 1998). Therefore when she was watching in HFS she was relieved of the discomfort of being watched and she was able to relax and think in a natural manner. This relaxed state of mind meant she could consider what her actions would be if she was in the same situation without the pressure of performing. This is in contrast with the previously discussed idea of HFS being a performance and having to perform because others are watching. Jane's comment that she could *"watch and listen from a distance"* signals more of a passive method of learning. Whilst all of the subthemes previously discussed in this chapter involved an active learning approach, watching and the following "reflecting and reasoning" is a more passive style of learning.

Melanie also had a similar experience of watching others but was unsure about whether observing her own actions contributed to her learning.

> *I think we only watched ourselves once on the TV to be honest and then when we were here they were going to play it for us and I don't think that worked either. To be honest I'm glad that it didn't work because it's quite off putting to watch yourself but again that's more of an "I don't like it" versus "it's not a good learning experience". Like you probably do get quite a lot from watching an experience like that. Also I think if you are watching other people in a scenario, you think, "Oh I'd do this or I'd do that," without having the pressure of being in that space. Watching people is definitely something I find useful.*
> Melanie

Melanie felt very uncomfortable with the idea of watching herself on television and was pleased when the equipment didn't work. Despite this she indicates that it might be a good learning experience therefore she is signalling that her discomfort is in conflict with the possible learning benefits. It may be that her uncertainty relates to a negative experience or a lack of experience in watching herself as she shows a certain ambiguity in regards to the benefits or learning outcomes. This is shown through her comment that *"you probably do get a lot*

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from watching" Melanie's experience on watching others is congruent with Jane's in that she was more relaxed as she was released from the pressure of performing.

Reflecting and Reasoning

As previously discussed one of the meanings of learning in HFS is through the act of identifying and filling the NGN knowledge gaps. This learning process in HFS is sometimes driven by the NGN but at other times it needs to be initiated by the facilitator. The debriefing or as the NGN refer to it, the review or evaluation aspect of HFS is often the stimulus for this reflection and subsequent learning. Learning through reflecting and reasoning is a foundational element of experiential learning (Fanning & Gaba, 2007), therefore it is unsurprising that it is an important component of the HFS experience for the NGN.

> *Afterwards the tutor gave us a little bit of a debrief as to some of the things that should have been looked at. They said, "You looked at the rash, but you just put the T-shirt back down again, you didn't really act on it" and that was why the second time around we were actually asking more questions about it to see if it was related. The de-briefing was good because she did sort of bring out a few relevant points like "maybe you should have done this"*
> Jane

The debriefing session has uncovered some important learning points for Jane, in this case the assessment and management of a rash. In this context she has not identified her own learning deficits; instead they have been exposed by her lecturer. Therefore this is in contrast to the "uncovering what I don't know" subtheme where the learning deficits were self-discovered. The opportunity to discuss and explore this learning deficit has resulted in an improved performance when the scenario was repeated. This led to a smoother resuscitation as Jane was more confident in her actions.

> *So you go away and have a talk about it and then you'd come back in and redo the scenario and then usually on those occasions it went a lot smoother and you didn't necessarily end up having to get to CPR. It was kind of dealt with very quickly then because you knew what you should have done*
> Jane

Jane has uncovered the ability to repeat the same scenario as many times as necessary with HFS. Whilst it is possible and usually beneficial to discuss and reflect on a real scenario within the clinical setting, it is not then possible to repeat the scenario to consolidate this reflective learning. Jane has identified this as a real advantage of using HFS.

Peter acknowledged the style of debriefing as an important factor in his learning.

> *I think there was one tutor and she invited us to say what we'd have done differently. So she wasn't critical, she didn't go like, "You could have done this, this and this." It was like, "So what did we think of this?" It was that sort of learning, self-directed and she chipped in and said, "What about this and oh yeah." For me I found that useful. My learning style for definite. She was a really good lecturer. Definitely you learnt off the group as well, oh definitely, yeah and some people would say, "Well I thought it was this." You'd say, "Of course, you're right."*
> Peter

Peter is describing a process where the lecturer is guiding the group to identify their learning deficits and encouraging a constructive conversation around them. He found this a very supportive way of learning as he found it non-judgemental and a lot less critical. Thus because Peter identified with this learning style he was able to maximise his learning outcomes. What is very evident here is van Manen's (1998) life modality of "the body of self as observed by the glance of the other" (p. 16) The lecturer has created an all-encompassing milieu by engaging herself in the learning experience with the NGN. Therefore the NGN experienced her look as non-judgemental and non-critical creating an atmosphere of supportive learning as opposed to one of assessment or judgement. Anna also felt the confirming eye of the lecturer when she said "*I found that really helpful, because it showed me we did do not too bad a job*" This is very much in contrast to the critical eye of the lecturer discussed in Chapter Five.

Peter goes on further to talk about the advantages of reflecting on HFS scenarios.

> *I'd never done any paediatrics, so I didn't really realise about different parameters so that was good for me. Like why did you do it like that? Oh that's normal, all that sort of thing. So the review process was good, I remember the review sessions being the best. I think they just stick in my*

head. We watched the other team on the monitor and you'd have to review them as well. I remember that being really useful. Then we'd discuss things like; What did you do? Why did you do that? Oh yeah. What was the reason for that? Why did you take the blood pressure again? You knew what it was. Why didn't you call for help sooner?
    Peter

The review process has assisted Peter in uncovering what he didn't know in terms of paediatric vital signs parameters. It has also provided an opportunity to reflect on what they did in the HFS scenario and rationalise why they did it. This meant they were also able to observe and explore how their peers would manage the same situation. This indicates that the NGN believe a well facilitated debriefing may develop critical thinking and clinical reasoning skills.

Kim shows how important it is to facilitate debriefing effectively.

I just felt that even if we did do anything wrong, we didn't get that much feedback from it either. Afterwards they'd come out and the teachers would give a little bit of feedback but maybe some written feedback about what happened (would be useful). Maybe even if the students could watch themselves afterwards and see what they could have done and what they didn't do. Because you sort of go in there and even if you haven't done it wrong, you sort of just leave being like, "Okay, what was that really for?" I didn't really understand the benefit of the situation at the time, the reason for doing it. I think it would be really useful now.
    Kim

Kim felt a real feeling of uncertainly after the HFS because it had not been debriefed effectively. She was unsure if she had cared for the HPS in an appropriate manner as she did not get enough feedback. She signals that she was very open to learn from the experience as she is willing to receive constructive criticism or consolidate her learning through positive feedback. This gave Kim a sense of confusion as she did not know how she had performed and left her wondering what the purpose of HFS really was.

The advantages and disadvantages of learning together in the debriefing section were explored by Anna.

I think one of the things with high participant numbers is if we'd had less people we probably would have missed a whole bunch more stuff. With the lecturer going over it I found it really helpful, the feedback was really good. Not specifically individually, just as a group, because they didn't really give individual evaluation. It was hard to do because there was a few of us. You would be able to say something but someone else got it

first, so they can't really do individual evaluation. I think I would have liked more time with the evaluation as well. So she could explain things a bit more thoroughly and fill in the gaps that I didn't quite understand but it made some sense to me. The lecturer told us why you would do things as well. I found the whys quite helpful especially because it was a real situation. Obviously she was like, "Okay you did this and this is the rationale that supports why you did it. Baby had this and this is the pathophysiology that indicates why that would happen"
Anna

Anna felt a real tension between the advantages of receiving individual and group feedback. She clearly benefitted from the community of learning which was developed through HFS as it meant she could learn off her peers. This is contrasted with her feeling that the lecturer could focus more on the specific shortfalls in her learning if she was debriefed individually. Although she can clearly see the advantages of both models of debriefing, she feels the compromise is to spend more time on the review so that she can have more individualised feedback without losing the group input. Anna is also talking about the learning process of clinical reasoning and how HFS assisted her learning to make the connections to her "real" clinical practice.

Making the connections

There is a lot written about the theory to practice gap between nursing education and clinical practice and how this can be minimized. The NGN talked about this gap between what they learnt at university and how it applies to their practice. They often referred to HFS as *"real life"* or referred to the fact that *"this could happen in practice"* and this signals that they were identifying these connections between HFS and clinical practice and the relevance they placed on it. They discussed this in two ways; firstly how HFS helped them make sense of their theoretical or classroom learning and then how they could apply this knowledge to their clinical practice. As Jane terms it HFS is *"where it all comes together"*

I think simulation is a really good tool to use because it can be pretty realistic. We use all these assessment skills at the start and then we'll develop them and then start linking the learning that we're doing, because you don't get to link any learning and of course you learn it and

> *you forget it if you don't link it. Or I do anyway, and if you can base some of your more science stuff and more clinical stuff around it.*
>   Peter

Peter talks about initially learning basic assessment skills in HFS and the ability to progress them as he develops a larger knowledge base to draw from. This ability to draw from his developing knowledge base means HFS can help Peter consolidate what he has learnt in theory or clinical. He signals that if he does not link the theoretical component of learning he will forget it and he sees HFS as an effective means to do this.

Kim also talks about linking her theoretical learning to HFS.

> *The way you learn at uni is you go through all those pathophysiology papers but you're not often putting it into context. Like we had a really good paper actually that was the pathophysiology paper and we'd do like a unit and have a booklet for each system. And then it would be really good if at the end of each system unit we could go into the Dem room.*
>   Kim

Kim struggles to contextualize the theory she learnt in the undergraduate programme because like Peter, she was unable to apply it to practice in a timely manner. She feels if she was able to have a theory session followed directly by a HFS session on the same topic this would consolidate her learning. Kim appears to see her theory papers at university as very separate from her clinical practice. Perhaps to a certain extent this is due to the impression of the lived space of the university being a place of learning and a very separate entity to the "lived space" of the clinical setting (van Manen, 1997b, p. 101). The separation of these two contexts was discussed in Chapter Four as a real impediment to the reality of HFS as the university had such a differing ethos to the clinical setting. In the theme of learning it appears to be effecting the integration of knowledge from one context into the other. Kim's narrative appears to be showing that she sees HFS as a bridge between these two learning environments as it can easily and effectively make the connection between the two.

This idea that theory in the undergraduate programme needed to be more closely linked to HFS was evident in a lot of the NGN narratives.

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Simulation was a bit of a strange one because it was so out of the blue. We did it in isolation. There was no linking of what you (were) *learning in the wider course to that session. For example if you were learning respiratory pathophysiology,* (the HPS) *could experience chest pain, respiratory distress or something like that. You can really, really link it. Then you could learn about nursing skills, nursing assessment skills.*
    Peter

Peter felt that the HFS experience was very much in isolation from his theory papers and this meant it felt strange and irrelevant to him. He feels that it needed to be closely linked to what they had learnt in the classroom so that the meaning of HFS would then be to consolidate the knowledge learnt in the classroom. This would occur as he could then link his theoretical knowledge to actually managing patient care. Peter is also discussing the ability of HFS to provide a range of different scenarios.

Anna also talks about the link between theory and HFS.

I think I would have liked to do a lot more simulation because I really enjoyed them, like I found I learnt a lot from them, like really a lot from them. I felt the knowledge that I gained from them was really relevant to my practise, the practise that I might experience in the hospital. I mean because a lot of it was like theory and a lot of the nursing theory isn't really relevant. I'm just like; I don't remember half of it, but (HFS) *I felt was really relevant. This could happen. You know it was really useful, kind of got you really thinking compared to theory.*
    Anna

Anna perception is that a lot of the nursing theory she learnt in the undergraduate programme was not relevant. It appears that HFS has assisted Anna to see the link between her theoretical learning and practice that she was unable to see through doing theory alone. Through the corporeal act of experiencing HFS it has stimulated her to think about the concepts she has learnt and how they apply to her actions. This has also assisted in the knowledge retention.

This idea that HFS made the theory relevant is also evident in Jane's narrative below.

Of course our earlier experiences with the Sim man were before we'd actually done a lot of practical and simulation is where it all comes together You know if they are having breathing difficulties you don't want to ask them lots of questions. So you are going to have to try and get the

> *airways open obviously and sit them up and things, but those sort of*
> *things became more relevant once I was working.*
>   Jane

Although Jane had learnt about how to manage a respiratory patient in the classroom it did not become real until she had the experience of applying it in HFS. She had not had a lot of clinical experience at this early stage of her undergraduate education and therefore did not understand the reality of how it applied to practice. This signals that for Jane, HFS has made this connection between learning the theory, applying it in HFS and now as a NGN applying it to practice.

HFS has also assisted Jane in transferring learning in terms of van Manen's lifeworld existentials to practice (van Manen, 1997b).

> *When I was in haematology there was a code and one thing I did learn*
> *from (HFS), because we are talking about codes with the (HPS), is that*
> *you do stick around until you are not needed. In the code in the ward I*
> *felt there were so many people there but someone said, "Can you just*
> *reassure the other patients who are in the room?" It's not something I'd*
> *thought about but that sort of thing has helped. You're aware that things*
> *need to be done quickly but I guess from the (HFS) experience you are*
> *also aware that there are other people around to help out.*
>   Jane

The experience of HFS for Jane means that she now has an understanding of timeframes within a clinical setting as well as an awareness of considering others within the room. These are elements of an emergency situation that she had not even considered prior to experiencing them in HFS. For Jane the reality of "lived time" and "lived other" in HFS has assisted her in connecting that learning to her clinical practice (van Manen, 1997b, p. 101).

"The experience of being a nurse"

The experience of learning has brought forth many subthemes all of which are essential in the meaning of HFS for the NGN. As was introduced in this chapter, learning in the doing is an important essence of the HFS experience as it is interwoven throughout all of the narratives. Learning through doing is an effective learning modality for the NGN because to them the meaning of nursing is the physical acts of caring, not sitting in a classroom. HFS provides a medium

through which the NGN can physically do what nurses do, actually be a nurse without putting patients at risk through their inexperience. Although some difficulties have been identified in this study in terms of the reality of HFS and the pressure of being watched and assessed, the meaning of HFS as learning has recurrently emerged from the narratives. HFS brings to the consciousness of the NGN the actual skills and actions that constitute nursing as described by Anna.

> *It was interactive, getting to do this, this is completely relevant. This is what nursing is I suppose*
> Anna

Whilst the NGN identified being in the classroom and at university with being a nursing student, HFS appears to be providing an opportunity to begin the transition into being a nurse. Through the chance to actually do, to be a nurse and to care for a patient of sorts through HFS they are beginning to identify with being a nurse not just a nursing student.

An opinion piece by Telles (2010), a student nurse supports the findings of this study.

> Simulation scenarios assist you in feeling as if you actually know something and that these past few years of countless exams, studying all day and night, and 5:00 a.m. clinicals were worth it. Because for those 2 hours when you are with the human patient simulator, you get some sense of what it must feel like to be an RN. (p. e1)

Although HFS offers the opportunity for the NGN to identify with being a real nurse, this study has identified advantages that would not be possible in the clinical setting. HFS enables learning from both peers and their own practice through watching and also from the facilitator in the debriefing period. HFS brings learning deficits to the NGN conscious thought in a safe environment and through repetition enables them to develop these areas of their practice. The strength of HFS according to the NGN in this study is the teaching of the basic skills that are required prior to being in clinical placement as a student nurse. The ability of HFS to consolidate theoretical learning in a timely matter is also not always possible in the clinical setting due to the long periods between clinical placements. The ability of HFS to portray a wide range of scenarios to correspond with theoretical learning is also an advantage discussed in the

findings of this study. The underlying argument is that HFS can create an environment of learning which would never be possible in the clinical context because of the points discussed above.

Conclusion

The NGN in this study described the experience of learning in HFS in many different ways. This includes: learning in the doing, uncovering what I don't know, preparing for practice and filling the gaps, learning together, learning through watching, reflecting and reasoning and making the connections. All of these learning experiences provide meaning for the NGN in HFS especially learning in the doing as it was evident in all of the active subthemes of this chapter. The fact that HFS offers learning opportunities that would not be possible in the clinical setting was also discussed by the NGN. The opportunity to experience the physical actions of caring in HFS appears to have commenced a journey for the NGN, from that of being a student to being a health care practitioner.

Chapter Seven: Discussion

Introduction

The aim of this research has been to uncover the lived experience of HFS for the NGN who participated in the study. How do the NGN interpret these experiences and what are the themes and essences that create meaning for them? This is one of the first studies within New Zealand which has specifically looked at the lived experience of HFS within the nursing undergraduate programme. The findings are an interesting balance between the realism of HFS and the effects that this reality has on learning for the participants. This chapter will firstly explore the key findings of this study and discuss how they compare with other relevant literature available. Then taking these findings into account, along with the supporting evidence from the literature, I will discuss recommendations to further augment the use of HFS within the undergraduate nursing programme. Although these recommendations are specifically intended for undergraduate nurses in the academic context, many are applicable across the clinical context as well as beyond nursing into other health care disciplines. The study limitations will also be discussed in this chapter.

The compelling thesis that emerged from the lived experience of HFS was a feeling of the NGN being caught somewhere between the real and the unreal. This was described as almost a tension between the two feelings and was interwoven throughout the three themes that I have discussed in this study. In HFS, the NGN natural compassionate and empathetic response to their patient was hindered by their awareness that it was not a real human being they were caring for. The NGN felt very much the absence of the human factors; the bond or relationships that connect humans with each another. This was considered an essential element of the art of nursing by the NGN and it contributed greatly to making HFS feel like an unreal situation. This lack of the human factors is obviously an aspect of HFS that we cannot resolve as educators. The reality is that HFS is not a real clinical situation and the HPS is not a real patient. Thus the facilitator's role is to maintain a balance between making it feel real enough that the participants are able to engage in the learning experience and making it feel safe and secure so that they can learn.

Although there is a lack of connection with the patient in HFS there is also a feeling of reality which creates the tension between the real and the unreal. Despite this tension, learning was also a meaning which was central to the experience of HFS for the NGN. Realism was created through the ability of the NGN to learn through the tactile nature of HFS. It was the basic skills and processes of nursing that the NGN felt were best addressed in the HFS experience. It was through the act of actually undertaking these skills and the application of the experiential cycle of learning that the participants attained deep learning (Kolb, 1984). By having the physical and concrete experience of performing assessments, nursing skills and working within a team in HFS, the participants started to experience what it felt like to be a nurse. Despite this it must be emphasised that the NGN, felt very strongly that HFS will never replace the clinical paradigm of learning. It is merely a learning modality which augments, strengthens and supports the learning which occurs at the bedside. The findings of this study demonstrated the important role that HFS plays in creating a learning environment in which undergraduate nursing students begin to integrate their scholastic learning with the art and science of nursing and began to identify with their profession.

The key findings in this study are in some ways congruent with current literature and in other ways quite contrasting. Certainly this difficulty for undergraduate nursing students in connecting with the "patient" in HFS was evident in other studies completed. The participants in studies by Baxter et al. (2009) and Hope, Garside and Prescott (2011) found the obvious physical differences and difficulty in engaging with the human patient simulator affected their ability to learn. This appeared to be a static feeling of a lack of reality though as the participants did not appear to move between the real and the unreal as they did in my study. A study by Schoening et al. (2006) had quite different findings in terms of realism in HFS. Their participants felt very much engaged in the scenario and found it to be very realistic. Their findings in terms of learning were consistent with the participants in this study. The participants found that they were able to integrate all of their learning in the HFS laboratory and the hands on experience encouraged depth and width of learning (Schoening et al., 2006). There appeared to be minimal consideration given to the reduced relationality

with the HPS across the literature. This is perhaps a reflection on the lack of research which addresses the meaning of HFS as experienced by the participants and shows the importance of this study.

Feeling like a real nurse: Enhancing realism in HFS

> A successful scenario is not based on the realism of the simulation itself, but rather the alchemy of participants stepping into their roles, connecting with others in the scenario, and actively linking to their previous social, clinical, and psychological experience. (Rudolph et al., 2007, p. 162).

In the literature review I introduced a reality framework which discusses three modes in which human beings consider and describe reality in the lifeworld (Dieckmann et al., 2007). These three modes of reality have parallels to van Manen's (1997b) four lifeworld existentials and also the meaning that the NGN applied to reality in HFS in this study.

The physical mode of reality

The first aspect of Dieckmann et al. (2007) model is the physical mode which is comparable to van Manen's (1997b, p. 101) cognitive spatiality as well as "lived body" and "lived other". A lot of the unreal elements of HFS that the NGN identified fell into this component of the reality framework. This is perhaps a reflection on the NGN lack of depth in clinical experience. As NGN they know enough to know what the clinical space looks like, however they have not yet fully realised the complex processes and human relations that occur there. This gives them a rather one dimensional view of reality in HFS and this appears to affect their ability to immerse themselves in the scenario completely. It is important to consider if the NGN perception of reality in HFS has changed now that they have more experience of the physical reality of the clinical setting. It would be interesting to explore the meaning that undergraduate nursing student's place on reality in HFS and compare it to what has been uncovered in this study.

Despite this the NGN obviously place a lot of meaning on the physical reality of the HPS and the HFS space therefore it is essential that they are as realistic as possible. Some of these physical realities are easily addressed and educators should apply careful consideration to ensure they are remedied. Factors such as ensuring that the appearance of the manikin is consistent with the voice and the gender of the patient that they have been given in the scenario are easily addressed. To have a female voice coming from a manikin that is male in appearance felt very unreal for the NGN in this study. HPS are generally a male manikin but a wig and female clothing and well as consideration as to who will voice the manikin will go a long way in producing some form of reality for the participants.

Aspects of the "lived body" (van Manen, 1997b, p. 101) that felt unreal for the NGN have been discussed in Chapter Three. These included those discussed above such as the voice of the HPS but also included the physical and tactile appearance and the difficulty in interacting with the manikin. These aspects are important as they disturbed the NGN ability to respond to the patient in a natural way. Whilst undoubtedly the physical appearance of the manikins will improve with evolving technology it is inconceivable that they will ever exactly mimic the human body. Therefore emphasis must be placed on maximising student's familiarity with the manikin to promote engagement. The participants in this study felt unfamiliar and ill at ease with the HPS as they used him so infrequently and therefore had difficultly treating him as they would a real patient. The need for the increased utilisation of HFS in the nursing undergraduate programme was a common feeling amongst the participants of this study. This is very clearly articulated in an anecdote from Melanie.

> *I think it's just not used enough. We talked about this at the new grad study day and basically I reckon that* (HFS) *would be a really effective tool if you felt really comfortable, if you felt like you'd done it a lot so that you would actually kind of forgot that it was a* (HPS)*. You just reacted like it was a real clinical situation. I think that's when it would be effective but doing it once or twice in your year doesn't work. It's just like a weird thing where it's play acting and it just doesn't feel real or comfortable.*
>   Melanie

This feeling was also reflected across the literature regarding HFS and undergraduate nursing students (Henneman & Cunningham, 2005; Hope et al.,

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2011). By increasing their exposure to HFS the NGN would become increasingly familiar with the manikin and the intricacies of assessing and treating him. This should minimise the obvious disparities and allow them to put his physical differences into the background of their conscious thought. HFS should be utilised throughout the undergraduate nursing programme on a regular basis. A continuum of nursing skills and interventions can be then taught, building on the complexity as they progress through their education. Students will then feel familiar with the manikin and how to use it when they are completing complex scenarios which involve teamwork, clinical reasoning and critical thinking skills in their third year. Thus maximising and enhancing the use of HFS in the undergraduate programme (Medley & Horne, 2005).

Another way to minimise the corporeal differences of the HPS and increase participant familiarity was discussed by one of the participants in this study. Formally introducing participants to the manikin and its' functions is also emphasised in the literature as an important part of the preparation for HFS (Kuehster & Hall, 2010).

> *The way you have to take the blood pressure a bit differently and all that sort of thing. Yeah knowing how to use* (the HPS) *is important. It would be good to almost have a, "This is how* (the HPS) *works." almost a pre-lesson on it. We were just sort of thrown into it.*
> Peter

As Peter correctly identifies there are certain idiosyncrasies that participants must be aware of when using a HPS. The fact that some aspects of patient care are different in HFS must be made very clear when introducing learners to the manikin. By giving the learners an opportunity to practice simple tasks such as auscultating the chest prior to the scenario it should ensure that whilst engaging in HFS they will react in a natural and unconscious way. To use the example of palpating for a pulse, if the learner has not been given the opportunity to practice there may be a conscious doubt as to whether they are palpating in the correct place. The subsequent rechecking and searching for a pulse will compromise their engagement in the scenario.

Another physical aspect that the NGN discussed is the appearance of the HFS space. Faculty must ensure that the cognitive "lived space" (van Manen, 1997b,

p. 101) of the HFS room is congruent as much as possible with a clinical work area. If it is not possible to perform HFS in the clinical setting then it is imperative that attention is paid to detail so that the physical space looks like a patient's room and not like a university. Things like have hospital signage or having CPR algorhythms on the wall if it was an acute HFS scenario or an immunisation schedule if it was a scenario in a clinic setting. Ensuring there is functioning equipment such as suction and oxygen on the wall behind the bed assists in participant immersion in the scenario. Emergency call buttons will also add to the reality of HFS especially as calling for help early is usually a key learning outcome in an emergency scenario. Other easily created props such as patient notes and blood results will also enhance immersion. This will mean the learners will need to actively engage as they document their assessment and cares and interpret results (Alinier, 2011). It is also important that there is as little pedagogical equipment visible in the room as possible.

Having the correct and functioning equipment appeared to be a significant factor of reality for the NGN in this study. Healthcare is an increasingly technology-based profession and it is important that this is reflected in HFS. The NGN want to feel like real nurses and to them this includes having vital sign monitors and other technical equipment which are consistent with what they experience in the clinical setting. Of course this has obvious financial implications but the purchase of this equipment is worthwhile. Repeated use of the equipment should develop a familiarity, confidence and competence in completing basic nursing skills such as obtaining and interpreting an electrocardiogram rhythm as well as increasing the reality of HFS. This equipment will also add to other sensory aspects of the HFS as it will provide the noise and to a certain extent, the feeling of a real healthcare setting. Hospitals are generally not quiet places and the beeping and alarming of patient monitors and other equipment is a common sound. This is one of the facets that make the lived space of a hospital feel like it does. A slow and regular heart rate beeping away in sinus rhythm usually generates the calm and relaxed atmosphere in which health care professionals undertake their daily work. Compare this with a setting where the predominant noise is the beeping of a tachycardic heart rate interspersed with a loud and urgent patient monitor alarm. The feeling of intensity within the room is immediately increased and this

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will assist in creating the tension filled atmosphere of a critical event for participants of HFS.

The phenomenal mode of reality

Whilst the physical mode of reality (Dieckmann et al., 2007) accounts for the physical or cognitive space of the simulation laboratory, van Manen's (1997b) and the NGN "lived space" (p. 101) meant more than just the size of the room or having the correct defibrillator machine. These physical reality factors are easier for the educator to correct as they are easily described and very concrete. What is not so easily addressed is the pathic state or the feeling of the HFS space. This is what Dieckmann et al. (2007) describe as the phenomenal mode and is closely related to van Manen's (1997b) concept of "lived other" (p. 101). This is the ethos of the HFS room, how the participant emotionally feels during HFS and how interactions and relationships within the room impact on this feeling of reality. These are the human factors of a clinical situation and these social or relational aspects are identified as a significant learning outcome of HFS (Dieckmann et al., 2007). The feeling of time and its passage is also an aspect within this mode meaning it also has parallels to van Manen's (1997b) "lived time" (p. 101).

As much as possible we need to make the NGN feel like they would if they were in a clinical setting. Whilst the sensory stimuli discussed above will assist with this the "lived space" (van Manen, 1997b, p. 101) of the university setting is very much one of learning and does not feel like real clinical practice. This is expressed in Andrea's narrative below.

> *The environment felt unreal because it wasn't hospital, it was Uni work. It felt like it was learning not a real situation.*

> Andrea

The university ethos is one of learning, a place where it is safe to make mistakes and learning occurs in more of a relaxed milieu. Whilst these elements are important in a pedagogical environment, they appear to be affecting the reality of HFS for the NGN. Once again this delicate balance between realism and learning is evident.

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Whilst the ability of faculty to change the ethos of the HFS experience in university is extremely challenging, some concepts which may assist have been identified in the literature. Simple ideas such as wearing a uniform will create an atmosphere of professionalism in HFS. The act of looking like a nurse in HFS can facilitate a mindset shift as demonstrated in a study by Hope et al. (2011) study. They went from the feeling of being a student to being a real nurse thus enabling them to partake in HFS as they would in clinical practice.

The other aspect of relationality that was examined by the NGN in this study was the interaction between the participants. Participating in HFS together was discussed as a positive aspect in the context of learning as the NGN were able to learn off each other. Despite this, the participants recurrently referred to being at the bedside with seven or eight other learning practitioners as an unrealistic portrayal of practice. This once again indicates the balance between maintaining realism and pedagogical outcomes.

One way in which the equilibrium of experience within the HFS setting could be achieved is through facilitation of HFS across the academic nursing programme. The participants discussed the value of learning off each other as well as the more experienced nurses when they participated in HFS in the clinical context. This could be achieved in the undergraduate programme if students were able to participate in HFS with students from all three years. This would allow for role modelling of best practice from the more experienced students to the novice nursing students. As referred to in the opening quote of this section, a successful HFS allows participants to delve into their previous clinical experiences (Rudolph et al., 2007). Whilst the novice first year nursing students do have theory education and taught guidelines to draw from, they have little clinical experience as they have spent minimal or no time in the clinical area. Therefore participating in HFS with more experienced students will provide them with new experiences and learning that they can apply to their next HFS or clinical experience. This model of intraprofessional student HFS should also develop leadership, delegation and preceptorship skills in the more experienced students. This would also allow for a more realistic portrayal of a differentiated model of nursing care as practiced in the health care setting

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(Benner et al., 1992) and also has parallels to Benner's (1984) novice to expert nursing framework. This intraprofessional HFS model was found to have great value to all of the students across the spectrum of experience in a study by Leonard, Shuhaibar and Chen (2010).

Within their stories of HFS, the NGN compared their experiences of HFS in the university to that in the clinical context. One positive aspect of HFS in the clinical context that was discussed was the increased realism through the interdisciplinary HFS. It is interesting to consider if this model of HFS would be feasible within the academic setting. Certainly the literature suggests that multidisciplinary HFS is an effective approach which enhances the phenomenal reality of HFS. It also has a role in developing an understanding and appreciation of other healthcare disciplines and their roles (Dillon et al., 2009). The ability to communicate and collaborate as a team is identified as one of the main goals of HFS (Rudolph et al., 2007) and the "conversational relation" (van Manen, 1997b, p. 105) between participants was identified as an important element of reality in this study. In particular accurate nursing handover is one aspect of care that can be developed in HFS through both inter and intradisciplinary HFS. This is an essential skill that new practitioners often find difficult and daunting. Through staging the arrival of participants into HFS, it can be practiced and evaluated effectively (Alinier, 2011). The participants in this study identified the value of interdisciplinary HFS therefore this model warrants further examination to explore its viability within the undergraduate programme.

Although effective communication can be a learning outcome, HFS is also valuable in identifying poor conversational practices. Perhaps through an idealized view of clinical practice, a NGN identified miscommunication between participants as an unreal aspect of HFS. Unfortunately poor communication practices are a reality and are exactly the type of issue that can be a key learning objective of HFS. It is better that poor communication is experienced within the safe environment of HFS, as opposed to the clinical context where patient care can be compromised. In the context of HFS, this miscommunication can be developed into a valuable learning opportunity through effective debriefing and reflection without putting either the patient or the practitioners at risk (Rudolph et al., 2007).

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An aspect of relationality that was discussed in Chapter Three was the tendency of the NGN to direct their main attention to the other human being in the room, as opposed to their actual patient. Whilst it is acknowledged that this occurrence may be attributed to the unreality of the HPS, I believe it is a situation which is not unique to HFS. Therefore I believe this is a frame which can be generalised to clinical practice and with effective debriefing can be developed into an important learning outcome of HFS.

Whilst having an actor play the part of the caregiver or family was discussed as an important factor in creating reality, it is essential that they do not become the main focus in the scenario. Having other students play significant others in HFS will not only reduce the reality but there is also the potential for them to dominate the scenario and take the focus away from the patient. Thus the NGN are unable to concentrate on their assessment of the patient and learning outcomes are negatively affected. This can be addressed by having paid actors or faculty that are well briefed to play these roles so that they can interact as little or as much as required depending on learning objectives.

Another compelling theme which emerged from the stories of the NGN was the lack of phenomenal realism secondary to being watched. They felt that being watched in HFS was not congruent with clinical practice but the reality is that being watched and assessed is inherent to the health care context. So how can we utilise this interpretation and reduce this feeling of anxiety of being watched in HFS? Certainly an anxiety in undergraduate nursing students of being watched in HFS is reported in the literature (Cordeau, 2010). I believe that a lack of familiarity with practicing in front of their peers and faculty contributes to the anxiety. Therefore repeated exposure to HFS throughout the academic programme will make being watched routine practice and minimise its place in the participant's conscious thought. This is supported by a study by Hope et al. (2011) who found that anxiety related to being observed was reduced in participants through repeated exposure to HFS.

Another factor that creates the feeling of unreality in being watched is a fear by the participants that they are being assessed by faculty. This is almost certainly created by the ethos of the university space as a place of learning and subsequently it is also associated with assessment. This is once again a difficult issue to address and the challenge for the educator in HFS is to create a pedagogically sound environment to minimise this feeling. Dieckmann et al. (2007) emphasise the importance of making learners explicitly aware of the purpose of HFS and the facilitator's role in it. Faculty need to be very clear when introducing the HFS scenario that it is a learning experience and is not for assessment purposes. Therefore it would be advisable that HFS was purely utilised for learning and not for summative assessment. This would be sending conflicting messages and will create mistrust amongst the participants.

The presence of the video recorder in HFS was also a source of anxiety identified by the NGN in this study. The recommendations addressed above of repeated exposure to HFS and explicitly stating the purpose and learning objectives prior to commencing will also address this issue.

The semantical mode of reality

The next mode of reality is Dieckmann et al's. (2007) "semantical" (p. 184) mode which concerns ensuring the conceptual elements of HFS are realistic. Whilst there was some evidence in this study that this mode was operating, semantical aspects were not prominent within the data. Perhaps this is due to what van Manen (1997b) calls "conversational relation" (p. 116). Due to the NGN inexperience these concepts may not yet be part of their landscape. As a novice practitioner the NGN do not recognise or accommodate them within their lifeworld thus they are not part of their dialogue. Despite this, the importance of these conceptual aspects, essential to develop participant processes such as decision making, diagnostic reasoning and anticipatory care were still seen within this study.

One factor to ensure semantical reality is that faculty must consider the learner's level of practice when designing scenarios. If the learner's knowledge

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base is at a level where they do not recognise the "if - then" aspect of the scenario then they will never be able to engage. An example of this would be if a group of novice students are involved in a diabetic scenario. They must understand the underpinning physiological concepts of hypoglycaemia, for example if a patient is hypoglycaemic, then their level of consciousness will be lowered. If this is beyond their level of understanding then they will never identify the need to perform a blood sugar recording and won't be able to engage and progress through the scenario. Considering this example in the context of the intra or interprofessional HFS model discussed earlier, the novice nurse will be directed by the more experienced members of the team. They will then be guided to take the blood sugar recording and treat the patient accordingly. This should ensure engagement in the scenario to a level which is appropriate for all of the learners involved.

One way in which the NGN in this study discussed their engagement in HFS, was through their participation in activities such as analysing cardiac rhythms on the patient monitor. This felt real for the NGN as they had to reflect in practice (Schon & DeSanctis, 1986) and act accordingly therefore they were actively involved in the learning experience. Strategies such as this ensure the semantical mode of reality is activated and cognitive processes such as clinical and diagnostic reasoning can be initiated. This shows the importance of ensuring these physical aspects of HFS are available as they increase the semantical reality and develop these essential nursing skills (Rudolph et al., 2007).

Processes that are not directly associated with the physiological condition of the patient must also be realistic to enhance participant engagement. The study identified some conflicting feelings amongst the NGN as to the amount of lead in time required to prepare for HFS. Whether faculty decides to give the participants lead in time to research or not, it is important that the information the participants get prior to the HFS is contextualized. That is if the scenario states they are working in an Emergency Department then they get a short preparation time (Alinier, 2011). There would also need to be easy to locate resources to assist the practitioner as would be available in this setting.

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Another important factor within this reality mode is that faculty have an in-depth understanding and experience of the physiological concepts that underpin the scenario they are facilitating. The facilitator must be experienced in the area of nursing that the scenario addresses so that the correct "if-then" (Rudolph et al., 2007, p. 162) processes can occur thus ensuring semantical reality.

The participants in this study did describe some aspects of semantical reality in their HFS experience. Peter illustrated the processes of patient assessment, clinical decision and problem solving within his story in regards to assessing and managing pain. This signals that there is some form of realism within this mode for the NGN and it is a matter of enhancing it by utilising the recommendations already discussed.

The integration of the three modes of reality

It is essential that all three reality modes are considered when designing HFS scenarios. Interestingly Dieckmann et al. (2007) see the physical mode as the least important of the three components of the framework. If the participants cannot identify with the semantic and phenomenal realities of HFS it does not matter how realistic you make the physical environment. That is you can make simulation as high fidelity as possible but if the other two modes of reality are not present, HFS will not be a realistic and constructive learning experience. Participants have to be willing to see past the physical differences of HFS as the reality is, it is not clinical reality and the HPS is not a real human being. This appeared to be a major difficulty for the NGN in this study and faculty must develop ways to enhance their engagement in the HFS experience. Dieckmann et al. (2007) use the term "suspend disbelief" (p. 189) when discussing reality and the ability of the participant to engage and immerse themselves in the HFS scenario. To me this indicates the idea that we cannot expect the participants to completely ignore the corporeal differences of the HPS. As found in this study, the NGN found it near impossible to do so and we should not expect them to. Instead faculty must explicitly acknowledge these differences and ask them to actively put aside the physical and social shortcomings to participate in the scenario. Although we do need to maximise these physical components of "lived space" and "lived body" (van Manen, 1997b, p. 101) as much as possible,

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as they assist in the NGN sense of feeling like a real nurse. Despite this we also need to place more emphasis on the reality of the other two modes, as Rudolph et al (2007) term it "the art and science of simulation scenario design is to blend the three skilfully" (p. 162).

HFS is considered to be a student-led learning experience with the facilitator in a supporting role. The learners will not be spoon fed knowledge and learning; they need to get involved and actively participate as they will determine the depth of their personal learning from the experience (Kardong-Edgren, Starkweather, & Ward, 2008). Therefore if students are not able to engage or immerse themselves in the scenario because of a lack of reality, HFS will never achieve its full pedagogical potential. Other ways of maximising participant buy in and placing the responsibility of learning and engaging back on the student must be considered. One such way that is suggested in the literature is through the development of a "fiction contract" (Dieckmann et al., 2007, p. 189). This concept involves an agreement between the participants and the facilitator that they both have a responsibility to maximise the effectiveness of HFS. The facilitator is accountable for providing a safe and dynamic learning environment in which participants are safe to learn from their mistakes and the mistakes of others. They have a responsibility to provide clear learning objectives which are relevant to the needs of the learner. The facilitator also has an obligation to provide clear and constructive feedback to guide and support participants to learn from their successes and faults (Alinier, 2011). Students also have accountability within this learning contract. They have a responsibility to "suspend disbelief" (Dieckmann et al., 2007, p. 189) and engage in the learning experience as they would in the clinical setting and this is the area which this study identified as needing developing. They have a responsibility to engage in a reciprocal, non-judgmental and courteous community of learning, the actions of which will not be discussed outside this community. They have an obligation to reflect on their experience honestly and openly to encourage personal and group learning in the debriefing session (Weinstock, 2011).

Whilst Dieckmann et al. (2007) discuss this as a fictional contract; I propose that it needs to be more tangible in the context discussed in this study. It needs to be made explicit to the learners in undergraduate nursing education that they

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have a responsibility to promote realism by immersing themselves in the HFS experience. This can be achieved through the development of an actual written contract in which the purpose of the HFS experience is explicitly stated. Participant and faculty responsibilities can be clearly outlined and a confidentiality clause will assist in making HFS feel like a safe learning environment for the participants. This confidentiality clause also has the dual function of allowing scenarios to be reused with other groups of students.

If sessions are videotaped then consent can be obtained through this contract and the purpose of the recording can be stated. It can then be signed by both faculty and participants establishing the onus for learning as a responsibility of both parties.

Creating an environment for learning

> Learning is experience. Everything else is just information (Einstein, 1954)

Within the narratives there were several subthemes identified that the NGN applied to the meaning of learning within HFS. These fell into three aspects of the HFS experience; in the preparing, in the doing and in the reflecting and evaluating. These three categories will be utilised to frame the discussion and recommendations of the experience of learning.

In the preparing

In this study the NGN did not simply consider the HFS experience as just participating in the actual scenario. They also offered their interpretations and recommendations on the wider picture of learning within HFS and this included the preparation required for them to participate. This included both their personal preparation as well as faculty planning and scenario design.

Curriculum design and the place of HFS within it were widely discussed by the NGN in this study. The need for the closer linking of HFS with the theoretical aspects of the university syllabus was widely reflected across the narratives as well as within the literature (Henneman & Cunningham, 2005; Schoening et al.,

2006; Sinclair & Ferguson, 2009). An example of exactly how this could occur was described by Peter.

> *If you were learning respiratory pathophysiology,* (the HPS) *could experience chest pain* (or) *respiratory distress*
>   Peter

The NGN in this study viewed HFS as a link in connecting their theory to practice, therefore it is essential that the use of HFS is developed to maximise the transfer of knowledge. The approach of HFS following the related theoretical session supports the previously discussed recommendation of the increased utilisation of HFS. The application of learning to HFS would have to occur in a timely manner to ensure the consolidation of theoretical knowledge. Therefore for the approach to be effective, HFS has to be employed regularly. I suggest that HFS should be utilised as frequently as weekly to support this transfer of learning and to increase reality and decrease anxiety as previously discussed. This increased frequency of HFS will also allow for a wider breadth of the types of scenarios practiced. The NGN discussed their expectations in HFS that the scenario would always deal with a critical event such as a cardiac arrest. This created anxiety and caused them to overthink the scenario. The increased use of HFS would allow for a variety in the learning material, right from primary health through to critical care scenarios. Another suggested benefit of the regular use of HFS is to up-skill faculty and give them an increased pool of experiences to draw on. This will increase the pedagogical value of HFS for the participants as faculty build on their repertoire of scenarios and debriefing experiences (Medley & Horne, 2005).

Linking theory to HFS is also congruent with adult learning principles. This approach is supported by the cognitive domain of the Revised Bloom's Taxonomy (Anderson & Krathwohl, 2011) as it describes a sequential approach to learning. The acquisition of knowledge is the first stage in learning in this taxonomy and in the context of this study, this stage should occur in the classroom. Comprehension is the next phase and this may also commence in the classroom but for some of the participants in this study it required further inquiry to fully comprehend the learning material. The NGN described an encumbrance in HFS at a lack of knowledge and comprehension and felt they required time to research their patient's condition prior to participating in the

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scenario. Adult learning theory would therefore appear to support allowing time for research on the scenario topic prior to participating in HFS. This concept of preparation time for HFS has already been discussed in relation to contributing to the reality of HFS. In the context of learning it appears that preparation time is important but consideration must be given to the level of the learners and the learning objectives. If the learning objective is to teach basic skills and concepts, as would be appropriate for novice nursing students, then they need to be given time to consolidate their classroom learning prior to applying it in HFS. If the participants are experienced third year students they will have more experiential knowledge to draw on. For this cohort of students, learning objectives which address concepts such as problem solving skills would be appropriate. Therefore scenarios with no preparation time, such as the Emergency Department example, would be suitable. This more closely correlates with the clinical environment as health professionals are consistently required to think on their feet and problem solve. Setting clear learning objectives which are relevant to the level of learner is also important in ensuring semantical reality and making the scenario effective. The participants should then be able to see past the corporeal differences of the manikin and see the relevance to the clinical setting and therefore their personal learning (Dieckmann et al., 2007; Smith & Roehrs, 2009).

Once the learner can fully recall and understand the knowledge taught in the theoretical sessions then they can effectively apply it in HFS ensuring the next stage of the taxonomy is achieved (Bloom, 1956, as cited in Atherton, 2011). In the context of this study, this stage was described as learning in the doing.

In the doing

Learning in the doing was a significant aspect of the experience of learning in HFS as it was interwoven throughout the narratives. What was significant throughout the NGN stories was the importance they placed on the ability to learn in the doing in HFS. HFS was able to fill gaps in their knowledge and clinical skills that they had been unable to address in the clinical context. This was because they had not had the exposure to certain patients or speciality areas and the HPS has the ability to have any condition or be in any speciality

area that is required. Conceptual processes were evident in the HFS experience that could never be realised in other learning modalities such as single task trainers or case studies. This is because the learners were able to engage in the scenario, they were actively "in" it and had to consider the whole picture, not just parts of it. This meant the participants begin to identify with being a real nurse and this signals the value of HFS and supports the argument that its use needs to be increased throughout the undergraduate programme.

Learning from each other was also a significant learning outcome in HFS. The NGN benefited from the opportunity to learn together as they were able to apply learning, not only from their own knowledge base but also that of their peers. This was a noteworthy outcome of HFS as nursing students are not together in a learning situation such as this in the clinical setting. This also offers them not only the opportunity to learn off each other but also to learn the mentoring skills which will be essential in their future role as Registered Nurses. This is particularly of note for the more senior nursing students in the intraprofessional model of HFS previously discussed.

In the reflecting and evaluating

The concrete experience of learning in the doing in HFS provides the first stage of Kolb's (1984) experiential learning cycle and it important that all four stages of the cycle are implemented for deep learning to occur. The next three phases of this cycle; reflecting, conceptualisation and experimentation or application, may ensue in the debriefing phase thus the importance of this critical aspect of HFS. Debriefing is described to as the "pivot point" (Weinstock, 2011, p. 9) of learning in HFS therefore it is not surprising that it was an important element of the experience of learning for the participants in this study. They found that most of the learning in the undergraduate programmes current HFS model occurred in the debriefing phase. One of the reasons for this is that the participants were at times unaware of their knowledge deficits that were exposed in HFS. They required the aid of their lecturer to uncover what they did well and what could be improved for the next time they are exposed to that situation. Whilst some of the NGN in this study enjoyed a model of guided debriefing others were left with a feeling of uncertainly of their achievements in

HFS. I advocate the use of a debriefing model such as the one proposed by Rudolph et al. (2006) as an upfront method of feedback that allows for no ambiguity or doubt in the participant's mind. The method of providing an objective observation and then utilising an advocacy and enquiry approach should also assist in reducing the participant's feeling that they are being assessed in HFS. This model of debriefing also should allow for the analysis, evaluation and potentially the creative facets of the Revised Bloom's Taxonomy (Anderson & Krathwohl, 2011) to occur in HFS.

The NGN in this study found great benefit when they were able to return to and repeat scenarios multiple times in HFS. The opportunity to reflect on the event with the direction of faculty and the input of their peers meant they were able to identify their areas of under-performance and correct them in repeat attempts. This was also discussed by the NGN as a way to evaluate their learning to measure how they had improved and to enhance confidence. This model of repeating scenarios is supported in the literature as an important means to improve performance and ensure salient learning points are not missed (Cordeau, 2010; Kardong-Edgren et al., 2008). This would indicate again the viability of the increased implementation of HFS in the undergraduate programme as this would require increased time in the HFS laboratory.

Another potential outcome of the increased use of HFS in the undergraduate programme would be the ability of the participants to undertake in-depth research on the learning deficits uncovered in the sessions. The NGN in this study discussed the effectiveness of learning if they had time to study up on the unfamiliar areas that were discovered in HFS. They found it very effective if they could then return and repeat the scenario or discuss it with faculty and peers. If HFS was facilitated weekly, this model would be easily applied as they would have the week between to research their learning deficits. Reflection and evaluation on their last session would then be the first phase of each new HFS session. This would have to be carefully time monitored though as it would be essential that the discussion generated did not reduce time in their next HFS session. This model, along with the ability to repeat scenarios as discussed above, would strengthen the evaluation and creative aspects of the Revised Bloom's Taxonomy (Anderson & Krathwohl, 2011). It would allow the students

the opportunity to further evaluate and create new processes to enhance their practice. These models are also supported by Kolb's learning cycle (Kolb, 1984) as they would enhance the conceptualisation and experimentation stages.

Study limitations

The participant group all coming from one cohort of nursing students is one identified study limitation. If there was a particularly negative or positive culture in regards to HFS within this group, it may have influenced the findings. It also meant the participants had only experienced one HFS programme. Therefore a cross section of different HFS environments, equipment and facilitation methods were not explored within this study. Another study limitation was the demographics of the sample group. Only one member of the participant group was male and all participants were within a similar age range.

Conclusion

This chapter has discussed the many benefits of HFS within the undergraduate programme. Through the integration of a reality framework, realism in HFS can be developed subsequently enhancing the engagement and learning outcomes of participants. Whilst the meaning of the lived experience of HFS for the NGN was clearly associated with learning, several areas of development remain which will enhance learning further. This can be achieved through careful consideration of how HFS is facilitated especially within preparation, debriefing and the position and frequency of HFS within the curriculum. The key finding and recommendation of this study is the need for the increased use of HFS throughout the undergraduate nursing programme. The repeated and regular implementation of HFS will result in the enhancement of participant engagement and increased pedagogical value both for learners and faculty.

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Appendix 1

Participant Information Sheet

Simulation: the lived experience of New Graduate Nurses

Principal Investigator:	Sally Hollis Nurse Educator, Starship Children's Health Floor 6, Building 15 Cornwall Complex Greenlane Clinical Centre Auckland 1142 Phone (09) 639 0200 ext 27019 Mobile 021 465 810 Email: shollis@adhb.govt.nz
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Introduction

You are invited to take part in a research study about nurses' experience of high fidelity simulation (Simman and Simbaby) in the undergraduate nursing program.

My name is Sally Hollis and I am a Registered Nurse and the principal investigator for this study. This research study is for my thesis as part of a Master of Health Science. My current role is Nurse Educator for the Community Child Health and Disability Service and Paediatric Home Care at Auckland District Health Board (ADHB).

I would appreciate it if you would take the time to consider participating in this study commencing in November 2010.

Participation

You have been approached for this study because the ADHB nursing entry to practice (NETP) program co-ordinators have identified that you are a new graduate nurse who has recently experienced high fidelity simulation sessions as part of the AUT University undergraduate program. Eight to ten nurses will be recruited for this study.

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Your participation is entirely voluntary. You do not have to take part in this study, and if you choose not to take part this you will not affect your employment, participation in the NETP Programme or ongoing education in any way.

If you do agree to take part, you are free to withdraw from the study at any time, without having to give a reason and this will in no way affect your employment, participation in the NETP Programme or ongoing education in any way.

During the interview process you may stop the interview at any time and you do not have to answer all of the questions if you choose not to. You do not need to provide a reason for stopping the interview or choosing not to answer a question(s).

About the Study

This study aims to explore the experience of high fidelity simulation sessions undertaken in undergraduate nursing education and how this learning is applied or influences practice as a Staff Nurse.

I will be undertaking this study from August 2010 to March 2012. It is anticipated that interviews will commence in November 2010.

What happens during the study?

You will be involved in a one on one interview which will take approximately 60-90 minutes. These interviews will occur at a time and place mutually agreed on the Auckland City Hospital site. This could be before or after your shift. There may be the need for a follow up interview to clarify or expand on the initial interview, this will occur by telephone or as mutually agreed.

The initial interview will be audio taped and then transcribed by a typist who will have signed a confidentiality agreement. All identifying information will be removed from the transcripts; these transcripts will only be seen by me and my research supervisor. You will then be asked to review the narratives I have developed from your transcript, at that time you will have the opportunity to add, delete or amend your narrative.

Benefits, Risks & Safety

There are no identified risks or safety concerns associated with this study.

There are no direct benefits to you however it is anticipated that this study will inform the development of nursing education and improvements in nursing performance and patient care. It will also assist with the development of educational strategies for use within Auckland District Health Board and in the wider clinical and academic context.

General Information

This research is being undertaken as part of a Thesis for a Master of Health Science. The study will be written up and report available through the AUT University library. You can request a summary of this document if you wish.

Findings will be disseminated through professional journals and conference/seminar presentations.

For further information on this study please contact me using the contact details at the top of this information sheet. Should you decide to participate please contact me by telephone or e-mail.

If you have any queries or concerns regarding your rights as a participant in this study, you may wish to contact your professional organisation.

If you have any queries or concerns regarding your rights as a participant in this study, you may wish to contact an independent health and disability advocate:
Free phone: 0800 555 050
Free fax: 0800 2 SUPPORT (0800 2787 7678)
Email: advocacy@hdc.org.nz'

For Maori health support at the ADHB, or to discuss any concerns or issues regarding this study, please contact Mata Forbes RGON, Maori Health Services Co-ordinator / Advisor, 5th Level, GM Suite, Auckland City Hospital. Tel 307 4949 extn. 23939 or Mobile 021 348 432

Confidentiality

No material which could personally identify you will be used in any reports on this study. Participant transcripts will be identified by a unique number and will be stored in a locked cabinet. List of participant names and numbers will be stored in a separate locked cabinet. All computer files will be password protected and consent forms stored in the Research Supervisor's office at AUT University. The audiotapes of the interview will be destroyed at the conclusion of the study and other study data will be destroyed after 6 years.

Results

If the participants wish to view the results of the study, this will be provided on request to the Principal Investigator. It is anticipated that these results will be available by March 2012.

Statement of Approval

This study has received ethical approval from the NTX Ethics Committee. Ethics reference number NTX/10/EXP/177.

The Executive Director of Nursing has given their approval for this study to be carried out.

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

Thank you for making the time to read about, and consider taking part in this study.

Appendix 2

Consent Form

Simulation: the lived experience of New Graduate Nurses

- I have read and I understand the information sheet dated 3rd September 2010 for volunteers taking part in the study designed to explore the experience of high fidelity simulation undertaken in undergraduate nursing education for New Graduate Nurses. I have had the opportunity to discuss this study. I am satisfied with the answers I have been given.
- I have had the opportunity to use family/whanau support or a friend to help me ask questions and understand the study.
- I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time and this will in no way affect my employment and my academic progress.
- I understand that my participation in this study is confidential and that no material which could identify me will be used in any reports on this study.
- I have had time to consider whether to take part in this study.
- I know who to contact if I have questions about the study in general.

I consent to my interview being audio-taped/video-taped.   YES/NO

I wish to receive a copy of the results   YES/NO
(Note: Results are anticipated to be available by March 2012).

I _____(*full name*) hereby consent to take part in this study.

Date:

Signature:

Full names of researchers: Sally Hollis

Contact phone number for researchers:

Project explained by:

Project role:

Signature:

Date:

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