Simulated Learning as Relational Inquiry

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If it takes a village to raise a child, surely it takes a nation to raise a graduate student.

Abstract

The process of nursing education requires multiple teaching and learning strategies, effective dissemination of information, and meaningful development of knowledge and effective thinking, resulting in nursing graduates who are professional, capable, and able to navigate the increasingly complex health care system. One example of a teaching and learning strategy is the use of simulation in nursing education. While there is a plethora of literature supporting the use of simulation there is limited literature discussing an underlying pedagogy to support learning through the use of simulation technology. In this paper and project, relational inquiry is the foundational pedagogy used for simulated learning experiences to teach surgical nursing skills in an undergraduate nursing program.

Relational inquiry as a pedagogy for guiding the learning of nursing students will be discussed. A review of the literature discussing simulation in nursing education will contribute to a description of the value of simulation in undergraduate nursing education. A discussion of surgical nursing will explore the variety of skills and abilities necessary to meet the Canadian Nurse's Association's (CNA) (2009) Medical-Surgical nursing competencies and the minimal semester requirements from the Collaboration for Academic Education in Nursing (CAEN) (2011) semester five curriculum. A simulation blueprint will then provide an example of teaching surgical nursing to undergraduate nursing students using simulation guided by relational inquiry pedagogy.

Simulated Learning as Relational Inquiry

The face of health care is changing rapidly and advances in technology, political influences, population demographics, and workforce factors are contributing to a growing web of complexity in care provision. New graduates are entering into a "highly dynamic and intense clinical environment burdened by escalating levels of patient acuity and nursing workload" (Boychuk Duchscher, 2008, p. 441). In addition, the transition of new nursing graduates into practice poses challenges as differences become evident between what graduates understand about nursing from their education and what they experience in the reality of practice. Boychuk Duchscher (2009) describes this as a "sense of groundlessness" (p. 1104) that new graduates experience as a result of the discrepancies between school and practice.

Retention of knowledgeable nurses is critical to the future of nursing (Canadian Association of Schools of Nursing (CASN), 2010) so it is imperative that nursing graduates are prepared with the resources to sustain professional, versatile, and ethically grounded practice. As health care delivery evolves, nursing education must adapt to meet the anticipated needs of nursing students graduating into an uncertain health care environment. Nurse educators must be responsive to the needs of the emerging nurse, both nursing students and new graduates, thus educators must continue to develop nursing curriculum that prepares health care providers able to care for the patients of tomorrow.

The Collaboration for Academic Education in Nursing (CAEN), (2011) defines curriculum as "the interactions that take place between and among students, clients, practitioners, and faculty with the intent that learning takes place" (p. 3-1) and is based on Bevis and Watson's conceptualization of a caring curriculum of nursing (CAEN, 2011, p. 3-1). Teaching within the CAEN curriculum, as a nurse educator I am concerned with my professional and ethical

obligations to support students as they navigate through nursing education and develop knowledge and skills to sustain their practice. I believe that becoming a nurse requires a complex process of learning, knowing, being and doing. My goal is to support the development and integration of knowing/being/doing with nursing students. Toward that goal, I will illustrate the value of relational inquiry as pedagogy that directly and intentionally supports the examination of epistemology and ontology and the integration of the knowing/being/doing. This will be illustrated through the use of simulated learning and the process of teaching and learning surgical nursing to third year nursing students.

Specifically I will outline (a) how the fundamental characteristics of relational inquiry are aligned with the CAEN curriculum and (b) how simulation, guided by relational inquiry pedagogy, can be effectively used as a teaching technology to support the integration of epistemology/ontology/action and the development of the capacities and skills for navigation in contemporary health care milieus. As part of this examination, I will also provide an example of simulated learning to illustrate how to use relational inquiry pedagogy to support simulation, as well as provide a guideline for educators to consider applying to their own interests and use of simulation.

Part 1

A. Relational Inquiry in Nursing

"Human life is relational, complex, and changeable" (Doane & Varcoe, 2005, p. 197) and there is no possible way we can know for certain which is the best way to proceed or know for certain 'what is really going on' for people. Competent, skilful practice does not rest on certainty but on inquiry and recognizing that each person exists in relation with others in a contextual

world shaped by sociohistorical patterns helps one to understand the complexity of health and healing experiences (Doane & Varcoe, 2005).

Nursing has been referred to as an art, a science, a profession and a discipline. According to Newman, Sime and Corcoran (1999) a discipline is "distinguished by a domain of inquiry that represents a shared belief among its members regarding its reason for being" (p. 20). Inquiry is foundational to nursing education and practice. Doane & Varcoe (2005) have conceptualized nursing as a process of relational inquiry. As a dynamic process of knowing/inquiring, relational inquiry is grounded in the premise that knowledge is located and created through a relational process in which the nurse enters as an inquirer using existing expert knowledge in a questioning way and continuously looks for the integral connections between different forms of knowledge (Doane & Varcoe, 2005).

Relational inquiry is founded in a stance of inquiry which involves a dynamic and reflexive process (Doane & Varcoe, 2005). In the stance of inquiry "one is always assuming and looking for the ways in which people, situations, contexts, environments, and processes are integrally connecting and shaping each other" (Doane & Varcoe, 2007, p. 198). Inherent to this inquiry stance is working *in-between* knowing/not knowing (Doane & Varcoe, 2005). The notion of unknowing is also a form of knowing in that 'knowing' actually closes nurses to the understanding of the other and that 'unknowing' positions nurses to be authentic and empathic to clients and to seek to better understand the person's situation (CAEN, 2012, p. 8). Knowing and unknowing must exist simultaneously as they work in tandem with each informing the other..

Inquiry is the process used in the space between knowing and unknowing to support nurses in harnessing "the power of a range of knowledges (theoretical, empirical, biomedical, technical, physiological, ethical, spiritual, and so on) as opposed to being limited to one

theoretical framework and/or method" (Doane & Varcoe, 2005, p. 215). Relational nursing practice is informed by numerous sources and types of knowledge (Doane & Varcoe, 2005) and relational inquiry invokes multiple ways of knowing and forms of inquiry. Relational inquiry is a process of forming knowledge and understanding through various forms of inquiry into nursing practice. Examining the forms of inquiry and the connections and relationships between and amongst the various forms of inquiry and ways of knowing provides a process for nursing students to examine nursing experiences and enact their nursing practice.

In utilizing relational inquiry as a pedagogy nursing students can examine nursing practice experiences, deconstruct the various forms of knowing, invoke various forms of inquiry and develop an evolving ability to recognise the intricacies of nursing knowledge and enact nursing practice. Students will gain insight into practice situations by developing skills in identifying and discerning the complexities of relational nursing practice; they will develop skills in recognising the uniqueness of situations, in providing comprehensive and holistic nursing care, develop the ability to navigate the complexity of nursing practice, and practice with resilience and longevity.

In this way, inquiry supports the requisite skills necessary to become a knowledgeable nurse with potential for longevity (CASN, 2010). I believe that by utilizing relational inquiry students can develop an explicit awareness of his or her role in the health care experience of clients and dynamics of the health care environment. By developing the skills to appreciate the complex elements of nursing practice, nursing students will enhance their abilities to make critical decisions, recognise when unknowing is occurring, and improve their ability to determine how best to proceed in their practice.

Central to the relational inquiry process is the willingness to experience discomfort. "Discomfort is a catalyst for learning" (Doane & Varcoe, 2005, p. 18) and when nursing students are offered an opportunity to experience feelings of discomfort and respond to them, learning can occur. It is through engagement with clinical problems, particular patients, contextual experiences and real time scenarios that students will encounter the disorienting dilemma or the sense of discomfort that is the flagship for unknowing, thus invoking inquiry. By making relational inquiry explicit in the learning experiences students will have the opportunity to move back and forth between observations, ideas and action which will help to deepen inquiry into issues and encourage appreciation of their inherent complexity (McAllister, Tower & Walker, 2007, p. 307).

Based on the typology used by Doane and Varcoe (2005) the four approaches to inquiry are empirical, contextual, ideological, and ethical. Empirical inquiry examines aspects of care that are reflected in the tangible, measureable and observable in the context of surgical nursing such as lab values, diagnosis and medications. Empirical inquiry then requires consideration into what more needs to be known about the surgical client, his or her circumstances, and how empirical knowledge relates to other forms of knowledge and inquiry. Contextual inquiry is "directed toward the self, other, and context all at once" (Doane & Varcoe, 2005, p. 275). The context of the nurse client experience impacts the experience of the client, his or her family, the nurse, and the health care setting. This form of inquiry captures the historical, political, and social contexts such that one can look at the intricacies of personal experiences and health care all at the same time in the current situation.

Ideological inquiry provides opportunities to challenge taken for granted ideas and practices; it encourages the examination of pervasive ideas that infuse health care and nursing

practice. In the context of surgical nursing the ideology of compliance, health, a good nurse, a good patient, and family can all be explored and challenged. Protocols and policies such as institutional and physician driven mandates can be brought into question, for example the expected length of stay for a particular surgical experience. This in turn influences organizational management, availability of beds and the ongoing surgical schedule.

Ethical inquiry is essentially about the question, what is good, right and just? (Doane & Varcoe, 2005).This form of inquiry emphasizes that every moment of nursing interaction involves ethics and that ethics is a "deeply personal process that is lived in the complexity and ambiguity of everyday nursing work" (Doane& Varcoe, 2005, p. 283). When the complexity and ambiguity of nursing practice is apparent to surgical nursing students, the ethic of care can be brought forward as a compass to guide moral decision making and ethical care.

Inquiry-Based Learning.

Relational inquiry embodies inquiry based learning which is described in the literature as contextually more complicated with greater emphasis on social and emotional issues. Inquiry-based learning begins with a question rather than a problem (Bebb & Pittam, 2004). Starting with a question is a useful mechanism in a teaching/ learning setting that supports nursing students in learning the application of knowledge to their future practice, but more importantly, to develop skills to support future practice in a dynamic and complex health care environment. Inquiry is in essence a way of orienting to and in nursing practice. Relational inquiry as pedagogy "can enhance nurses' ability to navigate through the highly complex, multifaceted, and contextually dependent moments of contemporary nursing practice" (Doane & Varcoe, 2007, p. 192). Consistent with the actual process of nursing practice, it can provide a process of knowledge translation for nursing students to explore the complexities of surgical nursing and

offer a foundation upon which students can continue to incorporate learning, knowledge development, and professional development.

The value in relational inquiry lies in the recognition that there are multiple ways of knowing and multiple forms of inquiry. It is in explicating the relationship amongst and between these elements and the process of how to do that in nursing practice that makes relational inquiry profoundly valuable as a pedagogy for nursing education (Doane & Varcoe, 2005).Abstract principles and technical skills are necessary for the learner to develop awareness and concern but this does not prepare the student for the complexities of practice (Benner, Sutphen, Leonard, &Day, 2010). The true determinant of nursing competency is the ability of the student to have the skills to recognize the essential elements of nursing knowledge in particular practice situations but more importantly, to recognise and consolidate the relationship between and amongst these elements in order to act upon them.

Relational inquiry is well aligned with the CAEN (2011) curriculum and philosophy and is reflected in the emphasis on "inquiry and critical thinking" (p. 1-11), where "inquiry and critical thinking, based on nursing theory and practice, is deliberate, intentional learning" (p. 1-14).This alignment and congruence is a pivotal reason for choosing relational inquiry as pedagogy to guide simulated learning to teach surgical nursing in semester five of the CAEN curriculum.

The undergraduate nursing curriculum developed by CAEN (2011) utilizes a curriculum framework based on a vision for nursing and health care in the future. It was developed with the intention to prepare students for the realities of contemporary health care settings. The values and beliefs underlying the curriculum are in keeping with the understanding of the importance of improvisation and the need for nurses to be equipped to navigate through the uncertain terrain of

nursing situations. It is based on certain beliefs about people, health, health promotion and registered nurse practice and the recognition that an approach to learning must include inquiry and critical thinking. In addition, the CAEN curriculum supports nursing graduates who, amongst other ends in view, are "critically reflective, independent and motivated practitioners with an inquiry approach to lifelong learning" (p. 1-14).

Aligned with the ontological, epistemological, and action framework of the CAEN curriculum, relational inquiry as a pedagogy offers an educational approach to support students to explore the epistemological, ontological and action elements of surgical nursing and to meet the minimal semester requirements. The opportunity to align the learning experience with a process to guide thinking and being, knowing and unknowing, and action will support the process of knowledge development in nursing students and subsequently support their ability to enact professional nursing practice in the unpredictable, complex, and ambiguous practice settings. Relational inquiry offers faculty a pedagogical framework to utilize in simulated learning experiences. In the next section I will discuss the use of simulated learning in nursing education.

B. Simulated Learning in Nursing Education

Simulation has been used in health care for over 20 years (Seropian, Brown, Gavilanes, & Driggers, 2004) and has been used in varying levels of complexity in a number of educational processes. It is a teaching/learning strategy that fits well within a relational inquiry pedagogy since it provides a technology for emulating clinical practice experiences and immersing students into life like scenarios. In so doing it provides an ideal environment for students to integrate epistemology/ontology/action in a safe, complex, and contextual setting.

Simulation is defined as "the representation of the behaviour or characteristics of one system through the use of another system" (Dictionary.com as cited by Schiavenato, 2009). It is a process of duplicating an environment or experience and can incorporate various strategies such as role playing, interactive videos, and mannequins for the purposes of teaching and learning in safe, controlled environment (Beyea & Kobokovich, 2004; Levitt-Jones et al., 2011; Mauro, 2009; McCaughey & Traynor, 2010; Walsh, 2011;Warland, 2011).

Simulated learning can occur in a variety of ways from role playing to complex, high fidelity human patient simulators. The simulated clinical experience is meant to mimic "the reality of a clinical environment to demonstrate procedures, facilitate decision making, and encourage critical thinking" (Parsh, 2010, p. 569) by allowing students to practice real-life nursing care in a simulated clinical environment. Simulation varies in fidelity on a spectrum of simple, or low, fidelity, to complex, or high fidelity (Akhtar-Danesh, Baxter, Valaitis, Stayton & Sproul, 2009; Seropian et al., 2004). Low fidelity simulators are often static and refer to simple replications of isolated body parts; these are generally used to teach specific psychomotor skills such as injections (Ahktar-Danesh et al., 2011; Seropian et al., 2004). Medium-fidelity simulators reflect a human form and support students in skills such as the identification of heart, breath, and bowel sounds. Moderate-fidelity simulators are useful as tools for developing "deeper understanding of specific, increasingly complex subject matter and competencies" (Seropian et al., 2004, p. 165). High fidelity simulators "attempt to replicate the entire body and are capable of reproducing many human physiologic responses" (Ahktar-Danesh et al., 2011). They produce the most realistic simulated patient experience as they have outward appearance features that enhance the learners' increasingly believable interaction (cosmetic fidelity) as well

as realistic reactions to student interventions (response fidelity). The high fidelity simulators are extremely costly ranging from $28, 000 to more than $150, 000 (Seropian et al., 2004).

Human patient simulation has been incorporated into undergraduate nursing education because of its ability to provide immersive, reality based scenarios in order to acquire the requisite knowledge and cognitive processes to practice in an increasingly complex health care environment (Parker & Myrick, 2010). The simulated environment offers students an opportunity to acquire clinical judgement and decision making skills, to acquire knowledge and skills in decision making in a controlled, risk-free environment (Parsh, 2010) and can closely mirror the complexities of practice without risk of causing harm to patients (Ironside, Jeffries, & Martin, 2009). McAllister, Tower and Walker (2007) discuss the learning that occurs in nursing education and while they do not discuss simulation specifically, the research they describe supports the immersion of students in a realistic setting with emphasis on taking time to reflect on actions or decisions. Prescott and Garside (2009) further support this idea in identifying that "simulation is the promotion of understanding through doing" (p. 35). This offers an interesting perspective on the considerations of epistemology and ontology in nursing education and gives cause to reflect on the idea that perhaps rather than 'knowing in order to do' (Hartrick Doane & Brown, 2011) students could 'do in order to know'.

A search of the literature on simulation in nursing education reveals an emphasis on the use and effect of simulation on critical thinking skills, nursing competence, patient safety and clinical judgement (Blum, Borglund & Parcells, 2010;Elfrink, Kirkpatrick, Nininger, & Schubert, 2010; Haigh, 2006; Harder, 2010; Kaddoura, 2010). There are numerous research studies, a multitude of theoretical discussions, and many articles describing the advantages and potential uses of simulated learning in nursing education (Blum, et al. 2010; Elfrink et al., 2010;

Dreifuerst, 2009; Haigh, 2006; Harder, 2010; Kaddoura, 2010; Su & Juestel, 2010).There is abundant information and discussion on various educational approaches and strategies (Blum, et al. 2010; Dreifuerst, 2009; Elfrink et al., 2010; Haigh, 2006; Harder, 2010; Waxman, 2010) and the prevalent theme in the literature is the use of simulation to teach and enhance critical thinking and decision making skills (Sinclair & Ferguson, 2009). There have been many positive outcomes associated with simulated learning, for example simulation has been reported to promote the development of skills and competence, augment learning, skill acquisition, decision making and maximizing confidence in practitioners, in addition to being almost universally considered an enjoyable experience (Akhtar-Danesh et al., 2009; McCaughey & Traynor, 2010; Parsh, 2010). Simulation is also well supported in the literature as a way to enhance client safety (Eggenberger & Regan, 2010; Christoffersen, Barron, Lynch, & Caroline, 2010; Kaddoura, 2010; Parker & Myrick, 2009; Parsh, 2010).

Despite a plenitude of discussions purporting the advantages of simulated learning, there is no evidence noted in the literature around the evaluation of learning and the effect of simulated learning on student learning outcomes as well as patient outcomes (Kardong-Edgren, Adamson, & Fitzgerald, 2010). For example, Elfrink et al. (2010) identified that there was significant improvement of knowledge during the simulation but knowledge was only retained by fifty percent of the students following the simulation and although learning outcomes of simulation experiences were met knowledge levels deteriorated over time thereby raising the question of how to improve knowledge retention in nursing students through simulated learning.

Student self-efficacy and staff satisfaction are reported as a result of incorporating simulation into undergraduate and graduate nursing education however "the evidence is equivocal as to whether simulation improves actual clinical performance" (Buckley & Gordon,

2011, p. 716). Blum et al. (2010) explored the impact of high fidelity simulation on student self-confidence and competence and found that while the study validated innovative approaches to knowledge development, there is not sufficient evidence to support this approach with entry level students. Levitt-Jones, Lapkin, Hoffman, Arthur and Roche (2011) also found that "knowledge acquisition scores were not influenced by manikin fidelity" (p. 4). This information suggests that while simulation can be a useful teaching and learning strategy, knowledge retention, improvement in clinical performance, and development of confidence and competence may not be enhanced by this teaching modality.

The use of simulation is increasing in health care education. It is purported in the nursing education literature that simulation can be used to incorporate and consolidate psychomotor skills and critical thinking abilities. However, there are concerns in the literature that the technical, critical thinking focus can dominate the simulation experience and compromise the development of relational practice in nursing practice. "Even though simulation is rapidly moving into nursing education, the primary focus is teaching psychomotor nursing skills, rather than caring and family nursing" (Egenberger & Regan, 2010, p. 550). I would argue that simulated learning can be an experience where the technical, critical thinking and relational practice skills are integrated and enhanced.

Further concerns are voiced by Walton, Chute, and Ball (2011) in that "although simulation is a mainstay in laboratory education in health sciences" (p. 299), there is a void of pedagogy in the application of simulated learning experiences.

As simulation becomes more prominent throughout the health care world because of its ability to closely replicate the clinical experience, nursing educators are realizing that

> although important, teaching for understanding involves more than considering how the learning experience might be made more authentic (Clapper, 2009, p. e1).

As the use of technology increases in health care and in nursing education, rather than lament the loss of relationships, direct patient contact, and relational practice, nurse educators can use simulation as a strategy to encompass all elements of nursing knowledge and explicitly demonstrate their integral connection; this can be supported by incorporating relational inquiry as pedagogy in simulated learning.

Buckley and Gordon (2011) discuss their findings of a study exploring the effectiveness of simulation on medical–surgical nurses' ability to recognize and respond to clinical emergencies. They found that both technical and non-technical skills were equally important to medical-surgical nurses and relevant to nursing practice and that immersive simulation combined with classroom teaching improves medical-surgical nurses' perceived ability to respond to patient clinical emergencies. Providing surgical nursing students with realistic surgical nursing experiences can be done relatively easily in a simulation experience. These experiences can range in complexity from a routine post-operative assessment to complex post-operative complications and/or emergencies.

I believe that simulated learning could be enhanced by explicitly using a relational inquiry pedagogy. Utilizing relational inquiry as a pedagogy and simulated learning as a strategy has the potential to support nursing students to better integrate knowing/being/doing in the context of competing, and conflicting practice demands thus enabling the development of capacities and skills to navigate the complexities of the current and future health care milieus. Using surgical nursing as an example, I will illustrate how relational inquiry pedagogy and

simulation could be effectively used to create a learning opportunity for third year nursing students that supports the development of knowledge, capacity, and skills.

C. Surgical Nursing Competencies and Practice Expectations

The surgical practice environment is complex, demanding, technological and dynamic. It is also a realm where care is driven by best practice standards and the efficient use of resources. There is space for teaching and learning, consolidation of nursing knowledge, skills, and critical thinking (CNA, 2009). The development of competence in surgical nursing is supported by several professional practice sources, the Canadian Nurses Association (CNA) (2009) Medical – Surgical Competencies (see Appendix A), the CNA Code of Ethics (2008) (see Appendix B), and the CAEN (2012) curriculum (see Appendix C). Each identifies requisite competencies and expectations. Below I discuss how each of these has been drawn upon to inform the simulation exercise.

CNA Medical-Surgical Competencies.

While surgical nurses practice in a variety of capacities and settings they are mandated by the CNA to promote safe, efficient, effective health care services with a holistic approach through collaborative, interprofessional, and community partners to meet the physical, emotional, social, spiritual, and cultural needs of the client and his or her family (CNA, 2009, p. 2). The CNA Medical-Surgical Competencies (2009) provide clearly defined assessment and intervention requirements based on body systems. The list of requisite competencies specifically outlines empirical skills focusing on assessment, intervention and the interrelationships between physiological evaluation and anticipated outcomes. This document provides skills and assessment criteria that represent competence in the surgical nursing setting and can be used to guide learning goals and anticipated outcomes for nursing students in a simulation experience. I have drawn on these competencies to support the planning and implementation of the surgical

nursing curriculum as illustrated in the following simulated learning experience. These competencies are useful in providing practice expectations that can guide learning outcomes. Given that the following simulation is concerned with third year nursing students, the competencies identified by the CNA have been regarded in the appropriate context and levelled to the appropriate skill and practice level.

CNA Code of Ethics.

The CNA Code of Ethics complements the above competencies in supporting professional, ethical practice and acknowledging the importance of ethical considerations in nursing practice. The Code of Ethics offers values and responsibilities and can be used to assist students in working through experiences within the context of their unique learning experiences (CNA, 2008, p. 5). By making the ethical obligations and expectations explicit students can guide practice decisions in simulated learning experiences by working through practice experiences and applying the surgical competencies (skills, assessments, and interventions) in concert with the values and responsibilities of professional nursing practice.

CAEN Curriculum Guide.

The CAEN Curriculum Guide (2012) provides a format to guide teaching and learning in the CAEN curriculum. Criteria is provided to aid in the development of learning activities by outlining the components of learning activities which should include the following; an overview, ends-in-view, in preparation, in practice, in class/ seminar. Creating learning activities that include these components offers consistency and structure in the development and utilization of learning activities. To aid me in the levelling process of the CNA Medical-Surgical Competencies I have drawn upon the CAEN curriculum. Recognizing the alignment between the CNA competencies and the CAEN curriculum and the parallels between CNA assumptions and

the foundational philosophical tenets of the CAEN curriculum enhances credibility and consistency in the expectations for semester five surgical nursing practice.

In order for students to be successful in semester five surgical nursing practice (CAEN, 2012), they must illustrate the knowledge required to understand the complexity of health challenges in a surgical setting, for example, the anatomy and physiology related to the surgical experiences, the pharmacology of medication administration, the complexity of interprofessional practice, as well as the intricacies of organizational influences such as facility guidelines, policies and protocols, schedules, and expectations. They must understand the psychosocial and cultural influences that may impact provision of care as well as the effects on the health and healing of a client and his or her family. Students must also demonstrate ontological competence in surgical nursing; for example, being attentive, thorough, timely, and organized; they must illustrate the ability to be versatile, dynamic, deliberate, and assertive in the assessment and care of surgical clients. They must also be able to carry out skills and tasks with an acceptable level of proficiency while attending to their ethical obligation of fitness to practice. They must be able to provide the required care and complete the necessary skills and tasks in a timely and competent manner with the foundational and contextual comprehension of their actions - what they are doing and why they are doing it. In essence the surgical nursing student must be able to provide competent care in an insightful and reflective way (CAEN, 2012).

The CAEN (2012) curriculum guide does not render specific competencies for surgical nursing, rather there are Minimal Semester Requirements (MSRs) and Essential Learning Experiences (ELEs) for each semester that are intended to articulate the epistemological, ontological and praxis aspects that define the learning expectations (see Appendix C). Epistemology reflects the multiple ways of knowing related to nursing, and ontology, the

centrality of the art of nursing and the philosophy of the curriculum. Praxis is also central to the art and science of nursing and refers to "valuing action and reflection equally and to the dynamic interplay between action and reflection as knowledge that can be brought to and derived from nursing practice" (p. 3.2).

The CAEN curriculum blueprints support surgical nursing based on concepts, minimal semester requirements, domains of practice, and essential learning experiences. The focus for semester five is "health promoting, relational practice with clients experiencing complex episodic and chronic health challenges" (CAEN, 2011, p. 93). This learning occurs when students engage in knowing (epistemology), being (ontology) and doing (praxis or action)as they explore the five domains of practice; health and healing, teaching/learning, decision making for nursing practice, professional responsibility, and collaborative leadership. Each domain of practice consists of competencies that correspond to the professional practice requirements as identified by the College of Registered Nurses of British Columbia (CRNBC) and the CNA Code of Ethics for Registered Nurses (CAEN, 2011). For surgical nursing this means that the learning outcomes of semester five surgical nursing students are structured to meet the professional competencies set out by professional governing, regulatory bodies. The congruence between the CRNBC professional practice standards, the CNA Code of Ethics and CAEN curriculum, with the tenets of relational inquiry imbedded in the curricular philosophy, all support the learning of nursing students and provide educators with the tools to teach toward successful surgical nursing practice.

The goal of semester five surgical nursing is to initiate the process of nursing students becoming excellent, expert surgical nurses and as Altmann (2007) affirmed, "expert nurses use empirics, ethics and personal knowledge" (p. 115). Benner asserted that "formal models, theories

and textbook descriptions were inadequate to explain practical situations in their complexities" (as cited in Altmann, 2007, p. 115). This supports the idea that contextual experience reflected in relational inquiry supports the integration of knowledge and the mastery of craft. Teaching surgical nursing according to the competencies detailed in the domains of practice and the minimal semester requirements can be supported by applying relational inquiry to teaching and learning experiences. For example, the epistemological minimal semester requirements for Nursing Practice V (see Appendix C) include exploring and examining theoretical foundations of complex health challenges, nurses' roles in working with clients experiencing complex health challenges, increasing knowledge of and recognizing patterns in complex health challenges, and increasing comprehension, and interpretation of health status data. Students must recognize patterns and themes in client's experiences of health and healing in relation to a surgical experience as well as understand health assessment and health status changes in the context of complex health challenges.

In concert with the competencies identified in the health and healing domain, the student will apply various forms of knowledge (empirical, contextual, ideological, and ethical) to integrate what is known, what is unknown and how each aspect is in relation to the others. This means that in order for the student to "provide comfort measures" (CAEN, 2011, p. 93) the student must inquire into what is seen and felt (empirical inquiry), the circumstances have brought the participants together (contextual), what ideas or assumptions are present or dominant (ideological) and what is right and just (ethical). By supporting the explicit integration of relational inquiry into the realization of competencies nurse educators can support students in creating and utilizing a nursing process that provides a foundation for practice and also supports ongoing learning.

Students are responsible for illustrating that they have met the Minimal Semester Requirements through reflective writing and the application of their experiences, insights and knowledge to the Semester Five Domains of Practice which align competencies with five domains of practice; Health and Healing, Teaching/Learning, Decision Making for Nursing Practice, Professional Responsibility, and Collaborative Leadership. The Domains of Practice comprise a significant portion of the student's self-evaluation in all nursing practice courses.

In my experience, semester five surgical nursing students have provided insightful reflections and practice narratives that illustrate the triumphs and challenges they face in developing the necessary skills and abilities for competence in surgical nursing. For example, students are consistently able to research the individual surgery, the related anatomy and physiology, and the applicable pharmacological knowledge regarding medications.

Challenges often arise when students begin to witness the busy-ness of the work, the competing demands of multiple patients and the requirement to understand complex and detailed knowledge in a very short period of time, prior to beginning care. It is crucial that students develop the required knowledge base as they move from novice to expert, from unknowing to knowing, but it is equally crucial that students appreciate that unknowing will occur throughout their practice. While it is imperative that students develop the required knowledge and skills, they must also develop the ability to bridge the space between knowing and unknowing while recognizing salient elements in the experiences (Benner et al., 2010). Students can develop additional skills to navigate the complexities of surgical nursing through the use of increasingly complex and increasingly ill-defined simulation experiences that can emulate the potential uncertainty of surgical nursing and allow for a safe environment in which students can

experience unknowing and uncertainty. From this place of unknowing students can invoke a deliberate process of inquiry to create a foundation that can sustain good nursing practice.

Part II

Linking Relational Inquiry and Simulated Learning in Surgical Nursing: An example

In the following section I describe an example of using relational inquiry as the foundational pedagogy for simulated learning experiences to teach surgical nursing skills to semester five (beginning of third year) Bachelor of Science in Nursing students. The first section is designed to support educators in developing, implementing and debriefing a simulation. The second section is designed to inform students who are engaging in simulation experiences. Although this example is focused on surgical nursing the intent is that this process can be translated to any area of simulation education. The content of the simulation can vary however the process of relational inquiry is constant.

A. Simulated Learning as Relational Inquiry – For Educators

I have developed and structured a surgical nursing simulation to provide an opportunity for students to deliberately address and develop the knowledge, competencies and skills as outlined by the CNA Medical –Surgical Competencies and the Code of Ethics as well as the minimal semester requirements in the CAEN curriculum. Employing relational inquiry pedagogy, I have organized the simulation around the four domains of inquiry as outlined by Doane & Varcoe (2005) and the explicit integration of those domains. The domains include (a) empirical know/be/do's of surgical nursing, (b) contextual know/be/do's, (c) ideological know/be/do's and (d) ethical know/be/do's. For example, the simulation has been structured to support students to develop the skills to develop and integrate empirical knowledge in relevant context while considering the ethical implications and considerations.

The student will consider the ideologies that are underpinning the practice experience with the ultimate goal of articulating and appreciating the connections and interrelatedness between all forms of inquiry. For example, students are expected to understand the role of epidemiological data, the importance of the process of client transition, the independent and interdependent role of the nurse in caring for clients experiencing complex health challenges, and how the effects of social determinants and influences on health impact client capacity for health and healing. These expectations reflect the importance of empirical, contextual, ideological, and ethical inquiry in the application of nursing knowledge. The simulation will enable students to incorporate surgical assessment skills, technical or procedural psychomotor skills, and critical thinking/decision making into a scenario whilst integrating the various ways of knowing into the development of nursing knowledge.

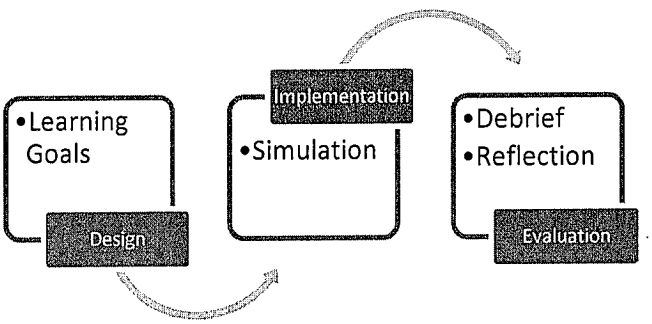
Development of a simulation.

The use of simulation in nursing education is well supported in the literature (Akhtar-Danesh et al., 2009; Blum, et al. 2010; Christoffersen, Barron, Lynch, & Caroline, 2010; Dreifuerst, 2009; Eggenberger & Regan, 2010; Elfrink et al., 2010; Haigh, 2006; Harder, 2010; Kaddoura, 2010; McCaughey & Traynor, 2010; Parker & Myrick, 2009; Parsh, 2010; Sinclair & Ferguson, 2009; Waxman, 2010). Although there is some conflicting information concerning the efficacy of simulation as a teaching and learning approach, there is consistent support regarding the principles of conducting a simulated learning experience. According to Jeffries (2005), a simulation should resemble clinical practice as closely as possible and should be created according to specific design, implementation and evaluation. This supports the development of the recently completed simulation learning center at North Island College. Three simulation rooms were completed and are being utilized to enhance student learning. The goal of the

simulation rooms is to emulate an acute care patient room with a hospital bed, a manikin, functioning sink, and back wall devices representing oxygen delivery, suction hook up, and a call bell. There is an over-bed table, a bedside table and a bedside chair for simulation participants. There is also a full size medication cart, similar to those in the clinical practice areas that students encounter; the cart is fully stocked with the appropriate medication administration supplies.

There is little research about the development of guidelines for the scenario writing and the use of templates (Waxman, 2010). However, Jeffries (2005) has developed a model to guide the development of simulation experiences. These simulations can be created and utilized by faculty interested in using simulated learning in any particular practice setting. Following the process of design, implementation and evaluation this model provides a framework for educators to create a scenario based on desired learning goals, a chosen method of simulation, and a process of debrief and reflection.

Simulation Model based on Jeffries (2005)



Learning goals can be created by faculty to reflect the desired learning experience ends in view, for example to perform an assessment of a post-operative client. It is recommended that no more than three objectives be addressed in a single simulation scenario and the simulation should be designed to last 15 to 30 minutes (Mauro, 2009). The implementation component of the simulation can be conducted through the physical depiction of a post-operative client,

represented by a manikin in a hospital bed with a running intravenous infusion; related drains and dressings can be included as well as a working client chart complete with physician orders, nursing notes, kardex, medication administration records, laboratory values and diagnostic reports, as well as fluid balance records. Roles are designed to represent the simulation participants, for example, the nurse, client, family member. A brief report should be provided to the student playing the nurse's role in order to create a realistic context for the simulation. The actual simulation experience represents only a portion of the learning strategy and as Parker and Myrick (2009) note, the role of debriefing is important in the promotion of critical reflection that is integral to the learning process. In fact, the importance of the debrief is highlighted in the literature as the most critical aspect of a simulation experience (Jeffries, 2006; Mauro, 2009; Parker & Myrick, 2009) and should last at least as long as the actual simulation.

The debrief process is clearly defined in the literature as the cornerstone of learning in a simulated learning experience (Jeffries, 2006; Mauro, 2009; Neill & Wotton, 2011; Parker & Myrick, 2009) and is integrally aligned with the process of relational inquiry. The purpose of the debrief process is to guide students through a reflection of what occurred during a simulation scenario with the goal of "developing the knowledge, skills, and rationales underpinning clinical practice" (Neill & Wotton, p. 161, 2011). Dreifurst (2009) supports the use of reflection in the debrief process and this can be supported by asking students to explore the simulated learning experience in a reflective process using relational inquiry. Educators can guide debriefing experiences by utilizing the various forms of inquiry in the post simulation debrief, for example, by asking the students to reflect on and discuss the forms of inquiry and how they were evident in the simulation, how they related to each other, and how they may influence future practice experiences. Nurse educators can apply the process of relational inquiry to any simulation

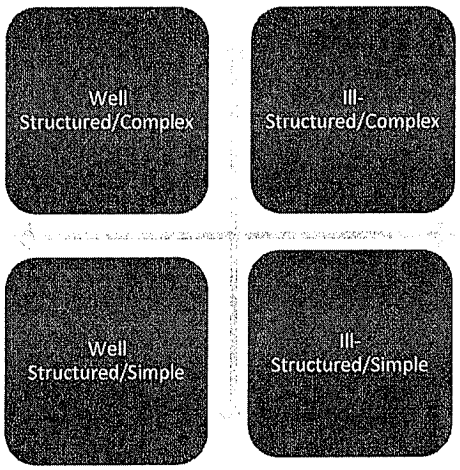
scenario both during the debrief process and for further reflection following the learning experience.

The intent of the simulation experience is to generate uncertainty or a disorienting dilemma in order to invoke the process of inquiry. This can be enhanced by providing the students with the scenario overview immediately before the simulation. The use of relational inquiry as pedagogy is ideal as a process that can be used to deconstruct the moment, debrief following the simulation, and support further reflection on the various forms of inquiry, and the relationships between and amongst those forms of inquiry.

Due to the intricate connections existing within relational inquiry students can be supported in exploring their learning through processes such as concept mapping, mind mapping or narrative. I have included an example of a concept map (see Appendix D) in order to illustrate the elements of a practice scenario and how they may be explored and considered. The concept map was created as a visual illustration to capture the connections between and amongst the complex elements of the simulation scenario and to highlight the complexities of nursing practice from a relational inquiry perspective.

In order to maximize student learning, uncertainty, and a sense of unknowing in the moment, a model of progressive complexity based on the work of McMahon and Christopher (2011) can be utilized. This offers faculty involved in the development and implementation of simulated learning experiences the option of adjusting the complexity and the desired learning outcomes for students.

Model based on McMahon and Christopher (2011)



The application of this model to the development of a simulated learning experience can be utilized according to various combinations of structure and complexity. For example, a simulation designed with a well-structured/simple focus could be a basic health assessment with no unexpected or unanticipated findings or events. A well-structured/complex scenario would be depicting a scenario with additional complexities such as client co-morbidity or family dynamics. An ill-structured/simple scenario would provide opportunity for students to apply content that is known and possible even mastered in a situation that is unpredictable. This situation offers single focus but involves an unplanned event or occurrence, such as unanticipated teaching, or an unanticipated skill or event. An ill-structured/complex scenario would be designed to mimic real life practice with an unknown evolving patient scenario including increasingly complex assessments and unpredictable authentic client situation such as a distressed family member or a variation or departure from normal assessment findings (McMahon & Christopher, 2011).

In summary, educators can develop simulation experiences based on desired learning outcomes or ends in view and by applying Jeffries' (2005) model of simulation development

educators can create simulations in varying complexity to enhance student learning. The simulation scenario can range from a role playing experience in a classroom to a detailed practice event in a simulation lab. Evolving case studies can be used to create ongoing scenarios that can involve the increasingly complex scenario development suggested by McMahon and Christopher (2011). The scenario below in the learning activity for students represents a simple, well-defined option according to McMahon and Christopher's model (2011). The debrief process can be guided by supporting students in applying the various forms of inquiry and by offering students the opportunity to further reflect following the simulation and unpack the intricacies of seemingly simply practice moments.

B. Simulated Learning as Relational Inquiry – For Learners

The following is a learning activity developed to orientate nursing students to the simulation experience and is based on the CAEN (2012) curriculum template and guidelines for developing learning activities. The students are provided with the overview, end-in-view (goals), and in preparation sections of the learning activity prior to the simulation. The student roles and the details of the scenario are provided at the beginning of the simulation and the debrief follows the completion of the scenario.

Overview.

Welcome to simulated learning. Simulated learning has been increasingly utilized as a teaching/learning strategy to support nursing students in the application and consolidation of theoretical knowledge in a safe learning environment (Akhtar-Danesh et al., 2009; Blum, et al. 2010; Christoffersen,Barron, Lynch, & Caroline, 2010; Dreifuerst, 2009; Eggenberger & Regan, 2010;Elfrink et al., 2010; Haigh, 2006; Harder, 2010; Kaddoura, 2010; McCaughey &Traynor, 2010; Parker & Myrick, 2009; Parsh, 2010; Sinclair &Ferguson, 2009; Waxman, 2010).

Simulated learning provides the opportunity for students to engage in critical decision making, the application of psychomotor skills and the application of theoretical nursing knowledge (Baxter, Akhtar-Danesh, Valaitis, Stanyon, &Sproule, 2009; Jeffries, 2006).

Simulated learning offers students the opportunity to engage in a scenario that is intended to invoke uncertainty and unknowing in the student. Various forms of inquiry are used by the student to explore the simulated practice scenario. This exercise supports the integration and application of nursing knowledge in the future practice experiences and enables students to enter into situations with tools and strategies to navigate the uncertainty that occurs in the current and future health care milieu. This nursing process guides the way the student develops the knowledge necessary to make thoughtful decisions about how best to proceed while entering into a nursing situation as an inquirer rather than an expert (Doane & Varcoe, 2005).

Ends in view.

During the simulated learning experience, students will have the opportunity to engage in the following:

- Utilize relational inquiry, professional practice, and critical thinking and decision making to explore and engage in the scenario.
- Apply previous learning in a simulated learning scenario, including but not limited to assessment, intervention, psychomotor skills, the interpretation of laboratory and diagnostic studies.
- Actively engage in a scenario that deliberately invokes uncertainty in order to identify and navigate the complexities of nursing care.

Following the simulated learning experience, students will have the opportunity to:

- Be an active participant in the debriefing session following the simulated learning experience

- Utilize relational inquiry to enhance the integration of new knowledge and understanding in a simulated surgical setting.
- Apply the integration and understanding of health promotion and relational practice with clients experiencing complex episodic and chronic health challenges (CAEN, p. 93, 2011).

In Preparation.

Read the following in Doane and Varcoe (2005): Chapter 8, pages 262-287.

Read the following in Lewis, Heitkemper, Dirksen, O'Brien, and Bucher (2010): Chapters 19, 20, 21.

In Practice.

Summary of simulation scenario.

Mr. Gordon Flasch is a 51 year old gentleman with osteoarthritis to his right hip. He has no known medical conditions and no previous surgeries. He was taking ibuprophen for right hip pain prior to surgery and has no known drug allergies. He is employed as a professional and lives with his spouse. He is 2 days post-operative of a right hip arthroplasty surgery and has had an uneventful recovery. His intravenous has been converted to a normal saline lock, his hemovac drain has been removed and he has been tolerating a full diet. His pain has been well controlled with the prescribed analgesics and with the application of ice packs to his surgical site. You are caring for this gentleman and must plan and implement your initial contact with your client. The client's spouse is at the bedside and very concerned about the development of a deep vein thrombosis. She is asking numerous questions of Nurse 1 and is clearly worried about her husband.

You are expected to care only for one patient, Mr. Flasch, however he is in a four bed room. You can see the nurses moving quickly around the client rooms and accomplishing a

range of care such as assessments, medication administration, personal care, repositioning and conversation with clients and family members. All the while, additional events are occurring, such as the unit clerk announcing that a client needs to go to the radiology department and a family member is on the phone to inquire about a loved one. You are asked by other clients in the room for particular things such as a drink of water, a bedpan, pain medication, and a phone call to a family member. You must determine how to meet the competing demands of other clients and still provide care for your client.

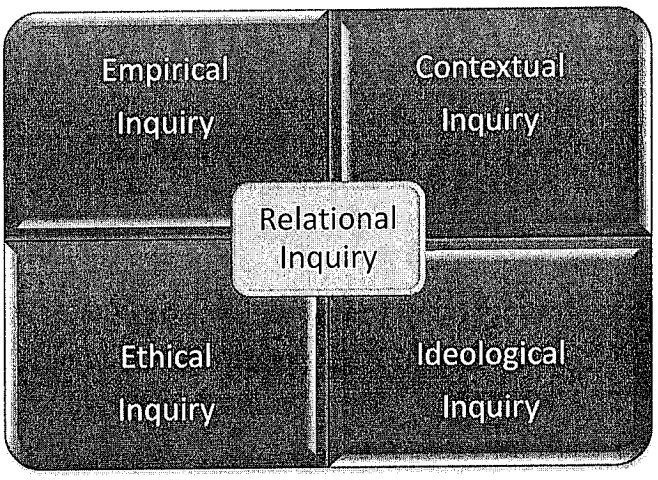
Student Roles.

Nurse 1	• You are the primary nurse caring for Mr. Flasch • It is 0700 and you receive report from the RN leaving the night shift • You have a partner, nurse 2. Consider how you two can work together in providing care
Nurse 2	• You are the team member with Nurse 1 • Ask for report if Nurse 1 does not provide it right away. • Engage as an active participant. Follow Nurse 1's lead but offer to help if he/she does not ask

Client: Mr. Flasch	• You have had an uneventful recovery from your hip arthroplasty surgery so far. • You have no concerns or complaints at the moment but are curious about your recovery and your discharge home. • You are aware that the nurses have been unable to find pedal pulses to your right foot during their assessments. You are also aware that your circulation is fine and the lack of palpable pulse is of no major concern. The last nurse found your pulse easily with a Doppler. You are however, aware of your spouse's concern and know that she is very worried about potential complications.

Debrief.

In discussion with your instructor and classmates we will consider the following forms of inquiry: empirical inquiry, contextual inquiry, ideological inquiry, and ethical inquiry.How do each one of these forms of inquiry support your thinking and your actions? How do each one of these forms of inquiry relate to the others?



We will also work together to create a concept map to illustrate the connections between and amongst all of the forms of inquiry. Reflect on the following questions while considering Table

8.1 in Doane and Varcoe (2005, p. 266-267). Several of the guiding questions are taken directly from Table 8.1:

Inquiry	Suggestions and Guiding Questions
Empirical Inquiry	What did you come to know empirically? What were you seeing? What physical assessment findings did you identify? How do you explain the lack of pedal pulse?
Contextual Inquiry	What is significant contextually for (a) the patient, (b) his wife, (c) you as a nurse? What circumstances are shaping the situation? What is relevant about the patient's background?
Ideological Inquiry	What ideologies and assumptions are shaping this situation and experiences of the different people involved? ? What is being privileged? What is being ignored? What biased assumptions might be limiting your own view and/or approach?
Ethical Inquiry	How are ethics relevant to this situation? How will you know if are acting ethically? What specific obligations do you have to the patient and/or his wife?

Consider the following: How does each of these forms of knowing or inquiry relate to or impact/influence the others? For example does the context of the experience influence your empirical inquiry? If so, how? How does relational inquiry influence your understanding and application of semester five domains of practice? How do the above considerations reflect in your knowing/being/doing?

Sample Concept Map (see Appendix D)

Conclusion

The use of simulation to support the application of psychomotor skills, develop critical thinking skills, and provide problem solving opportunities can be expanded to include simulated learning as relational inquiry which can be used to evoke an opportunity to experience unknowing in a safe environment. Surgical clients are presenting with increasing complexity and acuity in health challenges and the types of surgical procedures are becoming more extensive and complex. When surgical nursing students experience uncertainty and unknowing in a simulated environment they have the opportunity to utilize relational inquiry as a mechanism to deconstruct the experience, identify the various forms of inquiry and knowledge, reconstruct the simulated practice experience to consolidate knowledge, and proceed with a sense of confidence, certainty, and experience to carry into future practice. By developing the skills that are available in an increasingly complex and increasingly ill-defined simulation experience, students will not only gain decision making skills, critical thinking skills, and consolidation of theory into practice, they will also experience the uncertainty and ambiguity in practice with time and support to implement a process by which to navigate the tension between not knowing and knowing.

Students can enter into a simulation experience with the opportunity to engage in a safe learning environment and if the pedagogical underpinnings are made explicit, nursing students will have the opportunity to engage in learning that is guided by the CAEN curriculum philosophy, explore practice experience utilizing various ways of knowing and the combination of the several forms of inquiry which constitute relational inquiry. Utilizing relational inquiry as pedagogy can offer nursing students the tools and strategies to make explicit the foundational ways of knowing, forms of inquiry and philosophical underpinnings of the CAEN curriculum.

This will help to support the learning and knowledge development of the students as the expectations of practice increase in complexity and intensity. As the face of health care changes rapidly and advances in technology, political influences, population demographics, and workplace factors contribute to complexity in nursing practice, simulation founded in relational inquiry pedagogy has the potential to produce graduates who can successfully navigate health care environments. As graduates encounter unpredictable practice experiences they will be able to practice from a stance of relational inquiry with versatility, and resilience in the current health care milieu.

References

Akhtar-Danesh,N., Baxter, P., Valaitis, R., Stayton, W., & Sproul, S. (2009). Nurse faculty perceptions of simulation use in nursing education. *Western Journal of Nursing Research, 31, 312*-329. doi: 10.1177/0193945908328264

Altmann, T. (2007). An evaluation of the seminal work of Patricia Benner: Theory or philosophy? *Contemporary Nurse, 25*(1-2), 114-123.

Bayea, S., & Kobokovich, L. (2004). Human patient simulation: a teaching strategy. *AORN Journal, 80*(4), 738-742.

Baxter, P., Akhtar-Danesh, N., Valaitis, R., Stanyon, W., & Sproule, S. (2009). Simulated experiences: Nursing students share their perspectives. *Nurse Education Today, 29*, 859-866. doi: 10.1016/j.nedt.2009.05.003

Bebb, H., & Pittam, G. (2004). Inquiry-based learning as a 'whole curriculum approach': The experiences of first-year nursing students. *Health and Social Care, 3*(3), 141-153.

Benner, P., Sutphen, M., Leonard, V., & Day, L. (2010).*Educating Nurses: A Call for Radical Transformation.* San Francisco, CA: Wiley.

Berragan, L. (2011). Simulation: An effective pedagogical approach for nursing? *Nurse Education Today*, doi:10.1016/j.nedt.2011.01.019

Blum, C., Borglund, S., & Parcells, D. (2010). High-fidelity nursing simulation: Impact on student self-confidence and clinical competence. *International Journal of Nursing Education Scholarship, 7*(1), Article 18, 1-14.

Boychuk Duchscher, J., & Cowin, L. (2004). The experience of marginalization in new nursing graduates. *Nursing Outlook, 52*(6), 298-296.

Buckley, T., & Gordon, C. (2011).The effectiveness of high fidelity simulation on medical-surgical registered nurses' ability to recognise and respond to clinical emergencies. *Nurse Education Today, 31*, 716-721. doi:10.1016/j.nedt.2010.04.004

Canadian Association of Schools of Nursing. (2010). The Case for Healthier Canadians: Nursing Workforce Education for the 21st Century. Retrieved from www.casn.ca.

Canadian Nurses Association. (2009). Medical-surgical nursing certification: Exam blueprint and specialty competencies. Retrieved from http://www.cna-aiic.ca/CNA/documents/pdf/publications/CERT_Med_Surg_2009_e.pdf

Canadian Nurses Association (2011).Tested solutions for eliminating Canada's registered nurse shortage. Retrieved from http://www.cna-aiic.ca/CNA/documents/pdf/publications/RN_Highlights_e.pdf

Collaboration for Academic Education in Nursing (2011).Overview of the curriculum. Retrieved from http://www.caen.ca/members/27/62-curriculum-guide-splash.

Christoffersen, J., Barron, A., Lynch, M., & Caroline, H. (2010). Integrating psychosocial skills into a medical-surgical curriculum in a baccalaureate nursing program. *Journal of Nursing Education*, *49*(10), 573-577. doi:10.3928/01484834-20100730-03

Clapper, T. (2009). Beyond Knowles: What those conducting simulation need to know about Adult Learning Theory. *Clinical Simulation in Nursing, 6*(1), e1-e8.doi: 10.1016/j.ecns.2009.07.003

Doane, G., & Varcoe, C. (2005). *Family Nursing as Relational Inquiry: Developing Health Promotion Practice.* Philadelphia, PA: Lippincott, Williams & Wilkins.

Doane, G., & Varcoe, C. (2007).Relational practice and nursing obligations. *Advances in Nursing Science, 30*(3), 192-205.

Doane, G., & Varcoe, C. (2008). Knowledge translation in everyday nursing: From evidence-based practice to inquiry-based practice. *Advances in Nursing Science 31*(4), 283-295.

Dreifuerst, K. (2009). The essential of debriefing in simulation learning: A concept analysis. *Nursing Education Perspectives, 30*(2)109-114.

Eggenberger, S.K., & Regan, M. (2010).Expanding simulation to teach family nursing.*Journal of Nursing Education. 49*(10), 550-558.

Elfrink, V., Kirkpatrick, B., Nininger, J., & Schubert, C. (2010).Using learning outcomes to inform teaching practices in human patient simulation. *Nursing Education Perspectives, 31*(2), 97-100.

Fawcett, J. (2007). The metaparadigm of nursing: Present status and future refinements. *Journal of Nursing Scholarship, 16*(3), 84-87. doi: 10.1111/j.1547-5069.1984.tb01393.x

Ganley, B. J., & Linnard-Palmer, L. (2012). Academic safety during nursing simulation: Perceptions of nursing students and faculty. *Clinical Simulation In Nursing*, *8*(2), e49-57. doi:10.1016/j.ecns.2010.06.004

Haigh, J. (2006). Expansive learning in the university setting: The case for simulated clinical experience. *Nurse Education in Practice, 7*, 95-102.

Harder, N. (2010). Use of simulation in teaching and learning in health sciences: A systematic review. *Journal of Nursing Education, 49*(1), 23-28.

Hartrick Doane, G., & Brown, H. (2011). Recontextualizing learning in nursing education: Taking an ontological turn. *Journal of Nursing Education, 50*(1), 21-26. Doi: 10.3928/01484834-20101130-01

Ironside, P., Jeffries, P. & Martin, A. (2009). Fostering patient safety competencies using multiple-patient simulation experiences. *Nursing Outlook, 57*(6), 332-337.doi: 10.1016/j.outlook.2009.07.010

Jeffries, P. (2005). A framework for designing, implementing, and evaluating: simulations used as teaching strategies in nursing. *Nursing Education Perspectives*, *26*(2), 96-103.

Jeffries, P. (2006). Designing simulations for nursing education. *Annual Review Of Nursing Education*, 4, 161-177.

Jonsdottir, H., Litchfield, M., & Pharris, M. (2004). The relational core of nursing practice as partnership. *Journal of Advanced Nursing, 47*(3), 241-250.

Kaakinen, J. & Arwood, E. (2009).Systematic review of nursing simulation literature for use of learning theory. *International Journal of Nursing Education Scholarship, 6*(1), 1-20. doi: 10.22021548-923X.1688

Kaddoura, M. (2010). New graduate nurses' perceptions of the effects of clinical simulation on their critical thinking, learning and confidence. *The Journal of Continuing Education in Nursing, 41*(11), 506-516.

Kardong-Edgren, S, Adamson, K., & Fitzgerald, C. (2010). A review of currently published evaluation instruments for human patient simulation. *Clinical Simulation in Nursing, 6*, e25-e35.doi: 10.1016/j.ecns.2009.08.004

Levitt-Jones, Lapkin, S., Hoffman, K., Arthur, C., & Roche, J. (2011).Examining the impact of high and medium fidelity simulation experiences on nursing students' knowledge acquisition. *Nurse Education in Practice*, 1-4. doi: 10.1016/j.nepr.2011.03.014

Lewis, S., Heitkemper, M., Dirksen, M., Barry, M., Goldsworthy, S., & Goodridge, D. (2010).*Medical-Surgical Nursing in Canada*, (2nd Ed.).Toronto: Mosby.

Mauro, A. (2009). Jumping on the simulation bandwagon: Getting started. *Teaching and Learning in Nursing, 4,* 30-33. doi: 10.1016/j.teln.2008.09.002

Mayville, M. (2011). Debriefing: The essential step in simulation. *Newborn & Infant Nursing Reviews, 11*(1), 35-39. doi:10.1053/j.nainr.2010.12.012

McAllister, M., Tower, M, & Walker, R. (2009). Gentle interruptions: Transformative approaches to clinical teaching. *Journal of Nursing Education, 46*(7), 304-312.

McCaughey, C., & Traynor, M. (2010). The role of simulation in nursing education. *Nurse Education Today, 30*, 827-832.

McMahon, M. & Christopher, K. (2011) Case study method and problem-based learning: Utilizing the pedagogical model of progressive complexity in nursing education, *International Journal of Nursing Education Scholarship, 8*(1), Article 22. doi: 10.2202/1548-923X.2275

Neill, M., & Wotton, K. (2011). High-fidelity simulation debriefing in nursing education: A literature review. *Clinical Simulation in Nursing, 7*, e161-e168.doi:

Newman, M., Sime, A., & Corcoran-Perry, S. (1999). The focus of the discipline of nursing. In E.C. Polifroni& M. Welch (Eds.), *Perspectives on Philosophy of Science in Nursing* (pp. 20-24). Philadelphia, PA: Lippincott, Williams & Wilkins.

Parker, B. & Myrick, F. (2008).A critical examination of high fidelity human patient simulation within the context of nursing pedagogy. *Nurse Education Today, 29*, 322-329. doi: 10.1016/jnedt.2008.10.012

Parker, B. & Myrick, F. (2010). Transformative learning as a context for human patient simulation. *Journal of Nursing Education, 49*(6), 326-332. doi: 10.3928/01484834-20100224-02

Parsh, B. (2010). Characteristics of effective simulated clinical experience instructors: Interviews with undergraduate nursing students. *Journal of Nursing Education, 49*(10), 569-572. doi: 10.3928/01484834-20100730-04

Prescott, S., & Garside, J. (2009). An evaluation of simulated clinical practice for adult branch students, *Nursing Standard, 23*(22), 35-40.

Rourke, L., Schmidt, M., & Garga, N. (2010). Theory-based research of high fidelity simulation use in nursing education: A review of the literature. *International Journal of Nursing Education Scholarship, 7*(1), Article 1.doi: 10.2202/1548-923X.1965

Schiavenato, M. (2009). Reevaluating simulation in nursing education: Beyond the human patient simulator. *Journal of Nursing Education, 48*(7), 388-394. doi: 103928/01484834-20090615-06

Seropian, M., Brown, K., Gavilanes, J., & Driggers, B. (2004). Simulation: Not just a manikin. *Journal of Nursing Education, 43*(4), 164-169.

Su, W. & Juestel, M. (2010).Direct teaching of thinking skills using clinical simulation. *NurseEducator, 35*(5), 197-204.

Thayer-Bacon, M. (1997). The nurturing of a relational epistemology. *Educational Theory, 47*(2), 239-261. doi: 10.1111/j.1741-5446.1997.00239.x

Walsh, M. (2011). Narrative pedagogy and simulation: Future directions for nursing education. *Nursing Education in Practice, 11,* 216-219.doi: 10.1016/j.nepr.2010.10.006

Walton, J., Chute, E., & Ball, L. (2011). Negotiating the role of the professional nurse: The pedagogy of simulation: A grounded theory study. *Journal of Professional Nursing, 27*(5).299-310.

Warland, J. (2011). Using simulation to promote nursing students' learning of work organization and people management skills. *Nurse Education in Practice, 11*, 186-191. doi: 10.1016/j.nepr.2010.08.007

Waxman, K. (2010). The development of evidence-based clinical simulation scenarios: Guidelines for nurse educators. *Journal of Nursing Education, 49*(1), 29-35.

Appendix A

Summary of Canadian Nurses Association Medical-Surgical Nursing Competencies

The Canadian Nurses Association has developed criteria for nurses to meet in order to achieve specialty certification in various areas of specialty practice. Certification is accomplished through successful completion of a certification exam intended to evaluate competencies specific to the area of specialty. The Medical-Surgical Nursing Certification Exam consists of competencies reflecting the fully competent practice of a nurse with at least two years of experience.

Medical-surgical nursing is identified through several assumptions, competency categories, and variables. Assumptions are identified about the practice environment, person, family, nurse, and health. These assumptions frame the various aspects and contexts of medical-surgical nursing in the current health care environment. Competencies are presented as an organizational framework and describe twelve classifications such as physiological systems, disease prevention and control, pain, delirium, dementia, and depression as well as professional, legal, and ethical issues. Variables consist of structural and contextual variables which define the characteristics and the contextual content of the exam. Knowledge/comprehension, application, and critical thinking represent the different levels of cognitive ability in order to measure the competencies that are being measured in the certification exam.

The list of competencies is based on an empirical, systems compilation as well as contextual comprehension of requisite knowledge, assessment, interpretation, and intervention necessary for competent medical surgical nursing practice and includes the following twelve categories:

1. Neurological

2. Eye, Ear, Nose and Throat
3. Cardiovascular
4. Respiratory
5. Gastrointestinal Systems
6. Musculoskeletal and Integumentary
7. Immunology, Hematology and Endocrinology
8. Infectious Diseases, Prevention and Control
9. Pain
10. Delirium, Dementia and Depression
11. Professional, Legal and ethical Issues

Appendix B

Summary of Canadian Nurses Association Code of Ethics

The Canadian Nurses Association Code of Ethics provides a foundation for nurses' ethical practice and is a statement of the ethical values of nurses. The Code of Ethics is presented in two parts: 'Nursing Values and Ethical Responsibilities' and 'Ethical Endeavors' and offers examples of experiences, challenges and situations that can be used to illustrate the significance and application of ethical nursing practice.

Part I: Nursing Values and Ethical Responsibilities are articulated through seven primary values. Each of these values and responsibilities apply to nurses' interactions with families, groups, populations, communities and society as well as with students, colleagues and other health-care professionals (2008, p. 8).

1. Providing safe, compassionate, competent and ethical care
2. Promoting health and well-being
3. Promoting and respecting informed decision-making
4. Preserving dignity
5. Maintaining privacy and confidentiality
6. Promoting Justice
7. Being accountable

Part II: Ethical Endeavors identifies the broad aspects of social justice that are associated with health and well-being that are addressed by ethical nursing practice. This portion of the Code of Ethics offers guidance to nurses for the elimination of social inequities. There are thirteen elements listed to support nurses in utilizing nursing knowledge and ethical nursing practice in order to create greater equity for all.

Appendix C

Collaboration for Academic Education in Nursing Semester Five Minimal Semester Requirements, Essential Learning Experiences and Domains of Practice

Domains of Nursing Practice, Competencies, and Quality Indicators
Semester Five
Health and Healing Domain

The focus in Semester Five of the program is health promoting, relational practice with clients experiencing complex episodic and chronic health challenges. Clients may be individuals of any age, families, groups or communities. In addition there is emphasis on connecting across difference, expanding on working with communities and engaging in more advanced explorations of the discipline of nursing and nursing inquiry.

Competencies

- **1.1** Creating a climate for and establishing a commitment to health and healing.
- **1.2** Providing comfort measures.
- **1.3** Preserving personhood.
- **1.4** Presencing: being with the client.
- **1.5** Maximizing the client's participation and control.
- **1.6** Facilitating understanding through relational practice.
- **1.7** Guiding and supporting clients through transitions and change.
- **1.8** Providing holistic support.

Health and Healing Domain - Quality Indicators
These Indicators are a means to provide evidence of meeting the competencies and **may** include:

Demonstrates:

- Effective relational practice when coming to know clients, their personal meanings of health, their health status, and health promotion needs in increasingly complex situations
- An ability to analyze own way of being with others in a variety of practice contexts and with a variety of people and groups
- An evolving ability to be sensitive to various ways of being and connecting that are culturally based
- A beginning ability to partner with clients who are experiencing increasingly complex health challenges/contexts
- Collaboration with clients to identify and link them to appropriate support systems and resources
- Use of empowering and transformative processes when working with difference and conflict
- Caring as the moral imperative to act ethically and justly.
- The ability to actively promote and maintain physical, mental, emotional, and spiritual comfort for clients experiencing health challenges of increasing complexity
- Effective interaction to facilitate relationships between client and members of the interprofessional team

Domains of Nursing Practice, Competencies, and Quality Indicators
Semester Five
Teaching/Learning Domain

Competencies

2.1 Timing: capturing clients' readiness to learn.
2.2 Partnering with clients to integrate health and healing processes into their lives.
2.3 Collaborating interprofessionally to identify and address client learning needs.
2.4 Eliciting and understanding clients' interpretation of health and healing experiences.
2.5 Utilizing an evolving and relevant knowledge base.
2.6 Providing clients with an interpretation of their health and healing issues.
2.7 Providing relevant information for clients to make informed decisions.
2.8 Facilitating client-directed change using appropriate teaching and learning strategies.
2.9 Collaboratively evaluating learning outcomes.

Teaching/Learning Domain - Quality Indicators

These Indicators are a means to provide evidence of meeting the competencies and **may** include:

- Evolves an understanding of the nurse as co-learner in health education.
- Mutually develops a health education plan with clients.
- Identifies the multitude of factors that may influence the client's capacity and willingness to learn/change.
- Appreciates the importance of health education within the context of clients' experiences.
- Recognizes and responds to cues that show clients' readiness to learn.
- Creates opportunities to facilitate clients' understanding and participation in health and healing practices.
- Understands and applies teaching/learning theories/frameworks
- Offers accurate, appropriate and current information (e.g. epidemiological and theoretical data, etc.)
- Broadens and shares knowledge of health and healing initiatives available to clients.
- Develops further understanding of the role of the nurse as teacher.
- Works effectively with other health team members to promote health through education.
- Collaboratively evaluates teaching sessions.
- Integrates teaching into health care planning.
- Speaks with increasing confidence and skill while teaching individuals, families, and groups.
- Integrates appropriate technology to assist clients in the teaching learning process.
- Considers the principles of primary health care in teaching plans
- Monitors, documents, and evaluates with clients the effectiveness of health education initiatives.

Domains of Nursing Practice, Competencies, and Quality Indicators
Semester Five
Decision Making for Nursing Practice Domain

Competencies

3.1 Engages in a systematic decision making process by:
- Assessing clients' potential for health and healing
- Making practice decisions in relation to clients' experiences and understanding of health and healing

3.2 Advocating for client health and well-being through timely and appropriate:
- Detection of changes
- Reporting to health team members
- Documentation of change and actions taken

3.3 Anticipating health and healing issues.
3.4 Anticipating change prior to confirming signs.
3.5 Recognizing patterns of client response to similar situations.
3.6 Assessing clients' response to various health and healing initiatives.
3.7 Adapting practice to reflect an understanding of the client's experience of health and healing.
3.8 Performing skilfully in situations that are changing.
3.9 Setting priorities to meet multiple client needs and requests.
3.10 Systematically monitoring client health status.
3.11 Evaluating decision making for nursing practice.
3.12 Skilfully implementing nursing care.

Decision Making for Nursing Practice Domain - Quality Indicators
These Indicators are a means to provide evidence of meeting the competencies and **may** include:

- Performs thorough health assessment and distinguishes between typical and atypical patterns of response
- Identifies significant data for assessment (taking into consideration the need for mental health, spiritual, sexual, psychosocial, developmental, family assessments etc.) as required
- Bases care on the understanding of the impact of health challenges on clients' lived experiences
- Practises from a health promotion perspective
- Recognizes changes in a client's condition and reports changes in a clear and timely manner
- Initiates appropriate and timely actions in response to changes in a client's condition
- Quickly recognizes signs and symptoms that signal an emergency and initiates appropriate action
- Integrates nursing knowledge with other disciplines (biology, pharmacology, social sciences, etc.) in relation to clients experiencing health challenges
- Recognizes patterns and factors related to clients' personal meaning of their experiences of health challenges
- Evaluates the client's response to healing initiatives
- Modifies care based on evaluation of own nursing care and clients' responses to care

- Identifies and performs appropriate and skilled nursing actions to promote health and healing
- Performs psychomotor skills with increasing competence and confidence
- Applies principles of safety in all nursing actions
- Makes increasingly independent decisions for nursing practice
- Prioritizes and organizes nursing care for increasingly complex situations
- Documents effectively, and clearly reports significant information in a timely manner
- Is insightful about the impact of health challenges on clients' experiences of health and healing
- Articulates effective decision making for nursing practice verbally and in writing

Domains of Nursing Practice, Competencies, and Quality Indicators
Semester Five
Professional Responsibility Domain

Competencies

4.1 Monitoring and contributing to quality health care practice.
4.2 Critically examining the overall quality of own nursing practice.
4.3 Monitoring health care environment for physical, psychological, and cultural safety.
4.4 Advocating for client regarding safe health/healing practices.
4.5 Practicing according to the CRNBC Standards of Practice (*Professional Standards for Registered Nurses and Nurse Practitioners*, Practice Standards and *Scope of Practice for Registered Nurses: Standards, Limits and Conditions*) or the RNANT/NU *Standards of Nursing Practice for Registered Nurses* and the CNA *Code of Ethics for Registered Nurses.*
4.6 Performing responsibly in accordance with agency, college, and/or university policies, procedures and guidelines.
4.7 Practicing within the legal requirements of nursing.
4.8 Ensuring currency in nursing practice.
4.9 Participating in the evolution of the nursing profession.

Professional Responsibility Domain - Quality Indicators
These Indicators are a means to provide evidence of meeting the competencies and **may** include:

- Practices according to the CRNBC Standards of Practice (*Professional Standards for Registered Nurses and Nurse Practitioners*, Practice Standards and *Scope of Practice for Registered Nurses: Standards, Limits and Conditions*) or the RNANT/NU *Standards of Nursing Practice for Registered Nurses* and the CNA *Code of Ethics for Registered Nurses*
- Identifies when clients' rights are not being met and acts accordingly
- Consistently reflects on own nursing practice with increasing depth of analysis
- Critically examines nursing practice in general with increasing depth of analysis
- Applies principles of safety at all times for self and others
- Identifies and implements activities that maintain psychological and physical health needed for fitness to practice
- Shares knowledge and takes an active role as co-learner with peers

- Recognizes the significance of personal and professional growth and lifelong learning
- Identifies legal and ethical implications of practice
- Appropriately acts as a client advocate
- Recognizes own limitations and seeks guidance from appropriate resources
- Accepts responsibility for being current with nursing knowledge and skills
- Recognizes quality of care and reports unsafe practices
- Questions, as necessary, orders, decisions or actions made by other health team members
- Responds constructively to instructions and suggestions from staff, faculty, clients, and colleagues
- Maintains communication with instructor and team members regarding progress towards completion of practice assignments
- Demonstrates responsibility in completion of all practice course assignments
- Demonstrates honesty, integrity, and confidentiality at all times

Domains of Nursing Practice, Competencies, and Quality Indicators
Semester Five
Collaborative Leadership Domain

Competencies

5.1 Taking a leadership role in health and healing practices.
5.2 Collaborating with the health care team.
5.3 Perceiving hegemony and creating a vision for change.
5.4 Engaging in the political process to facilitate the counter hegemony.

Collaborative Leadership Domain - Quality Indicators

These Indicators are a means to provide evidence of meeting the competencies and **may** include:

- Embodies a way of being that facilitates client empowerment
- Begins to articulate nurses' roles in active participation on the interprofessional team
- Assertively communicates relevant information to appropriate health team members
- Critically examines health and healing policies and practices from a primary health care perspective
- Begins to critically examine unquestioned nursing practices and considers alternatives
- Continues to challenge the taken-for-granted practices in health care
- Participates in conflict transformation within working groups
- Begins to recognize the active leadership role nurses can take in influencing change
- Offers suggestions to staff, client, faculty and colleagues related to nursing practice
- In collaboration with faculty, colleagues and peers, begins to take action on nursing issues

PRAXIS: Minimal Semester Requirements and Essential Learning Experiences
Semester Five – Health and Healing V and Nursing Practice V

To Know (Epistemology)

- Explores & examines the theoretical foundations of complex health challenges (episodic & chronic)
- Examines & critiques nurses' roles in working with clients experiencing complex health challenges within a primary health care framework
- Increasing knowledge of health assessment & health status changes in the context of complex health challenges
- Recognizes patterns & themes in client's experiences of health & healing in relation to complex health challenges
- Understands the role of epidemiological data in working with selected vulnerable populations
- Is cognizant of current trends in Canadian society that influence the health of clients
- Comprehends & interprets health status data
- Understands the importance of the process of client transition throughout the health care system and supporting the client through that process
- Integrates nursing knowledge with knowledge from other disciplines
- Understands the independent and interdependent role of the nurse in caring for clients experiencing complex episodic and chronic health challenges
- Understands how the social determinants/influences of health impact clients' capacity for health & healing
- Explores the impact of complex health challenges throughout the life span

To Be (Ontology)

- Is caring & health promoting
- Is an advocate
- Is an effective communicator
- Is collaborative
- Values the client's perspective
- Is ethical & critically aware
- Is confident
- Is sensitive & aware of own knowledge
- Is sensitive and appreciative of different ways of knowing
- Is sensitive to diversity
- Is sensitive to the impact of self on others
- Is curious about & values current & emerging knowledge
- Is critically reflective of the use of technology in practice
- Is committed to being self directed and a lifelong learner
- Is committed to continued development of self as a reflective practitioner.
- Is a co-learner with clients and colleagues

Essential Learning Experiences for Semester Five

- Applies principles of primary health care in working with individuals, families & groups
- Identifies resources in community for clients experiencing complex health challenges
- Begins to participate in an interdisciplinary group meetings
- With guidance, accesses members of the interdisciplinary group

To Do (Practice)

- Applies an ethical decision making framework to situations arising in practice
- Accesses resources to support ethical decision making
- Practices from a health-promotion perspective
- Considers the principles of primary health care in caring for clients with complex health challenges
- Develops healing relationships with clients that allow for connection across difference
- Incorporates knowledge of biomedical sciences: e.g. pharmacology, patho-physiology, diagnostic testing, etc., in making sound clinical judgement
- Uses epidemiological knowledge to better understand peoples' experiences of complex health challenges, the provision of care, the healing process and health promotion
- Evolving expertise in using a variety of skills to assess client health status
- Identifies salient health issues
- Identifies & anticipates potential changes in health status
- Uses various sources of current literature to support the planning of nursing care
- Plans nursing care that fosters empowerment of individuals, families and groups
- Refers clients to community resources that can provide services or support to clients experiencing complex health challenges
- Integrates principles of teaching into care planning
- Plans and implements teaching sessions for individuals and groups to assist them in healing and health promotion
- Collaboratively evaluates teaching sessions

To Know (continued)

- Increasing knowledge of biomedical sciences: e.g. pharmacology, pathophysiology, diagnostic testing, etc., in relation to complex health challenges
- Is knowledgeable of the professional standards of nursing practice
- Recognizes the complexity of ethical & legal dilemmas when working with complex health challenges
- Understands the process of designing health teaching for groups/populations considering differing needs and motivations, learning styles, teaching approaches and learning philosophies
- Understands the impact of complex health challenges on family nursing practice
- Understands the curriculum philosophy in relation to clients' experiences of complex health challenges
- Knows how to access current & emerging knowledge related to complex health challenges
- Knowledgeable of resources within the community to support clients experiencing complex health challenges

Essential Learning Experiences (continued)

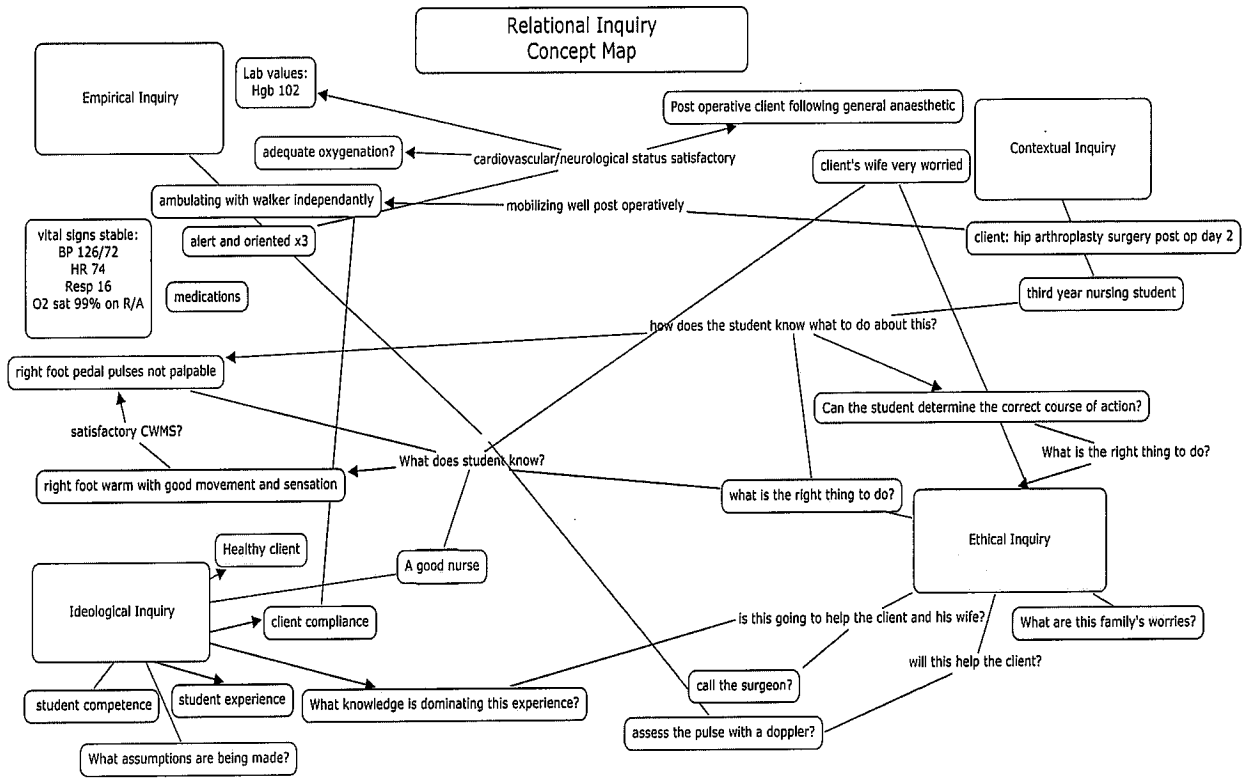
- Nursing practice experiences with clients in a variety of settings with a focus on complex health challenges and selected vulnerable populations
- Client/family visits related to the transition between institutional & community care with exploration of the various course concepts.
- Complex health challenge family – a case study
- Facilitates a learning session with a group. Suggest that this be related to the case study in some way where possible
- Self & instructor practice appraisal

To Do (continued)

- Accesses a wide range of resources, including expertise of other disciplines, to continually expand own knowledge to improve client care
- Plans client transitions through the health care system
- Collaborates with a variety of members of the health care team to promote health and healing
- Uses the decision making process for nursing practice in complex situations

Appendix D

Sample Concept Map



Appendix E

Sample Simulation Documents

Introduction to Human Patient Simulation in the Learning Center

Learning experiences using human patient simulators are an additional method to support student learning in our nursing program. This document has been prepared to enhance your understanding of Human Patient Simulation, answer many questions you may have, and help provide you with tools to have a positive learning experience.

What is human patient simulation? Nursing and medical education programs are using human patient simulation in their curricula to further support student learning and the development of critical thinking skills in the context of realistic and real time client care situations. Current healthcare providers also use human patient simulation to remain current in their practice and to explore the client care benefits of working in a multidisciplinary team. Human patient simulators (HPS) are life size computerized manikins that are able to produce lifelike physiological responses, creating a more realistic learning experience. Part of simulated learning incorporates videotaping the activity for review of key learning elements during the post simulation debriefing session. Videos are not saved or shared, but are deleted automatically from the NIC main computer drive. To preserve confidentiality and a safe learning environment, no other form of recording or photography is permitted during simulation activities.

Simulation Experience Goals: First and foremost, the simulation activity is not evaluative. The intent of the activity is to provide the student with an additional teaching-learning opportunity within a safe **real time** environment. A simulation activity focuses on developing critical thinking skills and incorporating all elements of holistic nursing care, including effective client and team communication. Each simulation activity has specific goals and objectives which correlate to the level of student learning.

Simulation Activity Structure: Prior to your simulation experience you will receive a case package from your instructor which will include preparation information and the key learning objectives / goals for the experience. It is a requirement that you arrive prepared to engage in the learning experience so please take the time to review the material you receive in detail. You will also be divided into small groups and will have a specific time slot for the activity.

Simulation does require students to appreciate and engage in role playing and to embrace realism, or suspend disbelief. Please arrive to the simulation dressed as though you were actually attending the practice setting related to your specific client case scenario.

The actual simulation activity begins with a pre-briefing from your instructor where key housekeeping reminders will be reviewed. At this time you will randomly draw roles to play. These may include the role of nurse, client, or family member as examples. Each of these roles provides you with a different experience and subsequent perspective of client care. Your client will often be a manikin that can exhibit various physiological functions. A description of the manikin is provided below.

After the simulation experience has concluded, students will participate in a debriefing session with their instructor. The purpose is to review your critical thinking and decision making during the scenario as a means to support and translate your learning into your nursing practice. The debriefing portion is not videotaped and must be a treated the same as the actual simulation activity - a confidential experience. What is said and done within your group during the entire simulation experience, including the debriefing, must remain confidential in order to preserve the safety of the learning experience for all students.

Dress: Part of this learning experience is honing professional behaviors and appearance. Please dress as though you were actually attending practice in whatever environment your simulated case scenario refers to. If this is a hospital agency, please also bring your stethoscope and watch. Those who draw a role that is not the nurse may be given props to enhance realism for their particular role.

Setting: Every attempt is made to set up the simulation room to ensure similarity to the actual environment you may find yourself in during practice. Though the equipment and supplies may not be exactly the same as in the practice setting, they will be similar and familiar to you. *It is your responsibility to become familiar with the client bed, functioning headwall system, and other equipment in the room.* During the scenario you may encounter personnel that might be expected in that situation: family, physician, dietary, etc. Roles should be taken seriously and those students acting these parts should remain "in-character" throughout. There is a working sink in the client's room for care providers to wash their hands. There will also be the client's chart, and there may be a medication cart and supply cart. You may find doctor's orders on the client's chart so it would be a good idea to review the chart as you would in practice.

Supplies: Any supplies you might require for the care of your client will be available. If medications are required to be administered, they will be available on your medication cart. The client may have a variety of interventions such as an IV, foley catheter, NG tube, etc. which help to create realism for the scenario.

Introduction to the Client in the Simulation Lab

Client: The client (in many cases this will be the manikin) you care for will have a name, age, diagnosis, medical and social history, a personality and vital signs in keeping with the case scenario. A blood pressure cuff will be in place on the manikin for you to use – please leave it in place as it is set up in a specific location on the arm to facilitate BP measurement. The client's condition may change in response to the situation as the case scenario unfolds and as you perform nursing interventions, so remember to re-assess your client periodically as you would in practice.

Sounds: The manikin can produce cardiac, respiratory and bowel sounds that can be auscultated using your stethoscope. The quality of these sounds is slightly different than on a real person. Due to the placement of the speakers within the manikins, you cannot hear breath sounds on the posterior aspect of the chest, only on the anterior aspect. While this limitation is part of the manikin, you would still be expected to perform assessments as you would in practice. Any of these sounds, including vital signs, may change based on the client's condition and your nursing

interventions during the simulation. Therefore, it is important you become familiar with the manikin and its capabilities in order to be able to correctly assess, intervene, and re-assess your client. *It is your responsibility to come in and practice taking a BP, pulse, and listening to the variety of sounds the manikin can create so you become familiar and comfortable with performing these tasks as well as identifying abnormalities.*

Voice: Through the use of a wireless microphone and speaker, the manikin can "speak" and may do so if his/her condition allows. Therefore you may be able to converse with your client giving you the opportunity to practice professional and therapeutic communication skills. It is OK to be uncomfortable as you get used to this.

IV access: When appropriate to the scenario, a peripheral IV may be in situ. You can run real fluid into the IV. Due to the complexity of running IV fluid into the manikins, you would not ever be required to start an IV and then run IV fluid into the manikin.

Tubes, drains, dressings & other attachments: If you hear in your client's report that he/she has any additional supportive interventions such as a chest tube, hemovac drain, dressing, etc., be sure to check these as you would in practice. The scenario will be set up to provide realism.

Medications and all interventions: When administering medications or performing nursing interventions, **you must verbalize your actions out loud** so your instructor can follow what you are doing and appropriately alter the client's physiological responses to provide a realistic experience. If administering oral medication, do not place an oral med into the manikin's mouth just verbally note you have administered it. You may administer medications by other routes as well: IV, IM, SQ and nebulizer, if clinically appropriate and of course ordered.

What the Manikin Cannot Do

Although the manikins have a wide range of physiological responses, technology cannot recreate a perfect human yet! Here's a list of things the manikin cannot do:

- ✓ develop diaphoresis, indicate a temperature or oxygen saturation
- ✓ develop peripheral edema
- ✓ change color (develop cyanosis, pallor or redness)
- ✓ physically move or have facial expressions

How to Help Yourself Suspend Disbelief

It is normal to have some anxiety about participating in a simulated learning activity. To help you have the best possible learning experience, it is highly encouraged you arrive well prepared. Take the time to review the case information your instructor provides you with, review any readings to refresh your memory on key topics being covered in the case scenario, and place yourself in a variety of roles (nurse, client, family member) to appreciate a more holistic approach to the learning experience. During the simulation, try to focus on the unique client and context the case presents, interact with the other team members and take an active role in your learning. We hope you enjoy this learning opportunity!

Revised November 2011 by Shelagh Kantor, Martha Russell, Jan Meiers, Cathy Clark, and Karen Silvester, NIC BSN Simulation sub-committee members.

We would like to extend thanks to the following for their support and previous work in preparing this information: UBCO School of Nursing, Judy Janzen and Teresa McLellan, year 4 BSN students, 2009.

NORTH ISLAND COLLEGE

2300 Ryan Road
Courtenay BC V9N 8N6

TREATMENTS & PROCEDURES

ADMITTING DIAGNOSIS:

Right hip osteoarthritis

O.R. PROCEDURES: *R hip resurfacing*

Name: Flasch, Gordon

DOB: 08/06/1961

Physician: Dr. Kartlage

PHN: 987654321

DATE	I.V. THERAPY	DATE	TREATMENTS	DATE	TESTS/PROCEDURES
	PERIPHERAL LINE:	03/04/12	Orthopedic dressing protocol	03/04/12	CBC, PO 1 & 3
03/04/12	NS at 125 ml/hr D/C WDW		Ice to hip prn		Notify surgeon if Hgb < 80
			D/C hemovac PO day 1 if <50cc	03/04/12	lytes , urea, creat PO 3
SITE:	Left forearm			03/04/12	R hip x-ray A/P & Lat PO day 1, 3
TUBING:	Δ 06/04/12	03/04/12	Hip precautions	03/04/12	PT-INR daily
	CENTRAL LINE:		TED stockings		
TUBING:					
DRESSING:					
	SALINE LOCK:				
SITE:		**DATE**	**DIET:**	**DATE**	**MONITOR**
		03/04/12	Sips to DAT	03/04/12	D/C Foley po day 1
	Discharge Planning:				I & O catheter for urinary retention
03/04/12	Lives with spouse Dale				Vital signs routine
			ACTIVITY:		NVS Q4h
		03/04/12	Mobilize with physio PO Day 1 WBAT	**BATH**	
			OT consult	**LBM**	2 Mar 2012

NEXT OF KIN: Dale Arden (spouse) | **PHONE:** 867-5309 | **Social History:** employed, 2 grown children

PRN / STAT MEDICATION ADMINISTRATION RECORD

NORTH ISLAND COLLEGE

HOSPITAL

1. Drug refused	5. Drug not available
2. Nausea or vomiting	6. Absent without med
3. NPO/fasting	7. Held
4. Pass meds	8. Refer to IPN

ALLERGIES

NKDA

COMMENTS

R Hip Osteoarthritis

Name: Flasch, Gordon

DOB: 08/06/1961

Physician: Dr. Kartlage

PHN: 987654321

ORDER DATE:	DOSE	ROUTE	FREQUENCY	DATE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
MEDICATION																												
Cefazolin 1 Gm INJ 10ml	1G M	IV	Q 12 hrs x 48 hrs																									
Initials																												
KS	CT																											

ORDER DATE:	DOSE	ROUTE	FREQUENCY	DATE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
MEDICATION																												
Ketorolac	30 mg	IV	Q8hrs x 48 hrs																									
Initials																												
KS	CT																											

ORDER DATE:	DOSE	ROUTE	FREQUENCY	DATE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
MEDICATION																												
Oxycodone CR	10 mg	po	Q 12 hrs																									
	Initials																											
	KS	CT																										

ORDER DATE:	DOSE	ROUTE	FREQUENCY	DATE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
MEDICATION																												
Acetaminophen	1 G	po	Q8 hrs																									
	Initials																											
	KS	CT																										

ORDER DATE:	DOSE	ROUTE	FREQUENCY	DATE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
MEDICATION																												
	Initials																											

PRN / STAT MEDICATION ADMINISTRATION RECORD NORTH ISLAND COLLEGE HOSPITAL	ALLERGIES NKDA	Name: Flasch, Gordon DOB: 08/06/1961 Physician: Dr. Kartlage PHN: 987654321
1. Drug refused 5. Drug not available 2. Nausea or vomiting 6. Absent without med 3. NPO/fasting 7. Held 4. Pass meds 8. Refer to IPN	COMMENTS R Hip Osteoarthritis	

STAT / ONE TIME DOSE MEDICATIONS:

Morphine 10 mg & Dimenhydrinate 50 mg IM STAT																			
Date	Initials		Time	By	Date	Initials		Time	By	Date	Initials		Time	By	Date	Initials		Time	By
03/04/12	MR	KS	1120	MR															

PRN MEDICATIONS

Morphine 5 -10 mg IM or SQ q4h prn			DOSE									
			TIME									
			DATE									
Order date: 03/04/12	MR	SL	INITIAL									

Dimenhydrinate 50 mg IM q6h prn			DOSE									
			TIME									
			DATE									
Order date: 03/04/12	MR	SL	INITIAL									

VANCOUVER ISLAND health authority

SBAR Process for Communicating with Physicians

Before Calling the Physician Always

- ✓ Assess the patient - current state vs. previous status
- ✓ Discussed the situation with a resource nurse or reliable colleague
- ✓ Reviewed the chart including MD progress notes
- ✓ Know the admitting diagnosis & date of admission
- ✓ Have available:
  Patients chart
  List of current medications, allergies, IV fluids and lab results
  Most recent vital signs
  Report of recent diagnostic tests or procedures
- ✓ Know the patients code status and if they have an advanced directive

S	**Situation** 1. State your name, discipline and unit 2. State the patients name and room number 3. State code status if applicable 4. The problem - "I am calling because ..." 5. "I am concerned about this because ..." change in vital signs, or change in patient behaviour, pain, alertness or affect, or worrisome lab or diagnostic results etc.
B	**Background** 1. Briefly state history of patients hospital stay and how they were prior to this change 2. State vital signs noting the changes, overall patient condition, and specific relevant observations 3. Be sure to state any changes in patient behaviour, emotional state or level of consciousness
A	**Assessment** 1. State what you think the problem is and how/when it started 2. If the situation is unclear try to state what body system you think might be involved *e.g. the problem seems to be cardiac, an infection, neurogical etc.* 3. State how severe you think the problem is e.g. *the patient is deteriorating, I am concerned the patient might arrest, I think they will be in full respiratory distress soon etc.* 4. State if you feel the situation could be life threatening
R	**Recommendation** 1. State what you feel needs to be done *e.g. I think the patient needs ICU care, I need you to come see the patient now, I need you to talk to the family about code status, can the house doctor come assess the patient, I think we need a stat respiratory consult etc.* 2. Are tests needed? How fast should they be completed? 3. How often would you like vital signs done? 4. Under what circumstances should I call back? 5. Will you be coming to see the patient? When should I expect you?

If in Doubt Call Physician Back
Always Err on the Side of Caution
Follow Your Instincts – If Situation Not Addressed Talk to Nurse In-Charge

Last revised by: Elin Bjarnason 15-Oct-2007 11:38 AM