Caring Values and the Simulation Environment:

Select Baccalaureate Nursing Students' Experiences

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Abstract

The art and science of nursing with its intricate caring practices have foundational aspects of knowledge, skills, and behaviors. These are launched and integrated in undergraduate nursing programs. This education is paramount and one of the building blocks for the profession of nursing to ensure expert care of patients, families, and communities. The simulation environment is one strategy that is combined in nursing education programs to support the nursing students' development and it is during this educational strategy that caring values are incorporated into the core values of professional nurses.

This research, utilizing interpretive description methodology, explored and expanded knowledge related to select baccalaureate nursing students' caring values and abilities in the simulation environment. In this study, a focus group followed by six interviews with nursing students from a Canadian prairie province provided the rich subjective perceptions of caring. The unity of these select nursing students' voices provided the context to interpret their thoughts, perceptions, and experiences to cultivate an interpretive explanation that is applicable to nurses. This research study explored the perceptions of nursing students specifically related to the advancement of caring values and abilities in the simulation environment, to provide an enlightened understanding of the complex variables in learning caring values with the development of knowing, doing, and being which did occur with these select nursing students.

The researcher's reflective journal contributed as an additional source of data that supported the interpretation of the descriptions whilst combining foundational concepts such as nursing's metaparadigms, transformational learning, and caring. Additional concepts explored to expand the comprehension of caring within the pedagogy of learning in the simulation environment were the co-creation of knowledge, the transitions nursing students experience, engagement and disengagement, nursing time, and nursing moments of caring. By identifying these connections, there is an opportunity to further the art and science of nursing, impact nursing education, increase the capacity of the simulation environment for the affective way of knowing, and deepen the understanding of caring practices.

Keywords: nursing student, caring, simulation environment, interpretive description

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Introduction and Background

The practice of nursing is one in which a professional continually strives for the advancement of knowledge, skills, and behaviours in nursing as well as a deeper understanding of the person, environment, and health. Navigating this profession as a registered nurse (RN), one contemplates the art and science of nursing, attempting to understand nursing's distinct role in improving health care outcomes within the health care team and across health care contexts. Caring can be identified at the heart of nursing practice, bringing together expert skills compounded by multiple aspects while caring for patients, families, and communities. There are multiple strategies to facilitate learning in nursing education, and the innovative strategy of simulation is becoming popular in advancing nursing students' knowledge acquisition. This technologically advanced learning environment allows students to gain knowledge related to vast amounts of information and skills and modifies attitudes and beliefs while ensuring that the experience occurs in a safe and supportive environment. With frequent use of the simulation environment the impact on developing and embedding caring values requires examination. This discovery through the use of interpretive description regarding of the development of caring values and abilities within nursing students in a simulation environment identifies further learning needs, gaps, and opportunities.

1.1 Introduction

Currently in Canada, students receive the foundation of knowledge to becoming registered nurses (RNs) through a baccalaureate nursing education. This education is paramount and one of the building blocks for the profession of nursing (MacMillian, 2013). The paramount values of nursing, such as caring, compassion, empathy, astuteness, and critical thinking are being emphasized within baccalaureate nursing programs (MacMillian). The essence of what being a RN means is conveyed and learned through classes, programs, exposures (i.e. experts in practice) and experiences embedded in curricula. Numerous teaching methods and strategies can incorporate caring as a core value of the professional nurse during this education.

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Educational nursing programs began to utilize simulation over almost four decades ago (Diener & Hobbs, 2012), with the first simulations consisting of basic mannequins or task trainers. In the last ten years, an insurgence of utilizing simulation in nursing education with medium to high fidelity mannequins is found with an increase in related research (Hayden, 2010). Nurse educators require an awareness of today's learning environments to ensure the technological aspects align with the current nursing students preferred way of learning (Murray, 2013). In *The Globe and Mail* (2014), Bailey reports his discussion with Toope where it was explained that one of the challenges universities face is being responsive to current students' expectations for their education. The simulation experience involves nursing students in active learning with the application of theory to practice (Berragan, 2011). Simulation is situated in an environment that provides nursing students a safe and trusting atmosphere to develop skills, confidence, and exposure to the practice of nursing (Berregan, 2013; Cummings, 2015; Kaahinen, & Arwood, 2009). In regards to professional caring, nursing students gain the "ability to integrate the knowledge, skills (technical and nontechnical), and attitudes necessary to provide safe patient care" (International Nursing Association for Clinical Simulation and Learning, 2013, p. s9) as a result of this experience. The simulation environment stimulates nursing students' deepest desires to attain knowledge and enables them to become skilled in the art and science of nursing practice.

1.2 Phenomena of Interest

Numerous academics, practitioners, researchers, and individuals describe registered nursing and interpret its professional practice eloquently through a combination of the art and the science. The submission of inquiry in Google search engine to identify what is the art and science of nursing practice results in 39 million descriptions. Nursing includes both the art and science and without the art, the science of nursing would be irrelevant (Benner, 2000). In the March 2016 edition of the *Canadian Nurse*, Steinke and Elangovan reiterate the importance of both the art and science defining the science of nursing as, "to what is done and how [purposely adding] the art of nursing focus[es] on who is doing it and why" (p. 34).

The art and science of nursing with caring practice is embedded into the relational practice of the RN. A distinct knowledge of nursing is the use of nursing metaparadigms which have four components central to the profession, "underpin[ning] the conceptual and theoretical frameworks for RNs" (Canadian Nurses' Association, 2015, p. 4). The art and science of nursing

with the incorporation of nursing metaparadigms allow for the RN to provide caring values and abilities while offering holistic care in the environment to improve a person's wellbeing. Through additional educational processes, such as role modeling and clinical practice, nursing students learn professional caring, inclusive of the art and science of nursing. The goal is to ensure qualified professionals with the "role of the qualified nurse … to know about caring" (Ousey & Johnson, 2007, p. 151) through a combination of educational strategies.

Nursing is an art and science, incorporating numerous attributes and values in the care of patients, families, and communities. With advancements in technology and education modalities other avenues to teach nursing are possible. With advancements in educational strategies simulation is integrated as a learning technique in health care since the 1980s (Levine, DeMaria, Schwartz, & Sim, 2014). Initially, it was a tool for advancing psychomotor skills, such as in the use of task trainers for training related to cardiopulmonary resuscitation or the use of basic mannequins to simulate operating room activities. Since 1990, simulation has been increasingly present in nursing schools' program content with the use of medium and high fidelity teaching methods to assist with learning (Diener & Hobbs, 2012; Hayden, Smiley, Alexander, Kardong-Edgren, & Jefferies, 2014) with the first publication of standards for simulation in 2011 by the International Nursing Association for Clinical Simulation and Learning (INACSL) (Ruthford-Hemming, Lioce, & Durham, 2015).

The use of constructed simulation scenarios allow nursing students to practice and learn motor (i.e., tasks), cognitive (i.e., critical thinking), affective skills (i.e., feelings, beliefs, and attitudes) with an increase in knowledge acquisition (i.e., application of theory) (Cazzell & Rodriquez, 2011; Diener & Hobbs, 2012; Gates, Parr, & Hughen, 2012; Hayden et al., 2014). Evidence indicates that students have increased satisfaction, competence, and confidence when employing this unique learning environment (Hall, 2011; Norman, 2012). Although this innovative environment has great potential, it has also been stressed that it is necessary to approach simulation with caution to recognize that it cannot replace the relationship between the patient and nurse or mimic the complexities of a human entirely (Dean, Williams, & Balnaves, 2016). With a lack of understanding regarding simulation's range of impact on nursing practice or translation to the bedside is lacking further examination is necessary.

Nursing students may possess innate caring but how are caring values and abilities developed in this learning environment for nursing students to become experts in providing professional caring? Are the various attributes of the art and science of nursing reflected in the

simulation learning environment? Learning the complex intricacies of the art and science of nursing with the necessary knowledge, skills, and attitudes in various learning environments impacts the practice of RNs following an educational program. If professional nursing is to keep the essence of nursing practice when caring for individuals, families, and communities, then consideration to explore the perception of nursing students regarding the development of caring values within the particular learning environment of simulation needs consideration.

1.3 Background and Need

There is a connection between the education of students and subsequent practice domain with nursing education influencing the type and quality of nursing students and impacting the outcomes considered desirable with expert RNs in practice (Anthony & Landeen, 2009). Since 2010, approximately 12,000 students have graduated from Canadian undergraduate programs (Canadian Nurses Association & Canadian Association of Schools of Nursing, 2013). The number of RN graduates in the workforce grew exponentially each year with a plateau and slight decline in 2013 (Canadian Institute for Health Information, 2014). The current dynamic health care atmosphere requires RNs to use their entire scope of practice effectively to impact the health of people (Canadian Nurses Association, 2014). The education of nursing students imprints them with values and beliefs and begins to socialize them in becoming professional nurses. These educational environments contribute to how nursing students effectively gain knowledge and transition their roles from students to professionals.

The outcomes related to the effective education of nursing students impact the patient and the RN. Patients, families, and communities reiterate that RNs who are technically competent, ethical, able to communicate well and provide compassionate care are fundamental aspects of the health care team (Griffiths, Speed, Horne, & Keeley, 2012). Hogan, Shattell, and Cleary (2013) establish that nurses providing genuine caring values and behaviours receive benefits as well, such as improving their ability to work with others, decreasing stress, improving empathy, and assisting with ethical decision making. Nursing students can strive to connect the continual development necessary for both the art and science of nursing to achieve excellence in nursing practice, enabling patients, families, and communities "to achieve their optimal levels of health" (Canadian Nurses Association, 2015, p. 5). The attainment of all types of skills, particularly affective skills necessary in nursing practice, is a challenge within any environment and in particular simulation (Diener & Hobbs, 2012). Evidence regarding nursing students' experiences

learning professional caring and developing their knowledge about the art and science of nursing within the simulation environment lacks in the literature thus inhibiting the full comprehension of this skill attainment.

1.4 Research Questions

This qualitative study, utilizes an interpretive description study design, to advance the body of knowledge regarding the development of professional caring values and abilities of nursing students in a particular environment. The purpose of this research was to explore the development of professional caring values within the simulation environment. The research questions were:

- How do nursing students perceive caring values and abilities in the simulation learning environment?
- How are professional caring values and abilities developed in the simulation learning experience of nursing students?

1.5 Definitions

To understand the research and to assist with the conceptualization of the multiple compounding aspects woven throughout the research study various terminology and concepts are defined.

1.5.1 Simulation. The Merriam-Webster on-line dictionary (2015) defines simulation as "something that is made to look, feel, or behave like something else especially so that it can be studied or used to train people" (para. 1). The definition of simulation with use by health care professionals is a technique to replace authentic experiences that contribute life-like aspects of actual people in a realistic, "interactive" manner (Levett-Jones & Lapkin, 2013). Jefferies (2005) indicates that simulations "mimic the reality of a clinical environment" (p. 97). There is identification that the use of simulators in constructed scenarios allows for learning in nursing students.

1.5.2 Simulation experience. The simulation experience is one in which students participate in a constructed clinical experience with medium to high fidelity mannequins with specific learning objectives. The completion of the experience is done in a safe learning environment with a group of students. The entire learning experience includes pre-briefing, an enacted scenario, and debriefing. Simulation experiences in nursing education typically have objectives for learning and a purpose directly related to nursing practice (Leighton, 2014).

1.5.3 Simulation, medium and high fidelity.
Simulation is on a continuum with realistic attributes that contribute to the belief that the scenario is real. High-fidelity simulation includes construction of a scenario that incorporates a programmed mannequin responding to changes in the environment and with progression (Grune-Yanoff & Weirich, 2010). The mannequin has active motion and responds to care that is provided, such as chest rise with breath sounds and programmable voice. An example of high-fidelity mannequins is the Laerdal SimMan 3G® (see Appendix A). Medium-fidelity simulation is similar with construction of a scenario utilizing a complete mannequin with programmed human qualities such as breath sounds without chest rise and functional body parts to complete psychomotor skills. These mannequins can progress through a scenario as well with no active motion and decreased realism (Grune-Yanoff & Weirich, 2010). An example of a medium fidelity mannequin is Laerdal SimMan® (see Appendix A).

1.5.4 Nursing students.
These are students with enrollment in an accredited baccalaureate nursing program with the University of Saskatchewan program that strengthens nursing, health and the health care system, through creation and integration of knowledge from research, education and practice" (University of Saskatchewan, 2013, para. 2). Nursing students receive preparation throughout the

course of study to practice professional nursing following graduation and completion of the National Council Licensure Examination (NCLEX) for RNs.

1.5.5 Care, medical definition.

Merriam-Webster on-line dictionary (2015) defines the medical definition of care as a noun, with "responsibility for or attention to health, well-being, and safety" (para. 13).

1.5.6 Professional caring.

Caring is described a multitude of ways. *"Professional caring is defined as activities that promote healing, preserve dignity, and respect the nature of holistic nursing practice"* (Vandenhouten, Kubsch, Peterson, Murdock, & Lehrer, 2012). In this research study, the use of professional caring and caring are interchangeably used about this specific skill developed in nursing practice.

1.6 Significance

Nurse leaders from CNA, key stakeholders, and education leaders in Canada gather to discuss nursing education and examine the current state of nursing and its practice. In 2012, the CNA mandated the independent National Expert Commission to examine health care and they recommended the examination of nursing undergraduate programs to ensure that RNs, were educated appropriately for the current dynamic health system. This Commission (2012) stresses the importance of the fundamentals of caring and identifies the difficulties in mastering this aspect of nursing. The Canadian Association of Schools of Nursing ([CASN], 2011) echoes that quality nursing education is paramount in the current dynamic and changing health environment. The Association also stresses the importance of partnerships between "education, clinical practice, research, policy and administration" to ensure the success of nursing education (CASN, 2011, p. 2). In 2013, the development and discussion of the "Think Tank on the Future of Undergraduate Nursing Education" alluded to the significance and impact of nursing education with the recommendation that educators support the future of nursing by stressing the importance to develop critical thinkers. RNs with critical thinking abilities should possess qualities that are also caring, emotional, and they should be moral with the intelligence to gauge the health and well-being of people consistently (Kitson, as cited in MacMillian, 2013). Each of these bodies highlights the significance of examining the art and science of developing caring RNs.

Nursing education programs in Canada continuously adapt curricula to ensure the essential qualities of an RN are incorporated for accreditation (CASN, 2013), to be responsive to

a dynamically changing healthcare setting, and advance the professional practice of RNs (Thorne, 2007). CASN (2015) has outlined the foundational knowledge of undergraduate nursing students for beginning practice with caring woven throughout the guidelines. Quality nursing education programs also provide the establishment of what it means to be an RN and begin the socialization of nursing students into nursing practice (Benner, 2000). The *National Nursing Education Framework* (CASN, 2015) offers guiding principles that are interdependent in the framework outlining knowledge, evidence, practice, communication and collaboration, professionalism, and leadership. Within these guidelines, the essential aspects are delineated for beginner practice following successful completion as a generalist. The foundational knowledge throughout educational programs provide RNs acquisition of the "foundational knowledge of relational practice" (CASN, 2015, p. 10) and the "knowledge of the art and science of professional caring for persons, families, or communities" (CASN, 2015, p. 11). In this framework, nursing students and future professionals attain caring values which are essential components. Some examples of this integration in the nursing students are the provision of quality care, compassionate nursing care, and adaptation of relational practices to assist with collaboration, and use of nursing theories to advance the nursing profession.

Nursing is the moral and ethical science of attending to people with sensitivity through all of the skills related to professional nursing practice. Nursing is an art, which incorporates numerous caring attributes to promote health and well-being even during illness (Idczak, 2007). It is also the moral and ethical science of attending to people while establishing a therapeutic relationship through the use of effective communication, therapeutic touch, advocacy, compassion, hopefulness, and the effective use of self (Drumm & Chase, 2010; Watson & Woodward, 2010). How can educators teach nursing students the knowledge, skills, and attitudes to ensure the key qualities? The skill of caring can be acquired in two ways; through the experiences students have and through teaching strategies with a focus on caring (Duffy, 2005). In this millennium, there has been an increased use of simulation within nursing programs which is attributed to financial and technological needs, legal issues associated with increased complexity and acuity in clinical areas, and time constraints and limited availability of select practice environments (Dean, Williams, & Balnaves, 2016). Dean et al., (2016) question the ability of the simulation environment without an individual (human) present to replicate best nursing practice without the intricacies of developing an effective nurse-patient relationship to delve into the complexities of relationship building and the requirements for empathy. So

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although the simulation environment has increased usage within nursing education programs, questions remain about its value and purpose. Is the simulation environment effective to develop nursing students with these foundational and essential elements? The information from this research regarding nursing students' perceptions of the development of caring values and abilities in the simulation environment will provide evidence and extend approaches to learning the complex profession of nursing.

1.6.1 Significance for patients/families/communities/health care teams.

The ultimate goal for nursing students is to be able to practice safely in a complex health care system (CASN, 2013) while caring for diverse individuals, families, and communities. Although changes in undergraduate education to accommodate this rapidly changing health care system have occurred, patients have expressed dissatisfaction regarding the care they receive (Ferguson, Ward, Card, Sheppard, & McMurtry, 2013; Griffiths et al., 2012) and patients and health care professionals express concerns regarding a lack of caring (Hawthrone & Yurkovich, 1995). Patients have experienced decreased caring behaviours demonstrated by nursing students (Murphy, Jones, Edwards, James, & Mayer, 2009). Patients identify different strategies that nursing students could use to promote the performance of caring behaviors such as increased communication, commitment to assist patients, and common courtesy (Ferguson et al., 2013). The specific role of the RN within a health care team to assist with improved health and well-being according to the nursing metaparadigm with the patient as the focal point is paramount. The RN provides holistic attention to the person, their environment, and their health with nursing as a specific focus and contributes to an overall collaboration to succeed in the patient's identified goals for health. The nurse combines various ways of knowing to be a "co-participant in the human care process" (Smith, Turkel, & Robinson, 2013, p. 35). The growth of these affective skills can and does occur during the nursing students' development while attaining the necessary components during nursing education programs.

1.7 Summary

The knowledge, skills, and attitudes that nursing students acquire within nursing education contribute to the development of their professional practice. Different aspects of these components within the realms of cognitive, affective, and psychomotor domains assist in the health and safety of patients, families, communities and society. There is a requirement for nursing students to learn the art and science of nursing with professional caring being paramount

with the ability to care for patients with a multitude of health and wellness variations. Professional caring is a complex phenomenon that is difficult to learn, evaluate, and comprehend, with a possibility that students may struggle to grasp it fully and require additional practice in mastering this skill. Innovative methods of teaching, such as simulation, are strategies within educational systems in nursing that are frequently utilized because they are responsive the students' needs and desires. Through these innovative techniques cognitive, psychomotor and affective skills, specifically, professional caring values and abilities, maybe learned effectively. There is a specific need to comprehend and develop effective pedagogies in simulation to successfully utilize this environment to its maximum potential.

Chapter Two

Theoretical Frameworks

2.1 Introduction

The concepts relevant to this research assisted in the selection of the methodology, guided the data collection and supported the iterative analytical process. This contributed to conceptualization of the findings as well as the recommendations for practice, education, and research. The basis and foundation of the theoretical constructs approached learning from the interrelated domains, ensuring the perspectives of the cognitive, psychomotor, and affective perspectives have a connection. These domains intertwined to develop the essential knowledge, skills, beliefs, and attitudes necessary for beginning practice of RNs. There were also three intersecting theoretical frameworks within this research study. The nursing students have different perspectives and experiences from their lives and education, thoughts about the simulation learning environment itself, and how they have and will develop caring values and abilities. The reality is that any experience (i.e. simulation) has "multiple constructed realities" and the theoretical frameworks reveal the foundation of nursing practice and theory "grounded in the phenomenon" of interest (Thorne, 2008, p. 74). The theoretical frameworks are not meant to be restrictive, but they assist in establishing support for further inquiry and analysis. The identification of the domains of learning, with the selected framework of simulation, transformative learning and caring theory aided in informing the research study. A review of the literature identified the previous scholarship within each framework and how they intersect, thereby providing a foundation of knowledge to advance education and learning related to caring in the simulation environment.

2.2 Domains of Learning

The identification of the domains of learning within the nursing educational environments are cognitive, psychomotor and affective (Scheckel, 2012). These domains of learning are interconnected and impact one another, although there is an inclination of nursing educators to focus on technical skills (i.e. catheter insertion) and knowledge (i.e. disease process) within the simulation environment (Miller, 2010). Throughout the course of their education, nursing students begin to learn in all three domains while becoming proficient at nursing knowledge, skills, and attitudes or values. Scheckel (2012) explains that joining concepts from each domain of learning assists with synthesis. The cognitive domain includes learning related to

"knowledge, comprehension, application, analysis, synthesis, and evaluation" (Scheckel, 2012, p. 179). The psychomotor domain includes skills commonly used in fine and gross motor clinical nursing practice, such as utilizing forceps during a sterile dressing change (Scheckel). The affective domain of learning incorporates:

> Our values, attitudes, and behaviours. It includes, in a hierarchy, an ability to listen, to respond to interactions with others, to demonstrate attitudes or values appropriate to particular situations, to demonstrate balance and consideration, at the highest level, to display commitment to practiced principles on a day-to-day basis, alongside a willingness to revise judgement and change behaviour in light of new evidence (Shepherd, 2008, p. 88)

The affective domain of learning incorporates the values, attitudes, and feelings where professional caring is also identified. The exploration of caring values and abilities of the nursing students in this research is identified in the affective domain of learning. There is identification of each of these domains within the education process of nursing students and their future professional practice as RNs. The Saskatchewan Registered Nurses' Association ([SRNA], 2013) articulates the importance of all the domains of learning being incorporated throughout practice with the mandate "to ensure that competent, caring, knowledge-based care "(p. 4). As well, the best practice standards in the simulation environment identifies each domain of learning and these are required with "an array of structured activities that represent actual or potential situations in education and practice and allow participants to develop or enhance knowledge, skills, and attitudes or analyze and respond to realistic situations" (International Nursing Association for Clinical Simulation and Learning, 2013, p. S9). Continuous learning is evident in the simulation environment and may allow for nursing students to experience and develop caring values while simultaneously learning other skills. Educators achieve successful integration of the appropriate domains with the adoption and adaptation of learning strategies particularly the simulation experience in nursing education.

2.3 Simulation as an Innovative Learning Environment

The first framework explored in this research is simulation, as an innovative educational learning environment that creates a learning conducive context (Berragan, 2011). Simulation can be a supportive learning environment where changes in knowledge, comprehension, application, and analysis occur. Complex health issues with multiple variables can be provided to the

students to ensure comprehension and the development of skills (Leighton, 2014). If this technique is used properly all levels of affective, cognitive, and psychomotor learning can occur (Leighton, 2014). Educators can utilize simulation with various learning strategies to assist nursing students to discover non-technical skills, related to safe practice and care (Pearson & McLafferty, 2011). Research has primarily focused on the impact of simulation on clinical performance at the point of care.

Throughout simulation experiences, there are multiple aspects assisting with students' learning. These aspects include the pre-briefing where information about the case is provided, the actual scenario with the development of knowledge, skills, and attitudes while providing care to the mannequin. The final process is debriefing, with identification of learning and critical deconstruction of the case to encourage learning. The debriefing portion of the simulation experience is thought to be where students attain the most knowledge and integrate reflection to solidify the learning (Levine et al., 2014). These aspects assist with the development of knowledge and learning to change the conceptualization of nursing practice (Leighton, 2014). The research completed by Shinnick and Woo (2015) demonstrates that simulation is an effective methodology for numerous learning styles, adapting to the needs of individual nursing students.

Within the simulation environment educators can utilize various models and frameworks to assist with integration and ensure that the effective use of this technique is attained. The simulation model by Jeffries and Rizzolo (2005) outline elements that impact the outcomes of learning, guide implementation, and assist with evaluation associated with simulation learning experiences (see Appendix B). The framework has five elements that are the teacher, student, educational practices, outcomes, and design characteristics which impact different variables. A recent review of this framework demonstrates that there continues to be a lack of terminology and usage standardization with various nursing educators (Fentress Hallmark, Thomas, & Gantt, 2014; Groom, Henderson, & Sittner, 2014). The model developed by the International Nursing Association for Clinical Simulation and Learning (2013) identifies the interconnected aspects of the learning where there is a progression from basic knowledge, skills, and attitudes to more complex nursing practice (see Appendix B). This model is based on the standards of best practice for simulation education in nursing education. Educators can use these models to ground the necessary direction for advancing the educational landscape in simulation.

The ability of an educator to use different theories, models, and practices for the best interests of students potentiates the successful attainment of cognitive, affective and psychomotor skills. The development of knowledge in the simulation environment exhibits potential for growth of students in all capacities through a realistic environment mimicking the actual complexities and rapid changes in the practice environment. The optimization of the use of this vital environment is necessary for the current millennium.

2.4 Transformative Learning Theory

The next component of the theoretical framework is transformative learning theory, clarifying the process of learning in the simulation environment. The selection of transformative learning theory initially developed by Mezirow in 1954, highlights concepts related to adult learners being self-directed, motivated to learn, and bringing individual experiences to the learning environment (Baumgartner, 2012). The use of this theory facilitates the development of knowledge taking into account variations in nursing students and variables present during the learning experiences. Embedding this theory assists to acknowledge these essential variables when approaching post-secondary learning and transforming learning at various degrees (Taylor, Cranton, & Associates, 2012). Transformative learning theory explains the "complexity of the human condition and how our sense of self and ways of coming to know are intimately bound up with our deep relationships with ourselves, as well as with each other, our social contexts, and the broader world" (Dirkx, 2012, p. 126). This theory aligns with simulation and caring, embracing the complex inter-relationship within a social network. The individual responses to caring and incorporation of self to learn crucial aspects of nursing occur within the simulation experience and then throughout professional practice.

Parker and Myrick (2010) explain that the simulation environment is exceptional for transformative learning with the necessary social implications and reflection of students in the debriefing to inform alterations in knowledge. Transformative learning theory has three focal themes for learning and knowledge development

- past and current experience;
- relationships and the ability to be open regarding differences; and
- reflection of the adult learner (Baumgartner, 2012; Parker & Myrick, 2010).

The application of this theory to the learning process of the nursing students focuses the change on their awareness from innate caring to professional caring.

2.5 Caring Theory

Numerous nursing theorists describe the abstract concept of caring to assist with its understanding and application to the practice of nursing. Watson's transpersonal caring theory (1985) and critical caring theory, a mid-range theory constructed by Falk-Rafael (2000) identifies the basis of caring values and abilities. Nursing students have an evolving understanding of caring theory during their education. Transpersonal caring theory in its most abstract form conceptualizes the nursing metaparadigm as the holistic person, the environment with a healing space, health and healing, and caring nursing practice (Masters, 2012). The nursing metaparadigms assists with understanding nursing's distinct knowledge of caring and nursing's beliefs about practice (Parker & Smith, 2010). RNs have the knowledge to apply caring theory to patients, families, and communities. This foundational aspect of practice, with RNs being experts of caring integrating all aspects, distinguishes them from other professions.

2.5.1 Transpersonal caring theory.

The theoretical framework of Jean Watson's transpersonal caring theory brings the discussion of the art and science of caring nursing practice to this study. This nursing theory is at the cornerstone of the caring practices of RNs and is the foundation for the nurse-patient relationship (Hogan et al., 2013). Watson and Woodward (2010) describe the conceptual elements as ten abstract caring factors within a personal caring relationship. These caring factors occur within a specific period, to assist with healing and the health of each individual (See Appendix C).

Transpersonal caring is the authentic use of self to assist with people healing through the process of caring (Watson & Woodward, 2010). The internalization of the process of caring occurs over an extended period (Cook & Cullen, 2003) and Watson's transpersonal theory is the most conducive to educating others regarding caring (Duffy, 2005). Sitzmen and Watson (2014) describe that human caring is a theory with "competencies [that] are related to the cultivation of the nurse's human competencies and ways of being" (p. 18) which assists nursing students to realize the importance of self and the caring behaviors and values each possesses. Nursing students should acquire caring competence with the patient receiving care, feeling cared for through the values, behaviours, and feelings of the students (Duffy, 2010). These values, behaviours, and feelings can be taught and experienced by nursing students in clinical practice and through education (Duffy, 2010).

2.5.2 Critical caring theory.

The mid-range theory constructed by Falk-Rafael (2000) resonates with the dynamic aspects of caring with its relationship to nursing. This theory combines Watson's transpersonal caring science and feminist critical theories to identify seven carative health promoting processes. The use of critical caring theory within nursing education incorporates the transpersonal learning required for practice in any area. Falk-Rafael (2000) explains that there are seven carative factors that are identified aspects of caring (See Appendix D).

The development of this theory was initially for community public health nurses with a focus on incorporating each carative process into the health and wellness of people. This theory also resonates with nursing students because "each carative factor interrelates with the creative, reflective use of the problem-solving (nursing) process" (Falk-Rafael, 2000, p. 37). The use of critical caring theory is applicable to this research due to three aspects that make it unique. Falk-Rafael (2000) identifies that the caring moment is a lived experience for everyone, where the mind, body, and spirit dimensions influence each aspect. She also acknowledges there are multiple ways of knowing (Falk-Rafael). These three factors resonate with this research corresponding to the simulation environment and transformative learning theory.

2.6 Summary

The nursing students' development of caring values and abilities in the simulation environment utilize numerous theoretical conceptualizations, weaving an intricate complex design leading to exploration, conceptual description and possible understanding. The theoretical perspective of caring theory is specific for nursing practice. Each theoretical perspective has a depth and complexity that Thorne (2008) simply articulates as the "scaffolding process [which] feels like preparing the ground upon which you want to put up a tent for the night" (p. 53). The theoretical construction provides the basis for seeking out the answers that lie in the nursing students' perception of caring values and abilities in the simulation environment for this research. The foundational aspects of caring, transformational learning and the simulation environment provide the knowledge to advance understanding.

Chapter Three

Literature Review

The variables requiring further examination were baccalaureate nursing students, a specific focus on caring, and simulation with an emphasis on transformative learning in the simulation environment. The continual search of the literature to determine applicable research and collateral support transpires throughout the study period allowing for the verification of findings. This process assisted in the development of the research and challenged the analytical process.

3.1 Literature Search

Exploration of literature between the years 2005 – 2016 ensured relevant and current material. The literature was reviewed examining the variables with three search engines, the *Cumulative Index to Nursing and Allied Health Literature (CINAHL), PubMed,* and *Medline.* There was further refinement and incorporation of related search terms and articles. Utilization of the additional search engines *Google Scholar* and *Education Resources Information Center (ERIC) (Ovid SP)* expanded the search. In addition to this, references were obtained from relevant articles to develop as comprehensive of a review as possible with items not found in the original search. The keywords searched independently and in combination were students, nursing, nurses, baccalaureate nursing education, caring, Watson's theory of caring, critical caring theory, caring values, caring moment, nursing as an art, simulation education, simulation, transformative learning theory, and education theory. Additional terms during the analysis phase of the research provided a wealth of knowledge from other theorists and disciplines. The keywords utilized in the expanded search were metacognition, co-creation of learning, self-learning, nursing moments, nursing time, nursing presence, becoming a nurse, simulation pedagogy, and emotional learning.

3.2 Review with Research Syntheses

Upon examination of the articles produced from the review, common concepts and evidence were identified. The literature included in the review was specific to the simulation learning environment, the practice of nursing, and caring values.

3.2.1 Caring values.

Throughout the research, it was evident that the theoretical application of caring and its value system are vital to the practice of nursing (Cook & Cullen, 2003; Drumm & Chase, 2010). The art and science of nursing must be focused on in nursing education (Idczak, 2007) and nursing students need to have caring incorporated in the educational experience (Griffiths et al., 2012; Vandenhouten et al., 2012). Idczak (2007) identifies that the art of nursing is connected to the nurse-patient interaction and how the authentic use of self in conjunction with the science is necessary. With the qualitative analysis, Drumm and Chase (2010) explore nursing students' perceptions regarding caring to identify the importance of knowing one's self and having caring present in the curriculum.

The impact to the patient is also important. Caring is an essential component of nursing and affects patient outcomes with the establishment of the client relationship, the amount of commitment and service provided, and the respect and value attributed to every patient by RNs (Bradley & Falk-Rafael, 2011; Rhodes, Morris, & Lazenby, 2011). Hogan et al. (2013) explained that the "nurse's interpersonal skills provide the final endorsement by the patient for a nurse to be perceived as caring" (p. 374). The research about caring was explicitly designed to understand how caring impacts the patient, the students, and how to educate effectively on this abstract skill. Caring values exhibited by nurses within the interprofessional team assist with collaboration to ensure that the person's health and well-being are a priority. Collaborative practice has become a priority amongst health care professionals to ensure effective teams and improve the patient's experience and their outcomes (Canadian Interprofessional Health Collaborative, 2010). Each perspective within the interprofessional team needs to be considered to improve the patient's outcomes with the nursing professional ensuring that the patient is the focus with the impact of the metaparadigm. Miller et al. (2008) found in their qualitative study that nursing is hesitant to participate in interprofessional teams because the team's perspective regarding caring and holistic care with nursing's particular focus of professional caring is limited.

3.2.2 Learning caring.

Nursing students are required to learn the appropriate methods and skills to demonstrate safe, effective nursing care. Methods that are successful in teaching the skill of caring are role modeling, class activities such as group work, and clinical practice (Cook & Cullen, 2003; Duffy, 2005; Griffiths et al., 2012). The individuals who educate nursing students are expert RNs who are role models for the professional values and skills necessary for practice. A qualitative

study by Ferguson et al. (2013) describes how nursing students could demonstrate and develop caring through communication, common courtesy, and a commitment to the personal relationship. It is evident that to learn caring, the students must experience it and have role models to demonstrate this nursing skill (Duffy, 2005). One study found that caring behaviours decreased through the program from the first year to the third year which is interesting because effective education within all domains of learning should increase caring behaviours (Murphy et al., 2009). Learning caring is complex, with a multitude of methods to educate and there is variation in how nursing students gain this knowledge.

3.2.3 Simulation in nursing education programs.

The implementation of simulation as an innovative learning strategy in nursing education has gained momentum. Nursing educators who utilize simulation as a strategy for learning should have competencies in "planning and designing simulations, facilitating learning in a safe environment, expert knowledge based on credible clinical realism, reference to evidence-based knowledge, and demonstration of professional values and identity" (Topping et al., 2015, p. 1108). The effective use of this teaching strategy with the incorporation of standards allows for students to attain cognitive, affective, and psychomotor skills (Hayden, 2010; Pearson & McLafferty, 2011). The use of models such as the simulation model created by Jefferies (2005) assists with the implementation of simulation to ensure successful attainment of knowledge and skills. As well, the nursing skill development and clinical judgement model (International Nursing Association for Clinical Simulation and Learning, 2013) depicts skill development that occurs in the simulation environment. It can be identified that the specific domain of affective learning with the necessary attitudes and beliefs is lacking in these frameworks. There is research developed examining the use of simulation to expand nursing skills; however, the emphasis is generally on psychomotor skill development, assessment, teamwork, and communication (Gates et al., 2012; Hayden, 2010).

There is research completed on the outcomes of nursing students in simulation. For example, one study found an increased percentage of the examination scores with learners that had simulation experiences (Gates et al., 2012). The National Simulation Study (Hayden et al., 2014) was a large longitudinal randomised control trial that compared groups of students; one control group with traditional clinical experiences with no more than 10% involved in simulation, one group of students that had 25% of their traditional clinical hours replaced by

simulation, and a final group where students had 50% of their traditional clinical hours replaced by simulation. The study identifies that there was no difference in the groups at the end of a program with regards to nursing knowledge, clinical competency, and overall readiness to practice. This study did not examine the impact of simulation on caring values, which are paramount to the affective way of knowing in nursing.

Even though the common methodology within simulation environments is for nursing educators to focus on the psychomotor skill development of nursing students, the purposeful development of objectives related to all nursing aspects needs to be integrated (Cant & Cooper, 2010). Simulation has demonstrated the capability to be a distinct technique utilized for students to learn all aspects of nursing (Berregan, 2011; Lastater, 2007) and specifically caring (Eggenberger, Keller, & Locsin, 2010). There is evidence in the literature that nursing students can learn non-technical skills (Pearson & McLafferty, 2011) and students were able to demonstrate their knowledge, competence, and skills related to nursing practice (Sundler, Pettersson, & Berglund, 2015) within the simulation environment. The ethnographic dissertation by Harder (2012) seeks to explain the perceptions of the nursing students on their learning within simulation. The five themes identified in the research were the "balancing act, we all make mistakes, I don't think we're in Kansas anymore, playing nice in the simulation sandbox, and doing something" (Harder, 2012, p. 57). These themes explain how the nursing students gained knowledge within the simulation environment thus providing reasoning why this environment is useful for learning all skills. The use of simulation and the outcomes identified focus on the students' experiences and learning.

The results of the simulation learning environment are very promising with nursing students having increased satisfaction and confidence (Jefferies & Rizzolo, 2006; Khalaila, 2014), and they have a feeling of safety in the simulation environment (Kaahinen & Arwood, 2009). Despite the benefits of simulation, there remains a hesitation to utilize this innovative learning environment to its fullest potential to combine all components of nursing. There is a responsibility of educators to ensure the simulation environment corresponds with the curriculum and that knowledge regarding debriefing is attained so the use of the innovative technological strategy of the simulation environment can be effective (National League for Nursing Board of Governors, 2015). The lack of knowledge and the deficiency of simulation pedagogy in curricular design contributes to the hesitation of educators to fully capitalize on the simulation environment thus facilitating learning from all perspectives.

3.2.4 Simulation and caring.

The growing use of simulation technology fosters an imperative, to incorporate all skills and specifically, to ensure caring values have incorporation into this innovative teaching strategy (Diener & Hobbs, 2012). The use of simulation has in fact demonstrated that learning professional caring is possible in this environment (Blum, Hickman, Parcells, & Loscin, 2010; Khalaila, 2014; Winland-Brown, Garnett, Weiss, & Newman, 2013) and nursing students learn this abstract skill through role modeling with others (Walton, Chute, & Ball, 2011). There have been quantitative studies that demonstrate increased caring values and behaviours following a simulation experience measured in a variety of methods (Blum et al., 2010; Eggenberger, Keller, & Locin, 2010; Eggenberger, Keller, Chase, & Payne, 2012). Cazzell and Rodriquez (2011), found that due to the objective structured clinical examinations (OSCE) the affective domain of nursing is often neglected in the simulation environment.

Caring is an abstract concept and can be difficult to communicate, teach to individuals, and evaluate. Eggenberger et al., (2002) utilized the Caring Efficacy Scale to determine if caring is influenced by the simulation environment and found that caring is found in simulation with all ways of knowing being present within this environment. One drawback they found was that simulation could not replace an actual relationship with a human. The identified research related to the affective aspect of skill development and the ability of the simulation environments to impact caring values gives promise to all possible domains of learning in this type environment.

3.2.5 New knowledge.

The following dissertations demonstrate advancement in knowledge regarding simulation and the nursing students' changes in caring. Two dissertations (Gatti-Petito, 2010; Brodell, 2009) consider caring values in nursing students within the simulation environment. The dissertation by Gatti-Petito (2010) explores the perceptions of caring with nursing students before and after simulation. This quantitative study examines the perceptions of students utilizing the Caring Behaviour Inventory. It was found that there was a significant difference in the perception of caring following the simulation experience with males having an even greater change in scores (Gatti-Petitio, 2010). Similar to other studies, the discovery that no matter what the nursing students' role is during the experience there is a significant difference in their perception of caring, with students observing in the simulation experience having perceptions altered as well (Gatti-Petitio, 2010; Jefferies & Rizzolo, 2006).

The dissertation written by Brodell (2009) examines the perceptions of the nursing students on caring, the use of technology on caring, and the students' confidence in using personal digital assistants (PDAs). This research provides information regarding nursing students' caring attitudes, for example, listening to the patient and developing a trusting relationship are paramount. The current research related to simulation and caring assists to transform the knowledge of simulation and provide additional depth and understanding for the use of this technological method to teach and learn.

3.3 Gap in Literature

Throughout nursing, caring is identified as a priority skill and value that professional nursing practice should obtain. The completion of research by Griffiths et al., (2012) investigates the patients' perception of nurses, what they seek in a nurse, and their opinion of nursing education. The findings reveal that patients find nurses are academically prepared but lack the desire or knowledge to care (Griffiths et al., 2012). The scholars, Falk-Rafael and Betker (2012) also explored the application of critical caring theory with public health nurses and found that there was limited learning related to caring to occur in nursing educational programs. Although it is concluded that nursing students should be exposed to the art and science of nursing and it should be incorporated into aspects of nursing education (Idczak, 2007).

Various descriptions of evidence reveal that caring is an essential skill that requires fostering and different learning strategies such as simulation can be used to comprehend the implications of caring (Eggenberger, Keller, & Locsin, 2010; Griffiths et al.,2012; Shinnick, & Woo, 2015). Educators need to discover appropriate and innovative methods to teach caring within the affective domain. There is also a significant void in the research about how simulation affects the nursing students' application of knowledge in the clinical setting (Norman, 2012). Several authors found that the science behind simulation is still very new and more research, in all regards, is necessary (Ruthford-Hemming et al., 2015; Walton et al., 2011). The possibilities to advance simulation as an effective pedagogical method within nursing education are countless. Each research contribution potentially advances the understanding of simulation with the development of all domains of learning, particularly on nursing students' caring.

3.4 Summary

Caring within nursing practice is an art and science, and the development of this skill within nursing students is a priority for the future of nursing practice. The affective, cognitive,

and psychomotor skills learned in nursing education require numerous techniques and strategies for nursing students to succeed in gaining the vast amounts of knowledge, skills, and attitudes contributing to expert nursing. These domains are interrelated with difficulty distinguishing between each in nursing practice. The nurse educator is an expert in practice who can assist with the nursing students gaining knowledge, skills, and attitudes consistent with expert professional RNs. An educator can individualize learning with the intricate network of the art and science being conceptualized to understand nursing. It is this education where the imprinting of values and ways of knowing to ensure safe, effective nursing practice occurs. With the use of innovative techniques, such as simulation, each skill required can be learned. Through the exploration of nursing students' perception of caring values and abilities in the simulation environment, where they experience nursing, additional knowledge is sought to understand the pedagogical process of simulation.

Chapter Four

Method

4.1 Introduction

The exploration of caring within the simulation environment requires a strategy that identified the nursing students' perceptions of their experiences. Within nursing education "there are observable patterns of human behaviour or subjective experience that require better understanding, including some explanatory interpretive analysis" (Thorne, 2008, p. 34). The use of interpretive description allowed for the comprehension of the development of nursing students, specifically related to professional caring values and abilities, in the simulation environment. This understanding is required to ensure that "outcomes are transferred to the complex, variable, and emergent human context" (Dunnington, 2014, p. 21) within professional nursing practice. Throughout the construction of the research the decisions and rationale regarding the methodology, the setting, and the sample selection with recruitment is provided. The triangulation of a focus group of 10 nursing students, 6 semi-structured interviews with nursing students, and a personal reflective journal allowed for data capture.

4.2 Interpretive Description

To acquire additional knowledge regarding the phenomenon of professional caring in the simulation environment with baccalaureate nursing students, interpretive description constructed by Thorne (2008) was utilized. Interpretive description enabled perceptions of the nursing students to be captured and aided further conceptualization of caring values and abilities in the simulation environment with themes related to the nursing students' experiences. This methodology revealed the development of caring in nursing students through insights into how the simulation environment impacted the outcome of caring applied within nursing's metaparadigms. Through the interpretive, analytical processes, a deeper understanding occurred with the integration of complex theories and a higher level of abstraction of data with the transformational process underpinning the development of caring.

4.2.1 Methodological approach.

Interpretive description fits within the qualitative methodological grouping, which aims at answering the what, how and why of a phenomenon through the gathering and analysis of rich contextual data. The use of traditional scientific research can guide the investigation, but

exploration of behavioural and human experience requires a different form of examination. There is a necessity to identify the natural way in which the questions arose in the environment where the researcher is situated, to ensure that the scientific inquiry fits with the qualitative investigation (Thorne, 2013). As an educator in the simulation environment the necessity to understand how learning occurs was necessary. With the art of nursing, in general, and of caring, in particular, being appropriately explored with this method, it provided a basis for the continually changing environment of simulation and the potential contribution of all experiences. St. George (2010) explains that "we interpret the meaning of our behaviours" (p. 1626) with interpretive description utilized to seek understanding.

The theoretical medley, in combination with the opportunity for development or adaptation of theories, allowed the researcher's growth to inform the research. Thorne, Reimer Kirkham, and O'Flynn-Magee (2004) explain that the natural spaces, where similar experiences of individuals occur during a particular time, produce a collective representation because of the "philosophical alignment" (p. 5). Two key concepts within the philosophical foundation of interpretive description assisted in the application. One is that reality and experiences are individual and self-constructed, therefore, this method provided the exploration of the subjective experience of each nursing student with the goal of identifying themes and patterns accounting for individual variations (Hunt, 2009). The researcher, who sought understanding in partnership with the study participants, contributed to the knowledge gained. The other philosophical concept is the absence of an *a priori* theory. Merriam-Webster online dictionary (n.d.) defines *a priori* as "relating to what can be known through an understanding of how certain things work rather than by observation" (para. 1). There was knowledge of the multiple realities from the nursing students' experiences and the continued iterative analysis contributed to the theoretical knowledge developed during the research. Interpretive description supported understanding of both the how and why, of each phenomenon under consideration (Thorne, 2008).

4.3 Setting

The setting was the University of Saskatchewan (U of S), College of Nursing, Regina Campus. The U of S, College of Nursing with three campuses in Saskatoon, Prince Albert, and Regina; and three distributed learning sites in Île-à-la-Crosse, La Ronge, and Yorkton. The vision of the program is to be a "world leader in educating nurses in interprofessional health care, research, practice, innovation, capacity building and policy development" (U of S, 2016,

para. 1). The site selection provided an adequate number of students with diverse experiences and facilitated a reasonable timeframe necessary for the completion of a Master's level research study with an appropriate and available participant group.

The third year students participated in a yearlong mandatory offering 'Core Competencies for the Management of Complex Patient Care 1 and 2' with a specific simulation class and lab (numerically listed as Nursing 311.3 and 312.3). These corresponding simulation classes and labs supported nursing students to learn key skills and nursing practices which, in turn, could be applied to the clinical area. The course objectives for learning focused on the priorities of cognitive and psychomotor skill development (U of S, 2015). The learning objectives for Nursing 311.3 and Nursing 312.3 were:

- demonstrate nursing care in complex clinical situations;
- discuss care of the complex patient across the lifespan;
- utilize evidence based practice in application of nursing interventions and display competence in necessary skills; and
- advocate for patient and family centred care (U of S, 2015).

Each domain is not listed independently, but the interrelationship in practice is evident and necessary for the development of knowledge, skills, and attitudes for caring nursing practice. The separation of the domains can be completed for "classification purposes only" (Scheckel, 2012, p. 178).

4.4 Sample

The outline of the inclusion/exclusion criteria, as well as sampling and recruitment strategies, are herein.

4.4.1 Participants.

Recruitment of third year baccalaureate nursing students at the U of S, College of Nursing, Regina Campus occurred based on the inclusion criteria deemed necessary to gather the appropriate information related to simulation. The inclusion criteria were: admission and enrollment in the program; current registration in the third year of the program in 2015 - 2016; enrollment in Nursing 311.3 and 312.3; and willing and available to participate in the focus group and/or interviews. The selection of the third year cohort ensured that the students had exposure to basic nursing theory and clinical portions of their pre-professional education as well as exposure to the simulation environment. The purposeful inclusion criteria required current

enrollment in the simulation class and lab to ensure a relevant, current perspective and provided an accurate, recent recollection of the experience.

4.4.2 Sample size.

Purposeful sampling allowed for the selection of participants to provide "information-rich cases" (Grove, Burns, & Gray, 2013, p. 365). The use of purposeful sampling assisted to collect the narratives of the nursing students in the simulation lab to explore and understand the groups' perceptions and experiences related to learning caring values. The sample size for the focus group was 10 nursing students and the interviews were six nursing students.

Due to the exploratory nature of this research a small number of participants with a willingness to share their experiences related to caring values and simulation was believed to be sufficient to "produce something worth documenting" (Thorne, 2008, p. 94). One challenge in recruitment with interpretive description is that there are no set numbers of cases, but the onus is on the researcher to determine the appropriate point to halt the study when there was a "meaningful clinical description" (Thorne, 2008, p. 97). Thorne (2008) suggests setting an upper limit for the number of cases to ensure complete examination of the topic and for an interpretive analysis to occur. Another consideration was that qualitative data collection samples and size can vary, and the researcher must remain cognizant that the intent was to gather data for meaning rather than for the frequency of an event (Grove et al., 2013).

In the literature review, it was identified that researchers obtained significant results with qualitative studies using similar small sample sizes. Hunt (2009) explains the use of interpretive description provides a basis for a smaller sample size and the use of multiple data sources. Other researchers (Atkinson & McElroy, 2016; Gibson, Henderson, Jillings, & Kaan, 2013) have chosen smaller sample sizes to obtain the rich data necessary within qualitative studies.

The projected range was eight to ten study participants with an upper limit of 20 was deemed necessary for a "more in-depth exploration of the underlying subjective experiential nature" (Thorne, 2008, p. 94) of caring values learned in the simulation experience. The achieved sample size for the focus group was 10 nursing students with six corresponding interviews. Following the sixth nursing student's interview, the data collection was ceased as it was determined that saturation had been achieved. The sixth interview confirmed perceptions expressed previously and affirmed how development of caring values occurred from the perspective of the nursing students.

4.4.3 Recruitment.

To gain entry, the researcher sent a request to the Associate Dean and the faculty members facilitating the Nursing 311.3 class and lab at the College of Nursing, Regina Campus regarding the research project. At the beginning of the 2015 - 2016 first semester, during the week of September 7 - 11, 2015, third year nursing students were invited to consider being a part of this research study. Utilization of an additional recruitment strategy with the display of posters on the communication boards at the U of S, College of Nursing, Regina Campus assisted the research to be visible on campus (see Appendix E). Following the presentation of the research to the nursing students, a letter outlining the research with contact information of the researcher was provided (see Appendix F). The researcher remained after class completion to be available for any questions from the nursing students, in order to give an opportunity for questions and the development of a shared interest in the research topic.

After the initial week of recruitment, the desired sample size was not obtained. The researcher returned to the Nursing 311.3 class between September 11 - 18, 2015, re-explaining the project and responding to questions. This follow-up secured sufficient nursing students for the research. These self-identified prospective students were contacted by the researcher through email, and at that time, there were responses to requests, follow-up on any questions and suggestions were provided for possible dates for the focus group. During the focus group, permission was granted by the students for future email correspondence regarding possible dates for the semi-structured interviews later in the research period.

4.5 Data Capture Tools

The triangulation and use of different methods allowed for a deeper understanding of the participant's experiences and perceptions ensuring that the researcher could grasp the evidence guiding the interpretive explanation with application to practice (Thorne, 2008). The data collection was inductive where the researcher identified the previous conceptualizations and frameworks in conjunction with the exploration of the nursing students' perceptions and experiences (Mills, Bonner, & Francis, 2006). The data collection strategies included the first phase with one focus group of 10 nursing students which occurred in September 2015 and the second phase of six semi-structured interviews (6 in total) which took place between December 2015 and January 2016. It also included a third method with the reflective journal maintained from January 2015 through to completion of the thesis in June 2016, which enabled detailed reflection on thoughts, ideas, and perceptions with exact particulars of the process of reflection

and on how the data, analysis, and selection of research led to construction of findings and new knowledge (Thorne, 2008) . An additional rationale for utilizing numerous data sources was to invoke triangulation to strengthen the de-layering of the phenomenon of caring in the simulation environment to discover all potential factors contributing to the development and ensuring credibility of the findings (Thorne, 2000).

4.5.1 Focus group phase 1.

The focus group had 10 nursing students who had self-identified through the purposeful sampling method and recruitment. The use of a focus group allowed for a group of individuals "to uncover or create shared perspective" (Thorne, 2008, p. 81). The focus group occurred within a common area at the U of S, Regina Campus. Both the location and provisions allowed for a comfortable environment while still ensuring privacy (Grove et al., 2013).

The focus group allowed for a group of individuals "to uncover or create a shared perspective" (Thorne, 2008, p. 81) which was facilitated by a guide to ensure the background related to the group's previous experiences with caring values was identified (see Appendix G). To begin the focus group the identification of demographic data was obtained through a discussion with the students (see Appendix H). The explanation and identification of the purpose of the focus group was to identify prior caring values of the nursing students before the Nursing 311.3 simulation class and lab. Hence, the focus group occurred prior to the nursing students having extensive simulation experiences. It was discovered through the focus group that the students had participated in two classes and one lab, where they received a course outline detailing the specific learning objectives and witnessed one scenario performed by the nursing instructors.

The focus group discussion was audiotaped and then transcribed verbatim. Immediately following the focus group, reflective notes were compiled in the electronic reflective journal. The initial analysis of the focus group transcript and reflections started the process of analysis with reconstructing the conversations that had occurred and rereading the material. The initial broad themes regarding caring and simulation were tentatively explored. Reflection of the construction and the information wielded from the focus group assisted in providing credibility to the research (Thorne, 2008).

4.5.2 Interview phase 2.

The second phase of the research study included six semi-structured interviews with individual nursing students conducted between December 2015 and January 2016. The nursing students were recruited from the initial recruitment pool at the beginning of the study. As previously outlined, permission to correspond with the students was sought during the focus group. The researcher corresponded with the students via email and determined the interest of each of the students to continue in the study. The interviews contained four nursing students who volunteered from the original focus group plus, two other nursing students who expressed interest during the recruitment period but were unable to attend the focus group. The semi-structured one-on-one interviews occurred in a private, confidential office area during a mutually agreed upon time at the convenience of the nursing students at the U of S, Regina Campus.

Semi-structured interviews provided the inquiry and understanding of the individual study participant's perception and views (Thorne, 2008). The semi-structured interview method yielded data related to caring values and abilities developed within the simulation class and lab. The use of exploratory open-ended questions with the utilization of an interview guide provided the parameters that ensured the research questions were explored (see Appendix I). The interview questions were developed iteratively through the data collection period and analysis. The continuous circular process of adapting the questions provided a deeper understanding of the development of caring values in the simulation environment with the exploration of the nursing students' perceptions. Following each interview, the audio files were listened to and transcribed verbatim.

Thorne (2008) provides a strategy to advance the credibility of the data by adapting the interviews differently than the focus group and each interview to give an expansion of the patterns or relationships identified. The changes to the interview questions were not variable to the subject but in the language used to ask about caring. For example, it was identified early in the interview process that the nursing students had difficulty articulating what caring was regardless of how the researcher asked the questions. This reflection and analysis allowed for the adaptation to the questions without changing the goals of the research and assisted in determining what the findings could mean. The process of making sense of the data began early with the focus group and continued throughout the repetitive process during the research period (Thorne, 2008).

Following each interview, the initial thoughts and feelings were detailed in the reflective journal. The interviews allowed for the exploration and understanding of the nursing students' perception, views, and experiences. Following transcription the detailed content analysis entailed tracking key words and themes captured by highlighting certain key phrases and comments in the journal. At the end of the interview the Transcript Release Form (see Appendix J) was discussed with the nursing students. The release form had the purpose of providing nursing students the opportunity to add, delete, or change any of the transcribed data as they felt necessary. All of the students were provided a content review of the data with one student providing some clarification to the transcribed data (i.e. adding clarification to one statement).

4.5.3 Reflective journal.

The third research method was the researcher's detailed reflection of thoughts, ideas, and understandings in the form of an electronic journal. Thorne (2008) explains that this reflection with exact particulars of the process and how the data, analysis, and selection of research occurred provides information to reconstruct the data into research findings and new knowledge. This reflection with exact particulars of the contemplation process and how the data, analysis, and selection of research that occurred, provided information to reconstruct the research findings and advance knowledge. The reflective journal was maintained and confidentially secured by the researcher throughout the research process between January 2015 – June 2016.

Following the focus group and each interview, the initial thoughts and feelings of the discussion was detailed in the reflective journal. This process allowed for the exploration and understanding of the nursing students' perception, views, and experiences. The journal furthered the understanding of initial reflections related to caring as a student, the simulation learning environment, and caring in the simulation experiences informed by the perceptions of the nursing students and researcher. This journal was necessary to track the reflections of the researcher with a continuous documentation of the evolving understanding, examination of particular effects of variables, and delving into the investigation with analysis to inform the conceptual themes and their relationships (Birks, Chapman, & Francis, 2008; Thorne, 2008). The reflective journal provided a forum to explore preconceived notions of what caring is. It also served to develop the researcher's analytical process to ascertain themes and patterns within the data and it was a personal outlet that dynamically changed the comprehension, understanding, and impact of the completed research study. The discovery in the journal ensured that the findings were credible

with a critique of what the themes and patterns revealed. The use of notes from the focus group and interview process, as well as reflection during the transcription process, assisted the researcher to engage further with the data therefore providing interpretation (Thorne, 2008). The journal provided a safe space to jot down ideas which assisted the researcher in exploring the research process and "how to do" research and it provided the rationales for the decisions made along the journey.

4.6 Data Analysis

The data collection and data analysis occurred concurrently in this interpretive description study, which achieved the goal to answer the research questions. The data content was prepared prior to the data analysis. An early important step included the transcription of the data, which commenced immediately following the focus group and after the semi-structured interviews. With the transcription process, the researcher was provided with the opportunity to hear the participants fully and begin analysis (Thorne, 2008). Following the transcription process, the researcher ensured the content was accurate with the anonymized (i.e., identifying names removed) transcripts read by the nursing students for their individual input related to the content of the interview, providing an opportunity for clarification or explanation. The researcher heard the nursing students by listening to the audio files while re-reading the transcript multiple times. Interpretive description methodology insists upon engagement with the data which assisted with interpretation and exploration of the data conveyed by the participants (Thorne, 2008).

The analysis with interpretive description occurred throughout the study period with the identification of general, broad patterns which were then refined using constant comparative analysis to establish themes and determine relationships which eventually provided an interpretive explanation. During data analysis, the researcher toiled with the data conceptually and developed knowledge regarding inductive reasoning. "The design strategies in interpretive description borrow strongly from some aspects of grounded theory, naturalistic inquiry, and ethnography" (Thorne et al., 2004, p. 6) but it allowed for a less restrictive framework. Thorne indicates that the importance of constructing a theoretical perspective to determine the meaning from the data.

Miles and Huberman (1994) explain that coding places "meaning to the descriptive or inferential information" (p. 56) which can then be associated with words, sentences, or

paragraphs from the data. The initial process of open coding with determining the common categories of data permitted the data to be deconstructed (Cohen and Crabtree, 2008). At first, the subjective truths and perceptions articulated by the nursing students were identified with similar references and the assignment of labels (Thorne, 2008). For example, in the focus group the students articulated the holistic person and environment as being paramount. This was assigned a general label of caring provided. Repetitive deconstruction of the data with reading the transcripts and subsequent immersion in the data provided an understanding of the various general aspects to place into large grouping. The continuous adaptation of these codes with rereading the transcripts, careful selection of additional statements from the data, and placing these into the themes maximized the usefulness of this method. Following open coding Thorne (2008) explains that similarities and differences in the groupings can distinguish contrasting features.

Throughout the data collection the researcher began the process of making sense of the nursing students' perceptions with selection of general groupings with their answers to each question. The original groupings and common codes were recognized and written in the reflective journal which provided the thoughts on what is caring. This exploration of the data provided a general view of the main topics with each participant's response to the questions providing the initial groupings (Thorne, 2008). Following the recognition of general groupings there was a refinement of the data with placing it into themes and subsets. The comparison of the original data against the subsets with continuous regrouping of the information contributed a concrete way to discover the themes effectively and draw meaning (Huberman & Miles, 1994).

The researcher read and re-read the groupings as well as reflected on the meaning which developed an understanding of the themes within the data (Thorne, 2008). "The work of analysis" (Thorne, 2008, p. 141) involved examining and determining what relationships the various groups of themes had on one another. Numerous approaches can be borrowed from other methodologies to assist with pattern and relationship recognition (Thorne, 2008). The use constant comparative analysis and asking questions from grounded theory to compare the data identified the similarities and differences in the data. Thorne (2008) does not specify a particular method to code the data in interpretive description but she does describe an alternative that fits with the "evolving analytic thought" (Thorne, 2008, p. 147). This process was also utilized to identify thoughts and ideas within the data through highlighting the material and jotting down key statements on multi-colored cue cards. As well, along the journey of coding with the

selection of groupings the researcher inquired into the meaning. Examples of exploratory questions were: What does each theme possibly mean? Where does each theme fit within the whole? (Thorne, 2008).

In order to determine the relationships and patterns amongst the groups the constant comparative method for analysis was selected. Constant comparative analysis has an interactive model of data analysis with data reduction, data display and data conclusion (Huberman & Miles, 1994). The use of the multi-colored cue cards with essential references and descriptive titles pulled from the data provided a mechanism for managing data reduction. Following this, the data display with the "assembly of information" (Huberman & Miles, 1994, p. 429) and general groupings of information transpired with the cue cards being grouped together in various ways to ascertain the meaning. This method of grouping information together allowed the researcher to return to the collected data and provided an avenue to explore the data with informed questions. This grouping then assisted to determine the patterns amongst the data and produced a conceptualization of the relationships amongst all the data. The constant comparative analysis was selected because it is best used in the discovery of common factors, relationships, and patterns within the human experience (Thorne, 2000). Following data analysis, the multi-colored cue cards were confidential shredded to maintain confidentiality.

The process of analysis was repetitively completed throughout the research period. Following the focus group and each interview the process of constant comparative with "constant redesigning and reintegrating theoretical notions" (Chen & Boore, 2009, p.2255) while examining the data was begun. The cyclical nature and construction of interpretive description throughout the research process was facilitated through concurrent collection and analysis (Hunt, 2009). This rudimentary building of a whole that made sense assisted with determining the eventual conceptual framework. Throughout the immersion in the data, interpretive description informed questions were asked in reflection: What will the pattern structure illuminate this way or that way? What does it mean when a pattern is more prominent than another and what if it is changed? (Thorne, 2008). The data construction surfaced with the final themes and relationships contributing to the conceptual representation. The explanations were determined from the methods, the collateral support, and additional literature. The findings did "come about because a human mind has engaged strategically and constructively in the business of active analysis" (Thorne, 2008, p. 155). The identification of themes during the analysis allowed the researcher to

grasp the meaning of the perceptions of various nursing students' experiences and situations as described by Bowen (2006).

Once the themes were determined the reporting of findings went beyond the thematic reporting to reflect an understanding of the interpretation and what it means. The interpretive explanation that eventually surfaced provided a description to expose fragments related to the phenomenon of caring in the simulation environment that were revealed because of the methodological triangulation (Thorne, 2008). The iterative nature of data analysis with progressive back and forth analysis of the data provided the exploration of the research questions. This process provided the framework to derive at an interpretive explanation with new considerations to understand the development caring in the simulation environment. With conceptualizing the findings as a coherent whole there was a new understanding of the complex, abstract skill of caring within the simulation environment that has applicability to nursing and interprofessional health provider education, practice, and research.

The conceptual framework from the research is explained in detail in the findings and provided the visual connections assisting to create a coherent whole. This representation also provided details around the connections to create a coherent whole. Additional theoretical literature explored during the research process provided the clarification and deepened contemplation of the phenomenon. The lens of the researcher assisted in interpreting the data and provided the interpretive explanation according to ontological and epistemological beliefs thus adding to the findings (Walker, Cooke, & McAllister, 2008). Using these approaches allowed for the simulation experience to be explored thereby producing themes and relationships of the nursing students' perceptions of caring allowing for a deeper understanding of the data.

4.7 Credibility

The process of constructing the credibility of the research began with the research proposal and was maintained throughout the study period. The task of qualitative research is complex and challenging thus the researcher maintained the detailed plan that achieved credibility throughout the data collection, analysis, and conceptualization (Thorne, 2008). Throughout the thesis document, the rationale of purposeful choices with their implications is outlined to provide accuracy. The credibility indicators in this research study that were focused on with the data analysis are the over-inscription of self, the complex methodological aspects in the design, and engagement with others as a novice researcher. Strategies such as an awareness

of these credibility indicators throughout the research study period allowed challenges to be overcome.

4.7.1 Over-inscription of self.

The use of interpretative description methodology allowed the researcher to "become one with the data" (Thorne, 2008, p. 157) with the necessary steps to ensure that an over-inscription of self was not imposed on the findings. The reflective journal completed throughout the study period provided the outlet to disclose the purpose of nursing, what caring means, what is believed about caring values and abilities, and the impact on nursing education specifically to the simulation environment. Thorne (2008) describes the importance of uncovering where the researcher is in relationship to the research topic and study.

When arriving at the themes and relationships, the researcher was able to reflect on the questions regarding what the data meant and where the possibilities arose from, thus ensuring there was no misrepresentation of self in the findings. To "challenge the intellectual linkages" (Thorne, 2008, p. 157) the researcher purposefully concentrated on ensuring specifically structured distance away from analysis to provide a space for reflection. This reflective process allowed for the continuation of data analysis with being able to submerge cautiously in the data and to find the meaning with "maintain[ing] continuity, and sustain[ing] momentum in the conduct of research" (Birks et al., 2008, p. 69).

4.7.2 Methodology.

There were possible methodological issues that could arise with utilizing interpretive description. The researcher was aware of certain challenges with consciously reflecting and identifying any possibilities that could have contributed to superficial analysis in the research. There was a challenge not to assume initial findings regarding the data were the only interpretations. The researcher did not close the exploration too early, which would have created an artificial connection between the patterns or relationships (Thorne, 2008). Other challenges included the misinterpretation of the patterns and the frequency of relationships which could be inaccurately represented. One process incorporated to overcome these issues was the identification of the initial perceptions and assumptions of the researcher. Confirmation of these primary aspects with stepping away from the data and reflecting aided in conquering this challenge. An additional strategy employed to overcome the methodological challenges was to return to the original research inquiry and questions. When beginning the data collection, the

researcher posted the original research question at the workstation for a continuous reminder of the purpose.

These aspects increased the likelihood that the construction of knowledge was valid with analytical thought, contemplating and "deciding how ... [it] might work" (Thorne, 2008, p. 160). The consideration of the individual parts and whole with identifying insubstantial themes and contemplating the findings made it possible to overcome misinterpreting frequency. These processes challenged the analytical method to determine if there was a different way of understanding (Thorne, 2008). The researcher also questioned what is hard to comprehend and what could be revealed in the data to provide further analysis advancing knowledge and understanding.

4.7.3 Novice researcher.

The process of research, with the analysis of findings should be critiqued (Thorne, 2008). As a novice researcher, the involvement of the thesis committee members provided the guidance and expertise necessary to be successful in this endeavour. Correspondence transpired with members to identify thought processes and challenged the iterative analysis. The researcher read and reflected on this feedback as well as the conceptualization developed in the analysis to effectively explore the knowledge gained. Another strategy the researcher employed was to seek out opportunities to develop skills in research, such as the participation in focus groups, observation of experts interviewing participants, and involvement in interviewing individuals.

The reflections in the journal regarding the source of the researcher's inquiry, as a seasoned nurse educator within the undergraduate program and as an expert practicing RN in clinical practice, aided to transform the knowledge into a deeper level of comprehension. The use of various methods assisted the researcher as the "curious learner" (Thorne, 2008, p. 130) to investigate the nursing students' perception of caring values in a particular environment. When approaching the research questions the appropriate depth of questioning in the focus group and interviews, as well as the exploration of initial thoughts and considerations in the reflective journal provided clarification and correction (Thorne, 2008). An additional rationale for utilizing numerous data sources was to triangulate the phenomenon of caring in the simulation environment to discover all potential factors contributing to the development and ensuring credibility of the findings (Thorne, 2000).

It is recognized that as a nursing professional, the environments that the researcher is associated with are always approached with a critical mind, determining the parts and whole in every situation, which impacts the practice of nursing (Thorne, 2013). The reflection of biases in the journal before undertaking the active data collection and throughout the interpretive description design supported the credibility of the findings. Although the researcher was a novice, there is an acknowledgment regarding the deep level of understanding regarding caring values and expert nursing practice that the professional has.

4.8 Ethical Considerations

It was anticipated that this research study would impose minimal risk to participants. Ethical approval was obtained from the U of S Behavioral Ethics Review Board (Beh 15-221) and the College of Nursing internal board review (approval August 27, 2105) as participants were nursing students. The students received complete explanations regarding the purpose of research with the necessary sensitivity. The nursing students were informed that the exploration of professional caring would be completed which lacked the predictability of knowing what could have been revealed. Voluntary informed consent was obtained prior to the focus group and interview.

At the beginning of the focus group written consent was obtained with the Participant Consent Form Focus Group (see Appendix K) with both the signatures of the nursing student and the researcher. The students were provided a signed copy for their records and the originals were scanned, and stored confidentially as per Behavioural Research Ethics requirements. The originals were confidentially shredded. The importance of the focus group confidentiality was reiterated to the nursing students because of the multiple perspectives shared in the discussion. The nursing students were informed that the session would be audio taped and allowed for this to occur. During the beginning of the semi-structured interviews signed written consent was obtained with the Participant Consent Form Interview (see Appendix L) with both the signatures of the nursing student and the researcher. The students were provided with a signed copy for their records and the originals were scanned were maintained in confidence electronically. The originals were confidentially shredded. Two signed copies of the Transcript Release Forms were obtained with one copy provided to the nursing students. The forms were then scanned electronically and kept confidential as per Behavioural Research Ethics Review. The original copies were confidentially shredded. During the transcript review process, confidentiality was

ensured through the removal of the names of the participants and other identified people (i.e., instructors).

Ethical considerations' regarding the relationship between the researcher and nursing students required identification. The use of qualitative methodology required that rapport is built during the research in order to extract quality data about the nursing students' personal experiences, and the relationships built needed to be protected and ensured that they were genuine (Duncombe & Jessop, 2013). Caring values are a personal trait which humanity perceives as important (Rider et al., 2014) with these values being developed professionally during nursing students' education and careers. Although the purpose of the research was to explore development of these values during a unique time (i.e. baccalaureate education program) and learning context (i.e. environment of simulation), the relationship and rapport established throughout the process assisted with analysis.

Thorne (2008) explains that researchers may experience a challenge in transitioning from a clinical expert obtaining data from clients to the role of researcher learning about the details, with not knowing the findings. The researcher overcame this potential discomfort, with an awareness of the trust-based nature of the relationship which aided to ensure an ethical process. This relationship was one in which the researcher and participant were both learners during the experiential process. The nursing students' perception and views of caring values were essential for the research which was reflected in the electronic personal journal throughout the research period (Thorne, 2008).

The recruitment and compensation of nursing students have the potential to contribute to ethical concerns. The recruitment of nursing students was challenging. Upon reflection, it was identified that the timing of the recruitment period (i.e., the start of the academic term) might have contributed to the hesitation of the nursing students to volunteer, as students were overwhelmed with the amount of scholarship required in their various classes. Another identified challenge was the description of the research project and the topic of caring values and abilities in the simulation environment being very abstract and with the nursing students beginning to evolve their understanding of what caring meant it may have created a misunderstanding due to the complexity of caring while they were still developing. The motivation of any person to volunteer as a research participant is diverse (Steinke, 2004). The disclosure and awareness of the compensation related to this research were provided to the nursing students to assist to remunerate for their time involved in the focus group and interviews. The decision was

strategically considered regarding compensation for participation in the focus group and interview. Steinke (2004) explains that if no compensation is being offered people may not volunteer and if there is an unreasonable amount of compensation than coercion may be present. The compensation was of low monetary value to guard against undue coercion. The participants were able to withdraw from the research study at any time without any repercussions. During the focus groups, the nursing students received food and refreshments during the discussions. Nursing students in both phase 1 and phase 2 had an opportunity to place their name into a draw to win one of two gift baskets worth $50.00 each. This draw occurred on February 13, 2016 following both phases. The students received the compensation during the process of transcript release.

When completing data collection, reflecting on the impact of the relationships built in data collection and impact of the researcher on the nursing students was paramount. There was a deliberate construction of a safe environment for the focus group and interviews to minimize a perceived power hierarchy. The nursing students questioned the researcher regarding being an instructor in the nursing education program. The researcher had indicated that the instruction of students had occurred in previous years, and this exposed the topic regarding caring as a foundational skill in nursing and how the simulation environment contributes, negates or is non-contributory to this development. The rapport established during the interaction had transparency regarding the purpose of the research and contributed to building the relationship. The connection built assisted in dispelling the false perception of power hierarchy related to the researcher previously being an instructor in simulation. The awareness and continued focus of maintaining a neutral relationship kept the researcher and students focused on the goal of learning together.

There is another ethical consideration regarding the previous experience of the researcher within simulation, nursing education, and nursing practice. The electronic journal supported the reflection and identification of conflicting aspects of caring, simulation, and the development of the research regarding nursing education. The researcher had not taught the third year nursing students in the current 2015 - 2016 nursing education program during the study period. A continuous effort was made to reduce possible influential aspects of a teacher-student relationship existed. The researcher's previous experience with simulation in the nursing education program was identified as a potential influential source of knowledge that made the data accessible. Thorne (2008) explains that this important knowledge cannot be avoided but "we

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can be mindful of it and take steps to ensure that we are aware [of it] ... and the meaning that our study process will have" (p. 117) on the outcome of the research.

This research did not intend to provide generalizability, but it did represent common truths in the subjective experience of the nursing students who shared their stories. It provided knowledge regarding the experiences of the nursing students currently in the program. The storage location of electronic files was on the University of Saskatchewan secure site, via the PAWS account created by the researcher. The working files were password protected and the audio files were kept in a locked box during the study period. Once transcribed, the data files were encrypted and stored on the secure site. Any paper files were confidentially shredded to destroy the data and thus ensured protection. The reflective journal was maintained electronically and stored on the secure site to ensure security and protection.

4.9 Summary

Interpretive description enabled the exploration of nursing students' multiple perspectives to develop themes and patterns warranting the attainment of a greater comprehension of theories and strategies regarding the simulation learning environment. Interpretive description gave an appreciation to the complexity in the research study with data incorporated from the focus group, interviews, in-depth reflection, and integration of evidence that, in turn, impacts the practice of nursing (Thorne, 2008).

The use of interpretive description provided a rich contextual description of the experiences of nursing students in simulation with a concentrated analysis of caring values. The three-pronged method approach facilitated an iterative process. The triangulation of data with constant exploration of the literature, returning to the original theoretical concepts and searching for related evidence, provided validation of the conceptual explanation. To understand the complexities of developing professional caring in the simulation environment, examination of the nursing students' perceptions was necessary. The universal truths of the nursing students describing the values, attitudes, and beliefs (caring) developed in the simulation environment provided additional knowledge and an explanation regarding the development of caring within nursing education, generally, in the unique simulation environment, specifically.

Chapter Five

Findings

Between September 2015 and January 2016, a focus group and six semi-structured interviews were completed with nursing students currently in their third year of study at the U of S, College of Nursing, Regina Campus. The composition of the focus group and subsequent interviews are described to provide the details. As previously outlined, this information was not sensitive in nature and assisted in laying the foundation for the researcher – participant relationship.

Data capture from the focus group, the interviews, and the reflective journal was iteratively analyzed throughout the research period providing immersion in the data. Discovery of relevant literature continued throughout this analysis to compile the research and to provide collateral support for the findings. During analysis, one overarching theme was identified with three interrelated themes. The themes with their relationships were outlined with quotations from the nursing students to provide evidence and contribute to a deeper understanding of the development of caring values in the simulation environment of these select nursing students.

5.1 Demographic Details

The composition of nursing students in the focus group and corresponding interviews revealed the characteristics of the study sample. The focus group consisted of eight females and two males, all third year nursing students, enrolled in the Nursing 311.3, Core Competencies for the Management of Complex Patient Care class and lab. The age range was between 19 – 30 years old. The focus group was held September 2015 following two in-class instructions and one lab of Nursing 311.3.

The semi-structured interviews consisted of five females and one male nursing student. The age range was between 20 – 30 years old. The nursing students for the interviews consisted of four individuals from the focus group and two individuals that were unable to attend the focus group but expressed interest at the beginning of the research period. The composition was five females and one male nursing student with completion of the semi-structured interviews between December 2015 and January 2016. The students were either near the completion or completed the first term of the third year. During the interviews in January, the nursing students had begun the second term with enrollment in Nursing 312.3 extending knowledge, skill, and attitude

development with the Core Competencies for the Management of Complex Patient Care simulation class and lab.

Before the focus group, the nursing students had been in the clinical environment during their second year typically participating in clinical experiences at long-term care facilities, acute medical care units and surgical care units. The nursing students had also experienced low fidelity simulation in their second year in a lab environment specific to learning skills and tasks (i.e., Foley and intravenous insertion). The nursing students were in the progress of completing Nursing 311.3 and Nursing 312.3 weekly which introduced a total of 26 hours in class as lecture and 84 total hours of simulation lab with medium fidelity mannequins completing simulation scenarios while incorporating pre-study preparation and debriefing. Concurrently, the nursing students completed clinical practice in the third year of studies. During the study period, the nursing students were either enrolled in clinical with a focus on mental health or acute medical or surgical care settings, or obstetrics and pediatrics. The typical experiences in the third year have increased complexity from the previous year with a concentration on variations of nursing practice, such as acute care in a dynamically changing environment or within the community.

5.2 Major Themes and Relationships

The use of interpretive description methodology throughout the research lead to an explanation which provided clarification and enhanced comprehension of the various influences found in simulation environments contributing to a deeper understanding of the development of caring. Perception is defined as the way in which people "understand or notice something" (Merriam-Webster, 2016), with the two research questions critically linked, the first question related to the perception, provided key information related to the second question, the development of caring values and abilities. The concepts of the nursing metaparadigms, transformational learning and reflection, nursing moments, and the notion of nursing time expanded the context for the evolving knowledge. The nursing students' perception of caring values and abilities in the simulation environment allowed for the pedagogy of learning in simulation to be closely examined and compared to evidence and literature producing an enriched research contribution.

The construction of the conceptual framework was produced through the iterative process of immersing oneself in the literature, in the data collected, reflection throughout the process, and with the in-depth deconstruction and subsequent analysis. The triangulation selected assisted

with effectively applying interpretative description. Interpretive description provided the researcher a foundation to closely inspect and reflect on the experiences verbalized by these nursing students. The findings were then thoughtfully examined against what is already known about the phenomenon, allowing the nursing students' perception to be investigated, interpreted and then articulated.

The *development* of what is caring, which can be identified as a particular expansion of the art and science of nursing while becoming a nurse, provided the encompassing theme. This view illuminated the continuous nature of the reflective practice that nursing students completed. It also contributed to the co-creation of knowledge occurring in the simulation environment and throughout their nursing education. Subsumed within this theme are three interconnected themes directly influencing the other. These impact the overall development of the nursing students related to caring. The three themes are

- *Knowing* what I need to know;
- *Doing* it can happen;
- *Being* from here to there with caring experiences.

In the following sections, each theme will be highlighted with exemplars to enhance the discussion related to the findings.

5.2.1 Visual representation in the diagram.

The visual representation provided an overall perspective of the intricacies in the findings. These diagrams aid to provide a fluid perspective of the conceptualizations and insights. Each component of the illustration will be explained to allow comprehension of the particulars found in the exemplars. The circular nature utilized in the format of the diagram with the overarching theme, the *development* of what is caring, encompasses the subthemes where the development occurs. This theme provided clarification about the nursing students' perceptions and is the first layer (see Figure 5-1). There is a continual development of knowledge related to what is caring creating a cyclical manner in which the nursing students continuously attempted to understand caring nursing practice.
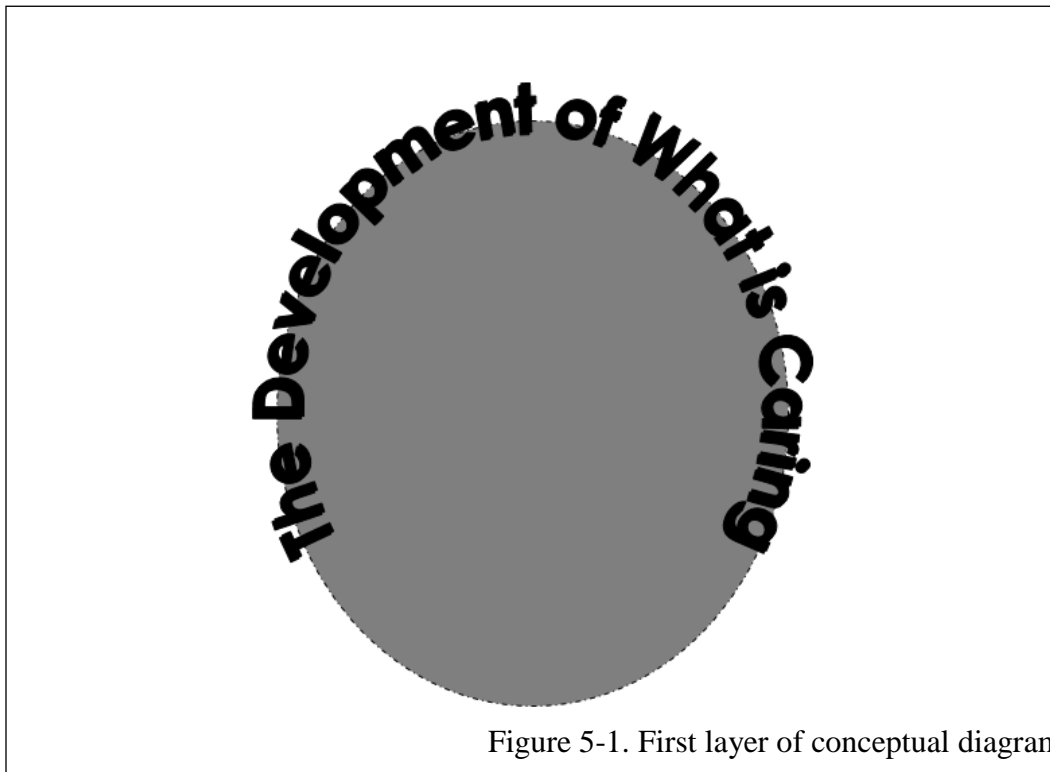
Figure 5-1. First layer of conceptual diagram

The next layer in the conceptual diagram is the interrelated sub-themes. The themes of *knowing, doing,* and *being* with the internal mechanical components influencing and impacting each other create the visual representation of each theme. The articulation of the subthemes on one and other demonstrate the detailed process involved in the developing knowledge, skills, and abilities pertaining to caring. During the experience in the simulation environment, the nursing students incorporated doing, knowing, and being to merge knowledge and understanding of professional caring. The circular features depict the recurring connection of each theme in the simulation environment assisting nursing students in their development of caring values and abilities (see Figure 5-2).
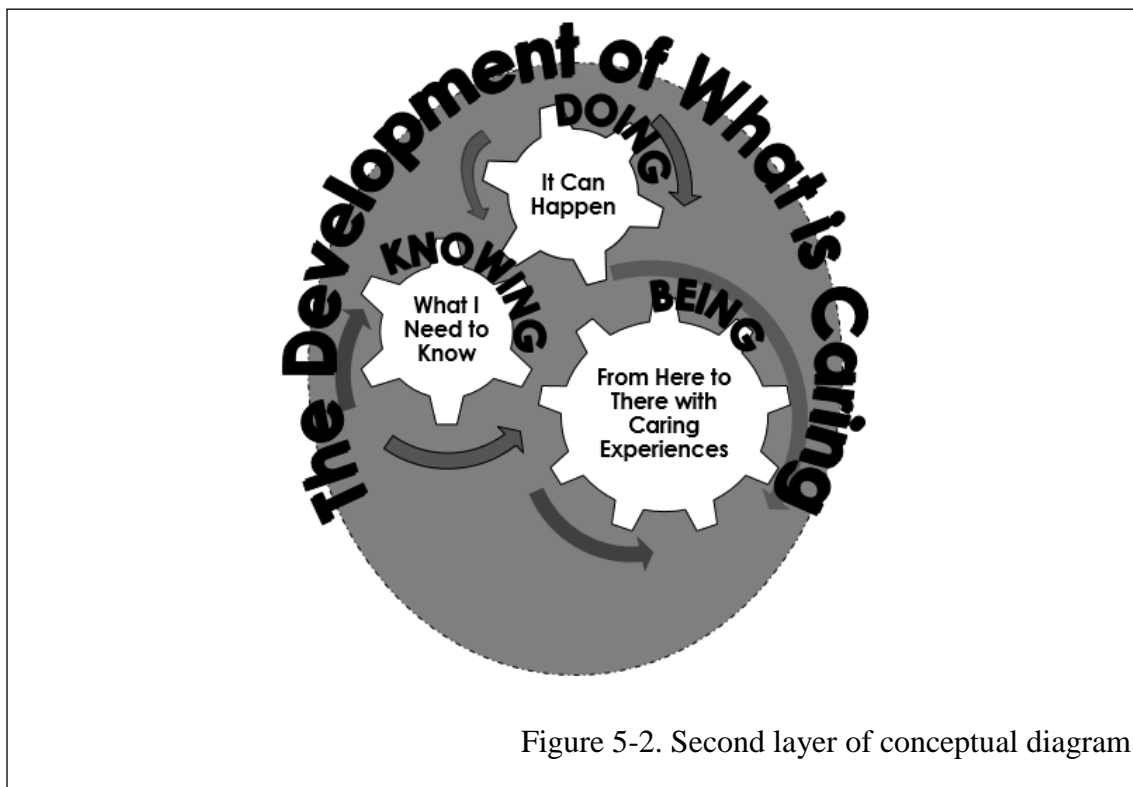
Figure 5-2. Second layer of conceptual diagram

The third layer in the visual diagram is constructed with the nursing students' interpreted descriptions of reflection and co-creation of knowledge. This transposable area has transformational learning present to comprehend the abstract concept of caring. The nursing students utilized reflection to process knowledge, skills and attitudes related to caring. This integration contributed to understand caring. Transformational learning transpired in these nursing students with a fluid transition and adaptation of their knowledge, actions, and being caring with the co-creation of knowledge supported by educators and theories. There is a wave line with visual transparency to represent a semi-permeable membrane where reflection and co-creation of learning occurred (see Figure 5-3).

5-3. Third layer of conceptual diagram
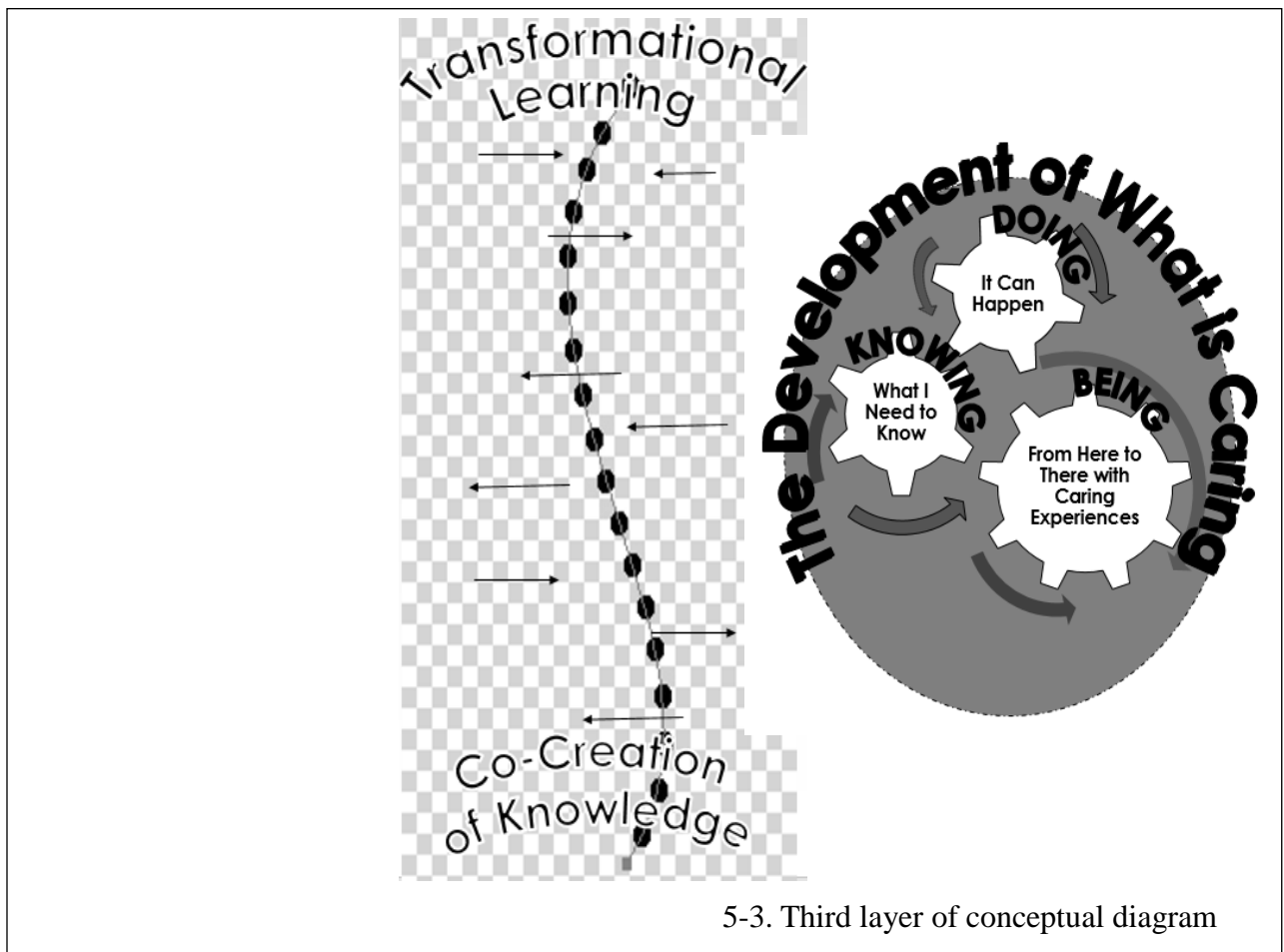
The final layer brings Watson's perspective of the nursing metaparadigm into the conceptual diagram. It integrates the metaparadigm as described in Watson's transpersonal

caring theory perspective and ensured the art and science of nursing are conceptualized as the foundational aspect of nursing (Masters, 2012). The nursing metaparadigm located on one side of the space, and the development of caring on the other, provided the visual aspect that the nursing students develop a deeper understanding of the possible implications of the caring art and science of nursing which is formulated in the simulation environment and throughout their educational experiences. This development transitioned between both realities, in the clinical environment, and the technological simulation environment. The arrows in the diagram provide the transitional perspective that nursing students shift between the development of caring values and abilities while integrating the metaparadigm (see Figure 5-4).

Figure 5-4. Final combined layers in conceptual diagram

This visual diagram (see Appendix M) provided a graphic illustration of the layering of interpretations, encompassing these nursing students' perceptions of caring in the simulation environment and their reality of developing knowledge regarding it.

5.3 The Development of What is Caring

The central theme in this research, the *development* of what is caring, reflected the continual learning necessary for the abstract concept of caring to be grasped and exercised in practice. This theme relates to the eventual becoming of the RN, with the nursing students beginning to learn caring in their education with possible continuation in their practice as RNs. A process of becoming is described by theorist Boychuk Duchscher (2008) as a process of "both a personal and a professional journey, [where new nursing graduates] …evolve through the stages of doing, being, and knowing" (p. 441). This process of becoming with parallel associations is identified in the current research study with refere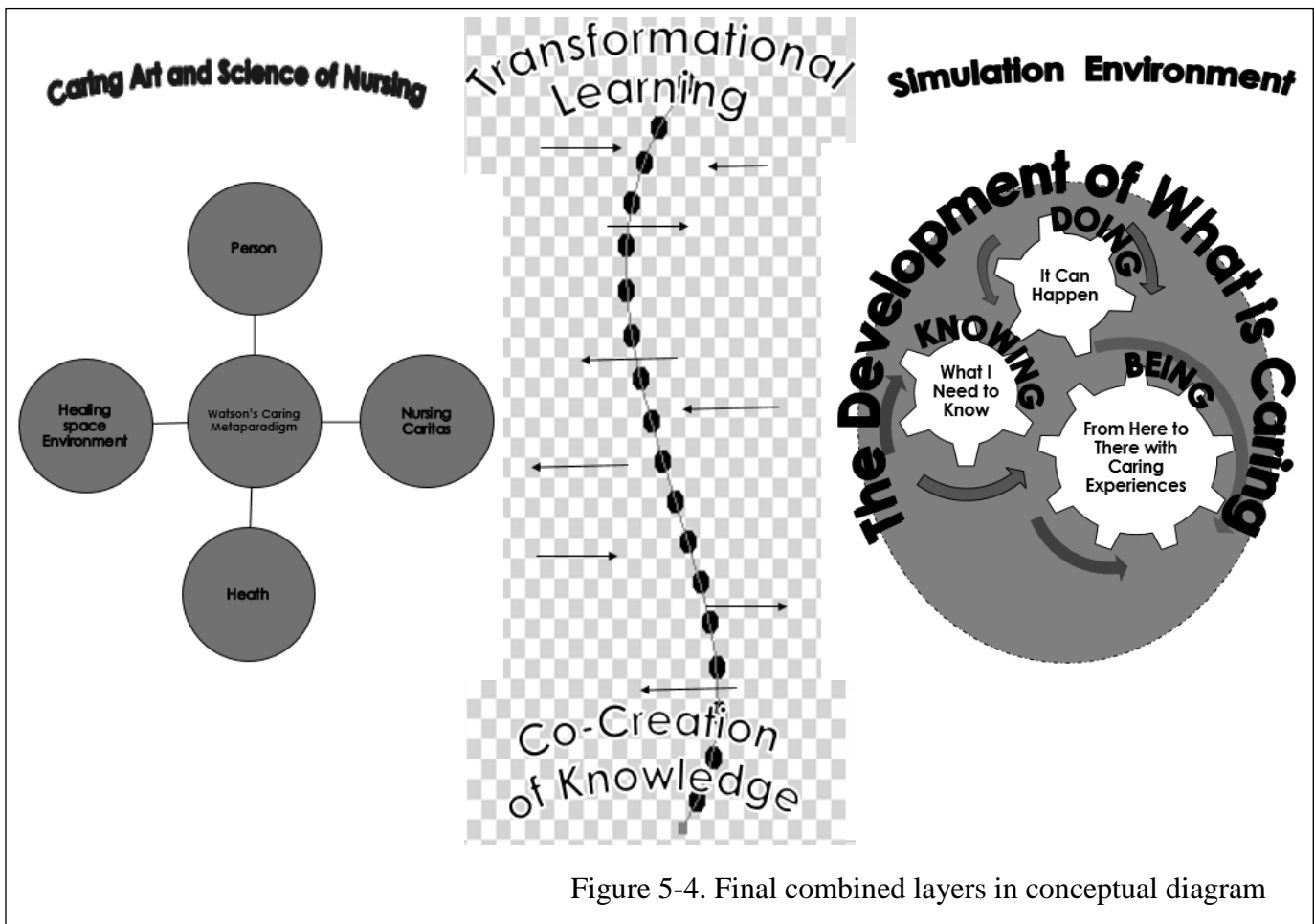nces to the nursing students' perceptions of caring values and the descriptions of how they attempted to practice professional caring. The nursing students tentatively explored caring values and abilities with others in numerous environments trying to determine what it means. Watson (2008) describes caring moments as a "turning point for the nurse in which it involves pausing, choosing to see" (p. 245) where the nursing students consciously reflected on being present and aware of the impact of caring values on the whole health and well-being of the individual. The growth of this learning was also recognized when the nursing students adapted their perception of what caring is and what it meant during the research period.

To begin the discussion with the nursing students in the focus group, it was suggested that there are a variety of theorists that could be utilized to explain what professional caring in nursing practice is. It was also outlined that caring is a paramount value in nursing practice which patients expect but that there is limited knowledge regarding how caring develops in the simulation environment. There were a variety of questions from the nursing students seeking knowledge related to caring. The nursing students asked "*what do you mean*" (Student B), and "*what do you mean by* [caring] *values*" (Student D), or some sought validation in what caring means overall, "*I assume by caring values you mean…the affective ones*" (Student E).

Although, it was interpreted that the nursing students attempted to think logically about caring and its impact on patients, there was evidence that some continued to have difficulty articulating what it meant as a nurse. The nursing students tried to prioritize this skill including determining nursing interventions or tasks to be completed directly related to caring values and abilities. The nursing students' awareness of the difficulty to place caring values and abilities in a hierarchy of tasks provided the evidence of their developing knowledge concerning caring and affective learning which is, difficult to describe, to teach, and to learn.

Each student described their perception of caring and how they were beginning to learn what it is by expressing its meaning to be vulnerable with an openness to care for the holistic person. Caring was viewed as a personal experience that required respect, the use of touch and presence, and being present in the situation. One student described *having empathy and …just making sure that you're doing the right thing* (Student C) as an aspect of caring. The descriptions of what caring is, as articulated by the nursing students reflected Watson's caritas (see Appendix B) even though the nursing students could not express the caritas exactly. The nursing students often referred to the general perspective of, "you know", with the assumption that everyone knows what professional caring is and what it means.

The process of understanding caring appeared to be continual with the students describing learning about caring through theories with didactic classes, in labs (i.e., simulation, communication, and groups), through role models (i.e., parents and teachers in their past, and nursing instructors or staff in clinical environments), and with patients they encountered. Some students articulated that the development of what caring is occurs every day with this moment, a connection, where nursing students allowed for caring to be recognized. Students expressed that they can practice caring values and abilities in the clinical environment, in their personal lives, and occasionally in the simulation environment.

> *I always think about…how can I make it about them and not being so focused on myself…*
> *Just in everyday life I've been more…aware* (Student E).
> *It* [learning caring] *blossoms…you learn more. You learn so much that your caring, just*
> *like, goes up with your learning…cause if you don't learn, if you stop learning* [caring]
> *then you just kind of just forget about it…practicing it and using it well, so you don't lose*
> *it* (Student C).

The nursing students spoke about the reasons why they entered into nursing education. Most felt it was a natural progression of what they envisioned for their future because they had innate caring and that throughout their education they expanded their awareness of what this means. One student explained, "*I think it comes from opening up and…finding yourself*" (Student D) and another explained that nursing education "*really develops your caring aspect and how to care and…let's you appreciate what is acceptable with caring…and how to demonstrate* [it]" (Student A).

Throughout the conversations with the nursing students, this theme was identified and encapsulated the predominant theme of the development of caring values and abilities within

their education. The nursing students' described instances where nursing's metaparadigms with the environment, the person, nursing, and health are utilized in the simulation environment. This focus on developing the meaning of caring, knowing what is necessary to improve the health and well-being of a person, and practicing caring values and abilities was evident. The development of the nursing students' understanding of caring is described in the continual journey of what nursing is, combining the art and science of nursing to highlight the complexity of practice.

> *In second year…they want, put into your head, that…empathy, caring, listening, all of those…how important it is and how, not only just reading all your people but what you give off and I mean it all kind of comes together to caring* (Student D).

The theories and information provided to the nursing students throughout their education by nursing educators regarding caring, what nursing is, and how to become a nurse, assisted in the development along with their experiences. The different perceptions of caring articulated by the nursing students in the time between the focus group and the interviews displayed their growth as nursing students learning the art and science of nursing.

> *Since I, was, have been in nursing I guess they taught me more so the right way to care. Like, even though you think you might be caring about someone or doing it, the right thing, you might not be doing it as effectively as you could,* [or] *can* (Student E).

The nursing students' development expanded in the third year. For example, during the focus group the perception of the nursing students was that caring was rarely witnessed in the clinical environment, as they progressed in understanding and through their third year the ability to exhibit caring values and behaviours, the capability to identify caring characteristics in others, and practicing caring in every environment expanded. Student D eloquently described the process of individualizing care, "*so it's like you don't know and I think no matter what, you're not going to know; it's going to be different with every patient regardless*". The continuation and evolving understanding of what caring means in nursing practice, throughout the lifetime of a professional nurse, is highlighted in the researcher's understanding of this theme.

> *Each moment in my daily life brings a deeper reflection and understanding of what nursing is and how to explain it to others. This has been a part of what I struggled with as I began nursing, and my understanding is growing with graduate studies* (Reflective journal, December 2015).

The development of what is caring with a deeper understanding of knowing, doing, and being caring provided an undercurrent that allowed the nursing students to maintain the core value of caring throughout their educational experiences. The simulation environment in nursing education contributed to the nursing students progressing through the process of becoming and benefited the development of their reflective practice as they transition to professional nurses. It was found that the nursing students strived to recognize caring and ensure there was a necessity of caring in nursing practice while incorporating nursing's metaparadigms. The determination that the nursing students perceive the inclusion of caring or lack thereof in every environment and that no matter how challenging it may be to incorporate individualizing holistic care to the person is important. Establishing that even though caring may not be concentrated on in the educational experiences of simulation the nursing students attempted to find it, as students with the knowledge, skills, and attitudes necessary to extend rehearsing their caring in practice.

5.4 *Knowing* What I Need to Know

The theme, *knowing* what I need to know, was interpreted from the nursing students' perceptions of what knowledge was acquired in the simulation environment compared to what is required for nursing practice. The nursing students highlighted the knowledge they gained during the simulation experience and the continual development of knowledge in specific cognitive domains with occasional development in psychomotor and affective capacities. There was a specific focus on cognitive knowledge throughout the simulation experiences observed in the care plan development, the actual scenario, and debriefing. Each nursing student described that they achieved knowledge development but the main focus was on grasping the pathophysiology of a disease connected to the patient's physical symptoms. Although this limited view of nursing with a behaviorist model of repetition of factual information can be somewhat restrictive (Parker & Myrick, 2008), it was determined that this specific knowledge development in simulation aided them to concentrate on specific cognitive nursing skills.

> *Taking care of a, …. body system, and assessments …without that added emotional aspect of it …was beneficial to kind of, separate it and just look at it really like scientifically and just practicing it without the, … added emotional part. … Just treating the patient as a body rather than, like a human being, at that point, you know without the extra layer of complexity* (Student E).

The students described their experiences in simulation as positive with a systematic and organized process, which allowed them to learn aspects of nursing practice. The nursing students described that they could concentrate on the cognitive domain and then subsequently focus on the affective and psychomotor domains during reflection and incorporation in various environments. During data collection, the nursing students' provided examples of caring with glimpses into their personal experiences with patients in the clinical settings. The segmented aspects of nursing with a progression of knowledge, skills, and attitudes related to nursing practice could be practiced independent of each other or brought together in the simulation environment.

5.4.1 Repetition of knowledge to develop knowing.

Behaviorist pedagogy with the development of nursing skills in the simulation environment being repetitive in nature was exemplified in the data collected where a similar structure of scenarios and expectations were presented each week. This repetitive nature in the simulation environment was articulated by the majority of nursing students to assist them in becoming comfortable with the knowledge and its application, supporting the translation into actual practice. The impact of having clinical and simulation incorporated together each week allowed the nursing students to identify the missing aspects in the simulation environment, thus supporting the co-creation of a depth of knowledge more explicit to holistic patient care. The nursing students described how they rehearsed their cognitive knowledge in simulation and then practiced combining all the skills with affective and psychomotor knowledge in the clinical environment or vise versa. The opposite was also evident where the nursing students practiced affective skills such as caring in the simulation environment which created a fluidity of learning into the clinical environment. The nursing students were able to compare the two environments, effortlessly drawing from both experiences to share their thoughts and ideas about caring.

The descriptions provided by the students are summarized to include their ability to practice critical thinking, communication with each other, and anticipate complications related to the pathophysiology, prioritization of actions, and patient education each week. The repetitive nature and organized delivery of the simulation lab provided them with the confidence to transfer this knowledge to a new clinical case in the acute care clinical practice areas.

> *It's really good for skills, to build skills in a way… so…* [we] *make these mistakes here and not in clinical* (Student D).

This theme can be more fully explained with the nursing students practicing certain skills, such as the ones outlined above and then reflecting each week. They independently examined the individual mannequin in the scenario and identified the pieces of information are missing from the scenario. We as students have to "*draw* [our] *own understanding of what* [we] *think happened to* [the mannequin]" (Student D). Although the perception was that caring was not concentrated on in the simulation environment the nursing students became very aware of the need to develop their understanding of the art and science of nursing with the co-creation of knowledge and inclusion into nursing practice. The nursing students were aware of the need to incorporate the holistic person and attempt to integrate all aspects of nursing in simulation.

The students described how they "act" with the mannequin and aimed to practice caring values and abilities. In the focus group, one student expressed that the repetition of working with the mannequin over an extended period provided a comfort that would be "j*ust like with you with having the same patient over and over again, you get really familiar with them. I think we'll have those same kind of feelings towards the mannequins even though it's a different name it's still the same patient type* (Focus Group). The other students in the group agreed with this statement of repetitive safety. The simulation environment "*mimics the real … hospital setting because there's so many things going on at the same time*" (Student C). With the simulation environment it "*feels like an actual clinical*" (Student C) where it "*gives a structured base of how we're going to do things when we do approach the clinical environment"* (Student E).

The nursing students had comfort in this repetition, of knowing what was expected with similar knowledge needing to be applied and developed each week, "*you kind of, like understand what to expect and everything*" (Student F). One student described the simulation environment to be easier to navigate compared to the actual clinical environment, where the simulation environment is very organized and structured and, in reality, multiple confounding factors needed to be determined before providing care to an individual. This knowledge development with its repetitive nature allowed the nursing students' minds to expand and conceptualize what happens in nursing practice when it is finally brought to fruition.

> *Every week I come out my lab I … think I've actually learned something if I see those sights and symptoms in my clinical setting. Something like, a light bulb would … turn on and say, hey this is consistent with this diagnosis, … I kind of know what to do* (Student C).

5.4.2 A focus on a distinct knowing, cognitive knowledge.

It was interpreted that the nursing students' perceptions were that the simulation learning environment concentrated on cognitive knowledge and the health concern instead of incorporating the holistic person, environment, and nursing components. There was a common disconnect in the simulation environment without the harmonious integration of the art and science of nursing compared to what students practiced in the clinical environment. In the focus group, a nursing student expressed that caring "*is kinda there but it's not*". The nursing students reflected on the need for holistic care applying nursing's metaparadigms, specifically how care was portrayed in the simulation environment. The nursing students had a common view that the attention to health alone in simulation was not necessarily beneficial to the holistic care of a person in a healing space with the possible impact of this being detrimental to the individual's overall well-being. *They're* [the simulation instructors are] *usually focused in on their medical condition"* but the nursing student expressed that actual patients have other complexities and *"in clinical* [you] *listen to them and you find what their priorities are* [which are] *very different than what you think* (Student F).

It was reiterated that the goal of nursing practice was to acknowledge and incorporate the patient's needs in their care but in the simulation environment there is a disassociation of individual needs where care in the simulation environment is focused on "*the physiology, … that whole thing patients hate is* [that they] *… feel like a number when* [they are] *… in the hospital…But, … that's even more expressed in the lab"* (Student A). The simulation lab "*is very, like skills focused where as in clinical …, I'm definitely more patient focused*" (Student F). The nursing students felt that the knowledge focused on and required in the simulation environment was cognitive in nature specifically on the health of a person which attributed to a divide between caring nursing practices with little attention on the holistic person in the environment that they had learned in theory.

> *It's totally like simulation lab, you more so get … the meds and the assessment down rather than …the personal care* (Student A).

The integration of this theme of knowing where the nursing students attempted to determine what it is they need to know and when to apply this knowledge was evident in the nursing students' descriptions of incorporating all aspects of nursing practice. For example, one nursing student's perception was that there was an inability to integrate caring values when it

may be necessary because *unfortunately, we're focused more on the skills that we have to perform rather than the caring part of it* (Student C).

The concentration of cognitive knowledge was exemplified by the description of a specific scenario that the majority of the nursing students voiced. The scenario entailed the mannequin being admitted to the acute emergency area with diabetic ketoacidosis for treatment according to physician's orders. From the history provided, all of the students recognized the importance of the financial restrictions the woman had with information being provided regarding her inadequate finances to obtain the proper medication and the multiple admissions related to her health. The nursing students explained that this reality was not approached in the simulation environment or debriefing by the instructors or themselves. The focus was on the initial treatment of the acidosis which they acknowledged was a priority, but they questioned the absence of approaching the patient holistically and determining how the lack of finances would have impacted the person to achieve health and wellness in their current environment.

This reflection by the nursing students provided a co-creation or informal learning opportunity regarding Watson's metaparadigm, and the nursing students broadened their understanding of nursing through this inquiry to consider the environment, the person, and health or healing allowing them to gain a better perspective and thus learning all aspects of caring nursing practice. One student explained how it "*gets frustrating with like, things not always, like lining up*" (Student F) in regards to missing key information and not approaching the situation from the nursing perspective with the holistic person in the forefront. Other nursing students voiced this same concern regarding the simulation environment.

> [Simulation] *is so superficial, it's, this is what's wrong with them, these are the assessments … and sometimes in the nursing notes … the patient's description of the experience* (Student F).
> *We'll know if they've had past … hospitalizations. And why. Sometimes we'll know about their financial status and that affecting it. So, it kinda does … set it up for the whole holistic side in that way. But it's not like the information is* [all] *there … it's not necessarily reinforced* (Student A).

In the debriefing following the simulation scenario, the concentration of cognitive knowledge was evident as well. The debriefing was completed after the simulation scenario and it consisted of a didactic lecture with feedback from each member of the group. One student

explained that the instructor *might be surprised about how much information they* [the students] *have* (Student A). The feedback provided was usually related to the disease or pathophysiology.

> *Instead of ... us discovering what went on and what could be better it was a lot of ... the instructor telling us exactly what happened and the different aspects of the lab, like the lab values and the pathophysiology* (Student A).

5.4.3 Beginning to know other knowledge, skills, and attitudes.

Throughout the time spent in the simulation learning environment, the students acquired additional knowledge, skills, and attitudes. The nursing students recounted similar experiences with a repetition of psychomotor tasks and skills being concentrated on in the simulation environment. The nursing students continuously completed environment safety checks, focused assessments, obtained vital signs, and completed medication administration.

A fluid transition between the simulation and clinical environment was described by some of the nursing students. The common theme amongst the nursing students was their descriptions of even though there were differences in each environment, they were caring people and repeatedly approached each environment the same way. Student B described an occurrence in the simulation environment with them closing the relationship with a mannequin that was natural and spontaneous.

> *Just like the little things especially, ...whenever I'm done ... my job in ...the simulation, I always ask like "is there anything else I can get for you? Like, do you want a cup of water, do you want some warm blankets" ... but I guess I'm so used to doing it in real life and I just bring it forward to it, simulation* (Student B).

If all of the realistic aspects of the mannequin were in place in the simulation environment, the nursing students' perceptions were that they could develop their knowledge of what caring values and abilities are and they attempted to rehearse them by including these aspects. The nursing students knew what needed to occur in the situation and in the environment regarding caring.

5.5 *Doing* It Can Happen

The nursing students recounted their experience in the simulation environment expressing that the process of completing caring values was challenging. The identification of their reflection on what would occur in other environments was necessary for growth. Even though the perception of caring values and abilities in the simulation environment was at times

prohibitive, caring could be provided or accomplished if all the right circumstances and contextual aspects were in place at the right time. While analyzing the nursing students' perspectives and further exploration of this topic in the literature, the interpretation of the conceptual theme regarding *doing* it can happen, evolved with evidence of caring values being developed in the simulation environment where caring moments were experienced. Wagner (2010) explains that a transpersonal caring relationship or caring moment is the authentic presence of a human who has developed a connection based on respect and commitment to help another. The identification of this "nursing moment" of caring in the findings was interpreted that nursing students "deepen understanding of nursing practice, foster aesthetic insight among nurses, and in turn, cultivate more thoughtful communication and action in nursing situations" (Hawley, 2000, p. 18). The nursing students described occurrences in the simulation environment where they attempted to incorporate caring and it was interpreted that they experienced nursing moments while caring for another.

The nursing students reflected on these experiences or possibilities independently in the time following the simulation carrying their feelings, thoughts, and ideas into the clinical environment and their lives. Josephsen (2014) describes this reflective process as "metacognitive practice in learning is an active event in which links are made between the past (prior knowledge), the present (current context), and the future (building upon new knowledge)" (p. 2). Some nursing students perceived caring for something that is not human to be difficult but the development of knowledge related to caring is transformational over an extended period. This process of learning continued after the simulation experience.

The perceived limitations in the simulation environment concerning the capability of integrating caring values and abilities are highlighted through the nursing students' perception of their struggle in attempting to practice all aspects of nursing in the simulation environment. Particularly challenging was combining nursing's metaparadigms with the art and science of nursing. The conclusion illuminated from the nursing students' description was the importance of an authentic connection compounded by the relationship to the mannequin and/or situation, the organized fashion of the environment, and the expectations of their performance with subsequent learning. The nursing students' affective knowledge increased when they attempted to care for the mannequin as a holistic person and when all of the aspects of simulation were present, enabling them to do caring. This learning was also compounded by the nursing students

describing both the lack of realism while attempting to incorporate caring and the instructor who directly facilitated learning for the nursing students. Learning the affective domain in the simulation environment was related to the interrelationship of numerous variables and the success of this learning hinged on the nursing students believing it would or could occur.

5.5.1 Reflection to make it possible.

While there were limitations described in the simulation environment and variations that were present compared to the actual clinical experience, it was recognized that the development of caring values and abilities in the nursing students was obtained during the simulation experience through reflection and transformational learning. Reflection, as defined by Moon (2004), is a "basic mental process with either a purpose, an outcome, or both, that is applied in situations where material is ill-structured or uncertain and where there is no obvious solution. Reflection seems to be related to thinking and learning" (p. 10). The nursing students often self-reflected on challenges and disbeliefs, attempting to visualize what could occur if the mannequin was an actual human being and what would occur while they were caring for it as a holistic person. This co-creation of knowledge transpired in the nursing students' reflection incorporating nursing's caring metaparadigms. While becoming a nurse they expanded their understanding of the art and science to be aware of the multifaceted nursing profession. The limitations (the connection, the realism, the OSCE, and the instructor differences) could be surpassed with the nursing students engaging in the development of their knowledge. This informal learning was completed with supportive guidance as the nursing students strived to understand their role in providing caring values in simulation which in turn translated into practice.

The nursing students articulated that throughout their experiences they witnessed and experienced strong reactions (crying, relief, happiness) in themselves as a response to providing care to the mannequin. These nursing moments of caring in the simulation environment provided the nursing students an understanding of what occurs in nursing practice. It was interpreted that nursing students had nursing moments in the simulation environment when they were present and engaged with a commitment to assist the mannequin, when they provided comfort and physical touch to the mannequin, when they provided education in the situation and gave encouragement to each other (Hawley, 2011). An important factor was the nursing students' self-reflection which was completed independently regarding the importance of caring for the whole

person and how, regardless of the situation, they attempted to strive for individualized, holistic care integrating healing and health.

In the simulation environment, the connection to the mannequin and situation was possible with the nursing students experiencing feelings directly related to the outcome of the scenario. Student C described how they felt upset during a scenario where a wrong medication was administered, as there was an emotional experience regarding the impact of what could happen in real life. It was found through the nursing students' experiences that their performance and connection increased when they perceived caring values and abilities in the simulation environment with the mannequin as a holistic person.

> *I thought that when I did treat the person as an actual* [person]*, instead* [of] *not an actual person I did way better in the lab performance… I felt like I was actually, there was some sort of connection even though it was just a mannequin* (Student B).

> *I always keep in mind that I'm seeing the patient or even the mannequin as an actual person, an actual human being,* [who is] *going to be respected and they deserve the proper care that they need* (Student C).

The simulation environment had limitations, but to practice the necessary affective skills related to nursing practice such as caring, communication, and presence these were overcome. The recognition of this challenge aided to overcome these aspects with the mannequin not being a human and lacking the specific qualities to establish a human relationship. The nursing students suspended the disbelief supporting caring to be evident.

> *You get to practice with your … mannequin and everything, … it's a bit more realistic …* [and] *I noticed it,* [caring], *a bit more because you had to be like, ok this is my patient* (Student F).

The reflection ingrained throughout their education has assisted them to acquire knowledge related to caring in the simulation environment. This reflective process is transferable and necessary for the complex multidimensional world of nursing (Benner, 2015). Informal learning is not focused on within education compared to formal learning but students none the less incorporate informal learning into their knowledge development. They do this when it is "opportunistic, involved [in] both internal [knowledge acquisition, behaviours and values] and external [caring values and abilities, skills, and grades] goods, and is an ongoing process" (Kelly & Hager, 2015, 376). It became evident that the importance of the safe simulation environment

where nursing students could practice skills on a mannequin and subsequently reflect on their growth, aided nursing students in learning affective skills in this learning environment.

5.5.2 Capability of caring values.

There was a capacity in the simulation environment to develop caring values and abilities with the nursing students articulating the process of doing caring. The students described the importance of a genuine and authentic connection that is necessary for caring to be present. The connections are tentatively explored in every environment the nursing students encounter. In the simulation environment, the details of the mannequin's social, financial, and psychological background allowed the nursing students to begin to explore the individual, thus creating an association with the mannequin and/or the situation. The students in the focus group agreed that in time a familiarity and comfort with the mannequin might assist to establish a connection.

> *The more time you spend in those rooms …, it's weird to say, but* [the] *more attached to the mannequins* [we'll get] *…. Because we'll be spending so much time with them. Like working on them and stuff like that. Just, Ok I'm familiar with this kind of thing* (Focus Group).

When specific qualities regarding realism and nursing metaparadigms, such as the actual environment and personal information related to the mannequin, were incorporated it assisted with the nursing students' ability to gain affective knowledge and skills related to caring. The factors that assisted with the believability of the simulation scenarios were the mannequin's past hospitalizations and medical history, marital status, and social history. Although these were "*not consistently*" (Student C) incorporated or "*set up*" (Student A) in the history, the nursing students explained that these attributes assisted them to provide holistic nursing care of the entire patient. The nursing students elaborated in the discussions stating that realism and the comparison to actual life were paramount to achieve a connection in the simulation. Student C described that the mannequin "*came to life*" with the incorporation of factors from the metaparadigms related to an actual person. The construction of the realism in the simulation environment with the responses of the mannequin and the mannequin's individual factors contributed to the ability of the nursing students to advance caring values and abilities thus ensuring that their actions would be accurate. This assisted the patient to health in the simulation environment. The realistic

attributes assisted nursing students to acquire knowledge about all aspects of nursing, particularly affective knowledge with caring values and abilities.

An aspect of the simulation environment that assisted some nursing students described to move past the constructed scenario and internalize this learning was the instructor who facilitated knowledge development. It was illustrated that the impact of the instructor on their learning in the simulation environment had a direct relationship on the affective domain. The instructor influenced the nursing students as an exemplary role model. The feedback provided by the instructor assisted in molding the students so they could respond appropriately. These aspects ensured that the nursing students acquired and displayed the necessary traits for nursing practice.

My instructor would always ... ask questions like the actual patient would ask ... so that prepares me and educates me in advance (Student C).

The instructor's commitment to developing cognitive, psychomotor, and affective knowledge has a direct correlation to the nursing students' attainment of these skills. Simulation "*made me aware of where I can go wrong and prevent it in my practice*" (Student C). There were two divergent experiences with one student explaining that developing caring and understanding it in nursing practice more effectively could be completed with guided feedback from the instructors "*point*[ing] *out where there are opportunities for caring and to incorporate that when you're actually doing*" (Student A). Another nursing student illustrated the impact of reflection and finding the answers independently would have assisted greatly in knowledge development, "*if there had been a lot more discussion that it would kinda develop our own thinking, ourselves* (Student A).

All of the domains, particularly the affective domain with providing holistic care, were concentrated on the simulation environment but students were dependent on the guidance given by the nursing instructor. In the focus group some of the nursing students described a scenario during their first week where the instructor responded positively to their display of caring skills, they acknowledged the nursing students' efforts when asking the mannequin direct personal questions similar to an actual patient and communicating effectively. The nursing students had attended to the mannequin as a real patient in an actual situation, supporting the conjecture that "*simulation, it's in some ways real*" (Focus Group). The development of becoming a nurse could have concentration once the nursing students were comfortable with the segmented parts.

5.5.3 Limitations in the simulation environment.

There were some limitations described by the nursing students to complete caring values and abilities in the simulation environment. An interpreted limitation that contributed to a lack of connection within this environment was an absence of details provided in the mannequin's history. In the simulation environment the nursing students believed that the connection could be there, but the authentic connection to the mannequin in the simulation environment was difficult to be obtained if the individual aspects were missing. A nursing student expressed that in the simulation environment they attempt to establish a therapeutic relationship but "*to do that caring aspect of it, you kinda have to act. It's a lot of acting, it's not real genuine*" (Student A). Another characterized that while they attempted to provide caring values and abilities to the mannequin it "*is really hard when it's not a real person*" (Student D). The students described the struggle they had to establish an association with the mannequin. This quote summarizes the non-human impact of the mannequin, "*I think part of it is, just you,* [the] *mannequin is not a real person so it's sometimes hard, like when you're so focused on other things*" (Student F). There is a recognition that the nursing students felt that this lack of connection was attributed to them requiring additional knowledge of the other important aspects in the nursing metaparadigms.

There was evidence of a challenge to experience nursing moments, with the nursing students not completely suspending their beliefs and not entirely investing in the mannequin or engaging in the simulation experience. Nursing students verbalized their hesitation in the simulation environment to make this connection with their focus directed to the evaluative components of the lab. Many students described the impact of the OSCE which was used to evaluate their performance that contributed to caring not being evaluated or prioritized. Students were often concentrated on mechanical encounters where a list of tasks needed to be completed with the mannequin. They identified that this would not be how they would necessarily interact with a human being, "*it got kind of robotic practicing it for OSCEs*" (Student F) and they expressed that the simulation environment becomes "*just auto pilot mode*" (Student B). One student articulated this awareness with the explanation that they automatically went through the process in the simulation environment to learn the tasks but had the mindfulness that this was not how nursing practice was actually enacted.

> *In simulation lab ... you ... concentrate on just OSCEs ...cause that's your ultimate goal going through these simulations, is you're going to be able to perform in the OSCE and then apply that to clinical. I think for me personally I get kind of lost in that applying, not*

necessarily lost in applying that to clinical but I get more focused on Ok this is OSCE, like do or die (Student A).

The disbelief in the capability to learn all skills of nursing practice, particularly caring appeared to be diminished or enhanced by the realism of the simulation environment. The omission of specific qualities in the nursing metaparadigms and the human being hindered the nursing students' attainment of caring values and abilities. The perception was that this factor of realism in the simulation experience was paramount and impacted the nursing students being able to enact these skills.

It's very limited to what you can do in a simulation environment with an individual that is plastic. ...if you were to ask it a personal question and, or if you were to ask like really about their life and who they are it is just not there. It [simulation] *limits your abilities to, I don't know, make an instinctive ... assessment.* (Focus Group).

This factor was compounded by different sensory aspects, such as the instructor or mannequin's voice, expressions, the attitude of peers, and responses from the mannequin. It was described how realism of an actual patient is hard to match in the simulation environment and created a limitation to practicing caring values.

When the dummy talks ... or they start to yell ... it makes sense you need to exhibit that there's pain but some[times] *... this inhibits our learning ... cause its weird that the mannequin is yelling that much* (Student D).

The students they start laughing and the lab instructor was ... put on the spot too. So I found that was hard in that way to have that caring aspect instead ... just looking at it as like a plastic mannequin (Student A).

The majority of nursing students described that when personal factors and attributes of the person were incorporated in the history, they were not typically concentrated on in the simulation scenario or the discussion during debriefing. This discourse between what was discussed and what the nursing students felt was important in the holistic care of the person impacted their development of understanding caring. The students described the doubts they had in the simulation environment with regards to what they thought should or could be occurring. Other aspects that were missing were realistic responses like "*facial non-verbal ...responses that you might be expecting from a real person* (Focus group) and other responses such as temperature or color changes where it is known that "*this person due to whatever the condition*

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they [have] *should be either … pallor or warm or whatever but you miss it because it's not real"* (Focus Group).

There was variability in the incorporation of affective knowledge development, with some of the instructors' abilities to effectively integrate caring values and abilities in the simulation where it *"really depends on your instructor"* (Student B). The instructors' abilities were compounded by the multiple aspects required to construct in the scenario to provide a realistic and believable situation with subsequent mannequin response. Nursing students verbalized the awareness of instructors being overwhelmed with all the necessary tasks in the simulation environment to assist with their learning. The instructors in simulation environments have numerous competing priorities; such as marking the students, the mannequin responses, adjusting the tablet for physical responses of the mannequin, answering questions posed directly to the patient, and anticipating additional instruction for the discussion following the simulation experience. All of these concerns detracted from a fluidity of learning experienced by the nursing students during the scenario where *"it's really overwhelming for the instructor too, to do all those things at the same time"* (Student B) and "*if … your instructor is really good at like playing out the scene that helps"* (Student F). The ability of the instructor to provide realism and attend to all the necessary aspects facilitated the nursing students learning caring values and abilities. The nursing students continuously described this as a critical component.

5.6 *Being* from Here to There with Caring Experiences

The conceptualization of this theme was through the interpretation of the various environments that nursing students experienced throughout their education and in practice. The experiences in multiple environments assisted to molding them into *being* a nurse with transitioning to nursing professionals. This process of change and being can be located in the development with people choosing "a possible way to be" (Wheeler, 2011, para 14). The contributing factors in the development of *being* from here to there with caring experiences were the individuals who assisted in the nursing students' growth, the implication of quality care related to time, and the environments in the nursing education program. Each of these perceptions were described and contributed to being able to practice caring.

The nursing students attempted to model their behaviours on what they see and feel with regards to caring. The descriptions from the students are summarized as the individuals who assisted the nursing students to begin the transition to a caring nursing professional. These were

role models such as parents, grandparents, family, and past teachers. The nursing students described the current influences in their nursing education that assisted with their ability to learn caring values as people in the clinical environment represented by other health care professionals and nurses, faculty in nursing classes, and instructors in the simulation and clinical settings. For example, all of the students spoke highly of particular faculty and instructors that personally assisted the development of caring values and abilities. The nursing students' perception regarding the nature of caring as an embedded aspect of nursing was experienced when they were supported in determining how to exhibit professional caring and be a nurse. The nursing students described a struggle in themselves while in the educational program as; what is their identity as nursing students and how do they to care for patients?

Certain aspects compounded the development of being with the nursing students. One experience that was expressed was nursing time devoted to attending to and cultivating caring values and abilities. Time is directly related to the art and science of nursing where the creation of a healing environment is necessary at all levels (Wagner, 2010). This specific time is clarified by Jones (2010) as being "nursing time [that] has significant intrinsic and instrumental value in nursing and healthcare. It is fundamental to the nurse patient relationship and the achievement of nursing care goals" (p. 8). All of the students observed this aspect of time with the availability being variable. Time was sometimes unavailable in the simulation environment thus inhibiting the development of caring and understanding the entirety of nursing. They also witnessed limited time in the clinical environment with the lack of specific attention to caring due to multiple priorities. The nursing students described that they currently have ample time to explore these nursing moments in the clinical environment with the integration of knowledge, skills, and attitudes utilizing nursing's metaparadigms.

The nursing students expressed that each experience they had assisted them to grasp what the art and science of nursing means. This theme is constructed from the students' descriptions of their combined experiences with caring and non-caring in the simulation and clinical environments and their eventual development of determining whom they are becoming as a nurse. The students' stories highlighted the ingrained aspect of experiencing caring in their growth as a nurse within nursing education and practice.

5.6.1 Who can assist me to be caring.

There is complexity about how the nursing students gained knowledge related to caring in the simulation environment because various individuals impacted it. The nursing students perceived the simulation environment as a safe place to develop skills related to nursing. There was a commonality in the nursing students' descriptions where they supported each other to develop caring values and abilities, and they provided each other with a supportive environment to acquire knowledge and skills.

> *I think between each other we can show caring. ... we see it on each other's faces or when we hear people speaking, we understand everyone is freaking out a little bit, we're kinda each other's back bone and support* (Focus Group).

The nursing students described how they continuously practice the affective domain, caring values and abilities. It was interpreted through their description that they develop their understanding of caring values and abilities with the execution of them in everyday life such as with strangers in the streets, in conversations with family and friends, in the lab environment with the mannequins and each other, and in clinical practice with patients. The nursing students specified that being able to assist each other to explore who they are and how to provide nursing presence or find that nursing moment of caring assisted with their learning. To capture the witnessing of caring in the simulation environment one nursing student's description summarizes the exploration of caring values and abilities with the mannequin.

> *We had this one* [nursing student] … *and the way* [they]*... spoke to the patient, like, I almost felt like I was blushing because* [they were] *doing such a good job speaking to the patient and telling him that everything was going to be OK and like explaining what* [they were] … *doing and why it was going to make the patient feel better and just making sure that they were doing good and I, I don't know,* [they] … *did such a good job just acting as though that was a real human being and not just a dummy* (Student D).

Another aspect was the feedback provided directly by the instructor to the nursing students and each other which facilitated the development of their caring nursing skills. The instructor provided information to nursing students regarding what could have been done differently in the simulation environment, contributing to the development of the nursing students' reflective practice.

> *We learned ...* [in a] *closed group and we know each other so we can ... give feedback and ... take it not personally, you know ... constructive criticism* (Student C).

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[We] *would go around and like ask every person to give their feedback, like we'd spend a lot of time debriefing. ... It's definitely like a group conversation and we can ask questions and stuff* (Student E).

The nursing students also witnessed caring values and abilities but in a few instances, it was observed that caring may not be a priority within nursing practice and that this specific human trait is not always present with one student describing that "*not everyone has that* [caring]" (Student E). Another nursing student questioned the importance of caring and how it may not be directly related to nursing practice.

Caring is not really a trait that's specific for nurses cause there's some nurses who're not caring at all but they can be the best nurses you have. They might not be able to treat ... the person holistically [but] *they are amazing nurses. ... I feel like it,* [caring] *should be* [a priority] *but if they don't have that characteristic it's not the end of the world. But I guess a bit of caring would be good especially considering your taking care of sick patients…depending on where you are* (Student B).

The nursing students also discussed other contributing factors related to their caution to be caring. For example, the impact of different variables such as burn out or protection of oneself to not become overly connected to the patient was identified by the nursing students as a reason why nurses failed to be caring. Some internalized this awareness related to the lack of caring thus utilizing this knowledge as a learning opportunity to reflect on and understand how to protect themselves from not becoming uncaring, to ensure they exhibited caring values and abilities in their practice.

5.6.2 The time necessary to care.

The nursing students attended to the individual's needs to improve health providing the right care at the right time. They expressed that patients in the clinical environment felt well cared for and had a dedicated person (the nursing student) who was solely concerned for them.

 [As a student we] *got to build that relationship, we got to spend more time because we didn't have ten patients that we were sharing…We had two patients that were our patients ... you get to build rapport and have that relationships* (Student D).

The nursing students communicated what they experienced in clinical regarding caring and how they contemplated attempting to be caring individuals and providing respect for the individual holistic person, one that deserves "*unconditional positive regard*" (Focus Group). The perception

of the nursing students was that an adequate amount of time was necessary for this connection to evolve. The nursing students perceived a lack of attention to caring in some clinical environments with it being different than what they were expecting.

> *Sometimes all they* [the patients] *need is someone just to sit there and like listen to what they have to say and what their concerns are and stuff. Because, most… I find … a lot of health care professionals don't take the time to listen, just listen to what the patient really cares about* (Focus group).

The nursing students described that they had the time to provide caring values and abilities in the clinical environment with ample time available to establish the caring relationship between themselves and patients. The interpretation of *being* from here to there with caring experiences was conceptualized from the nursing students' perceptions of caring in all environments which were impacted by the essence of time or lack thereof in the simulation environment. This requirement for quality care and development of what being caring meant was impacted by time available to develop this affective skill. The environment within nursing's metaparadigms contributed to the available time to assist with being a nurse and providing quality care.

> *I think they get so busy and like they're* [the nursing staff] *really overwhelmed a lot of the time but* [caring is] *at the back of their minds cause they're just trying to …do what they need to do* (Student F).

This same student witnessed a fourth year nursing student who did not have the time to provide caring values and exhibit caring abilities because there was an extensive amount of tasks. The nursing student was concerned and did not want the ideal nursing care or the nursing moment of caring to be diminished because of the environment and lack of quality nursing care due to a time constraint.

> *Even with a couple of forth year students I've seen on the* [unit] *…. I think they get so busy and … they're really overwhelmed a lot of the time but* [caring is] *… kind of at the back of their minds cause they're just trying to … do what they need to do, when* [it needs to be done] *and … get done with … what is on their list of things to do* (Student F).

The students also questioned the simulation environment with a lack of time that possibly contributed to the challenge to incorporate caring. Student B expressed that "*you don't get to actually know the person* [in the simulation] *in those 20 minutes because you`re so short of time*". This was in reference to the time allotted in the simulation environment where the display

of specific skills (cognitive knowledge, prioritization of interventions, assessment of the patient, medication administration) being required for examination impacted the holistic care of an individual.

> *Well I think that it's often difficult to think about the caring, ...because it's a mannequin and I just, I don't have the time. ... if I have to give all these and get things done and do all my meds or whatever like, sorry but I don't have time to talk to you about how to quit smoking right now. ...So in that respect it* [the simulation environment] *really kind of forces you to forget about it. Because it is such a short time period* (Student E).
> *I think they're so ... time focused and have limited* [time] *that you don't really focus on caring cause ... that's at the back of your mind when you're doing it cause you know you're being marked on ... which meds you administer and ... your ten rights and three checks and ... your assessments ... you know that's where your marks are going towards so ... caring's not really your priority* (Student F).

With the simulation environment mimicking the clinical environment, nursing students described the limited time to effectively incorporate the skill of caring. *"If the instructor knows that we like have the time to ...explain* [caring, it is incorporated] *but it's just hard with the limited time that you have in that simulation"* (Student F). Nursing students expressed that they often "*ran out of time"* (Student C) and were not able to attend to the full scope of nursing practice and being who they intend to be was challenging.

5.6.3 Being within the environment and experiences.

There are numerous environments integrated throughout the educational process where nursing students had caring experiences. The ability to practice caring in a multitude of settings molded the nursing students into the nursing professionals that they are becoming. The students had questions regarding communication and developing the relationship in the various environments, particularly in the simulation environment where it is *"more like a puzzle that we're trying to figure out"* (Student E).

> *It is something hard in clinical to do, ... having that connection with the families, feeling uncomfortable. What do you say in front of family, what do you not say in front of family? What procedures do you do…do you ask the patient…* (Student D).

The nursing students attempted to incorporate caring throughout various environments thus contributing to the development of what caring is and how to be caring. The attainment of a

caring experience in the simulation environment was ensured with the educators stressing the necessity to communicate to the mannequin, addressing the person instead of just the disease.

> *It's very easy to walk in there* [simulation environment] *and barely address the mannequin because they're not a real person. So they do try to* [encourage you to incorporate caring because it is evaluated]*, ... you need to address them* [the mannequin] *right away* (Student E).

The nursing students explained that caring was practiced in the simulation environment, and although a perception of discomfort in exploring this personal skill with the mannequin was present, the nursing students attempted to establish this nursing moment.

> *There was a simulation lab where the mannequin was supposed to be anxious, or whatever, so then I started like asking him more about his anxiety and stuff. Then some of the students started laughing, because it does, like it sounds ridiculously, and you're ... talking about* [personal feeling of anxiety to a mannequin] (Student A).

Caring values and abilities are practiced in clinical and simulation environments by the nursing students. They attempted to ensure that caring is present in every experience including their daily lives. The nursing students described approaching individuals in the street, family and friends, and patients with a caring attitude and willingness to provide empathy, compassion, and a commitment to improving the person's well-being.

Even though the students have seen non-caring and caring encounters they continued to examine and reflect on what they witnessed. This reflection aided to determine what aspects fit with their being. Student A articulated that they *"see* [caring] *in clinical and ... then ... apply that into ... practice as well"*. These nursing students also explained that they dedicated the time to begin to develop caring values and abilities practicing this affective skill in each environment, taking the time to establish a caring relationship and in the simulation environment with voicing aspects of caring to the mannequin. These students continued to practice being a nurse while in simulation.

5.7 Concluding Remarks

The themes within the *development* of what is caring, merge to go beyond the surface, unfolding the *knowing*, *doing*, and *being* of these nursing students becoming professional caring nurses. The unity of these select nursing students' voices provided the context to interpret their thoughts, perceptions, ideas, and experience regarding the beginning knowledge of what caring

is. The nursing students also provided their perception of how caring can occur, and what knowledge is required in order to be a caring nurse. This transformation of the nursing students occurred throughout the simulation experiences and then fluidly transitioned to practice. The visual representation of the conceptualizations (see Appendix M) incorporates the themes with nursing's metaparadigms through transformational learning and reflection where nursing students fluidly integrate the development of caring. Interpretive description allows for the individual's perspective combined with additional literature and theories to be interpreted with each complex human interaction (physical, behavioral, spiritual, and emotional) (Thorne et al., 1997). Professional caring occurs in a multitude of environments and experiences with numerous people contributing to the development of it, and these nursing students attempted to obtain the expertise in completing this specific art and science of nursing. The transition from stories to a rich explanation of the nursing students' professional caring values and abilities developed in the simulation environment allowed for the abstract and complex concepts to become apparent. This advancement of knowledge is applicable for educators and practitioners to consider and understand the nursing students' perspective of the caring art and science of nursing.

Chapter Six

Discussion of Findings

6.1 Research Question

This qualitative study advanced the body of knowledge pertaining to the development of professional caring values and abilities of select nursing students in the simulation environment. There were two proposed questions developed for exploration in this study:

- How do nursing students perceive caring values and abilities in the simulation learning environment?

- How are professional caring values and abilities developed in the simulation learning experience of nursing students?

This research study explored nursing students' perception of caring values which assisted in providing key information related to the development of caring values and abilities in the simulation environment. The primary theme regarding the *development* of what is caring contributed to understanding the nursing students' perceptions of becoming professional RNs. Three interrelated themes within this predominant theme provide insights into how the nursing students are *knowing* caring, *doing* caring, and *being* caring in the simulation environment thereby contributing further evidence on how the development of caring occurs. An emerging cyclical nature in the findings yielded from the repetition of themes as the nursing students progressed through their nursing education in pursuit of understanding what caring nursing is while integrating nursing's metaparadigms.

Throughout the iterative process, additional questions for reflection were incorporated with exploration of relevant literature and research being completed to examine further what was discovered. Additional questions were asked: What are the main messages? What does this mean for nursing students and nursing education? What is now known because of this research? The use of these questions with a compilation of additional evidence to support and interpret the findings aided to progress beyond the initial themes and patterns, discovering the significance in the experience and drawing conclusions (Thorne, 2008; Hunt, 2009).

This interpretation provided insight into how development occurred in the simulation environment of these nursing students. The researcher's analysis produced a valuable enlightenment into the development of caring and extended the valuable use of the simulation environment for nursing education purposes. Thorne et al., (2004) outline that a small, concise

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qualitative study utilizing interpretive description methodology can explore the subjective experience of a phenomenon to acquire themes, with the result providing a deeper understanding of theoretical knowledge to appraise the discipline.

6.2 Conceptualization

The method of interpretive description allowed an exploration and interpretation of the specific circumstances of these nursing students in the simulation environment. The nursing students indicated a continual development of knowledge related to what is caring to create a cyclical exposure path in which they continuously attempted to understand caring practice (see Appendix M).

Transpersonal caring advances beyond the surface to recognize the importance of the essence of the art and science of nursing practice with professional caring defining specific attributes of RNs. Professional caring is "inclusive, circular, and expansive" (Wagner, 2010, p. 2) and it "professionalises it and associates it with a more specific understanding and context of the nursing discipline" (Queiros, 2015, p. 145). The development of professional caring was made possible in the simulation environment through the co-creation of knowledge, nursing moments of caring, and with quality care having the provision of time within learning environments. Reflection and understanding of the relationship between the art and science of nursing to the nursing metaparadigms is essential. The nursing students attempted to discover what caring is and continued in the process of becoming throughout their nursing education, and specifically in the simulation environment where their overall development as nurses was impacted. The discussion of findings elaborates on these interpretations, incorporating available literature. Falk-Rafael (2005) explains that the "expertise [that] is derived from multiple methods of knowing, including the personal knowledge, …comes through reflective practice and empirical knowledge that provides theoretical and research evidence to inform practice" (p. 41). It is with this perspective that knowledge discovery regarding the development of caring in these nursing students was obtained for the application of this knowledge to practice, education, and research.

The focal influences (knowing, doing, and being) concerning the development of what is caring is compounded with the continual knowledge expansion of these nursing students. The integration of nursing's metaparadigms is discussed further with specific areas highlighted to expand understanding. The first focal concept to be interpreted is the co-creation of knowledge

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with nursing students contributing to informal *knowing*, with the development of caring values while engaging in technology in the simulation environment. Following this, the examination of the nursing students experiencing nursing moments of caring while blending learning modalities, *doing* and making caring happen will be explained. As well, how the simulation environment impacts *being*, with quality care essential to providing the necessary time to develop caring values and abilities will be further illuminated. Finally, the metaparadigms of nursing integrated with the conceptual model regarding the *development* of what is caring to become a nurse in the simulation environment will be demonstrated.

The utilization of theories and perspectives from a variety of literature sources locate these findings in the larger context. This combination enabled the justification of the study findings contributing to understanding the technological environment of simulation in combination with the development of the nursing students' art and science of caring nursing practice.

6.3 Co-creation of Knowledge with Informal *Knowing*, the Development of Caring Values

There is limited nursing knowledge regarding the attributes of professional caring developed in the simulation environment (Eggenberger & Keller, 2008). It has also been identified by education counterparts in medicine that "theoretical advantages of simulation [need] to be fully realized, [with] further developments need[ing] to occur in …. faculty development, curricular integration, and research" (LeBlanc et al., 2011, p. 3). The current research findings demonstrated that nursing students are continually assessing their environments, particularly the technological simulation environment and determining *knowing* with co-creating knowledge in the simulation environment.

6.3.1 Caring.

Caring has been researched, analyzed, and theorized as the core value, or essence of nursing. The value of caring has been attributed to being of paramount value within the metaparadigms of nursing (Leininger, 1988; Falk-Raphael, 2000; Watson, 1985; 1988; 1997; 2008). Studies found in the literature review regarding use of simulation environments in nursing education found a concentration on cognitive knowledge. Although, affective knowledge is significant with Cazzell and Rodriquez (2011) emphasizing that "the students' feelings, beliefs, and attitudes affirmed the importance of including the affective domain into the development of

experiential teaching strategies" (p. 713). In the current research study it was found that nursing students attempted to understand the complexity of caring nursing practice.

Student D clarified that caring is *"a huge component ... a learned skill, it's not something you are just going to know because you went to nursing school"* explaining the importance of performing the art and science of caring while nursing students are entrenched in the educational process. Student B also described practicing completing a holistic assessment with the mannequin and the application of the nursing process to achieve a perspective of improved health in the mannequin. The students discussed where caring could be integrated into the simulation experience identifying the need for caring values and abilities. The nursing students then fluidly transferred this knowledge, skill, and attitude to the clinical environment with patients.

There is variability in the attainment of learning caring values in each individual, which Scott (2014) eloquently explains as "honing and exercise of particular character traits (virtues) over time, such caring is character forming and character shaping" (p. 179). These nursing students experienced differences in their development while in the nursing education program where they identified technical and expressive features of caring in their experiences (Watson, 1985; 1988; 2008; 2009). The nursing students described technical aspects of caring in the simulation environment such as teaching the mannequin, ensuring a safe environment, and attempting to personalize the context to the individual. They also described meaningful aspects of caring in the simulation environment such as trying to have empathy in the situation and being sensitive and aware of diverse needs that the mannequin may have. Although the simulation is not real and mimics an actual environment, the nursing students were able to expand their knowledge of the specific characteristics related to caring. Berregan (2013) utilizes other theorists in the field to explain expansive learning as the process in simulation where students "confront difficult human situations, to experience personal responses to illness and death, and to begin to practice, rehearse and refine these specific skills of nursing" (p. 254). Through expansive learning, the nursing students began to transform their learning about nursing practice, and this development fluctuated over a period.

It is hard to express what caring is and how to incorporate it and caring "may be without words if good nursing is what we routinely practice. In other words, good nursing is the cultural norm and as such, is difficult to describe from within the culture" (Swanson, 1993, p. 354). The theme of *knowing* is directly related to the pedagogical process of creating the ideal environment

to learn caring nursing practice throughout the nursing students' education and then translating that learning further into practice. The simulation environment provides the right atmosphere for students to proceed into this type of educational process as explained by O'Donnell (2013). Where "different modalities of thinking … come into play as students engage with subject matter and the ways in which teachers can, through use of judgment and creative responses, support this process" (O'Donnell, 2013, p. 266). The educator can be responsive to nursing students, instead of focusing on the simulation environment as being skills based or competency based, but ensuring that the social and cultural aspects of nursing are developed concurrently.

6.3.2 Co-creation of knowledge in simulation environments.

Within this theme, it was deduced that the nursing students spontaneously co-created knowledge with supportive guidance. The co-creation aided in the development of caring values and abilities through self-reflection and transformational learning. The simulation environment was utilized as a supplement to other modalities in nursing education to explore the nursing students' capability for learning and reflective practice. Scholars have identified this co-created learning as self-regulated learning (Wesiak et al., 2014), informal learning (Kelly & Hager, 2015), and metacognition (Worrell, 1990), where the creation of knowledge is completed through learning. First, what is learning? "Learning is a process of understanding, clarifying, and applying meaning of the knowledge acquired" (Candela, 2012, p. 203). With learning, nursing students gained knowledge in all domains of knowing in the simulation environment.

One particular study examined affective knowledge concerning metacognition where "affective metacognitive scaffolding … provides tailored support during the learning process (i.e., scaffolding) by prompting reflection on learning and thus, stimulating [self-regulated learning] (SRL) activities" (Wesiak et al., 2014, p. 14). In this study, Wesiak et al. found metacognitive scaffolding in the simulation environment where students perceived that there was more relevance in this type of learning environment with increased usage of it, increased reflective journaling, increased motivation and success in learning with decreased workload and frustration. It is following the simulation experience during the debriefing where reflective learning occurs (Husebo, O'Regan, & Nestel, 2015). The analysis completed during the research study corresponded with transformative learning theory in the simulation environment where the reflection by the nursing students was continuous over time. This process of reflection challenged the nursing students' attitudes and beliefs about caring (Parker & Myrick, 2010). The

students reflected independently and in their peer groups following the simulation learning experience and throughout the year they grew in their ability to contemplate caring.

This co-creation of learning can be found in all "situations, in which people learn including those occasions when in the course of living, learn without sometimes intending to learn (Hager & Halliday, 2009, p. 2). Kelly and Hager (2015) describe informal learning as a process that does not have formal instruction but can assist in becoming a health care professional. In their article, they outline a case study of nursing students experiencing unintended, rich learning opportunities during an experience in a simulation environment. Similar to the findings in this case study, the nursing students in the current research reflected on practice and developed caring concurrently with other learning.

The other reference to this learning is metacognition, a cyclical process where various stages of learning are interrelated with a deep awareness of one's thinking, a reflection by people on their knowledge with acquiring deeper understanding and skills (Worrell, 1990). The nursing students described their thoughts and reflection of nursing practice, co-creating a more in depth understanding of caring in the simulation environment thus increasing their application of caring skills and abilities overall.

6.3.3 Relevance of knowing.

Nursing educators can "make a difference to the possibility that a pedagogical encounter might arise" (O'Donnell, 2013, p. 267) by capitalizing on the nursing students' reflection with the co-creation of knowledge. One strategy is to focus on the co-creation or reflective practice in debriefing. This will support the engagement of nursing students in concretely analyzing and critiquing their learning. One proposed theoretical framework that nursing educators could apply in simulation environments is critical theory with metacognition framed by Josephsen (2014). This is a process to identify the necessary skills for metacognition incorporating self-reflection and constructivism.

Educators can capitalize on the co-creation of knowledge or metacognition by "rethinking the established understanding of simulation-based training as an imitation of reality, and instead approach it as a pedagogical medium exhibiting remarkable powers of reordering the professional norms, values and meaning of nursing in very particular ways" (Soffer, 2015, p. 11). The current research study supports that informal learning may be the key to unlocking the simulation environments potential, with a unique development opportunity existing that nursing

educators can explore more fully. Another possibility to expand the capabilities in the simulation environment could apply the concept of educational co-creation which Kaminski (2010) created for activist and advocacy learning experiences. Kaminski (2010) incorporates praxis with reflective practice and action to expand the possibilities of learning in the community, this may apply to the simulation environment. For example, in the simulation environment the nursing students described debriefing interspersed in the scenarios. During this debriefing period, nursing students could reflect on the embodied or ingrained aspects of caring and discuss the opportunities for transpersonal caring. Another method to develop reflection is to focus on the advocacy-inquiry method in debriefing where the nursing students' frame of reference could be identified and adapted.

Formal and informal learning are necessary for a lifetime of practice. Hager and Halliday (2009) explain that the focus has been on formal learning and educators are negating the importance of informal learning which will assist students for lifelong learning necessary in society. A perspective that expands this concept by Beckett and Hager (as cited in Colley, Hodkinson, & Malcolm, 2002) is where informal learning is holistic, contextual, based on experience, dependent on the learner and activities, and occurs collaboratively.

Scholars have explained reflective learning in nursing is necessary for the advanced practice situations that the current century holds (Benner, 2015; Caldwell & Grobbel, 2013; CNA, 2015). The natural reflection that was completed by these nursing students spoke to the co-creation or constructivist method of knowledge creation necessary for the future of nursing practice. The findings identified that the nursing students co-created their learning regarding caring, and simulation environments assisted them in reflection and metacognition. Nursing educators should develop this pedagogical encounter in simulation to capitalize on the spontaneous creation of learning and encourage its development. This would potentiate the art and science of caring nursing practice in the complex world of health care following formal nursing education.

6.4 Engaging and *Doing* in the Simulation Environment

All experiences and learning located within nursing education require a teaching-learning process where the interactions between the instructors and students are an on-going process to ensure knowledge acquisition (Candela, 2012). Nursing students require a level of engagement in their education to succeed at developing the knowledge required for professional nursing practice

and nurse educators are continuously attempting to ensure that students are engaged in their learning so that knowledge translation occurs (Young & Maxwell, 2007). In various environments, effectively incorporating the domains of learning (i.e., cognitive, affective, and psychomotor) facilitates the understanding of care practices by nursing students (Scheckel, 2012). The technological simulation environment is recognized as highly interactive which fosters knowledge acquisition within a responsive environment where students can actively participate in doing nursing (Cant & Cooper, 2010). The combination of the students' commitment and matched environments can assist with the development of what is caring and completing caring values and abilities.

6.4.1 Engagement in learning.

The nursing students explored each environment and practiced *doing* or completing caring with family, friends, in clinical practice, with each other, and with the mannequin in the simulation environment. "Caring extends to all relationships in the work environment and even extends to one's personal life as a commitment to one's personal and professional growth" (Hogan et al., 2013, p. 377). This engagement to learn and practice is necessary for knowledge development, and it is also needed for transformational learning and reflective learning.

Another perspective which Soffer (2014) describes is attached and detached engagement, which is present in nursing education and professional practice. These levels of engagement were present in the nursing students during the strategy of simulation and arose when complexities of caring for a mannequin became apparent. Soffer (2014) explains that "the distance and separation entailed in care work is captured with the notion of detachment, which will be considered as equally significant as the already established notion of attachment" (p. 203). In detachment, nursing students explored caring in the safety of personal reflection and the simulation environment. In this current research study, the nursing students had attached and detached engagement which fluctuated and continued their development of caring. Student C exclaimed that the simulation environment *"feels like an actual clinical"* exhibiting attachment, but the opposite with detached engagement was verbalized with the statement the *"simulation lab ... you have to try and remember, you know what, you're checking temp but you might have already thought it in your head"* (Focus Group). The current study provides a better understanding of the fluctuations in engagement and subsequent development of caring with either involvement or distance in the simulation environment.

6.4.2 Presence in the simulation environment.

These finding also align Dunnington's (2014) findings regarding the effect of presence within the simulation environment and different levels of engagement. Particularly, the concept of centering presence described as transitioning between various states while in the simulation learning environment (Dunnington, 2014). With centering presence, the nursing students moved between two states of an "endocentric presence" when students have been fully engaged in the scenario, a "dominant perception of being and enacting the self as if in a role in the real patient care situation represented by the simulation" (Dunnington, 2014, p. 160). For example, when the students offered the mannequin a blanket or closed the interaction and relationship. The other state they may transition to is an exocentric presence where nursing students disbelieve the situation and are very aware of the evaluation taking place and being watched by others (Dunnington, 2014). The nursing students explained that the OSCE was occasionally their focus and detracted them from being in the moment when the "dominant state of being in and interacting with the natural environment where the meaning of the simulation environment is perceived strongly as artificial" (Dunnington, 2014, p. 161). Another example of the exocentric presence was when the students became conscious of their actions and they were embarrassed to provide caring to a plastic mannequin in a group environment.

Dunnington (2014) also explains two additional types of presence experienced within the simulation environment, "bicentric presence" and "breaks in presence" (p. 161). Nursing students experienced bicentric presence when they switched between being attached in the simulation to being aware of their surroundings and detached. This presence is similar to the previously discussed attached and detached engagement by Soffer (2014). This was identified in the current research with the nursing students' perception of acting or going through the motions while in simulation. The nursing students explained when they had to pretend and act with the mannequin. The breaks in presence were exemplified in the nursing students' account of attending to the mannequin while providing caring values such as individual attention or when they attempted to explore the person within the metaparadigms. For example, when the instructor responded to their questions posed to the mannequin beside them, it returned them to their current surroundings in the simulation lab.

6.4.3 Combining environments.

With engagement and nursing presence, the nursing students completed caring values and abilities. The nursing students bring forth their knowledge from past years and classes and when

in clinical or simulation attempted to conceptualize caring nursing practice as a whole. The nursing students tried to utilize the simulation environment to its full capacity with knowledge expansion and practicing caring. They also blend environments to fully comprehend the entirety of caring nursing practice. Gatti-Petito (2010) in her quantitative study identified that simulation does change the perception of caring in student nurses, either at the Master's level or baccalaureate level, with a requirement of educators to educate nurses regarding all aspects of nursing. Another aspect in the current research is the fluidity between environments that the nursing students spontaneously combined, with either attachment or detachment allowing for numerous experiences in multiple environments to begin their development of caring and understanding the complexities of nursing practice.

6.4.4 Relevance of doing.

Nursing educators can continuously use this knowledge to integrate the curricular design throughout the nursing education program so nursing students acquires the necessary knowledge, skills, and attitudes for expert caring nursing practice. If nurse educators strategically incorporate a framework using the three domains of cognitive, psychomotor, and affective learning with increasing complexity, students become actively engaged. Scheckel (2012) explains that nursing requires the "application and synthesis of acquired knowledge, skills, and attitudes" (p. 178). Sperlazza and Cangelosi (2009) exemplify this with the use of simulation scenarios to teach undergraduate nursing students end of life care. The constructed learning opportunity in simulation mimicked an experience with caring for a mannequin that was going to die. They evaluated the opportunity and found that the greatest impact on the nursing students was when there was complete engagement in the scenario and a subsequent emotional response with learning how to care.

Benner (2015) reports from the Carnegie national nursing education study that the necessary bridging of knowledge between each domain of knowing or ways of knowing are lacking in nursing education. Nursing educators attempt to tie these aspects together and support students to understand all the intricacies of nursing. Benner (2015) found that "engagement in particular situations and having outcomes matter, are essential to experiential learning" (p. 4) therefore knowing the entire patient within the metaparadigm and incorporating all domains of learning in the simulation environment are critical for nursing students. The current research findings demonstrated that the nursing students attempted to construct knowledge in the

simulation environment which ties to "the pedagogies of contextualizing and situating knowledge … [which is] particularly relevant and engaging for students" (Benner, 2015, p.4). The simulation environment provides the right atmosphere to integrate actual scenarios for nursing students to practice their caring knowledge, skills, and attitudes.

One particular way nurse educators could assist with the integration of ways of knowing with the metaparadigms is to ensure each aspect is concentrated on in the simulation environment. As demonstrated by Dunnington's (2014) findings, "the endocentric state of presence in the context of the simulated nurse-patient interactions … displayed similar attributes to presence in natural nurse-patient interactions" (p. 163). The nursing students in this study expressed that the simulation environment mimicked the clinical environment where they could attend to the holistic person if all the aspects of the metaparadigm were present. Educators could become more aware of the distinct nursing role in the simulation environment incorporating the nursing metaparadigms. So, although there is a distinct concentration on cognitive knowledge within nursing curricula at the university level (Benner, 2015; Berragan, 2013), simulation supplemented the nursing students to acquire the basic foundational knowledge relevant to know and do caring in nursing.

6.5 *Being* Caring, Providing the Necessary Time to Develop Caring

To understand the evolution of development and learning caring, the broader concept of being a nurse is explored. Doona, Chase, and Haggerty (1999) in the development of their findings related to the hermeneutic study of nursing presence found that nursing professionals strongly associated with a particular presence associated to nursing practice. This was reflected in the statement that, "to me, this is the essence of nursing. The ability and the desire to be a presence for the patient is what delineates the novice from the expert" (Doona et al., 1999, p. 57). The authors describe the concept of nursing presence to have all the components related to the cognitive, affective, and psychomotor domains which combine in a unique experience of being (Doona et al., 1999). They elaborate in their findings that nurses were unable to complete nursing presence at the beginning of their careers, and it took time to evolve being and its related importance (Doona et al., 1999). This transition became evident in the theme from here to there with caring experiences *being* caring, where the nursing students begin to see and understand the complexities of nursing practice, the art and science.

6.5.1 Transition into practice by nursing students.

Benner (2015) articulates that "socialization and role taking, to the student's role as a participant-member in a profession, [a process of] becoming [with] what they need to be in order to be a good nurse" (p. 2) is necessary for transition into practice. This socialization with the nursing students taking on the role of a nurse is completed in nursing education programs with increasing complexity as progression in the program occurs. The simulation environment represented the clinical environment with a few distinct differences. Nursing students are provided ample time in the clinical environment to develop their thinking with practicing being a caring nurse. They have the opportunity to practice nursing with a reasonable patient assignment of two patients over a 12 hour period. The nursing students expressed that they felt rushed and had little time to develop their knowledge, skills, and attitudes regarding caring nursing practice in the simulation environment. They were able to practice being a nurse in simulation but had three hours to complete the intricate process. The nursing students were impacted by the limited time available in the simulation environment because simulation is meant to correspond with actual clinical environments including the time devoted to caring.

6.5.2 Quality care with the recognition of the impact of time.

This experience expressed by the nursing students can be related to society's perspective of the rushed feeling of the lack of ample time for any activity. Duncheon and Tierney (2013) reiterate that "investigating time use has been particularly pertinent in educational research because time represents a crucial input into the learning process" (p. 236). These authors offer three theoretical perspectives related to time. The three perspectives are measuring time with a clock, time in a social and cultural context, and a virtual perception of time. The ability to understand time and the influences it may have in the educational setting allows for better use of pedagogical constructs thus "increasing educational opportunity" for improved students' success (Duncheon & Tieryneru, 2013, p. 238). In the simulation environment, the students expressed that it "*mimics the real ... hospital setting because there's so many things going on at the same time*" (Student C). The nursing students expressed the perspective that in the simulation environment, "*you don't get to actually know the person in those 20 minutes because you're so short of time*" (Student A) and "*it's hard ... because one- you have time restraints*" (Student B). The nursing students also expressed that "*I ran out of time*" (Student C) because "*in that moment ... you don't have a lot of time*" (Student F).

Jones (2010) explains this relationship more specifically to nursing practice where "nursing time has significant intrinsic and instrumental value in nursing and healthcare. It is fundamental to the nurse-patient relationship and the achievement of nursing care goals" (p. 185). The completion of quality care is identified when an adequate dedication to nursing practice with sufficient time to provide caring values and abilities is completed. The nursing students' perceptions of quality care varied in the different environments due to the influence of the time. Maintaining the time necessary to care and ensure the goals of the art and science of nursing with caring practice was challenging.

From a social and culture context, people express they have little time. In Saskatchewan healthcare, the impact of nursing time in relation to quality care was observed in the "Releasing Time to Care: The Productive Ward" (Hamilton et al., 2014), which was part of LEAN methodology with the Saskatchewan Health Quality Council. This initiative contributed to increased care with additional time available to provide care to the right patient, with the right treatment, at the right time. Wright and McSherry (2012) report in their systematic review that due to this initiative there were positive effects such as increased patient satisfaction, nurses had more time for better care and experienced increased staff morale.

6.5.3 Relevance of being.

There is an imperative in the educational process to be aware of the amount of time necessary for successful student learning. The nursing students' descriptions aligned with well-founded knowledge related to caring and the discourse within nursing to maintain caring as a paramount value (Sargent, 2012). Perhaps, a strategy could be embedded in the simulation environments to support caring being recognized and discussed. Benner (2000) stresses the importance of stories related to caring practice be told amongst nurses even during times of staff shortages, where there is little time so that caring can be witnessed and discussed to retain its importance. The incorporation of nursing presence could be discussed within the simulation environment to provide an opportunity to reflect on these skills. There is a struggle to balance and learn caring along with the crucial knowledge and skills necessary by the nursing students, with them being able to describe the foundational aspects of caring found in nursing (Benner, 2000; Leininger, 1978; Watson, 1988; 1997; 2008; Watson & Smith, 2002). In order to recognize caring values and abilities as a priority nurse educators can facilitate learning in the simulation environment focusing this aspect of the art and science.

6.6 Experiencing Nursing Moments of Caring, *Knowing*, *Doing*, and *Being* for Caring

The nursing students began to experience nursing moments of caring with observing and being present in the simulation environment. The repercussion of the students' extreme feelings and emotions are related to experiencing caring in their nursing education which assisted them to understand the implications to specific situations. It also contributed to them knowing where they did or could have made a difference. This connection to the affective way of knowing demonstrated their awareness of their behaviours and actions in direct relation to the implications of nursing practice, specifically caring values and abilities on the outcomes of the patient.

6.6.1 Caring moments.

Watson Caring Science Institute (2016) describes caring moments as a transpersonal relationship between the nurse and another. Caring moments present themselves with an action and choice to engage in a connection transcending at a spirit level. This abstract view of caring moments can be applied in the simulation environment where the nursing students purposefully attempted to incorporate all aspects of nursing while providing caring values to the mannequin. Although the mannequin is not responsive on a spiritual level, caring moments occurred with nursing students developing their knowledge of what caring is. Nursing moments designed by Hawley (2000) assisted in translating these caring moments in simulation to "memorable experiences in … nursing practice" (p. 18). These nursing moments developed by Hawley (2000) of understanding, presence, comforting the discomforts, touching, encouraging, and reflecting can assist nursing students to begin their understanding of nursing practice. Donahue expressed these as being "not measured in years but in moments" (as cited by Hawley, 2000, para 1). The nursing students in this research study expressed moments where they had experienced caring in the simulation environment with a deepened comprehension of the impact on the individual or providing additional comfort measures to the mannequin. The nursing students continuously engaged in reflection to locate their understanding of caring nursing practice in the broad perspective of the domains of learning. "A nursing moment is a relational encounter in which the vulnerable other is experienced as a call. A call to be authentic, a call to be 'present' as a nurse" (Hawley, 2011, para 37). These nursing students wanted to learn how to effectively become a nurse by committing themselves to their education. The nursing students experienced this relationship of engagement in the scenarios with nursing moments and assisted with knowledge translation to develop their understanding of caring.

6.6.2 Relevance of nursing moments.

Donahue (1989) beautifully captures and classifies the very characteristics of nursing that are elusive and difficult to describe. The various attributes of nursing, such as nurturance, caring, perseverance, strength, are eloquently written and viewed in the images and paintings (Donahue). The nursing students in this study attempt to navigate the process of nursing in all environments and experience nursing moments of caring throughout their education while becoming a nurse. Why is there a hesitation to talk about these nursing moments with students or with each other? In practice and education, these moments are rarely discussed and understood. For example, the nursing moment of being present at a birth that is indescribable even after experiencing it. The moment when a patient takes their last breath and the family cries out in pain. The moment when there is a quiet retreat and presence while providing a bath to an elderly grandmother. The moment when a person integrates the person, the environment, their health and goals, and nursing practice in the simulation environment. These moments should be pointed out and celebrated. They should be discussed with students, with other RNs, and with other professionals so RNs can continue to explore the nursing profession's art and science. In simulation, a possible strategy to incorporate the nursing moment is to point out these opportunities, to experience them or discuss past experiences in debriefing, or to provide a narrative to students describing this very moment.

6.7 The Nursing Metaparadigms Integrated with the Conceptual Model for *Becoming*

In the simulation environment, these nursing students questioned and discovered what is caring while they were becoming nurses. They learned and practiced the art and science of nursing during their education weaving the foundation concepts of nursing metaparadigms to understand the complex profession of nursing. The metaparadigms of nursing assist with understanding the foundations of nursing that are ingrained into nursing students during their education. These metaparadigms are focused in nursing education to ground the knowledge, skills, and attitudes nursing students should acquire and provides a purpose to nursing practice.

6.7.1 Nursing metaparadigms.

Nursing's metaparadigms are the "most global perspective" of the profession explaining the interrelated abstract concepts (Masters, 2012, p. 48). Fawcett (2012) explains that the "explicit nursing conceptual models and nursing theories are crucial to providing a rationale for what nurses do and why they do what they do. If nurses want to claim the rights and privileges of

disciplinary status, they must acknowledge the already existing nursing knowledge and demonstrate how it guides practical activities" (p. 152). In this research study, Watson's metaparadigm of nursing with a focus on caring was the foundational aspect of nursing's art and science. Watson's metaparadigm views caring as being present throughout each aspect of the metaparadigm and as a central focus within nursing utilizing caritas, the healing space of the environment, health or healing, and the person which interact and influence each other (Watson, 1985; 1988; 2008).

The nursing education program under study has a conceptual model reflecting a similar nature to the nursing metaparadigms where nursing students "are taught the value of human life, the inherent worth of the individual, the right of each individual to the attainment of a high standard of health and will work with communities to achieve these rights and that each person has a right to be treated with respect regardless of his or her life circumstances or culture" (University of Saskatchewan, 2015, para. 4). The curriculum model replicates the medicine wheel in a circular fashion where holistic care is a foundational aspect where skills, attitudes, judgments, and knowledge are incorporated into the education for the novice professional nurse to be successful at the completion of the program. In the examination of the development of caring values and abilities, the nursing students described various attributes of the metaparadigms as they began to understand what caring is while becoming a nurse. The nursing students in the study attempted to utilize this in each environment they encountered.

6.7.2 Learning.

The research findings corresponded with transformational learning theory with students critically examining their experiences and their knowledge development, specifically related to caring where skill development alone is transcended with a shift in the mind incorporating caring into the nurse becoming. A deeper understanding of transformational learning theory in the simulation environment became evident. The nursing students had experiences in the scenarios, they critically reflected on these experiences that challenged their knowledge, and had the potential to adapt themselves as caring nurses.

This transitional period of change closely resembles Kolb's stages of experimental learning. The nursing students progressed through the four stages, where the first stage transpired when students examined their assumptions compared to what occurs in the simulation environment (MacKeracher, 2012). The nursing students considered the lack of the

metaparadigms or aspects of the individual which they thought should be incorporated to fully care for the individual. The next phase occurred when students step away, reflect and co-create knowledge independently and attempted to make sense of their experience (MacKeracher, 2012). Nursing students either try to integrate this new way of being in the simulation and clinical environment but may not have been successful due to a myriad of aspects. For example, the nursing students may not be aware of the possible knowledge created or they may not reflect on the experiences and thus unaware of the possibilities for learning.

The final two phases which MacKeracher (2012) discuss can be challenging for the novice nursing students to recognize due to the action component necessary in transformational learning. The third step, similar to Kolb's learning theory with developing mental models. This phase is an abstract conceptual process that is required to express the changes in the development of caring so others can become aware of it. The fourth phase is when the change becomes ingrained in the nursing students and caring is a part of every nursing action. The nursing students attempted this "active experimentation" (Kolb, 1984) to practice caring values and abilities in every environment with variable levels of integration and success.

6.7.3 Transition to becoming nurses.

When exploring transformational learning in the simulation environment, nursing students tentatively explored the nursing metaparadigms in the simulation environment and began the process of *becoming* a nurse with caring values. Berregan (2013) explains a pedagogical process in simulation where students have an "expansive learning cycle" in this environment, while caring for the mannequin "they begin to respond, behave and feel like nurses, albeit in a simulated environment" (p. 251). The finding of this study and the results of research constructed by Boychuk Duchscher (2008) regarding transition shock theory have parallel associations. Transition shock theory is related to the nurse who is a new graduate, and it identifies the transitions RNs proceed through in the first twelve months of practice with doing, progressing to being, and with the completion of knowing (Boychuk Duchscher, 2008).

Boychuk Duchscher (2008) stresses the importance of undergraduate students learning to understand the transition necessary to assist with the overwhelming stress and anxiety related to beginning practice. The current study provided a deeper understanding of the nursing students' journey with the development of caring. The nursing students combined knowing, doing, and being while they attempted to learn what caring was in developing the art and science of nursing.

Boychuk Duchscher (2009) explains that role playing or contextual-based learning may assist with the transition from nursing student to nursing professional. These nursing students indicated that the simulation environment helped them to know what to expect in clinical practice by providing a safe learning environment. This practice assisted with their transition to learn and develop in their nursing education.

6.7.4 Relevance of becoming.

The use of various learning modalities in nursing education assisted nursing students to develop an understanding of the nursing metaparadigms. The nursing students utilized numerous theories, concepts, and phenomena to understand nursing's complexity. They extended their learning into a variety of environments to assist with the integration of knowledge into practice. The simulation environment was found to be one learning modality in the nursing education program that these nursing students employed to understand the abstract concepts related to nursing with its interrelated aspects of the metaparadigms. It was evident that the nursing students adopted the areas of the metaparadigms and embedded the meaning of nursing practice while incorporating caring values and abilities. Ensuring the conceptual models and curricular design throughout educational strategies in nursing education programs, such as the simulation environments, would assist to ground the pedagogy and continue to advance the RN profession. Perhaps this knowledge will help RN educators to support nursing students in identifying the potential process of transformational learning that occurs while using the simulation environment in nursing education specifically related to caring.

6.8 Concluding Remarks

The development of caring and the development of becoming a nurse are difficult to separate. Sargent (2011) explores the discourse within nursing practice related to caring, and she explains the interrelationship between caring and becoming a nurse with the "perspective [that] when considering nursing practice, … perhaps [the] need to move away from the notion that caring is definitive or descriptive of nursing practice or, that by defining the attributes of caring, we are defining the attributes of nursing practice itself" (p. 140). So, although the output of caring is conceptualized, it is also integrated with the nursing students becoming a nurse with the characteristics necessary for its expert, caring nursing practice.

The theories and additional scholarly information provided the essential meaning and connection to draw conclusions regarding the findings. This interpretation ensured that the

interrelationship of knowing, doing, and being in the process the nursing students developing what is caring in the simulation environment converge with theory, education, and practice for a grand perspective of the art and science of nursing. Becoming can be associated with evolution, being defined as "the gradual process of change and development" (Cambridge Dictionaries, 2016). This path is exemplified in the circular aspect of the overarching theme with the nursing students' continual development of becoming a nurse. **"**When time is taken to observe and interpret nurses' actions, it becomes clear that nursing practice is the result of blended understandings of the empirical, aesthetic, ethical and intuitive aspects of a given clinical situation and a nexus of maintaining belief in, knowing, being with, doing for and enabling the other" (Swanson, 1993, p. 357). The integration of literature deepened the understanding of knowing, doing, and being in the development of caring in the simulation environment.

Chapter Seven

Implications and Limitations

To consider what this interpretive description study means to practitioners, educators, and students one needs to be aware of the context in which the interpretations arose. This research provided the possibility to translate what RN educators believe about the development of caring in nursing students with particular experiences, with the perceptions of these nursing students through the simulation environment (Thorne, 2008). This research explored the foundational concepts of nursing and brought forth the perceptions of these nursing students, interpreting their experiences on the development and evolution of professional caring values and abilities in the simulation environment with an extension of the interpretations into nursing practice. This research created knowledge and deeper understanding regarding the complex transformational learning of caring in the simulation environment. This research produced knowledge and a depth of perceptive regarding the complex transformational learning of caring in the simulation environment. The research has implications related to research, education, and practice. By identifying these connections, there is an opportunity to further the art and science of nursing, impact nursing education, increase the capacity of the simulation environment for the affective way of knowing, and deepen the understanding of caring practices.

7.1 Implications for Future Research

This research revealed the complexities of nursing and the development of caring values and abilities. This interpretive description research study highlighted a highly specific component of development in a highly specific environment (i.e., undergraduate simulation environment). This particular but important aspect of the development of caring values and abilities in the undergraduate nursing simulation environment conveyed a greater understanding and opened up the possibility for further exploration. Research is required in order to understand the complexity in describing what caring is, how RNs incorporate it into daily practice, how they facilitate its development in nursing students, and even how the nursing students learn this abstract nursing skill.

One possible research track is to examine the transition that nursing students experience from the simulation environment to the clinical environment. Studies have focused on particular skills or attributes regarding nursing education and development in simulation but how this learning occurs has yet to be uncovered completely (Dunnington, 2014). There is a specific need

to explore the pedagogy of learning within the simulation environment to effectively use this modality to develop caring nurses. There is a need to create empowering learning environments in simulation with curricular and pedagogical foundations. Cristancho, Moussa, and Dubrowski (2011) describe the lack of evidence-based research to establish a concrete pedagogy for the integration of simulation-based strategies in nursing education programs. Additional research examining the nursing educators' utilization of the simulation learning environments and how this impacts the overall development and transition of nursing students is required.

An upscaling of this research examining appropriate methods in simulation education to develop caring values and abilities in the nursing students would assist to deepen understanding. This further exploration would lead to recommendations and appropriate strategies to influence the integration of knowledge, skill, and attitude development in regards to caring. There is an identified need to further understand the impact of the simulation environment and the correlation to the clinical environment which the nursing students interchanged fluidly in the course of their education.

Research needs to focus on how the simulation environment impacts reflective practice while enhancing the co-creation of learning. The research could potentially utilize two groups of nursing students in the simulation environment, with one group having specific targeted reflective practice and the other group remaining with the status quo with cognitive knowledge. This type of research would enable a clearer association of learning and development regarding the different ways of knowing particularly aesthetic, ethical, or affective knowledge. This potential examination would provide further knowledge development relating to the use of simulation environments within all domains of learning and correspond to the findings with outcomes necessary for professional practice. The National League for Nursing (2016) stresses the importance of using simulation environments for the advancement of interprofessional education for collaborative practice. Specifically to this study, a study to explore the potential for improved care resulting from collaborative practice in the health care team with RN's specific knowledge regarding the nursing metaparadigms and caring skills. Additionally, other educational programs have set priorities in research to develop knowledge of nursing in simulation and interprofessional education (i.e., University of Calgary) and increasing knowledge regarding learning with technology (i.e., University of British Columbia).

7.2 Implications in Education

There are numerous learning opportunities for nursing students during their educational programs to learn caring, with the simulation environment being complementary, where nursing students could capitalize and evolve their knowledge. In the current state of nursing education, nurse educators have to become knowledgeable about the simulation environment to incorporate caring and all components of nursing practice (Greger, 2012). The efficient use of the simulation environment to catalyze the uptake and implementation of the affective domain may assist nurse educators to bring this challenge to the forefront of pedagogical development. CASN (2015) reiterates that clinical and simulation experiences are crucial in nursing education, for nursing students to gain the knowledge, skills, and attitudes necessary for beginning practice. The nursing students in this study perceived the simulation environment as an extension of clinical where they could practice being a nurse. They also caution that these environments must be strategically and carefully used for to ensure the maximum benefits (CASN, 2015). There is a necessity to structure this mimicked environment closely to what nursing students will experience in actual practice with the entirety of the nursing metaparadigms.

Another key aspect of the simulation environment is the debriefing portion where engaged learners are involved in transformational learning with the use of reflection. Levine et al., (2014) explains that "debriefing is acknowledged as a best practice and is lauded as the point in the educational process when the dots are connected and "aha" moments occur" (p. 74). The establishment of effective debriefing with reflection is necessary for the complex multidimensional health care system. Hence, the simulation environment is highly enabling for strengthening these elements. This knowledge may assist in understanding and informing future research regarding how to adopt the innovative simulation learning environment effectively with nursing students to acquire caring values and abilities.

Benner (2015) explains that "students must develop the habits of mind and practice to perceive and respond to particular clinical situations as an exemplary or good nurse. This requires formation of the clinician's identity, character, skilled know-hows and sense of salience" (p. 3). There is a need for nursing educators in simulation, theory, and practice to assist nursing students to reflect on the foundations of professional practice ensuring that the art and science of nursing are maintained.

It is paramount for educators to meet the needs of nursing students and the dynamically changing healthcare atmosphere, capitalizing on the co-creation of knowledge. Burke and

Mancuso (2012) reiterate the importance of the "effective integration of simulated learning into the curriculum, using simulation as a teaching method to support course learning outcomes and foster maturation of metacognitive growth to promote self-directed, entry-level practitioners" (p. 243). There is a necessity to prepare nursing students for the challenges experienced in actual nursing practice and assist them to utilize life-long learning and reflection in their toolkit of professional development. Benner, Sutphen, Leonard, and Day (2010) found a large gap exists between education and practice as students lack the tools to succeed and seamlessly transition to practice. The simulation environment's emulation of the clinical environment could assist in the transition from learner to professional. It is important for nursing educators to understand simulation pedagogy and how learning occurs in this environment to optimize learning outcomes.

In discussions with nursing professionals and experts, it has been described that caring cannot be learned and the nurse just knows. However, how does a person just know and how do nurses become experts in caring? Watson (2009) illuminates that "researching caring does not guarantee a caring ideology, values, theories, attitudes, and manifestations in practices but leads closer to putting caring into the formula" (p. 5). Perhaps even though caring is difficult to teach, learn, and evaluate if educators do not incorporate the affective domain within nursing education, then nursing students may not learn, understand, or develop it to become an expert at caring nursing practice.

7.3 Implications for Practice

The current study allowed for the exploration of the abstract concept of caring in nursing's metaparadigms within an innovative and underexplored environment. The perceptions of these nursing students suggested that these abstract concepts could be more fully understood and with the researcher's interpretation of explanations regarding the development of caring values and abilities. This study also explored the possibility of continually learning and reflecting on caring and what it means to nursing. This reflection can be translated to the practice environment and as Benner (2015) outlined, used throughout one's career to successfully integrate multiple constructs in the reality of what nursing practice is. The result will be a RN who considers all ways of knowing within the nursing metaparadigms to provide optimal care and caring.

The teaching of clinical practice is changing with innovative learning strategies such as the simulation environment. Nursing's historical, social, and cultural impacts are not clearly embedded in this mimicked (simulation) practice environment. The use of technology in the development of the next generation of nursing, specifically the development of caring, needs to be understood and considered so innovative methods can be used effectively. Benner (2000) explicates the need for experiential practice environments to be developed to focus on caring, thus ensuring that the elusive, abstract concept of caring is not dismissed. The integration of the art and science of nursing throughout practice as an RN is a priority, to develop one's being and be cognizant of the effect on the patient, family, and community. CASN (2015) restates the importance of and the need for professional caring to be ingrained in nursing practice so the future nursing students can lead the profession. It is a poignant reminder to be aware of oneself and how important the presence of a RN can be to patients with a mutual benefit of nursing moments. The importance of incorporating the caring art and science of nursing into continuous knowledge development and sharing allows growth and expansion of professional practice and expertise.

Can educators or practitioners assist nursing students and other nurses in a variety of environments, thus challenging the assumption that people are automatically caring? Can it be embraced that nursing students require the development of caring skills and the art and science of nursing? The findings allude to the fact that these nursing students attempted to transition themselves through knowing, doing, and being while establishing their personal and professional paths to becoming caring nurses.

7.4 Limitations

A limitation that became evident was related to the abstract concept of caring values. Most individuals know that caring is important in nursing but to measure it, teach it, and evaluate it becomes difficult to achieve (Beck, 1999; Drumm & Chase, 2010). The identification of the nursing students' perceptions of caring values and abilities before the simulation experience assisted in identifying the preconceived ideas of what caring is and exposing the evolution of developing caring values and abilities. The choice of theoretical frameworks related to caring informed the research but it was important to reflect on their selection because the nursing students may have associated with additional theoretical perspectives (i.e., Transcultural Caring, Caring and the Science of Unitary Human Beings, Earth Caring). The foundational aspect of

professional caring is directly connected to nursing, so although these additional theoretical perspectives were not explored, the basis of caring is present. The use of interpretive description provided the structure to explore the abstract concept of caring in the technologically advanced simulation environment, the inclusion of additional collateral support and the integration of additional theories and evidence assisted in developing the deeper comprehension and application of the abstract skill of caring to nursing education.

Another recognized limitation was identified in the selection of nursing students with the absence of all possible variations related to the phenomenon of caring (Thorne, 2015). The research provided the specific experiences of a selective group of nursing students. One aspect of purposeful sampling with interpretive description is that differences in gender and ethnic background specific to professional caring may not be fully understood. This research study had minimal information regarding the demographics of the students (i.e., cultural background, experience as a caregiver) producing a limitation. "Usually, the positions or experiences that each participant or informant might represent cannot be known until data collection is well underway" (Thorne, Reimer Kirkham, and MacDonald-Ems, 1997, p. 173) and there could have been differences amongst cultures and sexual orientation which were not delved into. Leininger (1988) clarifies that caring is a universal phenomenon, but the expressions, processes, and patterns vary among cultures. In this research, cultural perspectives of these nursing students were not examined. Upon a literature search, there was limited research about perceptions or the development of nurses' professional caring related to culture. One international study was found examining the caring attributes of nurses from multiple cultures across the globe, determining that nurses have a lot in common regarding caring, but there are variations related to culture (Arthur et al., 1999). Similarly, the differences in the perceptions between male and female were not investigated. When contemplating this limitation and examining the research in regards to differences in male students, it has been demonstrated that there is no difference in male or female caring. There is the possibly of a difference in the expression and experience of caring exhibited by male nursing students (Grady, Stewardson, & Hall, 2006; Young, 1997), that male nursing students experience encounters with caring and non-caring nursing faculty (Young, 1997), and that faculty had preconceived notions of caring related to gender, creating a bias (Grady et al., 2006). Christman (as cited by Young, 1997) elucidates that "no one race, gender, or ethnic group has a monopoly on the qualities of intelligence, scientific competence, imagination, empathy, concern for others, or motor skill abilities" (p. 19). Although gender and

cultural difference were not examined in this research, an awareness of this limitation is necessary.

It may be perceived that the small sample size and lack of cross-sectional sampling were limitations. To counteract the drawback, the purposeful selection of ten nursing students for the focus group and six students for the interviews, in combination with the triangulation of data from the reflective journal and collateral support, was employed. With interpretive description method, the use of small sample sizes is justified with "sample sizes of almost any size …. produc[ing] something worth documenting" (Thorne, 2008, p. 94), and with other interpretive description studies utilizing similar small sample sizes and successfully exploring a disciplinary problem. Although the research did occur over a period, it was not a cross-sectional design to "examine groups… in various stages of development, trends, patterns, and changes simultaneously with the intent to describe changes in the phenomenon across stages" (Grove et al., 2013, p. 220). This research study's purpose was to explore the perception of nursing students in a particular undergraduate nursing program to understand the development of caring values and abilities. The intent was not to compare the stages of development, even though, it was discovered that an evolution of learning occurred in the nursing students. The foundational assumption of interpretive description linked to the identification of a problem in the clinical area is "not bounded by time and context" (Thorne, 2008, p. 74) but the particular perceptions of these nursing students during their specific experience allows for greater comprehension.

The simulation environment produced minor limitations as well. One limitation was that not all simulation educational situations are not equal (Berregan, 2011) and this became evident with nursing students as they described variations among the instructors in several groups. Each educator within the simulation environment brings different experiences and knowledge regarding simulation, therefore, imparting different values on the nursing students they instruct. There were variations in the delivery of the scenario and debriefing leading to multiple variations in learning with the nursing students. The "goal of the clinical educator is to help the student develop a rich clinical imagination. They need to imagine how they would take up a particular practice situation" (Benner, 2015, p. 6) and the instructors attempted to facilitate learning drawing from their experiences. This limitation does speak to the need to ensure standards in the use of the simulation environment are maintained to ensure all nursing students reap the benefit of this learning strategy.

The final limitation which the researcher became aware of was the nursing students who participated wanted the researcher to know about caring and that is why they volunteered. It is difficult to know what other students (who did not participate) might have been thinking or reflecting upon respecting caring. The nursing students were obviously interested in caring, discovering affective knowledge necessary in the art and science of nursing. Their co-creation of learning supported the discovery of caring within themselves. The nursing students all expressed that they were thankful for someone asking them their opinion and asking them to share their experiences regarding caring because it is essential for nursing practice.

7.5 Knowledge Exchange

This research has an impact on educators of nursing students, facilitators utilizing simulation as an innovative teaching technique, curricular design for effective integration of the simulation environment, and application for nursing students. The knowledge gained will be presented to local, provincial, and national interest groups. The exploration of the nursing students' perception of the simulation environment with the expanded understanding of the development of caring values and abilities contributes to the scientific body of research.

The Canadian Institute of Health Research (CIHR) (2014) strategic development plan regarding research is to support and encourage excellence in the application of research findings to programs of education that will provide benefit to Canadians. This research developed new knowledge regarding nursing students, in regards to their development and supportive measures for the advancement of caring professional practice in the simulation environment. The outcome of this research contributed to the recognition that caring is a paramount aspect in the education of nursing students. This research directly influences the health of Canadians through the education of the RN. The identification of what is caring and description of this development with *knowing, doing, and being* caring in the simulation environment to attain this skill while *becoming* a professional caring nurse delivered knowledge on incorporating the innovative simulation learning environment.

Graham (2012) suggests utilizing diffusion, dissemination, and application. The combination of all three strategies will be utilized. During the research period, the researcher completed a poster presentation, outlining the research method and description of the research topic at the Western and Northern Region Canadian Association Schools of Nursing (WNRCASN) conference in Saskatoon, Saskatchewan February 17 – 19, 2016. Following the

completion of the research, the researcher will diffuse and present the results in conference presentations. The researcher will present locally at the Regina Qu'Appelle Health Region Research Showcase. There is a possibility for presentation at the next WNRCASN 2017 conference or the national Canadian Association of Schools of Nursing 2017 conference. Other possible venues for presentation are the University of Saskatchewan to faculty and staff and provincially at the Saskatchewan Registered Nurses' Association annual meeting. An abstract has been accepted for an international conference specifically related to caring, the 22nd International Caritas Consortium, connecting through caring consciousness. The research results will be disseminated through publication in peer-reviewed journals (i.e., *International Journal of Nursing Studies, Clinical Simulation in Nursing, Advances in Health Science Education, Research in Nursing and Health*).

Chapter Eight

Conclusion

Caring is the art and science of nursing and impacts the health of each person in society. Although humanistic values of caring are not necessarily concentrated on in the education of health care professionals or are viewed as a focus in the human interactions within health care it is necessary and "relevant across cultures and languages" (Rider et al., 2014, p. 274). As a practitioner and educator, I am guilty of hesitating to articulate, explain, and facilitate the understanding of caring with the art and science of nursing. Throughout this research project, I have learned that these nursing students attempt to understand this complex profession throughout their education, just as I did. Caring values and abilities assist each nurse to excel in the profession and provide nursing in a caring and diligent manner to improve the health of Canadians.

This research study utilized an interpretive description method to explore the perceptions of select nursing students regarding the development of caring values and abilities in the simulation environment. Caring is a foundational aspect of nursing practice that is integrated in the definition of nursing and is incorporated in the essential principles and components of RN practice (CASN, 2015). With diverse and innovative educational strategies, caring can be integrated into the nursing student while becoming a nurse. The construction of knowledge with a transformational learning process is experienced in the transition of the nursing students. This process of experience, reflection, and change ensures that nursing students have the knowledge, skills, and attitudes to lead the profession in the future. This research provided an enlightened understanding of the multifaceted variables in knowing, doing, and being which developed these select nursing students to become RNs with caring nursing practices. Thorne et al., (1997) explains that interpretive description is a qualitative investigation that is useful to advance nursing knowledge. The exploration extended the continued imperative of embedding the art and science of nursing, specifically caring in emerging pedagogies and methodologies such as the simulation environment. Thorne (2007) echoes that "the essence of nursing constitutes something about the knowledge that is brought to bear and enacted within caring practices" (p. 351). As such, a continued focus of the nursing profession's foundational theories and knowledge will support caring to remain relevant for the future.

Through the exploration of simulation, as an innovative learning environment, knowledge in regards to developing caring values was described in detail to expand the understanding and application of caring of nursing students. The development of what is caring is continued throughout the nursing students' education in the simulation environment. These nursing students determined what they need to know regarding caring values and abilities and attempt doing caring in each environment they encounter. One student explained the process of learning in the simulation environment which was then integrated into the clinical environment with an actual patient.

> *In here* [the simulation environment] *we just kind of focus on the nursing part...So, I think in clinical you really see the whole team of health care professionals working together and then you also get that caring piece where ...you're getting the feedback from the patient.* (Student A).

The nursing students continually adapted their ways of knowing, doing and being to determine the complexity of nursing practice. These interpretive explanations provided possibilities for me and others to use in our practice as clinicians, educators, and researchers for the future of nursing.

There is a focus on collaborative practice with nursing's distinct contribution to the health and well being of people. Nursing educators could use the simulation environment to focus on the distinct roles of RNs and the roles within a health care team. The integration of interprofessional education (IPE) in the simulation environment could be the focus. A particular strategy utilized by the nursing profession with IPE is to incorporate caring practices within this environment to ensure each aspect of the nursing metaparadigm is addressed. The specific focus of nursing's distinct view on health and illness with the environment, the person, and nursing could be discussed within the interprofessional team. In the simulation environment, reflection of caring by nursing professionals and the entire team could be incorporated in debriefing (Miller et. al., 2008). Another important factor within the interprofessional team is the nurse's sense of caring professional practice which assists others in their duties. For example, a nurse spends a significant portion of time exploring the patient's perspective while communicating with them to determine their goals, the impact on the person's environment, and their health. This key information is attainable following the nursing moment quickly established by the expert, caring nurse. Another perspective on the interprofessional team is the priority of nurses to incorporate the family and community in the care of the patient, which could be integrated into the

simulation environment. Finally, it is essential to assist nursing students in exploring nursing's particular professional identity in the interprofessional team during the foundational education of the nursing student. The identification and clarification of roles could be attained in the simulation environment with a contribution to collaborative practice.

Within the classroom domain, different strategies to incorporate caring could be strategically placed in the theoretical components. The foundational aspects of theory are explained to the nursing students with comprehension being evaluated. The application and synthesis of caring values and abilities by the nursing students could be achieved with the exploration of relationships and ways of knowing. Perhaps, using narratives and stories to describe the essence of caring and the importance of it in nursing practice would assist to further the relationship of this abstract concept to nursing practice. Transformative learning theory integrates this as well, with the foundation of this theory rooted in the discovery of ourselves to identify the past and current experiences. Reflecting on personal worldviews and that of others in the classroom could assist the nursing student to determine the transpersonal teaching and learning capability.

A particular strategy that Hanson (2013) utilized in her study exploring values-based learning to inspire reflection in the classroom, in the simulation lab, or in the clinical area could be useful for nursing students. This strategy was based on transformative learning theory and used four questions to explore content such as assumptions and beliefs, process on how the ideas or thoughts came to be, and strategically question the underpinning of each person's ideas or beliefs. The questions could be directly focused on caring such as individual thoughts and reflection on if and why caring is significant in the art and science of nursing.

In the clinical areas, whether acute care, long term care, or community, or in simulation, nursing moments could be discussed and highlighted so nursing students and RNs can become more aware of the impact of nursing practice on individuals, groups, and communities. The discussion and integration of caring nursing practice with the art and science of nursing is important in the health and well-being of people. It is essential to continue to discuss these moments so that nursing students can understand the knowledge, skills, and attitudes necessary for expert, caring practice. The discussion of nursing moments will also assist the nursing profession to communicate its contribution to health and illness for everyone, other health care professionals and the public.

The interconnected relationship of the themes of *knowing* what I need to know, *doing* it can happen, and *being* from here to there with caring experiences assisted in understanding the complex variables in the simulation environment which impacted these nursing students in *becoming*. The theoretical foundation of caring, transformational learning, and simulation provided the basis to know where nursing has started and what the future might hold. Nursing educators need to provide the optimal environments (i.e., simulation) for students to know, do, and become caring, compassionate, expert, critical thinking nurses. This exploration delivered evidence to the transition nursing students' experience attaining knowledge of caring within the art and science of nursing, to progressively practicing caring values and abilities, to enact caring in all environments, and continue their development of caring throughout their professional education. The interpretations, in conjunction with additional literature, allow an in-depth understanding, adding to the evidence available regarding learning in the simulation environment and contributing to the growth in scholarly nursing knowledge.

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LIST OF FIGURES

APPENDIX A

Visual Picture of Simulation Mannequins

SimMan 3G® by Laerdal

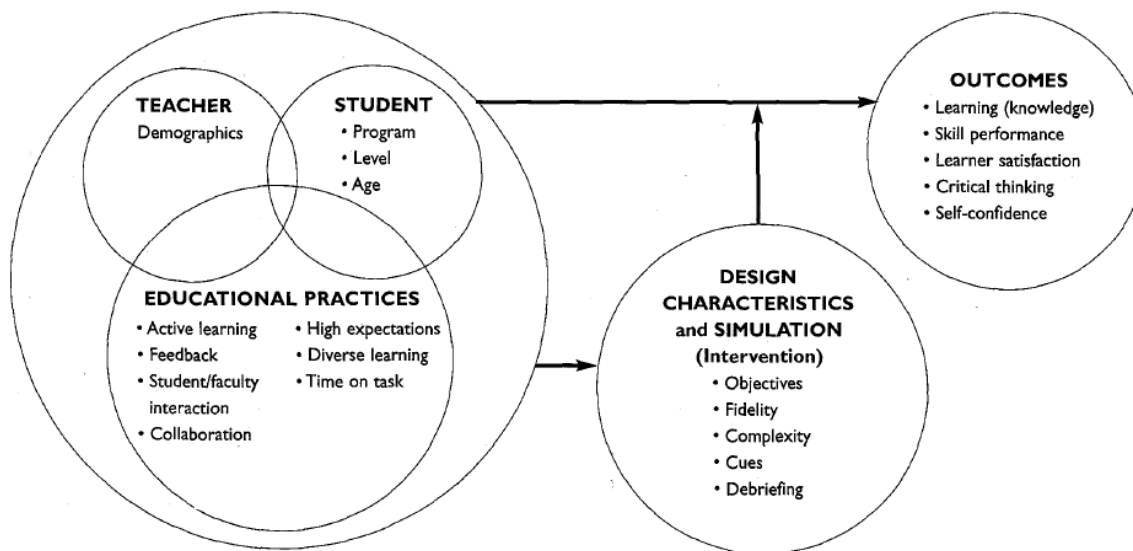*Photo courtesy of Laerdal Medical Corporation*

SimMan® by Laerdal

Photo courtesy of Laerdal Medical Corporation

APPENDIX B

Simulation Model and Clinical Simulation and Learning Model

Figure 1. Simulation Model

(Jeffries, 2005)
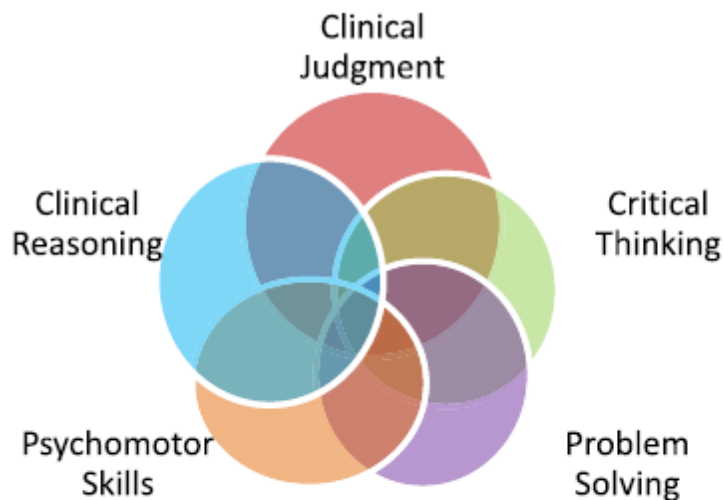
Figure 1 Nursing skill development and clinical judgment model. ©. This model, developed by the International Nursing Association for Clinical Simulation and Learning, reflects the complexity of skill development necessary to progress from more basic skills to the higher-level clinical judgment and reasoning ability used in decision making for safe, effective nursing practice. All levels of development are interrelated, therefore, they interact and affect one another.

(International Nursing Association for Clinical Simulation and Learning, 2013)

APPENDIX C

Transpersonal Caring Theory by Watson

The 10 caring factors described by Watson and Woodward (2010) are

- practicing kindness and equal treatment of individuals;
- appreciating faith and hope while authentically being present in life;
- assisting in expanding awareness of self and spiritual practices;
- developing and sustaining a therapeutic relationship that is caring and helping to each person;
- allowing the expression of positive and negative thoughts or feelings;
- being aware of knowledge a person has and creatively using it in a caring manner;
- engaging people in education and learning genuinely;
- creating a healing caring environment;
- intentionally caring for people in all environments regarding all levels of basic needs; and
- ensuring expansion of thoughts regarding life and death and taking care of own self .

APPENDIX D

Critical Caring Theory by Falk-Rafael

Falk-Rafael (2005) explains the seven health promoting processes as

- preparation of self where the individual begins to know self and the multiple ways of knowing;
- developing and maintaining a helping-trusting relationship where knowledge assists the community, the population, and the individuals with family;
- incorporation of a systematic, reflexive approach to caring describing the multiple ways of knowing and assisting others to wellbeing;
- transpersonal teaching-learning by integrating thinking and education of critical social theories and caring science
- contribution to the creation of supportive environments including social, economic, political, and physical;
- coming to meet the needs of communities to build competence in caring for all members of communities with their basic needs, the needs of the most vulnerable, social needs, and the promotion of growth of each member; and
- being open to the spiritual-mysterious and existential scope which allows for exploring the things that cannot be explained (Falk-Rafael, 2005).

University of Saskatchewan

College of Nursing
Regina Campus

PARTICIPANTS NEEDED For RESEARCH

Regarding Nursing Students Learning in the Simulation Environment

We are looking for volunteers to take part in a study regarding

How caring values and abilities develop in the simulation environment?

As a participant in this study, you would be asked to participate in both a **focus group** and an **interview**. For your participation you will receive refreshments and a meal and a chance to win one of two $50.00 gift baskets.

For more information about this study, or to volunteer for this study, please contact: *Leah Thorp* at 306-530-2368
Graduate Studies and Research Department
Email: Leah.Thorp@usask.ca

Or

Professor Sandra Bassendowski at 306-337-3810
College of Nursing Regina Campus
Email: Sandra.basendowski@usask.ca

This study has been reviewed by, and received approval through, the Research Ethics Office, University of Saskatchewan.

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University of Saskatchewan

College of Nursing
Regina Campus

Hello nursing student,

Welcome to the beginning of third year. Thank you for taking the time to listen to the research project objectives and considering participating in this study. We are looking for volunteers to take part in a study regarding the development of caring values and abilities in the simulation environment. How do caring values and abilities develop while you are learning in the simulation environment?

The proposed research questions for this study are:

- How are professional caring values and abilities developed in the simulation learning experience of the nursing students?

- How do nursing students perceive caring values and abilities in the simulation learning environment?

As a participant in this study, you would be asked to participate in both a **focus group** and an **interview**. For your participation you will receive refreshments and a meal during the focus group session and a chance to win one of two $50.00 gift baskets following completion of both.

For more information about this study, or to volunteer for this study,
please contact: *Leah Thorp* at 306-530-2368
University of Saskatchewan, College of Nursing
Email: Leah.Thorp@usask.ca
Or
Professor Sandra Bassendowski at 306-337-3810
University of Saskatchewan, College of Nursing Regina Campus
Email: Sandra.bassendowski@usask.ca
This study has been reviewed by, and received approval through, the Research Ethics Office, University of Saskatchewan.

APPENDIX G

Focus Group Guide

The purpose of this research is to identify caring values and abilities developed within the simulation learning environment. Caring is a paramount values stressed within nursing education and nursing practice. Simulation has been introduced into numerous nursing education programs across Canada. With simulation being a newer modality within nursing education programs there is limited data related to all the domains of learning, cognitive, psychomotor, and affective, which are learned within this environment.

The purpose of the initial focus group is to clarify what you, as nursing students, have thus far understood about caring values and abilities, interpretation of themes and patterns within the context of caring, how you feel it is developed and who assists with this skill. The questions will also allow for understanding in the future interviews where reflection can occur regarding your professional caring development.

If anyone would like to leave the focus group please do not hesitate to be excused, there is no repercussions for withdrawing from the research. I may contact individuals who leave to ensure that you have the support necessary following the process. I may contact individuals who leave to ensure that you have the support necessary following the process. I will also provide a break in the middle of the session so people are able to leave at that time as well. Does anyone have any questions? I would like to remind each of you to take turns speaking as well.

1. What does caring in nursing mean? Tell me about the some of the experiences some of you have had regarding caring as nursing students.

   - Prompt: Can you tell me about an experience that you have had with in your educational program related to caring?

2. Can each of you please describe what the importance for caring in nursing is or is not?

   - Prompt: Have you ever seen caring being displayed while in your clinical rotations or during your nursing education?

3. How do you think someone learns about caring?

   - Prompt: Have you had an experience of someone being caring to you? What type of environment is best suited to learn about caring?

4. Who assists with learning caring?
   - Prompt: Who demonstrates caring?

5. Please explain the learning opportunities you anticipate in the simulation environment?

- Prompt: You have experienced some simulation in your last year of study in the skills lab. Have you heard from previous students anything about Nursing 321.2?

6. There has been a great deal shared. Can each of you close by sharing with me a final thought on caring in nursing?

APPENDIX H

Basic Demographic Information

There is some basic demographic information to be collected at the beginning of this focus group. This information was not sensitive in nature and will help me to get to know you.

Composition of group: _____Male _____Female

Age range of group: _____< 20 _____20 - 25

_____26 – 30_____31 – 35

_____36 – 40 _____> 40

Gather throughout the discussion of the nursing students during focus group and interviews.

Are you in the third year of the University of Saskatchewan College of Nursing program?

Are you enrolled in Nursing 311.3?

What type of experiences during simulation and clinical is experienced till the beginning of third year?

What clinical are you in now?

APPENDIX I

Interview Guide

Thank you for providing your time for this interview. I understand that you have completed the 311.3 simulation lab or you have begun your N312.3 simulation lab and I would like to discuss how the development of caring values and abilities in the simulation environment may or may not be occurring.

The purpose of the interview is to provide a rich description of your experience developing caring values and abilities within the simulation learning environment.

If you would like to leave during interview process please do not hesitate to be excused, there are no repercussions for withdrawing from the research. If you do leave, I may contact you in the future to ensure that you have the necessary support following the process. I will also provide a break in the middle of the session so you are able to leave at that time as well. Do you have any questions? I will begin with this first question:

1. Can you describe or tell me about your experiences with caring values and abilities in the simulation environment.

   - Prompt: Can you tell me about an experience that you have had with in your Nursing 311.3 or 312.3 lab? * Can you describe the pre-briefing, the scenario, and debriefing?

2. Can you describe one instance in the course of your learning that there was a focus on caring? Can you provide an example of caring or non-caring in the simulation environment?
   - Prompt: In the focus group we talked about the different aspects of the mannequin that may or may not assist with displaying caring in this environment. Can you describe a scenario where you were able to provide caring nursing practice in the simulation lab?

3. What has the experience in the simulation lab been like for you? What learning do you think occurs during the experience? Affective, Cognitive, Psychomotor?

   - Prompt: Can you describe the simulation environment? Can you describe a situation where you felt safe to learn affective skills such as caring?

4. Please explain a process in the simulation environment that complements the development of the skill of caring? Who assists you to develop caring values and abilities in the simulation environment?

   - Describe a situation where you were learning skills (cognitive, psychomotor, and affective) in the simulation environment.

5. How do you think someone learns about caring?

6. What would have made the simulation experience better for you? What made it difficult for you to learn skills in this environment? What made it easy?

7. In the focus group it was described that caring for the individual/whole person was important but it wasn't viewed frequently in the clinical setting or in the simulation setting. Can you describe how a nursing student can practice caring values and abilities in any environment to ensure it is part of every interaction?

8. In the focus group it was described how the lab is structured to focus on the problem thus inhibiting caring. Is the simulation environment similar to the clinical environment?

9. Can you describe if it is difficult to learn caring and understand what caring is? Can you describe in the simulation environment or in clinical how caring values can be incorporated?

10. Where do you think a nursing student can learn caring values and abilities?

11. There has been a great deal shared. Can you share with me a final thought on caring values and abilities in the simulation environment?

APPENDIX J

Research Ethics Boards (Behavioural and Biomedical)
TRANSCRIPT RELEASE FORM

Project Title: Caring Values and the Simulation Environment: The Baccalaureate Nursing Students' Experiences

Researcher(s): Graduate Student Leah Thorp BScN, RN, PNC(C), College of Nursing, University of Saskatchewan (306) 530 – 2368 email: leah.thorp@usask.ca

Supervisor: Dr. Sandra Bassendowski, B.Ed., M.Ed., EdD, RN**,** College of Nursing, University of Saskatchewan (306) 337 – 3810 email: Sandra.bassendowski@usask.ca
Title:

I,_____, have reviewed the complete transcript of my personal interview in this study, and have been provided with the opportunity to add, alter, and delete information from the transcript as appropriate. I acknowledge that the transcript accurately reflects what I said in my personal interview with Leah Thorp. I hereby authorize the release of this transcript to Leah Thorp to be used in the manner described in the Consent Form. I have received a copy of this Data/Transcript Release Form for my own records.

_____   _____ _____

Name of Participant   Date

_____   _____

Signature of Participant   Signature of Graduate Student/ Researcher

Participant Consent Form
Focus Group

Project Title: Caring Values and the Simulation Environment: The Baccalaureate Nursing Students' Experiences

Researcher(s): Graduate Student Leah Thorp BScN, RN, PNC(C), College of Nursing, University of Saskatchewan (306) 530 – 2368 email: leah.thorp@usask.ca

Supervisor: Dr. Sandra Bassendowski, B.Ed., M.Ed., EdD, RN, College of Nursing, University of Saskatchewan (306) 337 – 3810 email: Sandra.bassendowski@usask.ca

Purpose(s) and Objective(s) of the Research:
- This study on *Caring values and the Simulation Environment: The Baccalaureate Nursing Students' Experience* is part of the requirement for the Master of Nursing Program at the University of Saskatchewan.
- The objective of this study is to determine third year nursing students' experience of developing caring values and abilities in the simulation learning environment.
- Another objective is to provide a rich contextual interpretive description of the nursing students' experience of learning caring in simulation environment during the nursing program.
- The study will use Interpretive Description methodology to explore caring in simulation.
- During the focus group the exploration of previous experiences prior to simulation and how the nursing students have learned caring nursing practice thus far will be explored.

Procedures:
- In order to collect this information you are invited to participate in a focus group and you may be included in an in-depth interview.
- Participation in this study involves completing a one hour focus group with a group of third year nursing student peers.
- The second stage is an interview to describe your experience in the simulation learning environment with a focus on all aspects of nursing practice, particularly affective caring values. Overall, the combined portion of your participation will take approximately 90 - 120 minutes.
- Please feel free to ask any questions regarding the procedures and goals of the study or your role.
- Please be advised that although the graduate student will take every precaution to maintain confidentiality of the data, the nature of focus groups prevents the graduate student from guaranteeing confidentiality during this portion of the study.

- Your identity will be known to other focus group participants and the graduate student cannot guarantee that others in these groups will respect the confidentiality of the group. We will ask you to keep all comments made during the focus group confidential and not discuss what happened during the focus group outside the meeting.
- The focus group will be audio-recorded and transcribed by the graduate student. The data will be kept confidential and use of the data will not have identifying information.
- At any time you may request that the tape recorder be switched off and audio recording will stop, please advise the graduate student if this is required.

Potential Risks:
- There are no known or anticipated risks to you by participating in this research**.**
- The other focus group members will know your identify due to the nature of the exploration.
- **Risk(s) will be addressed by**: Some of the questions you are asked may be difficult to answer or cause a strong emotional reaction. You may choose not to answer some questions. You may stop the focus group at any time.
- If you do choose to answer these questions and react to them with strong emotions, we would encourage you to talk with a peer or friend, the University of Saskatchewan student services, or a relevant human resource representative.

Potential Benefits:
- Participation will assist with knowledge regarding the caring value system of a nursing student and caring behaviours currently
- The data collected will provide rich contextual data and knowledge may be developed regarding professional caring throughout the simulation experience
- This information may help educators to identify strategies to possibly change undergraduate nursing education and it will assist to further inform educational systems using simulation as an innovative learning strategy.

Compensation:
- During the focus group you will receive food and refreshments.
- If you complete both the focus group and the interview you will have your name entered into a draw for one of two gift baskets values at $50.00.

Confidentiality:
- All research project results and associated materials (e.g., audio recorded focus group and interview and data in electronic format) will be safeguarded and securely stored on an encrypted flash drive which will be protected with printed material contained in a locked box by Sandra Bassendowski.
- The focus group will be completed with a group of 8 - 10 individuals from your cohort at the University of Saskatchewan.
- The researcher will undertake to safeguard the confidentiality of the discussion, but cannot guarantee that other members of the group will do so. Please respect the confidentiality of the other members of the group by not disclosing the contents of this discussion outside the group, and be aware that others may not respect your confidentiality.
- **Storage of Data:**
    - The data will be transcribed with each participant receiving a study code. When the data is no longer required, it will be appropriately destroyed. Only the investigator

will have access to the study information. No identifying information will be used in any presentations or publications.

o The principal investigator and supervisor, Sandra Bassendowski, will be responsible for the storage of material for a minimum of 5-years post publication.

Right to Withdraw:
- Your participation is voluntary and you can answer only those questions that you are comfortable with. You may withdraw from the research project for any reason, at any time without explanation or penalty or consequences of any sort.
- Should you wish to withdraw, you may leave the focus group meeting at any time. However, data that has already been collected cannot be withdrawn as it forms part of the context for information provided by other participants.
- Whether you choose to participate or not will have no effect on your access to services or class standing or how you will be treated.

Follow up:
- To obtain results from the study, please attend the various events utilized for dissemination of the results, if you wish.
- The graduate student will disseminate and present the results in various capacities. The dissemination of the research results will be completed with interactive small group discussions with nursing students and nurse educators at the institution, through the use of social communication using multimedia, performance feedback in the thesis defense, and small presentations at continuing learning events such as education days at hospitals and at various educational institutions.
- You may access the research findings within publications in peer reviewed journals.
- You can also contact the graduate student to discuss any findings such as the themes and patterns found in the course of the research study.

Questions or Concerns: (see section 12)
- Contact the researcher(s) using the information at the top of page 1; please feel free to contact Leah Thorp at (306) 530-2368 or leah.thorp@usask.ca or Sandra Bassendowski at (306) 337-3810 or sandra.bassendowski@usask.ca .
- This research project has been approved on ethical grounds by the University of Saskatchewan Research Ethics Board. Any questions regarding your rights as a participant may be addressed to that committee through the Research Ethics Office ethics.office@usask.ca (306) 966-2975. Out of town participants may call toll free (888) 966-2975.

SIGNED CONSENT

Your signature below indicates that you have read and understand the description provided; I have had an opportunity to ask questions and my/our questions have been answered. I consent to participate in the research project. A copy of this Consent Form has been given to me for my records.

_____   _____   _____

Name of Participant   *Signature*   *Date*

_____   _____
Graduate Student's / Researcher's Signature   *Date*

A copy of this consent will be left with you, and a copy will be taken by the researcher.

COLLEGE OF NURSING

UNIVERSITY OF SASKATCHEWAN

Participant Consent Form
Interview

Project Title: Caring Values and the Simulation Environment: The Baccalaureate Nursing Students' Experiences

Researcher(s): Graduate Student Leah Thorp BScN, RN, PNC(C), College of Nursing, University of Saskatchewan (306) 530 – 2368 email: leah.thorp@usask.ca

Supervisor: Dr. Sandra Bassendowski, B.Ed., M.Ed., EdD, RN, College of Nursing, University of Saskatchewan (306) 337 – 3810 email: Sandra.bassendowski@usask.ca

Purpose(s) and Objective(s) of the Research:
- This study on *Caring values and the Simulation Environment: The Baccalaureate Nursing Students' Experience* is part of the requirement for the Master of Nursing Program at the University of Saskatchewan.
- The objective of this study is to determine third year nursing students' experience of developing caring values and abilities in the simulation learning environment.
- Another objective is to provide a rich contextual interpretive description of the nursing students' experience of learning caring in simulation environment during the nursing program.
- This study will use Interpretive Description methodology to explore caring in simulation.
- During the semi-structured interview data will be collected related to caring values and abilities developed within the simulation class. These interviews will contribute to the exploration of the research questions.
    - How are professional caring values and abilities developed in the simulation learning environment of the nursing students?
    - How do nursing students perceive caring values and abilities in the simulation learning environment?

Procedures:
- In order to collect this information you are invited to participate in an interview. The second stage, an interview, will be used to describe your experience in the simulation learning environment with a focus on all aspects of nursing practice, particularly affective caring values.
- Overall, the combined portion of your participation will take approximately 90 - 120 minutes.
- Please feel free to ask any questions regarding the procedures and goals of the study or your role.
- The interview will be audio-recorded and transcribed by the graduate student. The data will be kept confidential and use of the data will not have identifying information.
- At any time you may request that the tape recorder be switched off and audio recording will stop, please advise the graduate student if this is required.

- Following the transcription of the interview you will be contacted in order to review the transcribed verbatim from the interview. After review you may sign the Transcript Release Form to ensure acknowledgement that what is recorded is accurate.

Potential Risks:
- There are no known or anticipated risks to you by participating in this research**.**
- **Risk(s) will be addressed by**: Some of the questions you are asked may be difficult to answer or cause a strong emotional reaction. You may choose not to answer some questions. You may stop the interview at any time.
- The use of simulation as a tool for learning provides experiences similar to actual occurrences in the clinical area. As a student you receive a pre-briefing, a scenario where affective, cognitive, and psychomotor skills are completed, and a debriefing following.
- Due to the nature of the simulation experience, you may experience anxiety discussing your experiences, roles, or responsibilities in this learning environment. Even though the scenario will not be discussed in the semi-structured interviews the examples the nursing students provide may cause you discomfort.
- If you do choose to answer these questions and react to them with strong emotions, we would encourage you to talk with a peer or friend, the University of Saskatchewan student services, or a relevant human resource representative.

Potential Benefits:
- Participation will assist with knowledge regarding the caring value system of a nursing student and caring behaviours currently
- The data collected will provide rich contextual data and knowledge may be developed regarding professional caring throughout the simulation experience
- This information may help educators to identify strategies to possibly change undergraduate nursing education and it will assist to further inform educational systems using simulation as an innovative learning strategy.

Compensation:
- Once you have completed both the focus group and the interview you will have your name entered into a draw for one of two gift baskets values at $50.00.
- This draw will occur February 13, 2016.

Confidentiality:
- All research project results and associated materials (e.g., audio recorded focus group and interview and data in electronic format) will be safeguarded and securely stored on an encrypted flash drive which will be protected with printed material contained in a locked box by Sandra Bassendowski.
- The interview will be face-to-face and the information provided will be kept in confidence to ensure that identification is not permitted. The researcher will undertake all precautions to safeguard the confidentiality of the discussion.
- **Storage of Data:**
  - The data will be transcribed with each participant receiving a study code. When the data is no longer required, it will be appropriately destroyed. Only the investigator will have access to the study information. No identifying information will be used in any presentations or publications.
  - The principal investigator and supervisor, Sandra Bassendowski, will be responsible for the storage of material for a minimum of 5-years post publication.

Right to Withdraw:
- Your participation is voluntary and you can answer only those questions that you are comfortable with. You may withdraw from the research project for any reason, at any time without explanation or penalty or consequences of any sort.
- Should you wish to withdraw, you may leave the interview at any time. The data collected during the interview will be destroyed and not included in the research study.
- Whether you choose to participate or not will have no effect on your access to services or class standing or how you will be treated.

Follow up:
- To obtain results from the study, please attend the various events utilized for dissemination of the results, if you wish.
- The graduate student will disseminate and present the results in various capacities. The dissemination of the research results will be completed with interactive small group discussions with nursing students and nurse educators at the institution, through the use of social communication using multimedia, performance feedback in the thesis defense, and small presentations at continuing learning events such as education days at hospitals and at various educational institutions.
- You may access the research findings within publications in peer reviewed journals.
- You can also contact the graduate student to discuss any findings such as the themes and patterns found in the course of the research study.

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Name of Participant	_Signature_	_Date_

_____   _____
Graduate Student's/ Researcher's Signature   _Date_

A copy of this consent will be left with you, and a copy will be taken by the researcher.

Appendix M

Conceptual Diagram of Themes