

EXPLORING THE EXPERIENCE AND UNDERSTANDING OF CLINICAL
JUDGMENT OF IENS TRANSITIONING TO NURSING PRACTICE IN ONTARIO

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ABSTRACT

Clinical judgment is increasingly discussed in the nursing education literature as it is critical to the development of professional knowledge, and it provides a structure for the reasoning necessary for nursing practice today. It is well indicated in the literature that a significant number of novice practitioners in health care do not meet entry-to-practice expectations for clinical judgment and have difficulty transferring knowledge and theory into practice—regardless of educational preparation and credentials. Internationally Educated Nurses (IENs) are also considered novice practitioners in the Ontario health-care environment. The purpose of the study was to explore IENs' experience and understanding of clinical judgment when engaged in a simulated clinical environment. The research question guiding the study was, What is the experience and understanding of clinical judgment of IENs when engaged in High Fidelity Patient Simulation (HFPS) and stimulated recall and reflective practice? The research employs qualitative descriptive, open-ended exploratory and interpretive methods informed by constructivism and transformative learning theories. Qualitative research seeks to understand and explain participant meaning. The participants in this study were four IENs, aged 27–37, who were attending a university academic bridging program. They participated in a) a preliminary interview to collect data regarding their demographics and information associated with their educational, clinical, and professional background; b) three interactive simulated clinical activities comprising of high-fidelity SimMan™ manikins; and c) three stimulated recall sessions followed by three focus groups. The interactive simulated activities were videotaped and stimulated recall and focus groups were audiotaped. Tanner's Model of Clinical Judgment was used to guide this process.

The thematic analysis uncovered six themes pertaining to IEN's experience and understanding of clinical judgment: the shift from expert to novice, the need to rethink cultural competence and culturally competent care, the acknowledgement that culture and diversity are integral to understanding clinical judgment, the role of communication as a means to understanding clinical judgment, the recognition of unlearning as a way to understanding clinical judgment, and the phenomenon of unknowing as a dimension of understanding clinical judgment. The concepts of reflection-beyond-action and intercultural fluency emerged as implications for the teaching and learning of IENs.

DEDICATION

Commitment, effort, and dedication were fundamental elements for the completion of my doctoral dissertation, but even more was the support of my family. To my husband Vadim and the three greatest projects of my life, my daughter Zipora and my two sons Shai-Shawn and Jonathan, I dedicate this important professional achievement to them as without their presence and support I would have not achieved my goal.

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A LIST OF ACRONYMS AND THEIR MEANING

- CASN Canadian Association of Schools of Nursing
- CNA Canadian Nurses Association
- CNO College of Nurses of Ontario
- CRNE Canadian Registered Nurses Examination
- HFPS High Fidelity Patient Simulator
- IEN Internationally Educated Nurse
- IEP Internationally Educated Professional
- RN Registered Nurse
- RNAO Registered Nurses Association of Ontario
- RPN Registered Practical Nurse

Without continual growth and progress, such words as improvement, achievement, and success have no meaning.

~ Benjamin Franklin

CHAPTER ONE: INTRODUCTION

Clinical judgment is a critical component of nursing practice, as it assumes a great importance within a changing and dynamic health-care system. The application of clinical judgment is essential for nurses to provide safe and effective care, as it requires nurses to be able to make accurate decisions about what is happening, what needs to be done, how soon, and why. When a nurse is unable to effectively respond, the patient's problem is unlikely to be safely managed. Various studies have identified that a significant number of novice nurses and new graduates do not meet expectations for entry-level clinical judgment, primarily as a result of consistent limitations related to accurate problem recognition. This finding is consistent amongst nurses who graduated from a range of post-secondary programs, including diploma, associate degree, and baccalaureate (Clarke & Aiken, 2003; del Bueno, 1990, 1994, 2005).

The Carnegie Foundation for Advancement of Teaching National Nursing Education Study states, "From the education side, nurses are currently undereducated for the complex, responsible, risk-laden work that they do" (Benner, Tanner & Chesla, 2009, p. xxiii). A study by del Bueno (2005), which assessed the competency of new RNs using the Performance Based Development System (PBDS), indicated that most new graduates do not meet expectations for entry-level clinical judgment and that "the majority of

students are unable, or have considerable difficulty, translating knowledge and theory into practice” (p. 278). In fact, only 35 per cent of novice nurses, regardless of educational preparation and credentials, met entry-to-practice expectations for clinical judgment (del Bueno, 2005). Del Bueno (2005) describes this situation as “a crisis” in nursing education (p. 278). This circumstance leads one to question why novice practitioners fail to meet entry-to-practice expectations for clinical judgment and how can they be taught to “think like a nurse” (Tanner, 2006, p. 210). Unfortunately, there is no single, straightforward answer, as there are a variety of factors associated with this problem. Factors include changes in health-care practices, health-care cost cuts, an increasing rate of patient acuity, a decrease in available clinical practice placements, and a national decrease in the number of nursing faculty.

Although 90% of nurse educators believe students are prepared to provide safe and effective care, only 10% of hospital and health-care-system nurse executives share this belief (Berkow, Virkstis, Stewart, & Conway, 2009). Many nurse administrators, such as unit managers and supervisors, have indicated that novice nurses have “difficulty critically ‘thinking on their feet’ or managing patient situations, especially those requiring quick accurate decisions and actions” (Burns & Poster, 2008, p. 68). This clearly indicates the need to enhance clinical learning opportunities and understand the experience of clinical competence and clinical judgment by a) incorporating clinical judgment focused activities in the education of nurses and b) preparing them to take on increasingly complex care management.

Clinical judgments are based on sound decision-making skills, which are recognized when the nurse is able to a) identify and analyze patients’ problems and

decide which situations are most urgent on the basis of needs and complexity, b) decide which nursing care procedures are appropriate to delegate to unregulated health-care providers and c) involve patients in making decisions about their care, including which nursing procedures are appropriate for them (Benner et al., 2009; Jeffries, 2012; Tanner, 2006).

Various studies have concluded that decision making is a basic skill that needs to be taught in nursing education programs, but few have examined the kind of decisions being made in the clinical setting or the factors that influence decision-making processes (DiCenso, Cullum, & Cilliska, 1998; Facione & Facione, 1996; Rhodes & Curran, 2005). A study by Baxter and Boblin (2008) identified that understanding how clinical decisions are made is important in developing curricula to enhance students' cognitive abilities and prepare them to make sound, autonomous clinical decisions. These clinical decisions are often associated with a) patient safety and quality of patient care, b) time management and prioritization, c) fluency of assessment and application of clinical skills, d) autonomous practice and the ability to delegate tasks in an effective manner, and e) communication with interdisciplinary and intradisciplinary members.

Internationally Educated Nurses (IENs) are also considered novices, specifically when introduced to the practice and culture of nursing within the Ontario health-care environment. The literature acknowledges that IENs have experienced barriers in meeting entry-to-practice requirements and in obtaining full licensure to practice in Ontario (Coffey, 2006, Jeans, Hadley, Green, & Da Prat, 2005; Tregunno, Peters, Campbell, & Gordon, 2009). This finding emphasizes the significance of investigating IENs'

experience and understanding of clinical judgment, as clinical judgment varies from one culture to another and the language of clinical judgment is culturally determined.

In 2005, the College of Nurses Of Ontario¹ (CNO) decided that, in order to meet entry-to-practice competencies, Registered Nurses (RNs) in Ontario would require a baccalaureate degree. A regulatory amendment was enacted to reflect this change and became effective January 01, 2005. Other nursing regulatory bodies across Canada have also adapted this requirement as part of their professional standards. As a result, IENs who do not meet entry-to-practice competencies must enter bridging programs in order to meet these national standards. The BScN for IENs at York University is one such program; it was designed with the intent of recognizing the knowledge and skills IENs already possess and providing them with the tools to practice in a Canadian context. Although various programs are in place to aid in the bridging process, there are many challenges associated with entry to practice for this particular cohort.

In order to be eligible to write the Canadian registration exam and become registered to work within Ontario, IENs must either have a baccalaureate-equivalent education or enter a bridging program to upgrade to a baccalaureate status. A Canadian Nurses' Association² (CNA) report on the assessment of international nurse applicants

¹ The College of Nurses of Ontario (CNO) is the governing body for registered nurses in the province of Ontario; it ensures that nurses have the knowledge and expertise to regulate themselves as practitioners through the College. The CNO establishes and promotes requirement for entry to practice, administers its quality-assurance program and enforces standards of practice and conduct. *The College of Nurses of Ontario (2011)*. Retrieved from <http://www.cno.org>

² The Canadian Nursing Association (CNA) is a federation of 11 provincial and territorial registered nurses' associations and colleges representing 150,000 Canadian nurses and nurse practitioners. The CNA advocates public policy that incorporates the principles of primary health care and respects the principles and conditions of the Canada Health Act. *The Canadian Nurses Association. (2011)*. Retrieved from <http://www.cna-aicc.ca/en/about-cna>

supports the need to establish nationally standardized bridging programs to ensure that IENs have the competencies to meet Canadian standards of nursing practice (Jeans et al., 2005).

The successful transition of IENs into the Ontario context is an important topic, especially as a public policy concern. The CNO has a mandate to ensure delivery of effective and ethical care and to protect individuals by ensuring a “supply of safe, competent nurses ready to practice upon registration whether they are domestically or internationally educated” (Tregunno et al., 2009, p. 189). Clinical judgment is a requirement in meeting the CNO’s competencies and standards of nursing practice.

Failure to apply clinical judgment associated in a manner that meets Canadian nursing standards may put candidates at a disadvantage when writing the entry-to-practice examination, as the Ontario nursing culture emphasizes the need to exercise clinical judgment and critical thinking. The Canadian Registered Nurses Examination (CRNE), Canada’s national licensing exam, reflects all 98 competencies that must be achieved by novice nurses prior to entering nursing practice. Low pass rates on the CRNE reflect the significant differences in how nursing is practiced in an IENs home country as compared to Canada (CNA, 2011b). Low pass rates on the CRNE may reflect the need to focus on educational and pedagogical possibilities to both enhance and support development of clinical judgment in the education of IENs.

According to Baumann, Blythe, McIntosh, & Rheume (2006), in 2005 the pass rates for IENs were much lower than for candidates educated in Ontario. First-attempt pass rates of IENs were 53% compared to 93% of those educated in Ontario (Baumann et al., 2006). This may be related to the CRNE’s relatively high number of questions

regarding ethical and psychosocial matters, as perspectives on ethical principles and values (such as informed consent and confidentiality) vary from one culture to another. This also suggests that clinical judgment is based on one's values and beliefs and may differ from one culture to another. Further, language of clinical judgment and the understanding of its meaning—may also differ amongst practitioners. Differences in pass rates further illustrate the need to investigate IENs' experience and understanding of clinical judgment associated with their transition to practice within the Ontario context.

Understanding IENs' experience of clinical judgment will contribute to enhancing or even changing pedagogical delivery; thus, it has implications for education. In addition, this research will contribute to a growing body of research within the public policy sector, specifically associated with nursing regulation and licensing bodies, particularly the CNO.

My research is predicated on the position that the transition of newly arrived international nurses is an issue both from an education and a regulatory position. To support IENs' ability to meet current CNO competencies, we should consider additional pedagogical modes of education, and continue and expand bridging programs in Canada. Although there are such programs in place, IENs continue to struggle in the area of clinical judgment. According to Jeans et al. (2005), two thirds of IENs fail to become licensed to practice in Canada; those who do obtain registration experience integration difficulties in the workplace, mainly due to cultural barriers. A study conducted by Bohnen and Balantac (1994) identified that IENs transitioning to practice in their adoptive country demonstrated deficiencies in various areas, including clinical performance and decision making, culturally competent care, and the use of technology and other sophisticated equipment.

Rationale for Study

According to a report by the Canadian Federation of Nurses Union (CFNU), as of 2011, there were 270,724 registered nurses working in Canada (CFNU, 2013). Although nurses make up almost one third of the Canadian health-care workforce, there is a significant shortage of nurses across Canada (CNFU, 2007, 2013). According to a Canadian Institute for Health Information (CIHI) report, *Regulated Nurses: Canadian Trends 2007 to 2011*, there are fewer RNs per capita today than there were in the early 1990s (CIHI, 2013). The Canadian Federation of Nurses Unions (CNFU) further notes that the number of RN program graduates has decreased in the past two decades (CNFU, 2013). Canada graduated more RNs in 1972 than in 2002, yet the Canadian population increased by some 50% during that time (CNA, 2006). Although measures to improve the situation have been put in place, the Canadian RN workforce remains “well below the number required to sustain the profession” (CNFU, 2013, p. 2).

The Canadian Nurses Association predicts a shortfall of 60,000 full-time equivalent nurses by 2022 (CNA, 2011c; Tomblin Murphy et al., 2009). Moreover, the nursing workforce is aging (Ryten, 1997). In 2011, the average age of an RN was 46, while 28.4% of RNs were over the age of 55 and 13.4% were over the age of 60 (CIHI, 2013). The decreasing numbers of RNs is not only a concern within the Canadian context but also across North America.³

This emphasizes the need for nurses educated abroad. IENs are registered nurses who have obtained a basic nursing education in a country other than the one in which they practice (Lum, 2009). IENs will be increasingly significant contributors to the

³ According to the U.S Bureau of Labour Statistics, by 2012 there will be a need for one million nurses; this shortage is expected to grow by 29% by 2020 (Orsolini-Hain & Malone, 2007).

nursing workforce both in the province of Ontario and in Canada; this raises concern within the context of public policy and management, as several studies have identified barriers and challenges experienced by IENs when transitioning to the Ontario workforce (Chege & Garon, 2010; McGuire & Murphy, 2005; Tregunno et al., 2009).

While IENs make up a relatively small proportion of the nursing workforce on a national scale more than 50% of IENs are employed in Ontario and British Columbia (Horne, 2011). In Ontario 10% of the nursing workforce is comprised of IENs, of which 33% work in Toronto and represent 25% of the nursing workforce (Horne, 2011).

Further, almost a third of IENs currently working in Ontario are caring for patients at the bedside (Horne, 2011), which implies a need to determine best practices associated with teaching, especially in the area of clinical judgment. These statistics also indicate that “the effective utilization of IENs is of specific concern to health care providers” (Horne, 2011, p. 40). This raises concerns related both to the integration of IENs into practice within the Ontario context and to the need to recognize barriers and challenges influencing their transition.

In 2005, 34.1% of new RNs in Ontario were IENs (McIntosh, Torgerson, & Klassen, 2007).⁴ Integrating IENs into the Canadian health-care system translates to more RNs at the bedside caring for patients and ensuring patient outcomes. As IENs are nurses educated abroad, their level and application of clinical judgment differs from nurses who have been primarily educated within Canada, specifically Ontario. This impacts the level of health-care delivery and patient safety. For example, Orsolini-Hain and Malone (2007) documented the need for more nurses to care for older and sicker patients with diverse

⁴ The majority of IENs who apply to practice in Canada and, predominantly, in Ontario are from the United States of America, China, United Kingdom, Philippines, and India (Canadian Institute for Health Information, 2007, 2011).

chronic conditions, who are being discharged sooner than ever before and who require the use of increasingly sophisticated technology. Such circumstances imply the need for more IENs at the bedside and speak to the need to determine best practices in the teaching and learning of IENs, especially in the area of clinical judgment and development of clinical expertise.

Another specific concern for the health-care environment within Ontario is a critical reduction in overall levels of nursing clinical expertise and experience. Orsolini-Hain and Malone (2007) introduce the term *expertise gap*: They claim that this is a widening trend across the nursing profession, and that it has both moral and economic implications. The expertise gap creates a problem due to multiple factors which include a) a shortage of clinical nurses due to increasing retirement rates, b) an increasing ratio of novice nurses in comparison to experienced nursing staff, and c) a decreasing number of nursing educators. The assumption is that the expertise gap will lead to fewer mentors for novice nurses, and that these less-experienced nurses will be expected to care for patients with increasingly complex issues. Failure to address the expertise gap may lead to increased rates of medical errors and related health outcomes. From this position, it is critical to explore the experience and understanding of clinical judgment of IENs, as clinical judgment is not universal.

According to Orsolini-Hain and Malone (2007), novice health-care practitioners refer to concepts such as clinical judgment and critical thinking as “linear processes”; in doing so, the novices show “little awareness of context and salience” (p. 162). This emphasizes the grave impact that lack of clinical judgment has on practice and highlights the need to give immediate attention to this issue.

Purpose of Study and Research Question

While there is a robust body of research regarding clinical judgment, most of it describes the thinking of expert nurses (Benner et al., 2009; Benner, Sutphen, & Leonard, 2010; Myrick, 2005; Tanner, 2005, 2006). IENs, however, are considered novices, specifically when introduced to the practice and culture of nursing within the Ontario's health-care environment. The purpose of this study is to investigate how IENs who are enrolled in a bridging program experience and understand clinical judgment when engaged in simulation-based environments.

Clinical judgment is essential for nursing practice, as performance is based on judgment. Although clinical judgment is a requisite skill for every nurse, teaching it has been a challenge. Moreover, although there are teaching methods to promote the application of clinical judgment within undergraduate nursing education, conflicting results have limited the application of these methods in the educational front (Walsh & Seldomridge, 2006). According to Walsh and Seldomridge (2006), although a variety of methods—including case studies, vignettes, and concept maps—have been used to improve critical thinking and decision-making skills among undergraduate nursing students, a “lack of standardized depended measures and failure to clearly identify which critical thinking skills would be improved as a result of these interventions was a limitation to the comparison of findings and ability to draw any reasonable conclusions” (Walsh & Seldomridge, 2006, p. 214). The literature tracking the development of critical thinking and clinical judgment among nursing students is for the most part “mixed and of unclear direction” (Walsh & Seldomridge, 2006, p. 214). Research studies that measured critical thinking using standardized instruments and evaluated the effectiveness of various

interventions to enhance clinical judgment have yielded results that “do not inform pedagogical practice” (Walsh & Seldomridge, 2006, p. 214).

Therefore, it is imperative to identify the experience and understanding of clinical judgment in order to apply appropriate pedagogical approaches both in the classroom and the clinical area. Given that health care is an ever-evolving field and that nursing content is continually changing, it is impossible to teach nurses or nursing students “everything”; this highlights the importance to explore novice practitioners’ experience and understanding of clinical judgment. Exploring how clinical judgment is understood and experienced will provide an opportunity to better recognize the issues or challenges related to its application within practice.

Although IENs are introduced to fundamental courses in their respective programs, there is a need to identify the way they understand and experience clinical judgment and to explore how they use their clinical judgment to make safe and effective decisions when caring for a patient. Identifying these issues will provide further insight into educational implications that focus on meaningful ways to teach and learn the application of clinical judgment and will, thus, be important for a) teaching and developing curriculum and b) developing public policy recommendations related to the transition to nursing practice in Ontario, particularly within bridging programs.

The purpose of this study is to investigate IENs’ experience and understanding of clinical judgment, within the context of simulated clinical settings that employ High Fidelity Patient Simulation (HFPS) and stimulated recall. The research employs qualitative descriptive, open-ended exploratory and interpretive methods informed by constructivism and transformative learning theories; qualitative research seeks to

understand and explain participant meaning (Morrow & Smith, 2000). My role as a researcher is to build a complex and holistic picture by reporting detailed views, experiences, and understandings of participants. The process of qualitative research includes a) exploring context as an essential component of the research, b) addressing the researcher's process of self-awareness and self-reflection, and c) capturing the meanings participants made of their experiences.

Tanner's Clinical Judgment Model (2006), which is committed to adult learning principles, is used as the conceptual framework in this study to further explore the understanding and experience of clinical judgment among IENs when they are engaged in high-fidelity simulation. Tanner's Clinical Judgment Model involves four stages: noticing, interpreting, responding, and reflecting. These stages describe, "the major components of clinical judgment in complex patient-care situations that involve changes in status and uncertainty about the appropriate course of action" (Lasater, 2007, p. 497).

This study is guided by the following central research question:

- What is the understanding and experience of clinical judgment of IENs when they are employed in high-fidelity simulation and engaged in reflection and stimulated recall?

Finding and understanding the answers to this question are fundamental to both the successful education of IENs and the nursing profession. These answers may offer insights into the best pedagogical approach to use when teaching IENs. Further, they may indicate how educators should respond pedagogically to support IENs' clinical judgment and their decision-making abilities.

The findings from this study will provide pedagogical implications which can a) lead to program development, including an array of teaching and learning strategies that can be arranged to maximize clinical judgment among IENs; b) support bridging programs for IENs that enhance the quality of their programs and better reflect application of clinical judgment in the Ontario context; and c) provide grounds to further address public policy initiatives associated with practice competencies. The implications of the findings for pedagogy, policy, theory, and research will be discussed in the Chapter 6.

Summary

This chapter identifies the need to examine the experience of clinical judgment among IENs and suggests the value of exploring how IENs both understand and experience clinical judgment. This type of research will contribute to the limited existing knowledge about the way IENs learn and interpret clinical judgment.

This study will be conducted within a qualitative descriptive, exploratory and interpretive methodological framework. The findings from the study may contribute to a) the way education of IENs is delivered and b) to changes within the public policy sector involved with regulating nursing practice, particularly those involved with the transition of IENs to practice in Ontario.

CHAPTER TWO: BACKGROUND AND CONTEXT

Nurses today are exposed to rapidly changing health-care environments, with complex health-care issues requiring the delivery of high-quality care. This has increased the need for nurses to be prepared to make sound clinical judgments that lead to positive patient outcomes. Making accurate clinical decisions and sound clinical judgments is an essential part of clinical nursing practice. Moreover, a key aspect of clinical judgment is the ability to make decisions and choose the appropriate actions for a particular client care situation; this ability is directly related to professional learning and development of competence. This chapter provides background and context: It will provide an overview of professional learning and the development of competence, with an emphasis on Benner's novice to expert model within the context of nursing education.

Professional Learning and Development of Competence

The notion of professional learning is an essential element for professional practice and the development of competence. Nursing education is considered to be one stream of professional practice, which requires the development and application of professional knowledge, particularly clinical judgment. Eraut (1992) refers to professional knowledge as knowledge embedded in application and practice, which involves propositional and personal knowledge processes.

Eraut's definition of professional knowledge is aligned with professional nursing practice, as, in nursing, application of knowledge is not always straightforward. This leads one to question whether nursing education is a largely cognitive process, transmittable through lectures and supervised practice, or whether is it more than that?

Patient care requires nurses to make clinical decisions and respond to health-care demands on an ongoing basis. Patient care is often complex, and the fact that patients have many social determinants that must be taken into consideration when providing nursing care adds to this complexity.

Benner et al. (2009) define nursing as a practice that is too complex to be reduced to an applied field. Nursing practice, like medicine, is complex, varied, and underdetermined, meaning that the clinician must attend to changing relevance as well as changes in the patient's responses and nature of his clinical condition over time. A turn of events can radically alter the nature of a patient's situation. Good practice requires that the nurse develops skillful ethical comportment as a practitioner and that she uses good clinical judgment informed by scientific evidence and technological development. (p. xiv)

Nursing students do not always have a clear picture of the patients' needs and generally need to explore different perspectives and interpretations in order to find a way to benefit the patient (Jeffries, 2012; Lasater, 2011; Sherwood & Horton-Deutsch, 2012; Tanner, 2004, 2006). An important element of professional knowledge and the development of competence in nursing education is the ability to apply clinical knowledge or clinical judgment to make appropriate decisions through noticing, interpreting, responding, and reflecting (Tanner, 2006). Reflection-on-action and reflection-in-action provide the opportunity to apply knowledge and the ability to link theory to practice (Jeffries, 2012). The combination of reflection-on-action and reflection-in-action are significant factors of clinical judgment as they provide opportunities for clinical learning to occur. Through this lens, reflection becomes an

integrated part of clinical judgment; reflective thinking is an ongoing process that allows the practitioner to analyze and evaluate actions in relation to patient care (Jeffries, 2012; Sherwood & Horton-Deutsch, 2012; Tanner, 2006). This form of analysis and evaluation of one's performance is imperative for the development of both professional knowledge and professional competence.

Gaining professional knowledge can be aligned with the experiential learning philosophy and constructivist epistemology, which acknowledge that clinical judgment is a process of building on previous knowledge or learning. From this perspective, learning comprises "multiple, socially constructed truths, perspectives, and realities" (Hunter & Krantz, 2010, p. 207). Learners bring with them different experiences, backgrounds, and perceptions that build on existing knowledge.

Central to the theory of constructivism is the belief that learners play an active role in making meaning of their learning experiences and that knowledge is not fixed nor does exist independently, "learning is a process of accommodation or adaptation based on new experiences or ideas" (Le Cornu & Peters, 2005, p. 50). In comparison to behaviourism, constructivism is an approach that is based on the notion that "knowledge transmission is not inertly passed from teacher to learner but rather, created by individual learners, or in some cases groups of learners" (Parker & Myrick, 2009, p. 326). From this perspective, teaching and learning is based on the idea that individuals create knowledge by their interactions with their environment, which include social interactions and educational, cultural, financial, and political experiences.

Moreover, the application of personal experiences allows the learner to make interconnections and further understand interrelationships between the individual parts.

Without the ability to understand these interactions and relationships, it is difficult to apply the learning in a unique context. Learning, from a constructivist approach, involves a process of making links and connections, rather than working through someone else's way of developing thought (Cranton & King, 2003; Docherty, Hoy, Topp, & Trinder, 2005). Learning in this way provides one with the ability to make subjective links and connections as a means to develop thoughts and understandings.

Clinical judgment can be identified as a form of constructivist learning that involves the understanding and transfer of knowledge in a given situation. This form of understanding occurs when students are able to identify and interpret salient information regarding a clinical situation in a way that is meaningful to them. The teacher's role is to provide an environment that generates opportunities to engage in higher-order thinking, thus, facilitating learners' production of their own knowledge.

The theory of transformative learning developed by Mezirow (2000) during the past two decades has evolved "into a comprehensive and complex description of how learners construe, validate, and reformulate the meaning of their experience" (Cranton, 2006, p. 22). There are three common themes in Mezirow's theory related to the context of meaningful learning: "centrality of experience, critical reflection, and rational discourse" (Taylor 1998, p. 8). "It is transformative theory which explains this learning process of constructing and appropriating new and revised interpretation of the meaning of an experience on the world" (Taylor, 1998, p. 5). This theory aligns with the constructivist framework, in that both share the central premise that learners construct knowledge through reflection and derive meaning through their interactions with the world (Fenwick, 2000).

According to Eraut (1992) reflection is part of experiential learning:

Situations where experience is initially apprehended at the level of impressions, thus requiring a further period of reflective thinking before it is either assimilated into existing schemes of experience or induces those schemes to change in order to accommodate it. (p. 100)

Moreover, the ability to reflect enhances “creative professional practice and academically rigorous learning” (Lester, 1995, p. 45). This furthers the notion that practitioners need to be able to develop and reform knowledge and skills and continually evolve their practice. This evolution of practice needs to be embedded in IEN education to enable IENs to build on previous knowledge within a new context.

According to Eraut (1985), “the process of becoming a professional involves learning to handle cases quickly and efficiently and this may be accomplished by reducing the range of possible ways of thinking about them to manageable proportions” (p. 120). This requires professional competence, which encompasses more than the ability to demonstrate isolated skills or competencies, apply empirical or factual knowledge or solve problems with clear-cut information (Epstein & Hundert, 2002; Eraut, 1992, 1994). Epstein and Hundert (2002) define professional competence as the “habitual and judicious use of common knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual being served” (p. 226).

The term *value* is critical here as values vary from culture to culture and learning is culturally situated and individually constructed. One’s actions and experiences are deeply influenced and informed by one’s values, which further influence professional

judgment and meaning making. The effectiveness of most professionals is largely dependent on the knowledge and know-how they bring to each individual case or situation. Benner (1984) indicates that there are two types of knowledge, *knowing that* and *knowing how*. Knowing that is knowledge based on theory and empirical investigation necessary for knowledge development of the discipline and knowing how is an extension of practical knowledge. Moreover, *knowing why* emerges as an extension of both knowing that and knowing how. From this position, the acquisition of professional knowledge reflects the adult education research, which emphasizes that adult learners use prior knowledge and past learning experiences, expectations and attitudes to the forthcoming learning event (Knowles, 1984; Stuart & Holmes, 1982).

Benner et al. (2010) identify a need for a radical transformation of nursing education, in order to prepare nursing students and endow them with the knowledge, skills, ethical standards, and judgment to “think like a nurse” (Tanner, 2006, p. 210). Further, they advocate for approaches that are “strong in situated coaching and experiential learning,” as the traditional nursing education paradigm has remained unchanged for the past four decades (Sherwood & Horton-Deutsch, 2012, p. 5). Moreover, experiential learning⁵ is of great importance within the context of adult education, as it emphasizes the principles of professional knowledge (Kolb, 1984).

According to a study by Lum (2009) Internationally Educated Professionals (IEPs) enrolled in nursing, pharmacy, teaching, and related programs prefer an experiential learning approach in bridging education. Furthermore, Lum (2009) argues

⁵ Kolb (1984) notes that “knowledge results from the combination of grasping and transforming experience” (p. 41), and that experiential learning can be conceptualized as “the process by which knowledge is created through transformation of experience” (p. 41). Nursing education is rooted in experiential learning theory, which extends the idea that when a learner is engaged in doing, learning occurs.

that experiential and reflective approaches are the most effective learning strategies for IEPs attempting to make cultural adaptations to Canadian educational programs and professional standards. Given that the majority of professional knowledge comes from experience from previous cases, its “use may involve a process of generalization” (Eraut, 1985, p. 121). For example, a procedure or situation that one was exposed to in a previous situation may “be considered applicable in a new one” (Eraut, 1985, p. 121).

For IENs who come from different clinical backgrounds, where expectations of professional learning or training may be different, a previous situation or experience may not be applicable in a new context. In this case, nursing or nursing care provided also becomes different. Consider, for example, that in some countries nurses are not taught to use a stethoscope and may not have the knowledge to adequately assess a patient. If one lacks the basic skills of assessment, it becomes a problem not only in matters of intervention and evaluation of care but also in the application of leadership and advocacy associated with patient-care outcome.

Not having the experience to practice in this way becomes an issue for many IENs: Learning to think like this may be difficult for these nurses, as adult learners have already developed a learning style. While some IENs have a self-directed learning style, others rely heavily on the educator’s guidance. This emphasizes the IENs’ varied range of experiences, both academic and clinical. It also underscores the need to understand their experience in applying clinical judgment, as IENs are not a homogeneous group and clinical judgment is not universal.

Although the majority of IENs may be experts in their own countries, many of them are practicing at the novice level in Ontario, thus exemplifying that the perception

of expertise is dependent on context. One who may be considered an expert in one context may be perceived a novice in a different context. Tregunno et al. (2009) note that “IENs may take a U turn from a clinical expert to cultural novice when they enter practice in their adoptive country” (p. 188), as the notions of interdependence, assertiveness, and collaboration and the opportunity to apply critical thinking are areas that are discouraged in many foreign countries. For example, obtaining informed consent for treatment and advocating for the patient are new practices for many IENs. This suggests that many IENs may lack knowledge related to culturally competent care for specific patient populations.

It is important to realize that there is a great responsibility to ensure that IENs successfully integrate into their adoptive community. Studies have observed that IENs from a variety of cultures had received limited exposure to autonomous practice or to a culture of assertiveness before entering their adoptive countries, as these were not generally practiced in their native countries (Blythe, Baumann, Rheume, & McIntosh, 2009; Bohnen & Balantac, 1994). As a result, these IENs had been afforded fewer opportunities to make critical decisions, which suppressed their clinical judgment. It is essential, then, that we expose IENs to a different culture of nursing practice—one that provides opportunities for developing clinical judgment.

Novice to Expert

Although clinical judgment is a skill every nurse requires, teaching and assessing it have presented challenges within nursing education (Lasater, 2011). Professional programs need to apply more types of pedagogical practices that reflect teaching and learning for salience, with a primary emphasis on clinical reasoning and clinical

judgment (Benner et al., 2009). Clinical reasoning can be defined as a form of practical reasoning that requires understanding of the nature of a situation across time (Bourdieu, 1990). Benner et al. (2009) imply that “practitioners, through experience within a socially based practice, build narratives and memories of salient clinical situations as they move from novice to skillful practitioner” (p. xxi). Seen through this lens, the use of experiential learning methods is imperative to the notion of salience and may facilitate clinical judgment.

Teaching how to assess salience is a necessary component in the education of nurses, as nurses work in complex, relatively unstructured clinical situations. These situations require that nurses have the ability to recognize and evaluate what is most and least important—in other words what is most salient. This emphasizes the need for integration of knowledge into practice, as opposed to “teaching about” a practice or discipline. The integration of knowledge requires an application of concepts that will provide a novice nurse with the tools to be able to think and act in under-determined, often ambiguous situations (Benner, Tanner, & Chesla 2009).

Additionally, teaching and learning for salience allows one to make connections between acquiring and using knowledge and identifying what’s most significant. Salience is essential in understanding that situational context is at the heart of practical reasoning, which encompasses clinical reasoning or clinical judgment. Seen through this lens, salience is situated in the logic of practice or “thinking in action” (Schön, 1983, cited in Loughran, 2002, p. 6) and is, thus, an important factor in developing expertise. Benner, Tanner, & Chesla (2009) suggest that the development of nursing skills through

situational experience and the application of clinical judgment are dependent on the nurse's level of experience and are a prerequisite for expertise.

Benner's (1984) Novice to Expert Model of Skill Acquisition, which presents various levels of expertise within nursing practice, was adapted from the Dreyfus Model of Knowledge Acquisition. Benner's model asserts that individuals move through stages to develop expertise, and defines experts as those who can automatically respond to a clinical situation. It further observes that experts utilize intuition, as opposed to novice nurses who move through a step-by-step process to make a clinical decision.

Both the Dreyfus Model of Knowledge Acquisition (Dreyfus & Dreyfus, 1986) and Benner's Novice to Expert Model of Skill Acquisition (1984) identify five levels of proficiency—novice, advanced beginner, competent, proficient, and expert—through which one must progress to develop expertise. Benner (1984) identifies how and why nurses' attitudes, capabilities, abilities, and perspectives change and describes each stage and its characteristics.

Benner's (1984) novice to expert scale rates practitioners in terms of how they go about solving a problem. The main criteria for rating practitioners are knowledge, standard of work, autonomy, coping with complexity, and perception of context. The more criteria one meets, the closer one becomes to being an expert (Benner, 1984; Benner, Sutphen, & Leonard, 2010; Benner, Tanner, & Chesla, 2009).

Novice: The novice practitioner is described as one who adheres to taught rules or plans, has little situational perception and no discretionary judgment. The knowledge base of the novice is minimal and mainly based on "textbook" knowledge.

Advanced beginner: The advanced beginner treats all aspects and attributes of a situation separately, gives them equal importance, and takes action in a series of steps.

Competent: The competent practitioner has relevant knowledge of the area of practice and is able to see actions in terms of long-term goals and perform routine procedures.

Proficient: The proficient practitioner is able to see situations holistically rather than in terms of individual aspects, is able to identify what is most important in a situation. The proficient practitioner has an in-depth understanding of the discipline and area of practice and is confident and efficient in making decisions.

Expert: The expert practitioner no longer relies on rules and guidelines, and uses analytic approaches only when problems occur. The expert practitioner has a deep understanding of the area of practice, as well as the ability to apply authoritative knowledge of the discipline and to see the overall “picture” and alternative options and approaches to a given situation.

Each of the stages represented in Benner’s model builds on the previous one: Abstract principles are refined and expanded by experience as the learner gains clinical expertise. This theory has changed the nursing profession's understanding of what it means to be an expert by placing this designation on the nurse who provides the most efficient nursing care (Benner, 1984). As the nurse moves towards the expert level, she or he relies on fewer rules; practice improves not only by experience but also by a deeper understanding of appropriate nurse theory.

From this view, the development of expertise stems from experiential learning and, thus, the significance of being exposed to experiential teaching methods (such as the

use of simulation) becomes apparent. Both Dreyfus's and Benner's models reinforce the idea that the development of expertise is tied to experience. This connection underscores the need to explore IENs' understanding and experience of clinical judgment.

Although Benner's (1984) theory of novice to expert skill acquisition provides a basis for understanding how novice nurses or nursing students develop clinical judgment skills for nursing practice, her theory does not suggest how nurses attain expertise in dealing with situation-specific decisions. Furthermore, it is significant to consider that the notion of expertise is situation specific and that not all nurses are experts in every situation (Brykczynski, 2010). My research study may shed light on how IENs reach expertise, as the experience of being engaged in HFPS and providing care to a particular patient requires making situation-specific decisions. HFPS is one method that is considered to be both a valid tool and a method of teaching for skill acquisition (Dearman, Lazenby, Faulk, & Coker, 2001; Miller, 1992; Rhodes & Curran, 2005). The application of HFPS within the context of this study will be further discussed in Chapter 4.

The Use and Application of Simulated Clinical Environments Within the Context of Nursing Education

HFPS has been introduced to health-care education, nationally and internationally, as simulation-based learning offers an alternative way to develop health-care professionals' knowledge, skills, and attitudes, whilst protecting patients from unnecessary risks. Furthermore, simulation-based education can be used as a learning tool to aid students in mitigating ethical tensions and resolving practical dilemmas within health-care settings. Hodge, Martin, Tavernier, Perea-Ryan, and Alcalá-Van Houten

(2008) note that simulation “refers to any number of strategies used to replicate the essential aspects of a clinical situation for the purpose of facilitating learning” (p. 210). Simulation methods being used within the education of health-care professionals vary widely, ranging from very low-fidelity simulations—including static manikins, role playing, and task trainers such as injection pads, which help with a student’s first injection—to high-fidelity patient simulation, which uses realistic human anatomy and clinical functionality and provides cues to allow for full immersion and response to treatment interventions (Hodge et al., 2008; Nehring & Lashley, 2009; Yaeger et al., 2004). The level of fidelity refers to the degree that an object mimics reality or the degree of lifelikeness a situation portrays (Havighurst, Fields, & Fields, 2003; Nehring & Lashley, 2009). HFPS offers the highest genre of simulated learning interventions. Computer-controlled simulation technology enables nursing students and health-care providers to learn, practice, and repeat procedures as often as necessary in order to fine-tune their skills and optimize clinical outcomes without compromising patient safety.

Although HFPS utilization is one of the leading instructional tools used within the nursing education curriculum, little research has been conducted in regard to developing a guiding teaching-learning philosophy (Day-Black & Watties-Daniels, 2006; Parker & Myrick, 2009). The application of teaching-learning theories, particularly constructivist-based simulation, is deemed valuable in developing clinical judgment skills, problem solving, collaboration, and overall group process (Parker & Myrick, 2009).

In the context of this study, HFPS was used as a tool to better understand the IENs’ experience of clinical judgment—in particular how they experience clinical judgment in a practice setting—in order to discern pedagogical implications that will aid

in their transition to nursing practice in the Ontario context.

History of Simulated Clinical Environments Within the Context of Nursing Education

A review of the history of HFPS reveals that it has been used as a teaching tool in a variety of professional fields from aviation, to medicine, to the military. Simulation originated within the field of aviation, as the first simulator was an aircraft developed in 1929 by Edwin Link (Smith, 2006). Initially, the purpose of simulation models was to measure and improve training pilots' level of competency under different flying conditions; these have evolved into the complex flight simulators used in today's aviation and space education (Nehring & Lashley, 2009).

The history of using simulation within the health-care arena has been documented by several authors (Ashcraft, Opton, Bridges, Caballero, Veasart, & Weaver, 2013; Cooper & Taqueti, 2004; Gaba & De Andra, 1988; Nehring & Lashley, 2009; Ward-Smith, 2008). In the health-care arena, the use of simulation models dates back over 2000 years, when animals were used as simulation models. Manikins were introduced in the field of obstetrics in the early 16th century (Ziv, Wolpe, Small, & Glick, 2003). "Mrs. Chase,"⁶ introduced in 1911, was the first life-sized manikin used for purpose of teaching

⁶ Martha Chase, a doll maker, inspired the development of Mrs. Chase, which was the first life-sized manikin used for the purpose of teaching. A. Sutherland, a superintendent of nurses and the principal of the Hartford (CT) Hospital Training School for Nurses (1905–1918), asked Mrs. Chase to make an adult-sized manikin incorporating the characteristics of realism and durability similar to play dolls, as she was dissatisfied with the quality of the straw-filled dolls then available for teaching purposes and wanted a realistic manikin that could be used for student nurses could practice basic nursing skills on. Mrs. Chase, with the assistance of her physician husband, made a pattern for the doll, based on Mrs. Chase's personal body height and proportions, that incorporated stitched jointed hips, knees, elbows, and shoulders. The prototype manikin was then tested at Pawtucket's Memorial Hospital and modified based on feedback from the hospital staff. The new and improved Mrs. Chase manikin was released in 1914 and was the first model to feature an arm injection site and an internal reservoir that permitted urethral, vaginal, and rectal treatments (Herrmann, K, 2008).

medical procedures and basic nursing skills (i.e., catheter insertion and intravenous medication administration). In 1960, Laerdal built Resusci Anne, a manikin used to teach resuscitation skills and practice chest compressions.

The first computer-based manikin patient simulator, SimOne™, was developed in 1967 (Hoffman & Abrahamson 1975, cited in Alinier, Hunt, Gordon, & Harwood, 2006). SimOne™ set the stage for the modern patient simulators in use today. In 1996, Medical Education Technologies, Inc. (METI) introduced the human patient simulator (HPS), followed by PediaSim™ (a pediatric patient simulator) in 1999, and BabySim™ in 2005. These manikins are the highest performing simulators on the market today (Lane, Slavin, & Ziv, 2001). In 2000, SimMan™, the high-fidelity patient simulator was introduced.⁷ Many educational institutions use SimMan™ to prepare health-care practitioners for clinical practice. The Nursing Resource Centre at York University owns four SimMan™ simulators, of which one was used within the context of this study.

Benefits of Simulated Clinical Environments Within the Context of Nursing

Education

Many studies (Horan, 2009; Jeffries, 2012; Nehring & Lashley, 2009; Turner, 2005) have confirmed that the use of simulation is beneficial and complements one's clinical experiences in relation to the development of clinical competence and the acquisition of clinical assessment, management, communication, and leadership skills. There are many types of simulated clinical settings, varying from non-technological to highly technological. It is important for educators to properly assess students' needs and select the appropriate simulation supports when creating scenarios that offer realistic

⁷ The SimMan™ operates on instructor controls combined with script-based control logic and provides adequate fidelity to support medical emergency situations, as it can breathe, talk, generate heart, breath, and bowel sounds, provide blood pressure monitoring, and maintain an intravenous drip.

environments to best meet the learning needs of students. Moreover, simulation is a form of experiential learning, as it accommodates diverse learning styles and allows students with varying backgrounds to benefit from the experience (Cioffi, 2001; Jeffries, 2012).

According to the literature, the use of simulated clinical settings, particularly HFPS, within nursing education is a highly beneficial means of augmenting learning; these settings provide opportunities to teach patient safety and allow students to apply and practice clinical skills (Parr & Sweeney, 2006). The use of simulated clinical settings as a teaching tool allows educators to both assess and support the application of clinical judgment in a non-threatening environment. A review of both nursing and medical education literature further reveals the efficacy of clinical simulations as a teaching tool. Tan, Ti, Suresh, Ho & Lee's (2002) study—in which first-year medical students were introduced to HFPS in order to learn about cardiovascular physiology through a variety of scenarios (e.g., hypovolemia, cardiac failure, and associated physiological changes)—concludes that more topics should be taught through simulation.

Moreover, Steadman et al. (2006) provide evidence that simulation-based learning is superior to problem-based learning for the acquisition of critical assessment and management skills for fourth-year medical students. Furthermore, studies show that the application of simulation as a teaching tool enhances confidence and self-efficacy levels of nursing students, when providing care for patients and their families (Howard, Englert, Kameg, & Perozzi, 2011; Lapkin, Levett-Jones, Bellchambers, & Fernandez, 2010; Sinclair & Ferguson, 2009; Smith & Roehrs, 2009). Reilly and Spratt's (2007) study regarding second-year undergraduate student nurses perceptions of HFPS, indicates that simulation is a positive innovation that provides active learning and increases the

potential for developing clinical competence and confidence prior to students' initial clinical practice.

Simulation-based education has also been found to enhance a variety of clinical skills, including communication and leadership skills (Morgan, Cleave-Hogg, Desousa, & Lam-McCulloch, 2006). Various studies indicate that simulation offers an opportunity to more effectively practice and evaluate team leadership, allowing the team to interact independently (Hohenhaus, Powell, & Hohenhaus, 2006; Leonard, Graham, & Bonacum, 2004; Morgan et al., 2006). Given that communication failures are the leading cause of inadvertent patient harm, it's not surprising that effective communication and interprofessional collaboration feature prominently in the core expectations of nursing regulatory bodies, including the CNO and CNA (CNA, 2011a; CNO, 2014). Simulated clinical settings and simulated scenarios, then, are significant tools for teaching for these expectations, as they provide a range of clinical practice opportunities to reinforce these skills.

Although clinical simulated settings are beneficial within the context of classroom teaching, when exploring the transferability of clinical skills and clinical judgment from the simulated to the clinical practice setting, the findings are mixed (Gilbart, Hutchison, Cusimano, & Regehr, 2000; Haskvitz & Koop, 2004). While Abdo and Ravert (2006) found that all students in their study believed that the simulation experience would be beneficial to them during clinical practice, a study by Feingold, Calaluce, and Kallen (2004) indicated that only half of the students exposed to clinical simulation settings stated that knowledge gained from the experience would transfer over to the clinical setting. Although Feingold et al.'s study indicated that knowledge was gained, it did not

clearly define or identify what this knowledge was or whether this knowledge was, in fact, clinical judgment. This highlights the need for further evidence-based research that explores IENs' experience of clinical judgment, as such research has the potential not only to identify how IENs learn, but also to provide a clear understanding of what they learn.

The literature has identified a need for additional research studies that investigate how the use of simulated clinical settings aids in developing clinical judgment and reasoning in undergraduate nursing students (Jeffries, 2012). In order to create teaching-learning approaches to aid in the development of clinical judgment and reasoning, understanding the experience of clinical judgment of undergraduate students is key. Although there is evidence of how undergraduate nursing students learn from and engage with simulation, there is limited research on the learning of IENs, particularly in the area of simulation-based settings (Cioffi, 2001; Tanner, 2006). Moreover, the literature has identified the need to involve varied students in future studies (i.e., students from different levels and programs and with multiple types of learning experiences) (Alinier, Hunt, & Gordon, 2004; Kneebone, 2003; Schoening, Sittner, & Todd, 2006). Both of these areas require our understanding of the experience of clinical judgment.

Rationale for the Simulation Activities

There are three phases to a simulation activity: pre-simulation, simulation, and debriefing. The pre-simulation phase provides participants with an opportunity to discuss the patient's case and review the relevant data, including laboratory tests and medications. During simulation activities, students interact with the patient and provide care; each student assumes a different role of a practicing nurse, which may include

assessment, communication with interdisciplinary and interdisciplinary team members, or administration of medications and documentation.

During the final part of a simulated clinical experience, the debriefing period, both faculty and students reexamine the events that unfolded in the scenario. Students reflect on the care provided and formulate new ways of decision-making for future practice (Dreifuerst, 2009). Elements of the debriefing session include an assessment, critique, and evaluation of students' performance, as well as a discussion of their experiences. The debriefing process can be structured or unstructured. Although simulation-based education sessions are structured with specific learning objectives and goals to lead learning activities, not everyone is naturally capable of analyzing, making sense, and assimilating learning experiences on their own. This is where debriefing (also known as post-experience analysis) comes in, as it bridges the gap between having the experiences and making sense of them. The facilitator leading the debriefing session uses a series of progressive questions that allows participants to reflect on what happened. The reflection process provides important insights about challenges or actions that can be mastered for future reference. Reflection takes students beyond critical thinking into meaningful learning, which is later translated into action or knowledge and applied to real clinical situations (Cranton, 2006; Schön, 1983).

The pedagogical activities used within the context of this study include these three interactive activities, which exposed participants to a simulated patient. Furthermore, the application of the pedagogical activities used within this study aligns with both a conceptual framework of constructivism and Tanner's Clinical Judgment Model.

Implication for Nursing Education and Practice

IENs are considered novices in Ontario health-care contexts despite their previous learning and clinical expertise. Investigating their understanding and experience of clinical judgment may contribute to recognizing potential challenges that they may face (Coffey, 2006; Tregunno et al., 2009). Little research exists that examines IENs' experience or understanding of clinical judgment; this dearth of research makes this study especially significant in terms of identifying challenges and recommending areas of development both from an academic and a professional regulation stance. Exploring IENs' experience and understanding of clinical judgment while they are engaged in a simulated clinical milieu will a) provide educators with the knowledge and pedagogical implications to enhance clinical-judgment focused learning opportunities and b) contribute to IENs' transition to the Ontario context.

Summary

This chapter on background and context has provided an overview of the significance of the study in relation to nursing education and public policy—particularly nursing practice regulatory bodies. The notion of clinical judgment has been determined to be a central factor in nursing education, as its application is critical in nursing practice, particularly for IENs.

Professional knowledge and development of competence are important elements for professional nursing practice, particularly clinical judgment. The development of competence is tied to how professionals gain knowledge and expertise, as outlined by Benner's Novice to Expert Model of Skill Acquisition.

The development of professional knowledge and expertise are strongly embedded in the learning and education of professionals. Teaching and learning for salience are imperative to the education of nurses: Salience provides the means to make connections between acquiring and using knowledge and, thus, to influence the nature of a situation or patient outcomes. Moreover, engaging with HFPS and providing nursing care within the context of this environment can provide a better understanding of the experience of IENs of clinical judgment and in their transition to practice in Ontario.

CHAPTER THREE: CONCEPTUAL FRAMEWORK

Clinical judgment and decision-making skills are key attributes of professional practice and are central to the development of expertise of nurses and other health-care professionals. Tanner's (2006) Clinical Judgment Model is the conceptual framework used in this study. The chapter will provide a descriptive overview of the model and its significance in the context of the research study.

Clinical Judgment

The Royal College of Nursing (2003) describes nursing as “the use of clinical judgment in the provision of care” (p. 3). According to Decker, Sportsman, Puetz, and Billings (2008), “The National League for Nursing (2003) explicitly stated that nurse educators are to create ‘learning environments that facilitate students’ critical thinking, self-reflection,’ and prepare ‘graduates for practice in a complex, dynamic health care environment’” (p. 74).

Tanner (2006) defines clinical judgment as

the flexibility and nuanced ability to recognize salient aspects of an undefined clinical situation, interpret their meaning and respond appropriately using pathophysiological and diagnostic aspects of a patient's clinical presentation and disease and the illness experience for both the patient and family, including their physical, social and emotional strengths and coping resources. (p. 204)

According to Tanner (2006), the way nurses make clinical judgments is based on a variety of factors, which include a) the practitioner's unique thinking processes, b) the practitioner's personal and professional experience, including educational background

and preparation; c) their ability to adequately communicate with patients; and d) the culture or environment in which nurses practice.

The nurse's personal and professional experience can significantly influence ways of thinking, which, consequently, may impact the way care can be delivered. When a nurse comes upon a situation similar to one encountered before, but in a different context, his or her previous learning and knowledge—or way of thinking or reacting for that matter—may influence the outcome. Communication and culture become important elements of nursing practice and can influence patient-care outcomes. The nurse's ability to effectively communicate with a patient is an essential component of both clinical judgment and the delivery of nursing care. From this lens communication can be either verbal or non-verbal in nature. For example, a nurse's non-verbal cues, approach, or mannerisms may communicate something to the patient, which may, in turn, affect the care that is being provided. Even the way a nurse perceives a certain situation may influence how she communicates and, consequently, may influence patient-care outcomes.

Culture also plays an important role within the context of patient care. For example, the nursing culture of a unit or the organizational culture nurses are exposed to at work may influence their ability to make clinical judgments. If a nurse is exposed to an unsupportive and noncollegial culture, it may influence the way nursing care is carried out, which may have a direct consequence on the way clinical judgments are made.

Clinical Judgment Model

Clinical judgment is essential to professional nursing practice and is required for all nursing actions. The effectiveness of nursing care is based on a holistic view of the

patient, which includes the patient's past medical history; family history; cultural, financial, and socioeconomic status; and physiological, psychological, and spiritual well-being. The ability to view and care for a patient in a holistic fashion requires the application of clinical judgment.

Tanner (2006) defines clinical judgment as “an interpretation or conclusion about a patient's needs, concerns, or health problems, and/or the decision to take action (or not), use or modify standard approaches, or improvise new ones as deemed appropriate by the patient's response” (p. 204). Clinical judgment is not usually straightforward. Each clinical situation is different and often unique, as factors such as lifestyle, culture, relationships with next of kin, physical and psychological health, and previous experiences are associated with patient outcomes. The conceptual framework in this study is the Clinical Judgment Model developed by Tanner, which is illustrated in Figure 1.

The Clinical Judgment Model was synthesized from research on clinical reasoning in nursing; its step-by-step approach allows assessment of students' development of clinical judgment in a meaningful fashion (Lasater & Tanner, 2005). The model is relevant for clinical situations that may be “rapidly changing and require reasoning in transitions and continuous reappraisal response as the situation unfolds” (Tanner, 2006, p. 208). Moreover, within the context of simulation-based learning, Tanner's (2006) Clinical Judgment Model provides a positive learning experience: It affords students the opportunity to refine their patient-management skills to resolve common clinical problems and allows them to transfer knowledge while adhering to what is most essential when faced with a complex situation.

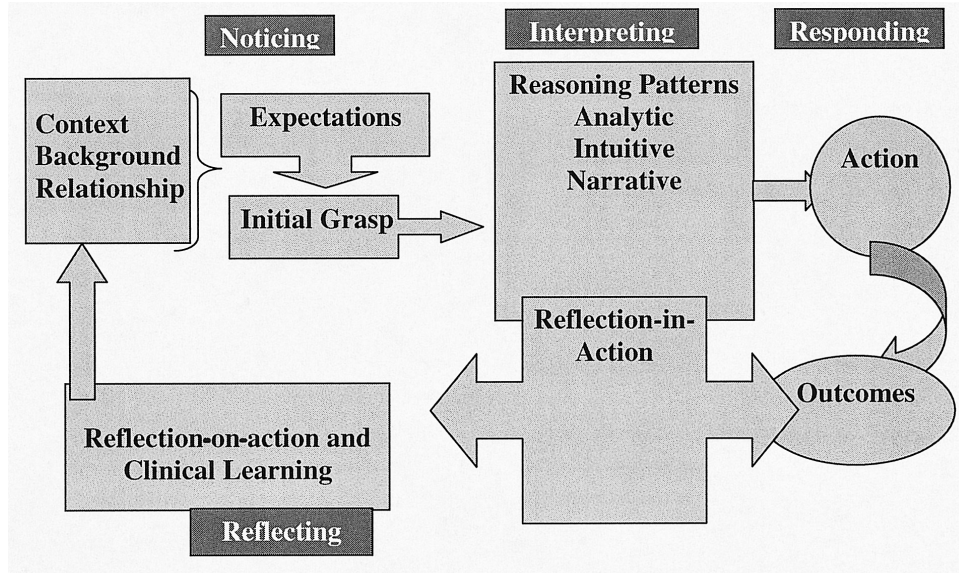


Figure 1. Tanner's Clinical Judgment Model.
 Reproduced from C. A. Tanner's (2006) *Thinking Like A Nurse A Research Based Model of Clinical Judgment in Nursing* (p. 208).

Lasater's (2007) Clinical Judgment Rubric (LCJR) for assessing the development of clinical judgment is based on Tanner's clinical judgment model. According to the LCJR, there are four levels of each clinical judgment concept, which move through a continuum from beginning to exemplary. The rubric is based on 11 dimensions, which define what it means to notice, interpret, respond, and reflect. The model supports the notion "that clinical judgment is demonstrated through a variety of reasoning processes, including analytic, which is predominant with students; intuitive, which is based in practical experience (Coles, 2002; Ford & Profetto-McGarth, 1994; Tanner, 2006), and which students generally lack; and narrative, or the learning that occurs from nursing and students telling their stories (Tanner, 2006)" (Lasater, 2007, p. 497).

By integrating Tanner's Clinical Judgment Model into the clinical education of nurses, educators are able to adequately identify and better understand potential

challenges in critical thinking and knowledge acquisition. The model is based on four factors—noticing, interpreting, responding, and reflecting—which provide a “blueprint” of how a nurse is to think during clinical situations requiring proficient judgment and clinical decision-making (Tanner, 2006).

Noticing

The noticing phase includes a collection of findings which are related to the context of a given situation based on expectations or past experiences. The first phase of the model can be considered as an expanded form of the assessment phase, which employs focused observation and the use of previous knowledge of similar situations in collecting pertinent data. The noticing phase incorporates nurses’ past clinical experiences or expertise, which is based on information gathered from theoretical contexts (i.e., courses taken through their personal and professional careers). The application of past experiences allows nurses to a) collect subjective and objective data, b) recognize deviations from the expected patterns, c) seek information from the patient and family and d) compare expected assessment findings with those presented by the patient’s state of being, the patient’s chart, and the report collected from the previous shift.

To demonstrate noticing, consider the following example: A postoperative patient who had thoracic surgery two days ago is complaining of chest pain. Although the nurse in this situation anticipates postoperative pain, the nurse also collects more data related to the pain the patient is experiencing, such as information on the timing, severity, and location of the pain; the patient’s demeanor and ability to mobilize the condition of the surgical incision; the associated lung and heart sounds; and the telemetry (heart rhythm)

reading. The nurse will proceed by identifying the relationship between these factors before moving to the interpreting phase and making clinical judgments.

Interpreting

The interpreting phase involves prioritizing and understanding the data collected through the application of reasoning patterns and analytic and intuitive processes. The interpreting phase is linked with clinical judgment, as clinical judgment comprises analytic processes. In this phase, the nurse uses her knowledge of what is normal and compares it with what the patient is manifesting in determining an appropriate course of action. Nurses in this phase exhibit the ability to sufficiently understand a given situation and to use this understanding to compare it with what the patient is manifesting in determining an appropriate course of action.

In the example provided earlier, the patient stated that he had chest pain. In the interpreting stage, the nurse would use the information collected earlier to determine the possible cause of the pain. If, during the noticing phase, the nurse became aware of drainage problems, he or she might interpret that the patient has developed an infection at the surgical site, which may lead to cardiac arrhythmia. The nurse would then respond by devising a plan to intervene in the situation.

Responding

Once the nurse interprets the situation, an action is taken to respond to it. In the responding phase of the model, the nurse uses both noticing and interpreting ability to determine the most effective action or reaction to a circumstance. This response may require the ability to clearly communicate interpreted findings to the patient, the patient's family, and the interdisciplinary and intradisciplinary teams.

In this phase, the nurse individualizes the patient's care and demonstrates the ability to proficiently use nursing skills. In the scenario of the patient who is experiencing chest pain, the nurse could proceed by communicating the need for an intervention with the patient and interdisciplinary team, by administering medication to relieve the pain, and/or by administering an electrocardiogram (ECG) to aid in determining whether the patient is undergoing a heart attack or has developed pericarditis. In this example, it is expected that pain medication has been ordered and that this prescription has been transcribed to the medication record; this example also assumes that the application of the ECG leads is a standard protocol for the unit and that the nurse knows how to complete this procedure without difficulty. The ability to think through the situation and the potential outcomes identify whether the nurse has responded adequately.

Reflecting

During the reflection phase, the nurse analyzes and evaluates the choices and decisions made; reflecting on the outcomes of actions allows room for narrative thinking and reflection in action. Reflection, both in action and on actions taken, leads to acquiring clinical learning, which contributes to future clinical judgments (Tanner, 2006).

Reflection is the essence of the experience, as through reflection actions become meaningful and lead to learning for salience. During simulation exercises, reflection-on-action and reflection-in-action generally take place during the debriefing phase. Moreover, engagement in simulated clinical settings allows students to reflect on actions taken and to apply the lessons learned to their nursing practice.

Reflection-in-action and reflection-on-action. The Carnegie Foundation calls for transformation of nursing education in order to prepare learners for the complexities of

health-care environments (Benner et al., 2009). This transformation necessitates the implementation of teaching strategies that involve thinking in action and the ability to provide care in situations that unfold through reflection-in-action and reflection-on-action (Schön, 1983).

Donald Schön (1983) initially introduced the idea of the reflective practitioner, stressing the notion of reflection as the center of understanding. His work was derived from John Dewey's work on reflective practice. Dewey (1933) viewed reflection as an active, rigorous, and emotional activity that promotes learning by building new knowledge on past experiences. He noted that "reflection is not only a rational, intellectual act but also an act that involves the whole person including his or her emotions" (cited in Ruth-Sahd, 2003, p. 498) and that reflection is brought upon by open-mindedness and willingness to engage in the process.

Schön's *The Reflective Practitioner* (1983) provides an understanding of how practitioners reflect on their practice through reflection-in-action and reflection-on-action. Reflection-in-action allows one to look back at, elaborate and reflect on, analyze, and evaluate an experience based on practical and theoretical knowledge. This process entails building new understandings that inform one's actions in unfolding situations. Schön (1983 cited in Walker, 1996, p. 29) describes the experience of reflection on action as follows:

[The reflective practitioner] reflects on the phenomenon before him, and on the prior understandings, which have been implicit in his behaviour. He carries out an experiment, which serves to generate both a new understanding of the phenomenon and a change in the situation. (p. 68)

Reflection-in-action, which can be defined as “thinking on our feet,” explores the reasoning behind one’s actions; it is the reflection that occurs in the process of an experience. Schön further refers to this as professional artistry.

According to Schön (1983), professional artistry is a big part of professional reflective practice, as it plays a role in situations of uncertainty, instability, and conflict—situations which are to be addressed in professional education settings. Use of reflective practice provides nurses with the tools to properly intervene and make sound clinical decisions; it is critical for safe practice and promotes autonomy, personal and professional growth, and quality of patient care.

Tanner’s model suggests a link between reflection and clinical judgment. Clinical judgment within the context of reflective practice allows nurses to think about their actions while they carry them out and to change their actions should the assessment of the situation change. The following questions exemplify reflection-in-action: How is this patient responding to my intervention? Do I need to change what I am doing? In contrast, the following questions illustrate reflection-on-action: What was the final outcome? Did my actions influence the outcome? How? What might I have done differently if I had the opportunity? How did my skill compare to nursing standards of care? In what parts of the clinical judgment process could my thinking have been clearer?

Reflection, both in-action and on-action, support is vital and should be employed to expand one’s clinical knowledge base, especially given that students generally struggle with applying theory learnt to real-life situations (Jeffries, 2012; Sherwood & Horton-Deutsch, 2012; Tanner, 2006). Schön refers to this struggle as a crisis of confidence in professional knowledge. Reflective practice provides practitioners with the ability to

identify the theory of practice (Schön, 1983), which will eventually lead to understanding the experience of clinical judgment of IENs and how clinical judgment is potentially learned or developed.

Cranton (2006) emphasizes that it is the teacher's role to "set the stage and provide an environment in which students can articulate and critically reflect on their assumptions and perspectives" (p. 63). Additionally, the goal of every teacher is to make learning meaningful and create an environment that allows learners to make meaning out of their own experiences. Cranton identifies seven facets to guide educators to promote transition. Two of these facets are critical reflection and action on revision. Critical reflection refers to the questioning and examination of assumptions and events, while action on revision refers to the act of thinking. Both Schön's and Cranton's work on reflection on learning aligns with Tanner's Clinical Judgment Model. In order to aid students to act on their revised perspectives, educators need to provide situations in which students have the opportunity to do so. One means of embedding this into the education of nurses is through experiential learning activities, such as the use of simulated clinical settings and unfolding case scenarios (Jeffries, 2012; Kolb, 1984; Sherwood & Horton-Deutsch, 2012).

Reflection requires one to look back and examine one's personal, ethical, moral, and empirical knowledge in the context of a given situation (Sherwood & Horton-Deutsch, 2012). By incorporating reflection, the learning process provides students with opportunities to develop perspectives and ways of learning or unlearning and knowing or unknowing.

Unknowing and unlearning. Nursing is a profession that requires the development of multiple ways of knowing and the capacity to apply the resulting knowledge to complex situations. Carper (1978) identifies ways of knowing as a process of developing nursing knowledge, which consists of four components: empirical, moral, personal, and aesthetic knowledge. These four components of Carper's model represent a dimension of the whole or total epistemology for nursing and are essential to the development of the professional nurse.

Munhall (1993) proposes that the concept of knowing, as indicated in Carper's model, may lead practitioners to form a confidence in their own interpretation of knowledge that could, potentially, impede contemplation of alternatives. Further, Munhall identifies a fifth pattern of knowing, *unknowing*, which can be considered a prerequisite for knowing or for coming to know. Enacting unknowing as part of the teaching and learning process initiates relatedness, attentiveness, and generosity. Unknowing can be considered a prerequisite for knowing. From this view, unknowing can be considered a process of understanding and recognition or a condition of openness that provides meaning to an experience. An experience can also stem from cultural understanding. According to Burchum (2002), "Through cultural understanding, one comes to recognize that with multiple perspectives come multiple truths, solutions, and ways of knowing" (p. 7).

Unknowing represents the idea of openness, of qualitative receptivity, to what may be learned and also allows for the possibility for open and caring human interaction during patient encounters (Averill & Clements, 2007), which is a critical component in the delivery of nursing care. Unknowing is aligned with the notion of reflection as, in

concert with the process of reflection-in-action and reflection-on-action, it may provide a better understanding of oneself in the context of professional practice. In this manner, unknowing can lead to both transformation and a more complete understanding of clinical judgment. The notion of unknowing focuses on the need to remain open to possibilities and change; it suggests that all knowledge is tentative and dynamic, elevates the importance of questions over answers, and releases preconceptions and stereotypes, assumptions, and biases (Munhall, 1993). “Openness in the sense of interpretive ability is a sustaining motive of all qualitative inquiry. Such inquiry is based on the idea that no interpretation is ever complete, no explication of meaning is ever final, no insight is beyond challenge” (van Manen, 2002, p. 237).

Although the role of unknowing plays an essential part in the learning process, it can be tied in to the philosophy of unlearning. In reviewing exiting research in the area of unlearning, many authors have made reference to the lack of research and academic literature on the topic of unlearning and have noted that further research should be conducted in this area. According to Delahaye (2000), the concept of unlearning has only recently become a phenomenon worthy of consideration in adult learning (p. 49). The process of unlearning has been debated in the adult learning literature, and a number of scholars, including Newstrom, Hedberg, Prahalad and Bettis, and Starbuck, have proposed related, key definitions.

Newstrom (1983) defines unlearning as “the process of reducing and or eliminating preexisting knowledge or habits that would otherwise represent formidable barriers to new learning” (p. 36). Hedberg (1981) defines unlearning as new knowledge that overrides old knowledge, as changing situations render old knowledge obsolete.

Hedberg further elaborates, “Understanding involves both learning new knowledge and discarding obsolete and misleading knowledge” (p. 3). Prahalad and Bettis (1986) view unlearning as a process by which old logic is eliminated to make room for new behaviours. Starbuck (1996) proposes that unlearning is a process that shows “people they should no longer rely on their current beliefs and methods” (p. 727). The literature suggests that unlearning does not recognize the existence of previous knowledge and its potential for impact on the learning process. However, Klein (1989) makes reference to unlearning as a *parenthetic model* and proposes that knowledge is not erased, but is retained for situations where the new knowledge may not apply; one, then, considers the context of the situation when deciding on the most appropriate behaviour.

Unknowing and unlearning play a pertinent role within the context of reflection and contribute to the understanding of clinical judgment. In terms of Tanner’s Clinical Judgment Model, both unknowing and unlearning can be identified as forms of learning or as means of reflection. According to Mezirow (2000) for unlearning to occur, one is required to reflect on the “unproductive nature of the old knowledge or frame of reference” (cited in Delahaye & Becker, 2006, p. 8). Moreover, unknowing and unlearning provide the novice practitioner with ability to self-assess, reflect, and evaluate the learning that occurs, as opposed to following or adhering to a set of skills or rules (textbook knowledge). This becomes relevant to understanding IENs’ experience of clinical judgment, as the need for self-reflection plays an important role in developing expertise.

Summary

Clinical judgment has been identified as an integral element of nursing practice,

as nurses are responsible for a significant proportion of decisions and judgments made in the health-care arena (Thompson, Cullum, McCaughan, Sheldon, & Raynor, 2004) and, therefore, must be able to adequately utilize and apply clinical judgment skills on an ongoing basis. The issue is even more critical among novice practitioners who are required to make increasingly complex decisions about patients who present with more diverse health needs (Lasater, 2007).

The Clinical Judgment Model developed by Tanner (2006) has been used as the conceptual framework in this study and as a guide to explore the experience and understanding of clinical judgment of IENs when engaged in simulated clinical environments. The Clinical Judgment Model consists of four phases: noticing, interpreting, responding, and reflecting. While providing a description of each, this chapter has focused predominantly on the reflection phase; this phase has been identified as the underpinning element of the professional learning and professional knowledge that are essential for clinical judgment. The notions of unlearning and unknowing have been raised in this chapter to provide a more complete understanding of the experience of clinical judgment.

CHAPTER FOUR: METHODOLOGY

This chapter provides a detailed description of the research methods utilized in this study; it has been organized into various sections to provide a framework that describes the way in which the research was conducted. The chapter begins with an overview of the purpose of the study and of the guiding research question, and continues with a discussion of the methods employed for data collection and analysis. The summary illustrates the links between the sections.

Purpose of the Research Study

The purpose of this study was to investigate IENs' understanding and experience of clinical judgment, by employing a simulated clinical environment, as well as reflection and stimulated recall. This investigation was performed using a qualitative, open-ended exploratory, descriptive, and interpretive framework. Findings from this study will provide greater insight into how IENs both experience and understand clinical judgment. The insight gained will a) aid in addressing how IENs can meet practice competencies and transition to rapidly changing health-care environments within the Ontario context; and b) provide recommendations and implications, specifically related to IENs, for education, practice, and research.

Research Question

- What is the experience and understanding of clinical judgment of IENs when engaged in High Fidelity Patient Simulation (HFPS) and reflective practice and stimulated recall?

This is the central research question that guides this study. Exploring IENs' experience and understanding of clinical judgment will, potentially, provide educators with implications in terms of the best pedagogical approaches to use to support IENs' acquisition of clinical judgment and decision-making skills.

Tanner's Clinical Judgment Model (2006), which is committed to adult learning principles, was used as the conceptual framework in this study, as it describes the components of clinical judgment in patient-care situations (Tanner, 2006). Tanner's model is used to guide the methodology and data collection in order to further explore the understanding and experience of clinical judgment among IENs when they are engaged in high-fidelity simulation.

Qualitative Methods

Qualitative research has led to some of the most significant contributions to the field of social sciences in this past century. Two examples illustrate the impact of this research method: Freud's psychoanalytic theory, which emerged from self-analysis and from his patients' case histories; and Piaget's work associated with the stages of development, which was primarily derived from observations of the intellectual development of children. Qualitative research has also greatly influenced the field of adult education.⁸ These examples indicate the strength of qualitative research, as it allows "discoveries to be made about the phenomenon under investigation...as questions in qualitative research are framed to seek understanding and meaning in the data"

⁸ One of the earliest qualitative studies in the field of adult education was conducted by Burton Clark in the 1950s. Clark's study focused on the institutional character of the adult education movement in public school adult education. His study led to major findings in the field and has become part of everyday discourse in adult education (Merriam, 1989).

(Merriam, 1989, p. 166). According to Strauss and Corbin (1998), qualitative research can be identified as

any type of research that produces findings not arrived at by statistical procedures or other means of quantification. It can refer to research about persons' lives, lived experiences, behaviours, emotions and feelings as well as about organizational functioning, social movements and cultural phenomena. (p. 10)

Furthermore, qualitative methods are best used when they a) are complementary to the personal experiences of the researcher, b) are employed to explore areas about which little is known in relation to the nature of the research problem, c) provide a more detailed perspective on an issue already known, d) afford a new perspective on a phenomenon, or e) expand a certain body of knowledge (Strauss and Corbin, 1998).

Interpretive, Open-Ended Exploratory and Descriptive Design

This study employs an interpretive, open-ended exploratory and descriptive design. An interpretive and exploratory design is conducted to get a better understanding of a situation, as the descriptions—both those formulated and those that emerge during the study—are generated from participants' meanings. Furthermore, this approach provides the basis for reflection and techniques for reflective examination. Both interpretive and exploratory research designs involve relatively small samples (not randomly selected) and provide means to investigate a phenomenon of interest; their purpose is to capture themes and patterns from subjective perceptions, with the intent of generating interpretive descriptions and informing understanding (Marshall & Rossman, 2005). Participant observation, stimulated recall, and focus group interviews are all appropriate means for data collection in the context of interpretive and exploratory

research methods and, by extension, in the context of this research study; this method of data collection affords access to experiential knowledge and provides a meaningful account of the participants' experiences (Sandelowski & Barroso, 2003; Koch, 1995).

Participants and Setting

A purposive sample of four students enrolled in the IEN program at York University was employed in this study. The IEN program is a 20-month, 6-term program. The participants were in the same cohort and in their fifth term when engaged in the study. Given that the literature suggests that a group of four students is ideal for simulation experience (Wagner, Bear, & Sander, 2009), the aim was to recruit four participants.

After consent was obtained, participants engaged in a) a preliminary interview to collect data regarding their demographics and their educational, clinical, and professional background; and b) three, group, interactive clinical-simulation activities, using SimMan™ high-fidelity manikins. During each of these three group activities, participants first provided care to a simulated patient and then participated in stimulated recall activities and focus group interviews. The rationale for using the group format in this study stems from a theoretical perspective rooted in and aligned with sociocultural learning; working and learning in groups will prepare students for their future, as working in this manner is part of nursing practice (Lyle, 2003, p. 861). From a teaching-learning perspective, the use of stimulated recall is an effective tool for investigating cognitive processes, which are ameliorated when there is “indirect means of introspection in complex interactive contexts, such as the classroom” (Lyle, 2003, p. 861).

In this study, simulation activities provide one such interactive context. The interactions were videotaped and shown to participants, so they could reflect and comment on what they were thinking or doing during the simulation activity. The replaying of the video recordings of the interactions supports the methodological framework in this study; the meaning making and understanding of participants' perspectives that were generated through these discussions are characteristic of exploratory and interpretive designs (Marshall & Rossman, 1995; Koch, 1995). Validity of the accounts and the responses of the participants' interaction during the simulation activities are acknowledged as a limitation in this study.

Participant Demographics

The findings from the preliminary interviews are provided for each participant. The participants are identified by pseudonyms: Molly, Beatrice, Peter, and Lillian. The following descriptions of the participants summarize the data obtained through the preliminary interviews, including each participant's year of immigration to Canada, age, and years of nursing experience outside and within Ontario. Table 1 provides a description of the demographics of each participant.

Molly immigrated to Canada from Belarus in 2007 and was 38 years old at the time of data collection. She practiced nursing outside of Canada for 15 years, primarily in high acuity and medical surgical nursing. She enrolled in a classroom refresher course at a local college prior to enrolling in and beginning the IEN program. She had no exposure to clinical nursing in Canada.

Bernice immigrated to Canada from Ukraine in November 2007 and was 27 years old at the time of data collection. She received a diploma in nursing from Ukraine in

2004 and a certificate of medical imaging nursing in 2004. She practiced nursing outside of Canada for three-and-a-half years, primarily as a medical imaging nurse. She enrolled in an ESL course at a local college a year prior to initiating the IEN program. She had no exposure to classroom education or clinical nursing in Canada.

Peter immigrated to Canada from Nigeria in May 2010 and was between 35–40 years old at the time of data collection. In Nigeria, Peter received a diploma in computer data processing and in nursing. He practiced outside of Canada for three years, primarily in the acute medical surgical field and the operation room. He enrolled in a classroom refresher program at a local college a year prior to initiating the IEN program. He had no exposure to clinical nursing in Canada.

Table 1
Participant Demographics

Participant	Demographics
Molly	<ul style="list-style-type: none"> • Immigrated to Canada from Belarus • Age at the time of data collection, 38 • Practiced nursing outside of Canada for 15 years and has not practiced as a nurse in Ontario
Bernice	<ul style="list-style-type: none"> • Immigrated to Canada from Ukraine • Age at the time of data collection, 27 • Practiced nursing outside of Canada for three and half years and has not practiced as a nurse in Ontario
Peter	<ul style="list-style-type: none"> • Immigrated to Canada from Nigeria • Age at the time of data collection, 35-40 • Practiced outside of Canada for three years and has not practiced as a nurse in Ontario
Lillian	<ul style="list-style-type: none"> • Immigrated to Canada from Nigeria • Age at the time of data collection, 30 • Practiced outside of Canada for three years and has not practiced as a nurse in Ontario

Lillian immigrated to Canada from Nigeria in February 2009 and was 30 years old at the time of data collection. While in Nigeria, Lillian received a diploma in nursing in 2003 and a midwifery diploma in 2005. She practiced outside of Canada for three years, primarily as a midwife. In 2009, she enrolled in a refresher course and attempted to

write the entry-to-practice exam. After an unsuccessful attempt to obtain licensure, she enrolled in additional courses, including health assessment and management of acute and chronically ill patients. In 2012, she enrolled in the IEN program. She had no exposure to clinical nursing in Canada.

Setting

The study took place in Toronto, Ontario at York University in the School of Nursing. York University is the third largest university in Canada; it hosts 55,000 students and has more than 250,000 alumni worldwide. The IEN program offered at York University is the only bridging program in Canada that provides graduates with a Bachelor's of Science in Nursing (BScN) degree. The IEN program is 20 months in length and has been developed in response to the need for registered nurses educated outside of Canada to meet the requirements necessary to obtain Canadian credentials for employment in Ontario. Completion of the program qualifies students to write the Canadian registered nurses licensing exam.

The Nursing Resource Centre (NRC) at the School of Nursing at York University is a simulated hospital environment that provides students with opportunities for experiential education. The NRC supports students with the development of their basic and advanced clinical nursing skills—from inserting tubes and catheters to administering medications—by providing them with the opportunity to practice on low-fidelity and high-fidelity manikins. Courses in the School of Nursing with a clinical component are taught in the NRC, as it is set up in a manner similar to that of a clinical setting and includes medical surgical beds, a pediatric area, and two isolation rooms. The majority of the beds are equipped with a head-wall system that supports simulating oxygen and

suction capability. The NRC houses four SimMan™ manikins, which are located in a space equipped with cameras to record student-learning activities for simulation debriefing purposes. The rooms that house the HFPS are equipped with a bed, which is occupied by the manikin, a medication cart, a crash cart, a telemetry monitor, oxygen and suction on the wall, and a ceiling-mounted camera. Although the participants were introduced to the NRC during the course of their program and used the NRC for two of their clinical courses, they were not previously exposed to HFPS.

Ethical Considerations

After the primary investigator's institutional review board approved the study, the participants were contacted through the School of Nursing about the intent of the study. The letter emailed is provided in Appendix A. The ethics statement to the participants informed them of my project, guaranteeing confidentiality and allowing them the right to withdraw, as participation in this study was completely voluntary. I informed them of my aims, my methods of data collection, and my objectives (as stated in my research proposal).

Although I am a faculty member at the School of Nursing and had previously taught the participants, I did not teach them during the course of the research. My role and position as an educator at the School of Nursing and as an "insider" influences not only my understanding of the context, but also participants' responses, if they perceive me to be in a position of power. Thus, it was essential that participants understood that participation in the study would not influence any course grade, academic assessment, or progression criteria, nor would it influence the nature of each participant's relationship with York University. Participants were assured that the data collected in the study would

be used entirely for the purpose of research and not in any way affect their grades or performance in the program. A copy of the consent form is provided in Appendix B.

The Use of Simulation Technology Both as a Tool for Research and Pedagogical

Method

The pedagogical activities used in this study include the application of an unfolding case (involving three successive scenarios) using HFPS, reflection, and stimulated recall. The HFPS, or the clinical-simulation environment, in this study is used as a both a tool and a pedagogical activity.

Rationale for the Use of Simulation Technology

The influence that technology is having and will continue to have on nursing education is a frequently recurring theme in the nursing literature (Jeffries, 2012).⁹ Research has shown that the use of technology can be an effective tool in meeting various teaching learning needs (Desjardins, Cook, Jenkins, & Bakken, 2005; Melnyk, 2008). Simulation is a fast evolving technology that is being integrated into the nursing curricula; it has been shown to provide support for learning, by placing students in situations where they can develop confidence in their clinical skills and their ability to connect theory to practice (Leigh, 2008; Sportsman, et al., 2009).

Simulation was used in this study to provide an understanding of IENs' experience of clinical judgment. Given the nature of nursing practice and the

⁹ Nursing schools and regulation bodies are in the process of integrating nursing informatics (NI) competencies into undergraduate nursing programs. This will significantly decrease the NI knowledge gap between formal nursing education and the needs of the health-care system. Additionally, the implementation of technology within the nursing curriculum is integral, as nurses are required to integrate nursing science, computer science, and information science in order to manage and communicate data, information, and knowledge in nursing practice. Furthermore, NI facilitates the integration of data, information, and knowledge to support patients, nurses, and other health-care professionals with decision-making skills within all settings.

sociocultural context that nurses are exposed to, the need to provide a simulated work environment in the context of a group is apparent. As a pedagogical tool, simulation provides students with the opportunity to work in the context of team, creating a more realistic clinical environment. To prepare practitioners to work as effective team members, educational programs for health-care personnel are embedding and increasing opportunities to work in teams, in order to simulate the experience and interaction between the interdisciplinary and intradisciplinary teams.

Given that IENs are required to work in teams as part of their transition to the organizational health-care system in Ontario, there is a need to understand their experience as they interact within this type of environment and with other interdisciplinary team members. According to the literature when students learn in groups or train in teams, particularly under conditions that realistically simulate their future work environment, the risk of serious events when they later join the work force is reduced (Morey, Simon, & Jay, 2002).

Participating in simulated case scenarios allows students to assume a variety of nursing roles, particularly if they are learning in groups. When working in small groups with the simulator, students are assigned specific roles such as primary nurse, assessment nurse, medication nurse, and documentation nurse or recorder. The simulation arena provides an opportunity to learn how to delegate tasks, determine appropriate nursing interventions, implement orders from other health-care providers, and enhance communication with other nurses and health-care providers.

Simulation Environment Setup

The three, simulated-case scenarios were video recorded for observation and stimulated recall purposes. The participants had not engaged in a HFPS activity during the course of their program and had no other experience using the technology prior to the recording. Three days prior to the initial video recording of the simulation activity, a 30-minute introduction session was provided to the participants, in order to familiarize them with the simulation environment and HFPS. The participants were provided with instructions on how to use HFPS, such as where to assess and monitor heart, lung, and abdominal sounds and how to take and monitor blood pressure, respiration and oxygen saturation, and pulse.

The expectations for the simulation were created by this researcher, based on her expertise and knowledge in the simulation domain. I also performed the function of a simulation facilitator, as I programmed and controlled the technology to facilitate the activities and to respond to the actions of the participants. For example, if the patient manifested an elevated heart rate due to pain and participants administered a pain medication, I would reflect this by controlling the technology and reduce the patient's heart rate. The participants were provided with a description of my role as a simulation facilitator.

As the facilitator, I also played the role of interdisciplinary team members (doctor, pharmacist, respiratory therapist, charge nurse, nursing instructor, occupational therapist, and speech therapist). The participants were instructed to indicate whom they needed to speak or consult with and I then played that role. Prior to initiating the simulation activities, the participants were provided with the HFPS's demographics. One day prior

to each simulation activity, the participants were provided with a brief overview of the HFPS's condition. Finally, five minutes prior to engaging with the HFPS, participants were given a nurse's shift report.

The literature on the teaching and learning of adults indicates that active participation is an important factor in enhancing the effectiveness of learning for this population (Seaman & Fellenz, 1989). Knowles (1984) notes that adults learn best when they are engaged in an activity, such as role-play, and that they are likely to experience events not only in a cognitive but also in an affective manner. This experience has long-lasting effects on the learning process (Kolb, 1984). Experiential learning is an effective method for developing as a professional, as it leads to the integration of theory and practice (Kolb, 1984). Simulation activities are structured with specific expectations to offer opportunities to experience learning in this way.

Reflection and subsequent analysis of learning is integral to this experience; the research on nursing education, which also refers to this step as post-experience analysis or debriefing, notes that it is as important as the simulation itself (Dreifuerst, 2009). The video-facilitated simulation debriefing, when used in conjunction with a simulated environment, can provide an accurate simulation of events and is intended to stimulate learning in an effective and organized manner; as such, it has the potential to increase desired clinical behaviours in students. Given that a debriefing activity is used as a tool to stimulate learning by encouraging students to recall activities, it can be used interchangeably with stimulated recall in the context of this study. From this position, stimulated recall is an integral element of the simulation experience; when employed immediately following the simulation exercise, it gives participants the opportunity "to be

led through a purposive discussion of that experience” (Lederman, 1992, p. 146), and to reflect on it. The process of stimulated-recall debriefing allows participants to reflect on their interaction and cope with the affective domain of their experience.

Video Recording Setup

The video recording in this study was an imperative factor in stimulated recall. The video camera was mounted on the ceiling, above the bed, in the simulation room. The camera provided a view of the HFPS lying in the bed and activities that occurred directly at the bedside. While the camera captured video of only those participants in the room who were at the bedside and were providing direct care to the patient, it was able to capture the voices of all participants in the room.

At the beginning of every simulation, the video recording began once the participants had entered the room.¹⁰ Once the recording was complete, it was saved onto a USB key for viewing during the stimulated recall. For all three simulated case activities, the video recording and observations of the participants’ responses, as a group, were described and interpreted against the framework of Tanner’s model.

Unfolding Case Scenarios and Associated Expectations

The research was based on a three-phased, unfolding case scenario, which was conducted in a simulated environment. The activities were based on one patient case (Appendix C), which evolved over the course of three scenarios. The simulation activities were delivered at a mutually convenient time that did not interfere with the participants’ lectures.

¹⁰ The video recording was controlled through the control room located outside of, but on the same floor as, the NRC. The control room was equipped with a computer that provided a view of the camera.

In each of the three case scenarios participants engaged in a 25 minute simulation activity. A group stimulated-recall session and focus group followed each activity. Each set of group stimulated recall and focus group sessions lasted 1.5 hours and was audiotaped.

The simulated patient's demographics and clinical history were provided to the participants prior to initiating the activity. Information related to the patient's condition was emailed to participants on the night before the activity, allowing them to look up procedures or medications aligned with the patient's case (Appendix D). The participants were to care for the patient based on the presenting condition. The scenarios were presented between five to seven days apart, and each subsequent scenario was related to the care provided in the previous one. Five minutes prior to engaging in each simulation activity and initiating care to the patient, the participants were given an update and a brief report regarding the patient's condition. After each simulated activity, the participants engaged in group stimulated recall, reflection, and a focus group interview.

The three, unfolding simulated-case scenarios revolved around a 58-year-old male patient who underwent a thoracic (mitral valve) surgery and who was transferred to the cardiovascular surgery ward for monitoring. Appendix E provides the background and demographics of the patient. The information participants were exposed to during the simulation activity included a) a medication administration record (MAR), b) a report of the patient's latest blood work, c) updated medical orders, and d) nursing notes or patient report (Appendix C). The patient report provided an overview of the expectations and goals for each scenario, arranged according to the steps in Tanner's model: noticing, interpreting, responding, and reflecting.

The expectations for each case scenario are described and summarized in Table 2. These expectations are subdivided according to the steps of Tanner's Model of Clinical Judgment and outline what the nurse is expected to do during the scenario. The findings provide descriptions of the participants' actions and responses, based on the observations from the video recording, and compare these to the expectations for patient care. Due to the nature of this study, the participants were not told what to do; rather, working as a team, they were to demonstrate the application of clinical judgment through their interactions with the HFPS.

To simulate the role of the nurse in a simulation context, each of the participants assumed one part of the nurse's role: primary nurse, assessment nurse, medication nurse, or documentation nurse. The role of the primary nurse was to delegate the HFPS's care; the role of the assessment nurse was to conduct assessments (vital signs and physical assessments) associated with the patient's condition; the role of the medication nurse was to administer the medication; and the role of the documentation nurse was to record and document the care provided.

The roles of the participants were different in each of the three case scenarios. The participants chose their roles prior to initiating each simulation activity and interaction with the HFPS and discussed how they were going to divide their roles five minutes before entering the simulated environment where they were to provide care for the patient. Once they decided on their individual role they were given a shift report, which allowed them an opportunity to ask questions of and clarify information provided by the nurse reporting off.

The following three sections provide summaries and detailed descriptions of the expectations to be met during the observation of each of the three simulated case scenarios. The expectations for each scenario outline what the nurse is to do when interacting with the simulated patient; these expectations are based on the first three stages (noticing, interpreting, and responding) of Tanner's Model of Clinical Judgment. The fourth stage, reflecting on the care provided and learning that occurred, took place during the group stimulated recall activity.

A summary of the first case scenario and associated expectations. In the first case scenario or simulation activity, the patient had been on the unit for three days. The patient's vital signs were stable, with oxygen saturation at 92% on 2L/minute via nasal prongs. Chest auscultation revealed decreased air entry bilaterally with fine crackles to his left lower lobe. The incision to his sternum was open to air and healing. The urinary catheter had been discontinued (patient was voiding clear yellow urine) and bowel sounds were present to all four quadrants. The patient was able to mobilize independently but required minimal assistance with ambulation.

The simulation began with the patient in a supine position, experiencing respiratory difficulties (shortness of breath and coughing). His nasal prongs were in situ, but they were not connected to oxygen; the end of the tubing was under the patient's blanket. The participants were to identify how to provide safe and effective care to the patient and stabilize his condition.

As the scenario progressed, I observed the participants' actions and interactions and compared these with the expectations I had outlined before beginning the scenario. These expectations, which align with Tanner's Model of Clinical Judgment, refer to the

behaviours and actions that I looked for when reviewing the video recording of the simulation activity. They are outlined below.

Noticing. During this phase, participants were to collect subjective and objective data and use it to identify that the patient was short of breath. The subjective data included patient responses to questions regarding any discomfort and pain. The objective data was to be collected by monitoring the patient's vital signs and assessing his respiratory status. Participants were expected to collect this data by a) checking for respiratory rate, rhythm and pattern of breathing, as well as for signs of cyanosis, capillary refill, hypoxia, and presence of a cough (productive or unproductive), b) verifying laboratory results related to hypoxia or hypoxemia (low hemoglobin), c) identifying the patient's position in bed and d) making an assessment of the nares to determine whether the nasal prongs were in place and connected to oxygen.

Interpreting. After the collection of pertinent data, participants were to a) reposition the patient to a high Fowler's position (a 90 degree angle), b) ensure that oxygen was delivered via nasal prongs and reassess the oxygen saturation level and respiratory rate, c) identify the need for medication administration, and d) encourage the patient to continue to do deep-breathing and coughing exercises to allow mobilization of secretions.

Responding. After interpreting the situation, the participants were to refer to the physician's standing orders and MAR and, after consulting with the doctor, to administer a Salbutamol (Ventolin) nebulizer to aid the patient in mobilizing secretions. The participants were to ascertain both how often Salbutamol (Ventolin) could be administered (every 4 hours as per the standing order) and when it was last administered

(half an hour prior to the simulation exercise) and call the physician to discuss the need for an additional treatment. Once they contacted the physician, a STAT (immediate) order for a Salbutamol (Ventolin) treatment was given. The participants were expected to proceed by collaborating with the respiratory therapist on the unit to further assist with the patient's condition. Upon administering the medication, the participants were to explain to the patient, in layman's terms, the therapeutic use and side effects of Salbutamol (Ventolin). Once the patient stabilized, the participants were to educate and instruct the patient on the proper use of an incentive spirometer. The documentation nurse was to record and document the assessment, planning, intervention and evaluation of nursing care provided.

Reflecting. During this phase, participants were to reflect-in-action and reflect-on-action regarding the care provided and learning that occurred.

A summary of the second case scenario and associated expectations. In the second scenario, the patient's condition had stabilized and he had been on the unit for seven days. He believed he was ready to be discharged home and was waiting for the staples from his sternal incision to be removed. The nurse who provided the shift report to the participants indicated that the patient was ready to be discharged and that an order for discharge needed to be written. She also indicated to the participants that she had left a message for the physician.

The patient was very excited about going home. The scenario began with the patient asking, "I am going home today. Right?"

As the scenario progressed, I observed the participants' actions and interactions and compared these with the expectations I had outlined before beginning the scenario.

These expectations, which align with Tanner's Model of Clinical Judgment, refer to the behaviours and actions that I looked for when reviewing the video recording of the simulation activity. They are outlined below.

Noticing. The participants were to initiate care by collecting subjective and objective data related to patient's status. The subjective data included concerns raised by the patient. The participants gathered the objective data by a) collecting a set of vital signs (vital signs were within range except for the patient's temperature, which was 38.2 degrees Celsius), b) checking the condition of the sternal incision site for colour, contour, dehiscence (open), number of staples (one staple was missing at the distal end of the incision), drainage and discharge (the incision was draining serosanguinous discharge), and c) patient's latest blood work (white blood count was 15.7).

Interpreting. The participants were expected to conclude that the patient was not ready to go home as a) his temperature was out of range and elevated, b) his incision was not intact and was draining serosanguinous discharge, and c) his white blood count (WBC) was elevated, indicating an infection.

Responding. The participants were expected to proceed by informing the patient that he may not be able to go home due to his current state of being (fever and elevated white blood cell level) and explain the situation to the patient by providing appropriate rationale. The participants were to proceed by contacting the physician and recommending that the patient's discharge order be held. After receiving the physician's orders, participants were to a) check the condition of the patient's wound and collect samples for culture and sensitivity from his wound, sputum, and urine (to identify a potential infection and associated treatment) and b) dress the wound.

Reflecting. During this phase, participants were to reflect-in-action and reflect-on-action regarding the care provided and learning that occurred.

A summary of the third case scenario and associated expectations. In the third scenario, the patient had been on the unit for 10 days. Due to the incidents that occurred in Case Scenario 2 (the dehisced wound) and to fear of the wound worsening, the patient decided to remain in bed with minimal mobilization in the past three days, despite being educated by the staff as to the related risks. The shift report informed the participants that the patient had been found in bed that morning presenting with neurological deficits, including right-sided weakness and inability to express himself through speech. A CT scan revealed a left-sided cerebrovascular accident (CVA). The patient's medications had not changed. The physician ordered insertion of a nasogastric tube and a Foley catheter to monitor urinary output. The simulation began with the patient moaning (due to his inability to express himself with words).

As the scenario progressed, I observed the participants' actions and interactions and compared these with the expectations I had outlined before beginning the scenario. These expectations, which align with Tanner's Model of Clinical Judgment, refer to the behaviours and actions that I looked for when reviewing the video recording of the simulation activity. They are outlined below.

Table 2

A summary of unfolding case scenario and expectations of each scenario based on the steps of Tanner's model of clinical judgment

Case scenario	Summary of the case scenario	Expectations as per Tanner's model of clinical judgment
Scenario 1	<p>The patient has been on the unit for three days. His vital signs are stable, with oxygen saturation at 92% on 2L/minute via nasal prongs. Chest auscultation reveals decreased air entry bilaterally with fine crackles to his left lower lobe. The incision to his sternum is open to air and healing. The urinary catheter has been discontinued, the patient is voiding clear yellow urine and bowel sounds are present to all four quadrants. He is able to mobilize independently but requires minimal assistance with ambulation.</p>	<p>Noticing</p> <ul style="list-style-type: none"> • Identify patient's respiratory status. • Conduct physical assessment. • Collect a set of vital signs and review blood work. <p>Interpreting</p> <ul style="list-style-type: none"> • Reposition the patient and ensure that the patient is oxygenated. • Encourage the patient to continue to do deep-breathing and coughing exercises to mobilize secretions. • Identify the need for medication administration. <p>Responding</p> <ul style="list-style-type: none"> • Administer a Salbutamol (Ventolin) nebulizer and identify when Salbutamol (Ventolin) was last given and call the physician for a STAT (immediate) order. • Explain to the patient, in layman's terms, the therapeutic use and side effects of the medication. • Collaborate with the interdisciplinary team members to ensure safe delivery of care. • Educate and instruct the patient on the proper use of an incentive spirometer. • Document care provided. <p>Reflecting</p> <ul style="list-style-type: none"> • Reflect on care provided and the learning that occurred.
Scenario 2	<p>The patient's condition has stabilized and he has been on the unit for seven days. He believes he is ready to be discharged home and is waiting for the staples from his sternal incision to be removed. The nurse who provides the shift report to the participants indicates that the patient is ready to be discharged home and that the physician is to follow up with an order for discharge. A message has been left for the physician.</p>	<p>Noticing</p> <ul style="list-style-type: none"> • Collect subjective and objective data (notice a temperature of 38.2° C). • Assess the condition of the sternal incision site and notice dehiscence (open) and one staple missing to distal end. • Notice that the incision is draining serosanguinous discharge and that white blood cell count is high.

Scenario 2 continued	The patient is very excited about going home. The scenario begins with the patient asking “I going home today. Right?”	<p>Responding</p> <ul style="list-style-type: none"> • Inform the patient of the change in discharge plan and explain the rationale. • Provide appropriate patient teaching by explaining the risk of infection and any related consequences. • Contact the physician and recommend holding the patient’s discharge order. • Collect samples from the patient’s wound site, sputum, and urine (for a culture and sensitivity test) and dress the wound. • Document care provided. <p>Reflecting</p> <ul style="list-style-type: none"> • Reflect on care provided and the learning that occurred.
Scenario 3	The patient has been on the unit for 10 days. Due to a dehisced wound, elevated temperature and WBC count, and fear of his condition deteriorating, the patient has remained in bed with minimal mobilization during the past three days. The nurse’s report informs participants that the latest assessment indicates that the patient is presenting with neurological deficits and an inability to speak. Further, a CT scan reveals a left -sided cerebrovascular accident (CVA). The patient’s medications have not changed. The physician orders insertion of a nasogastric tube and a Foley catheter to monitor urinary output. The simulation begins with the patient moaning.	<p>Noticing</p> <ul style="list-style-type: none"> • Collect pertinent data (a set of vital signs and a physical assessment). • Perform a complete neurological assessment and identify subsequent changes to neurological status. • Identify patient’s inability to speak. • Conduct a genitourinary and abdominal assessment prior to inserting a nasogastric tube and Foley catheter. <p>Interpreting</p> <ul style="list-style-type: none"> • Interpret the need to establish a form of communication with the patient. • Interpret the need to change medication administration route (from oral to nasogastric) and consult the physician and pharmacist. <p>Responding</p> <ul style="list-style-type: none"> • Insert a nasogastric tube and Foley catheter. • Explain to the patient what is being done and provide rationale for the care given. • Document care provided. <p>Reflecting</p> <ul style="list-style-type: none"> • Reflect on care provided and the learning that occurred.

Noticing. The participants were to collect pertinent data that included a) a set of vital signs, b) a neurological assessment, identifying any subsequent changes to neurological status, c) a genitourinary and abdominal assessment, conducted prior to the

insertion of a nasogastric tube and a Foley catheter. The participants were expected to identify that the patient could not express himself through speech.

Interpreting. After collecting the data, the participants were expected to a) determine a method for communicating with the patient, given his speech-related deficits, b) recognize that the route of medication administration had changed (from oral to nasogastric) and that, as a result, it was necessary to contact the physician or pharmacist to change the order.

Responding. After interpreting the situation, the participants were to a) perform an insertion of a nasogastric tube (clamping the tube and confirming location by X ray) and a Foley catheter, and b) secure an order change for the medication and administer the medication. The participants were also expected to explain the treatment to the patient and provide a rationale for the care they provided.

Reflecting. During this phase, participants were to reflect-in-action and reflect-on-action regarding the care provided and learning that occurred.

Data Collection

Data is used to generate evidence with which to back up claims of knowledge and test their validity. The data collection procedure in this study is composed of a) preliminary interviews with the participants, identifying their educational, clinical, and professional background, b) observation and field notes, gathered while participants engaged in patient-care simulations, c) three stimulated-recall sessions, and d) three focus groups. After the preliminary interviews were conducted participants were informed of the time and location of the introduction to simulation and simulation activities, stimulated recall and focus group sessions.

Video Recording and Observation of Simulation Activities

The application and use of video recording in this study is a pedagogical tool both for educators and for pedagogical research (Jacobs, Hollingsworth, & Givvin, 2007; Muhirwa, 2009). The video recording is beneficial in debriefing and stimulated recall, as a form of reflection-on-practice. The literature in the field of nursing education supports the use of video recording for purposes of observations (Caldwell and Atwal, 2005), particularly in the field of simulation, as “video-facilitated simulation feedback is potentially a useful tool in increasing desirable clinical behaviors in a simulated environment” (Grant, Moss, Epps, & Watts, 2010, p. 177). Recording of a simulation activity is useful in providing feedback to the participants. Video playback provides an opportunity for participants to observe and critique the scenario and, thus, can be an effective teaching tool.

Video recording is being increasingly used as a data collection tool for research in the field of social interactions (Jewitt, 2012); it allows for observation of non-verbal cues such as facial expression, body posture, and tone of voice, which is difficult to accomplish with other forms of data collection (Morse & Field, 1995; Coleman, 2000). The use of video recording and observation is appropriate in the context of this study, as it is a means of data collection that can support an exploratory research design method (Høegh, Nielsen, Overgaard, Pedersen, & Sage, 2006).

Observations and video recordings were used both as a pedagogical tool and a research method in this study. I observed the participants’ responses, as a group, in each of the simulation activities and compared their responses and actions to the expectations outlined for each scenario. During the stimulated recall activity, the video recordings also

served a pedagogical function, as they allowed participants an opportunity to observe and reflect on their actions during the simulation scenarios. From a pedagogical perspective, the video recordings were used for the purpose of participants' observation during the stimulated recall activity.

Stimulated Recall

The group stimulated-recall activities within the context of this study functioned as a form of both a pedagogical and a research method. A stimulated recall is defined as “an introspection procedure in which videotaped passages of behaviour are replayed to individuals to stimulate recall of their concurrent cognitive activity” (Lyle, 2003, p. 862). Stimulated recall supports the sociocultural context in which nurses work and engage in participatory learning; its value is further enhanced when participants engage in an indirect means of introspection while also engaged in complex interactive activities (Lyle, 2003), such as simulation. Given that simulation is ideally done in a group format, group stimulated recall is an effective medium in this study.

During each group stimulated-recall session, participants watched the video recording of the care they provided to the simulated patient and described what they were thinking while watching the video. The video could be stopped or paused at any time during the process to allow a) questions, based on Tanner's Clinical Judgment Model, to be asked of participants or b) further inquiries to be made regarding participants' actions or responses during the simulated scenarios. After watching the video recording, participants took a short break before joining a focus group. Both stimulated recall and focus group sessions were audiotaped, transcribed, coded, and analyzed. Both the stimulated-recall and focus-group methods are common, in general, to the qualitative-

research framework and, in particular, to interpretative, open-ended exploratory and descriptive design (Koch, 1995). Stimulated recall has been used extensively in educational research; hence, the need to conduct it is beneficial in the field of nursing education.

Stimulated recall activities and think-aloud techniques are the two main processes that have been used in research to find out what goes on inside students' heads while they are learning (Lyle, 2003; O'Brien, 1993). In addition to functioning as a data collection and research tool, stimulated recall triggers reflection, which also makes it a reflection tool. The reflection gained from this activity aligns with the last phase of Tanner's Clinical Judgment Model, particularly reflection-on-action and reflection-in-action. Moreover, the process provides valuable insight for pedagogical development and consideration for teaching strategies with which to enhance the learning of different individuals and groups of students (O'Brien, 1993). The questions that guided the stimulated recall activity reflect the stages of Tanner's Clinical Judgment Model.

Questions that guided each stimulated recall session included:

- What did you notice about the situation when initiating your care?
- What knowledge have you used to interpret the clinical situation? How?
- What was the reasoning behind your thinking process and approach?
- Why did you respond to the clinical situation in the way that you did?
- What was the outcome of your action and how will it contribute to your clinical practice?
- In retrospect, what have you learned from this situation?

Focus Group

Focus groups are a form of group interview that capitalizes on communication between research participants in order to generate data. The focus-group method is an effective way of collecting data, as it provides participants with the opportunity to become actively engaged in the process of analysis. Therefore, instead of the researcher asking each participant to respond to a question, participants are encouraged to engage in dialogue and exchange thoughts with one another. The process reinforces the notion of reflection by allowing participants to comment on each other's experiences and points of view. Further, this process is aligned with the idea of debriefing, which reinforces co-learning by allowing participants to share their experience and develop particular perspectives through interactions with each other.

Additionally, a group discussion can generate more critical comments than individual interviews and allow for a shift from personal to structural solutions. This method is mostly useful for exploring people's understanding and experiences; it provides the researcher with the opportunity to examine not only what participants think, but also how they think and why they think the way they do. This enables the researcher to learn not just the facts (such as in a survey method), but also the meaning behind the facts and, thus, eventually leads to the production of insight and a means of transformation.

Furthermore, understanding how IENs experience, interpret, and apply clinical judgment is critical in order to reinforce curriculum and pedagogical development, as the knowledge and skills embedded in judgment are key foci in nursing education. A focus group provides participants with the opportunity to discuss their thoughts and feelings

and reflect on the activity and on their overall experience. For this part of the data collection, I posed the following open-ended questions to stimulate discussion and dialogue:

- Has this experience transformed your nursing practice? How?
- What are your thoughts of this activity? Is this a valid process in your transition to nursing practice in Ontario? How?

The focus-group process allowed participants to describe their experiences and understanding of clinical judgment and how it influenced their problem-solving and decision-making skills and overall nursing practice.

Data Analysis

The data was analyzed according to the traditional framework for qualitative data analysis. The data was analyzed as a group for all three of the data-collection methods (i.e., simulation, stimulated recall, and focus group). Rationale for this method was based on the theoretical perspectives rooted in the sociocultural learning and the context of nursing practice in Ontario.

The data was organized and analyzed, case-by-case, for each group-simulation video recording, group-stimulated recall, and focus group. The data was analyzed by scenario rather than by data source. The data analysis of the videotapes was based on observations of the participants' responses when providing care to the HFPS and also on the field notes for each simulation activity. The expectations, based on the steps of Tanner's model, were used to analyze the video recordings. The audiotapes of the three stimulated-recall sessions and three focus-group interviews were transcribed word-for-word. Independent data analysis was then performed according to Colaizzi's (1978)

seven steps: a) read and review the data, b) extract significant statements, c) formulate meanings, d) organize aggregated meanings into themes, e) integrate study findings, f) formulate the description of investigated phenomena, and g) validate findings.

Essentially, the data analysis process involved a) immersion in the interview and the video recording data through reading and reflecting until an overall understanding was achieved, b) identification of significant statements and emerging meanings and themes, and c) arrival at coherent and consistent interpretations.

Content and thematic analysis methods were used to analyze data. Three types of coding were conducted including open, axial, and selective. Open coding can be defined as a careful examination of the raw data, in which key concepts are identified and grouped into categories to be analyzed at a later stage. The codes were categorized into nodes with particular identifying descriptions. Theoretical saturation was achieved when no new codes or nodes were identified (Corbin & Strauss, 2008).

Axial coding refers to a focused analysis of the nodes relating to a single category, which allows interactions and relationships to emerge, thus exposing themes. While open coding is related to identifying categories and naming nodes, axial coding allows the researcher to make links and identify relationships between the categories, such as causal conditions, contextual factors, and interactions related to phenomena (Corbin & Strauss, 2008). Thus, axial coding leads to creation of meaning for the area being studied. During the selective coding phase, the core categories emerge. Links are then made between the core categories and the categories and nodes previously identified.

In order to gain a better understanding of the data collected, the data from both the

group stimulated-recall sessions and the focus groups were integrated. I initiated the analysis of the data with open coding. The open-coding process allowed me to relate the participants' subjective statements with the meaning behind their statements. The open-coding process involved reading the transcripts and coding the data line-by-line, thus generating numerous codes. These codes were identified as the building blocks of the analysis, which illuminated topics and questions for further exploration.

I then proceeded to axial coding, which led me to make connections between categories and subcategories; I put the data together in new ways in order to explore the conditions and contexts that influence the phenomena and/or social processes that are being studied. During the data-analysis process, I continually moved back and forth between open and axial coding, refining the categories and their interconnections into nodes.

The process of both open and axial coding was exhausted when no new findings or concepts could be identified. NVivo 10 research software was used to facilitate the open and axial coding and sorting from which a final list of nodes was identified.

The data that emerged during the selective coding phase afforded detailed explanations for what I identified as the central, or core, categories. This process allowed me to understand the theoretical development regarding the nature and relationships of core or essential categories and concepts emerging from the data. These themes will be discussed in Chapter 5.

The context and structure of the study provided participants with the opportunity to go through the phases of Tanner's Clinical Judgment Model and reflect on both the individual activities and the overall process. The ability to engage as a group allowed

each participant to further reflect on the experience, on his or her individual role as part of the group, and on how this individual role impacted patient-care outcomes. Working alongside each other and being engaged as a group both during the HFPS activity, the stimulated recall, and the focus group session provided a collaborative opportunity for learning.

Summary

This chapter presented the rationale for qualitative designs and methods that were used to explore IENs' experience and understanding of clinical judgment in the context of simulated clinical environment, through reflection and stimulated recall. Data collection procedures and issues, including sample characteristics and setting, sample recruitment, ethical consideration and data analysis were described.

CHAPTER FIVE: Analysis of Findings

Chapter 5 provides an overview of the findings and themes that emerged from the data and a detailed analysis of each theme. The chapter is organized into two main sections: a) the descriptions and interpretations from observations of the video recordings and stimulated recall of the participants' responses during each of the three simulated case scenarios (analysis is done by case) and b) themes that emerged from the data analysis. An interpretation of the findings will offer explanations of the participants' experiences and understanding of clinical judgment. The summary that follows these two sections illustrates the relationship between the themes and their application to clinical judgment.

Description and Interpretation of Participants' Experiences in the Three Scenarios

The findings reflect the data (for each simulated case scenario) from all three sources: three video recordings, observing participants' responses, as a group, to simulated case scenarios; three group stimulated-recall activities; and three focus groups. A detailed description of the way the participants provided nursing care in each one of the simulated scenarios is provided. The descriptions are organized and analyzed using the stages of Tanner's model of Clinical Judgment (noticing, interpreting, responding, and reflecting).

In nursing practice, the nurse's role is to consistently demonstrate professional conduct in accordance with practice standards. The nurse's primary duty is to ensure safe, competent, ethical nursing care for the patient by conducting patient assessments, planning patients' care, and implementing, intervening, and evaluating the effectiveness

of the care provided. Part of the nurse’s job is to administer medications and other interventions, delegate patient-care needs, liaise and work alongside other interdisciplinary team member(s), and document and communicate the care provided.

To simulate the role of the nurse in this study, during the simulation each participant played one of four roles: primary nurse, assessment nurse, medication nurse, or documentation nurse. Each participant chose his or her role prior to initiating the simulation activity and played a different role during each of the three case scenarios. Five minutes before entering the simulated environment where they were to provide care for the patient, the participants discussed how they would divide their roles. They were then given the shift report, which allowed them an opportunity to ask questions and clarify information provided by the nurse giving the report.

Table 3
Description of Participants’ Roles in the Simulation Activity

Role	Description
Primary nurse	<ul style="list-style-type: none"> • Delegates the HFPS’s care. • Liaises with interdisciplinary team member and intradisciplinary team members. • Educates and provide patient teaching on an ongoing basis. • Oversees the care of a given patient assignment.
Assessment nurse	<ul style="list-style-type: none"> • Conducts patient assessments. • Collects subjective data, including patient’s responses to nursing care. • Collect subjective data by checking vital signs and performing other physical assessments associated with the patient’s condition.
Medication nurse	<ul style="list-style-type: none"> • Administers medication, ensuring they are given in a timely manner. • Makes decisions regarding medication based on patient’s condition. • Teaches patient about medication prior to administration. • Monitors side effects and evaluate the effectiveness of the medication. For example, if patient’s respiratory rate is impaired, the nurse must make a decision based on subjective and objective assessment and proceed by interpreting whether to administer the medication. Nurse must be able to support decisions with an appropriate rationale.
Documentation nurse	<ul style="list-style-type: none"> • Records and document the care provided

Table 3 summarizes descriptions given to the participants of the individual roles to be played during the simulation activities; these general descriptions apply to the

simulations only and are not a complete list of the nurse's role. Table 4 goes on to summarize which participant played each of these roles in the simulated case scenarios.

Table 4
The Roles of the Participants' for Each Simulated Case Scenario

Case Scenario	Roles of Participants
Scenario 1	<ul style="list-style-type: none"> • Primary nurse [Molly] • Assessment nurse [Peter] • Medication nurse [Lillian] • Documentation nurse [Beatrice]
Scenario 2	<ul style="list-style-type: none"> • Primary nurse [Peter] • Assessment nurse [Molly] • Medication nurse [Beatrice] • Documentation nurse [Lillian]
Scenario 3	<ul style="list-style-type: none"> • Primary nurse [Beatrice] • Assessment nurse [Molly] • Medication nurse [Peter] • Documentation nurse [Lillian]

Both the case scenarios and my expectations for each scenario are described, at length, in Chapter 4 and are summarized in Table 2. The following sections describe a) my observations, subdivided into each of the four stages of Tanner's Clinical Judgment Model, of the participants' responses (what they did and did not do) and b) my interpretation of how the participants' responses align with the framework of clinical judgment.

First Case Scenario

Observation of the participants' responses. In this scenario, participants played the roles of primary nurse (Molly), assessment nurse (Peter), medication nurse (Lillian), and documentation nurse (Beatrice).

Noticing. Upon entering the patient's room, the participants identified that he was short of breath. Molly began by collecting objective findings (taking vital signs and performing a physical assessment). The patient's oxygen saturation level, which was low (indicating that he needed oxygen), was not initially assessed. Five minutes into the

scenario, Molly noticed that the patient's oxygen saturation was declining. Peter continued by checking that his nasal prongs were in place, but did not check whether the nasal prongs were connected to the oxygen titration (regulator) system. As a result, the participants did not notice that the equipment was not attached to the oxygen system. The patient's condition did not ameliorate and he continued to cough. Molly and Lillian continued by asking the patient whether he was in pain but did not perform a thorough pain assessment to identify the quality, severity, and timing of the pain.

Interpreting. Peter decided that the patient would benefit from suctioning and communicated that to the group. Peter introduced a suction catheter and proceeded to insert it into the patient's nose. Peter demonstrated lack of confidence with this interpretation as he realized that his response in this case was inappropriate. When the patient inquired why a "tube" was being inserted in his nose, Peter put the catheter away with no further explanation. Ten minutes into the scenario, Beatrice found that the oxygen equipment was disconnected from the wall and interpreted the need to connect it in order to increase the oxygen saturation. The participants continued to talk to each other about how to proceed with nursing care delivery and were making the patient-care decisions at the patient's bedside. The patient was able to hear the conversation between the participants. The participants did not pay attention to the fact that the patient was able to hear their conversation.

Responding. The participants' care for the patient was based mainly on a technical or a skill-based approach, which focuses on "hard" skills as opposed to "soft" skills (such as communicative and interactive skills). In the context of this study hard skills are referred to as the technical aspect of patient care, where as soft skills are

associated with the interpersonal and affective domain of patient care. The participants were more concerned with the way the equipment worked and was positioned (i.e., intravenous (IV) port) than with interacting with the patient. Despite connecting the oxygen to the wall, the patient continued to be short of breath. Peter continued to check the IV site and stood at the patient's bedside, while the other participants looked at the medication administration record and decided on the administration of medication. Eighteen minutes into the scenario, the participants discussed the need to reposition the patient to a high Fowler's position (upright) and continued to check the dressing (on his incision) and retake vital signs. The participants illustrated confidence in the way they provided care to the patient. Beatrice asked Lillian to prepare the medication to be administered. Both Acetaminophen (Tylenol) (to decrease the level of pain) and a nebulized Salbutamol (Ventolin) treatment (to alleviate the coughing and shortness of breath) were administered. The physician was not contacted for a STAT order. The patient was not taught how to use a spirometer.

The participants' responses in this scenario were not congruent with the expectations. Although they did meet the expectations of identifying the patient's respiratory state and conducting physical assessments, the assessment was delayed and was not completed thoroughly. For example, while the assessment nurse asked about the patient's pain level, he did not do a thorough pain assessment to ascertain the location, quality, and timing of the pain, or whether the pain was radiating to any other part of the body. Lack of this type of assessment poses a risk to patient safety. Although the medication nurse identified the need to administer Salbutamol (Ventolin), she did not contact the physician for STAT order or liaise with other interdisciplinary members; this

indicates a lack of assertiveness and of decision-making skills. Further, when administering the medication, the patient was not informed of the purpose of the medication or the associated side effects. The primary nurse did not collaborate with the interdisciplinary team to ensure continuity of care. For example, the respiratory therapist was not contacted to help stabilize the patient's status. The patient was not provided with education about his condition or the benefits and proper use of an incentive spirometer.

Reflecting. Reflection-on-action and reflection-in-action took place during the group stimulated recall activity. The participants used empirical knowledge to provide rationale for the delivery of their care. They acknowledged that their nursing care was based on assumptions about what a patient in this state would require. For example, they made the assumption that they should administer pain medication (as coughing may lead to incisional pain), without doing a thorough pain assessment. They came to realize, through reflection, that their assumptions may have compromised the patient's health status and that communication was important in this case. Furthermore, they acknowledged that the collection of subjective findings and subjectivity were key elements to effective patient outcomes. Moreover, all participants mentioned that their assumptions and their way of providing nursing care emanated from their culture, cultural background, and previous nursing experience, and noted that these assumptions influenced the patient's safety in the context of this scenario. Upon reflecting on the scenario Molly commented,

I think...practicing nursing in Canada is all about safety...your patient's safety first. This [activity] gave me the opportunity to be able to let go of what I have in

me [cultural beliefs] from where I came from and trying to put together what's not practiced in Canada.

Collaboration, teamwork, and communication were acknowledged to be essential factors in effective patient-care outcomes, particularly in relation to the risk to, and safety of, the patient (Risser et al., 1999). When participants reflected on their actions, they realized that, in order to provide effective patient care, there was a need to integrate other members of the interdisciplinary team (physician, pharmacist, and respiratory therapist). Although participants acknowledged that it was the nurse's responsibility to liaise and provide clear and complete information to the other multidisciplinary team members, they were unclear of how to proceed and whom to consult about patient-care needs. Lillian mentioned that, from her experience, there was a lack of communication between nurses and other health-care team members, which impacted both patient safety and health-care outcomes.

Where I came from...I didn't have those [collaboration] skills. Whatever you [referring to nurse] are doing it's your own. We [nurses and other health-care providers] don't communicate that much. They [other health-care providers] would say where the patient goes from the ward to that unit and we [nurses] do whatever we are [supposed to be] doing and after that we don't know anything [about] whether they [patients] are improving or not. We don't know.

Peter provides an example of how a gap in communication among members of the health-care team can be a risk to patient care: "If the physician recommend them [patients] to go to a department... he says take the patient to that and this

department...they do whatever they want to do and bring them [patients] back we don't know what they did.”

In the Canadian health-care setting, a lot of the communication between interdisciplinary and intradisciplinary team members is done through the documentation provided on the patient's chart. Molly discusses this, as a gap in her practice, noting that this type of communication was part of her past experience, as nurses in her home country don't actively take part in this practice:

In my country, nurses don't write in patients chart. We just have a checklist. It's for our note [for the nurses' reference] it's not for the physician. They [physicians] rely on their own and we [nurses] rely on our own. If there is a question, we go and ask but we don't put anything in the chart.

Lillian corroborated that nurses, in her experience, work in isolation; lack of communication was the norm in her previous nursing practice. She noted that this lack of communication has implications for risk and safety: “From my experience nurses don't write in the patient chart we just have a MAR [medication administration record].”

Participants' descriptions of their experiences in their home countries suggest a “they” and “we” mindset, as opposed to the “us” approach prevalent in the Ontario context. Moreover, the way nurses are perceived is also very different. Recognizing these differences is an important factor in understanding IENs' experience and understanding of clinical judgment. Furthermore the need to recognize these differences is imperative in terms of both implications for patient care and IENs' transition to practice in Ontario. The importance and implications of these differences and their influence on IENs'

experience of clinical judgment will be further discussed later in this chapter under the heading, “A Shift from Expert to Novice.”

In addition to indicating that nurses are perceived differently in their culture, all participants stated that they were not aware of the extent to which autonomy and decision-making factor into a nurse’s role in Ontario. When reflecting on the first scenario, Lillian sought clarification in regard to her role in decision-making:

What can we do [in the case of deciding to administer a PRN medication] because it [administration of medication] happened about how long... half an hour now and this patient is coughing, we actually need something to get the secretions out and the only thing we have on the chart is Salbutamol [Ventolin]. Is there anything that we can do? Can we make that decision?

Lillian mentioned that, although she understood that the patient required medication to alleviate his condition, she questioned her role in making decisions regarding medication administration. Generally, when there is a PRN (administer as needed) medication ordered for a patient, the nurse, as an autonomous decision maker, would decide whether the patient requires it based on an assessment of the patient’s condition. In the scenario, the medication order indicated that the PRN medication was to be given every four hours. Yet the patient manifested the symptoms 30 minutes after receiving the medication and needed another dose to de-escalate his condition. Although the nurse would not be able to administer the medication without consulting with the physician, as a decision maker in this case, the nurse would need to call the physician and recommend the additional dose, based on the assessment findings. All participants

indicated that they agreed with this action, yet it was not demonstrated during the scenario.

Interpretation of the participants' experience and understanding of clinical judgment. This section provides an interpretation of the participants' experience and understanding of clinical judgment by considering how they responded to the patient and provided care during the scenario. In this case scenario, the participants showed a level of expertise in the application of knowledge to support their actions. They were confident in the way they provided care yet, upon reflecting, recognized a shortcoming in the care they provided. They noted that care was provided from a technical perspective and lacked forms of interaction, both with the patient and with the interdisciplinary and intradisciplinary team; this lack of communication posed a potential risk to the safety of the patient.

Although participants illustrated expertise in their technical skills, there were instances where they illustrated lack of confidence, awareness, or collaboration with the health-care team, as illustrated by the following examples. Peter exhibited a lack of confidence when the patient asked why a suction catheter was needed; he neither provided rationale nor completed the procedure. Conversations at the patient's bedside highlighted the participants' lack of awareness of patient-centered care, as they discussed patient-care options with each other but not with the patient. Finally the participants did not adequately collaborate with the members of the health-care team to ensure continuity of care; despite the patient's shortness of breath, they did not contact the respiratory therapist, nor did they request a STAT order of Salbutamol (Ventolin). These examples underscore the importance of communication, both between participants and with other

members of the team, including the patient. They illustrate how lack of communication can influence clinical judgment and, ultimately, patient-care outcomes. My observations of the participants align with Chase's (1995) assertion that "communication and the social context for clinical judgment affect the judgment process itself" (p. 162). They also support the notion that, although many approaches to explore clinical judgment have been based on individual perspectives, there is a need to explore how individuals experience and understand clinical judgment collaboratively, as in actual practice clinical judgment almost always occurs in a group context (Chase, 1995, p. 154) Finally, they emphasize that effective communication is an essential factor to "optimal judgment by all care providers" (Chase, 1995, p. 154). These observations contribute to the literature on the effectiveness of communication patterns in supporting the development of clinical judgment, which has been explored both by clinicians and educators for many years (Chase, 1995). These observations highlight communication as a key factor in the effective delivery of nursing care: Communication has an influence on patient-care outcomes and, hence, is an essential factor in clinical judgment.

My interpretation of the participants' responses during the scenario indicates safe and effective care was dependent on communication and collaboration among all interdisciplinary members. This further illustrates that, in order to provide effective care, it was imperative that the participants understood and appreciated their individual subjectivities. In the context of this study, the concept of subjectivity refers to the individual who is both a thinking subject and intersubjective being.

Second Case Scenario

Observation of the participants' responses. In this scenario, participants played the roles of primary nurse (Peter), assessment nurse (Molly), medication nurse (Beatrice), and documentation nurse (Lillian).

Noticing. Molly began the interaction with the patient by stating, "You are going home." The patient continued by pointing to the incision (to his sternum), indicating that the staples needed to be removed before he could be discharged. Molly and Peter proceeded by checking the patient's incision and noticed that it was draining bloody discharge and that one staple was missing. Molly and Peter continued by taking the vital signs, which indicated a temperature of 38.2 degrees Celsius—a low-grade fever—and proceeded by performing a respiratory, cardiovascular, and abdominal assessment.

Interpreting. Through communications with each other, the participants interpreted that the patient's temperature was out of range and decided to look up the patient's blood work, which indicated an elevated white blood cell count. Beatrice took another look at the patient's medication record and identified that he was on Coumadin, which they clearly interpreted needed to be communicated to the physician. As a group, they made a decision to contact the physician and communicate their findings. They were confident in the interpretation of their findings prior to contacting the physician.

Responding. Beatrice proceeded by calling the physician; she reported the assessment findings and asked whether to continue to remove the staples. The physician asked her to obtain a sample from the incision, dress the incision, and put the patient's discharge plan on hold. Molly updated the patient of the change to his discharge plan. When the patient inquired about the state of his incision, Molly commented, "This is not

good.” The patient was very upset about his discharge plan being delayed. The participants looked at each other in order to validate how they were going to reply and continued by telling the patient that they understood what he was going through. They seemed confident with their response and proceeded by preparing the dressing tray, at which time the scenario ended.

In many regards, the participants provided care according to the expectations during this scenario, but they again failed to demonstrate recognition that the need to communicate with the patient is an essential factor of nursing care. Upon initiating patient care, both the assessment nurse and primary nurse informed the patient that he would be going home. They told the patient, “You are going home,” before conducting their own assessment; they relied, instead, on someone else’s assessment. Their actions highlight the risks associated with relying on another’s assessment, rather than conducting an assessment of one’s own.

Although the participants later informed the patient of a change in discharge plan, they did not impart other, crucial information. They did not properly educate the patient about the risks of infection and further dehiscence of the wound or about how to prevent infection and further deterioration. Patient education is a critical point, as it affects patient-care outcomes. In response to the patient’s distress about not going home, the primary nurse responded, “I understand what you are going through.” This demonstrated a lack of acknowledgement of the subjectivity of the patient, as different individuals experience situations differently. It should be noted, however, that this response may be considered acceptable in other cultures.

Communication skills were also an issue in the participants' interactions with the doctor. The participants did contact the physician to inform her of the missing staple and to confirm that the staples were to be removed. Further, they were able to successfully interpret the doctor's order and to demonstrate competence in collecting samples and dressing the wound. However, they had difficulty conversing with the physician, as they were not clear about how to organize their report: They did not introduce themselves nor did they indicate their patient's diagnosis and length of stay. It is the nurse's responsibility to communicate this effectively, as poor communication can affect how the physician interprets information and can, thus, compromise patient-care outcomes.

Reflection. Reflection-on-action and reflection-in-action took place during the group stimulated recall activity. Upon reflecting on the care they provided to the patient, the participants realized that they provided the patient with false reassurance by telling him that he was going home. They acknowledged that providing false reassurance might have implications on a patient's emotional state of being. Lillian noted, "Yeah, you really need to tell the truth, even if it's hard for the patient." They reflected on the need to perform a thorough assessment upon their initial encounter with the patient in order to identify an adequate plan of care. They explained that their initial answer to the patient was based on the previous nurse's assessment and report. This led them to reflect on the need to a) conduct their own assessments and b) communicate clearly and provide the patient with a lucid rationale for the health-care provider's decision. All participants discussed effective communication, acknowledging its importance in the context of this scenario and noting how it is influenced by cultural norms and background. Beatrice stated:

I think I learned that I have a lack in my communication. I really need to communicate to the patient that we're going to change your dressing, we're going to speak to your physician, and you have drainage. We need to work on it. You are not going home...we need to communicate that with the patient because the Canadian culture they [patients] will ask questions all the time.

In addition to the lack of communication identified by the participants, patient education was another area that was discussed during reflection. All participants commented that communicating with the patient in this way was not practiced in their cultures. Peter noted, "Back home we don't usually talk that much to patients. We don't explain procedure itself and we just do it [provide care]...and the patient expects that as normal. It's normal for them." Molly corroborated:

It [the scenario] was hard practice for me because I never did patient teaching in my practice...I wasn't expected to do it. But here [Canada] I never discharged patients and it was a good experience for me and showed me my gaps.

Moreover, when reflecting on the significance of teaching patients—an imperative part of discharge planning and overall patient care—there was a common understanding among the participants that patient discharge planning needs to be ordered by a physician. Beatrice commented, "Patient discharge planning begins when there is an order." The comment indicated the participants' lack of experience in the process of decision-making and their dependence on someone else's instruction. This lack of independence in making such decisions may influence patient safety in the long run. This scenario led participants to experience the many roles nurses play, which, in this instance, included patient advocate and teacher. They also learned of the need to initiate patient

teaching and discharge planning for a postoperative patient on admission, as pertinent information and teaching provided on the last day of the patient's hospital stay may not be fully absorbed.

While watching the video, I stopped at the point where the participants informed the patient that he is not going home, and Molly responds to his query about the state of his incision by saying, "This is not good." I wanted to highlight how a response like this can influence patient-care outcomes, as "not good" may mean different things to different people. The group reflected on the notion that every individual may interpret responses differently and that there is, therefore, a need to communicate clearly.

Interpretation of the participants' experience and understanding of clinical judgment. In this scenario, the manner in which participants noticed and interpreted the situation was congruent with expectations. Although they initially relied on another nurse's earlier assessment when they told the patient he was going home, during the course of the scenario they interpreted that the patient was not able to go home due to his elevated WBC and fever. They did not, however, communicate this to the patient. Their false reassurances regarding his discharge eventually caused the patient distress, which illustrates the need to focus on the importance of communication as part of developing clinical judgment. This notion is corroborated by the participants' failure to teach the patient how to properly care for his incision, which illustrates how the lack of communication, as an essential element of care, can lead to negative patient-care outcomes.

Moreover, the inability to communicate clearly has the potential to lead to misinterpretations on the patient's part. These misinterpretations may influence the

patient, both psychologically and physiologically, and, thus, may influence the delivery of effective patient care. For example, Molly's statement, "This is not good," may have made the patient anxious, and this agitation could have influenced his state of being and overall health. During reflection, participants demonstrated an understanding of the importance to perform a thorough assessment of every patient under their care, regardless of whether he or she is ready for discharge. This confirms that learning through reflection is valuable exercise to aid IENs in understanding and developing clinical judgment. The participants' experience in this scenario demonstrates that making assumptions, failing to communicate effectively, and providing insufficient patient education all have the potential to negatively impact patient-care outcomes. Moreover, their ability to realize these points, through reflection, illustrates how experience complements the understanding of clinical judgment.

Reflection illuminated the role the participants' cultural backgrounds had in influencing their behaviours, particularly in regards to decision making and communication. It is important to note that, in Ontario, nurses are expected to perform assessments on each individual under their care. According to the CNO competencies required for entry-to-practice for registered nurses (2014),

the nurse incorporates critical inquiry and relational practice to conduct a client-focused assessment that emphasizes client input and the determinants of health...and in collaboration with the client conducts an assessment of the physical emotional spiritual cognitive developmental environmental social and learning needs including the client's beliefs about health and wellness. (p. 7)

This quote stresses that, in the Ontario context, nurses are expected to independently assess patients and not rely on assumptions. It also stresses the importance of communicating with the patient. As such, this quote highlights how accurate data collection and effective communication contribute to the understanding of clinical judgment.

Third Case Scenario

Observation of the participants' responses. In this scenario, participants played the roles of primary nurse (Beatrice), assessment nurse (Molly), medication nurse (Peter), and documentation nurse (Lillian).

Noticing. Upon entering the patient's room, Beatrice and Molly noticed that he was moaning and asked if he was in pain. Beatrice explained, "We will be checking your vital signs to make sure everything is okay. Is that okay with you?" The patient continued to moan. Molly and Beatrice proceeded by taking vital signs and performing respiratory, cardiovascular, and abdominal assessments. Five minutes into the scenario they were still taking vital signs, performing physical assessments, and asking the patient if he was experiencing discomfort. The patient continued to moan.

The patient's moaning led participants to assess his level of orientation. Molly asked the patient if he knew what the date was. The patient continued to moan. Molly and Beatrice looked at each other to confirm how they would proceed with their care. Silently, they decided to continue with a neurological assessment. This assessment revealed neurological deficits and impaired movement to the patient's left side. The participants identified that the patient has suffered a stroke. They communicated this to one another, saying "it's stroke," but were careful not to say it around the patient. After

the assessment was complete, all participants looked at each other. They showed signs of concern but stopped verbally communicating with the patient.

Interpreting. All participants collaborated together and incorporated their findings and used their findings to inform how they proceeded with patient care. This led them to interpret that they needed to contact the physician to obtain an order to change the medication route of administration from oral to nasogastric.

Responding. Lillian responded by contacting the physician and confirming the need to change the medication order from oral to nasogastric. After gathering all the equipment necessary to properly perform the procedures, Beatrice and Peter inserted a Foley catheter and nasogastric tube and administered Acetaminophen (Tylenol) (a pain medication). Although the participants continued to communicate among themselves, their communication with the patient was very limited. The participants continued to perform clinical procedures for the remainder of the scenario (15 minutes). While performing these skills, they ensured that their sterile field was properly laid out for the catheterization and were mindful of how they positioned the equipment (to ensure no contamination). They also took the time to ensure that the patient was comfortable. They repositioned the patient in order to allow insertion of the NG tube. They were very patient and took their time when performing the skills. The participants' responses met most of the expectations for this case. The assessment nurse and primary nurse did collect pertinent data and perform a neurological assessment, which identified subsequent changes to the patient's neurological status. They also performed genitourinary and abdominal assessments prior to inserting the nasogastric tube and Foley catheter. The participants' responses did illustrate that the patient was suffering from a neurological

deficit. Although they tried initially to communicate with the patient and asked him questions to ascertain if he was alert and conscious, their inability to establish communication with the patient led them to interpret that he was manifesting expressive aphasia. They did not try to establish an alternative form of communication with the patient that would allow him to properly reply. This represents a gap in the care provided to this patient. The medication nurse did interpret the need to change the medication administration route; she subsequently contacted the physician and obtained an order to change it. The interventions were done effectively, but no explanation was provided to the patient about what was being done. There was a general lack of interaction with the patient, which aggravated him and made him anxious.

Reflecting. Reflection-on-action and reflection-in-action took place during the group stimulated recall activity. In reflection, the participants acknowledged that they made various assumptions about the patient's state of being during the scenario. One assumption made by the participants was that the patient was in pain, as he was moaning. Beatrice noted,

I think in most cases I initiate my intervention based on assumptions...that is an area I need to further reflect on. Everything should be based on your observations not your assumptions. That should be based on subjective and objective not assumption or the colleagues' perception.

The participants also acknowledged that their experience during this scenario allowed them to appreciate the patient as a person. Peter commented, "I learned from this one [scenario] that patient is a person." They indicated that being exposed to a situation like this provided the opportunity to communicate with different types of patients.

Beatrice observed, “I think I will be more effective in communicating with patient with speech problems...to keep speaking to patient even if they don’t understand...I need to work out this habit and keep speaking with patient.”

The participants’ experience of clinical judgment, within the context of this scenario, highlighted that communication was imperative to every patient interaction. They realized that the concept of communication extends beyond language or the ability to produce speech and includes other ways of interacting with one another. Being exposed to a situation like this provided participants with the opportunity to see themselves through a different lens and to understand how their interactions and approach can impact the way in which they provide patient care.

The ability to interpret communication in this way led participants to reflect on how their cultural background influenced their approach and interaction with the patient. They identified that, although they understood the need to communicate (which they also identified based on their exposure to the two previous scenarios), it was a challenge in this scenario. Watching video recordings in which they provided care to the patient allowed participants to witness how their culture of care impacted their interaction and to make meaning of their overall experience. Peter’s comment illustrates this point: “Because those are the things [skills and procedures] we needed for the continuity of care, the skills were paramount before moving on.” His statement illustrates his belief that procedures are more important than interactions; this belief fails to acknowledge that the interaction between the patient and nurse can provide vital information about the status of the patient or that initiating care by performing a skill without first clarifying the patient’s needs can lead to negative patient outcomes. Peter’s statement led the

participants to further reflect on how this experience influenced their understanding of clinical judgment.

All participants indicated that engaging in the scenario and the stimulated recall activity and reflecting on the way they provided care has enhanced their understanding of clinical judgment. They provided examples of how the experience positively influenced them and their future practice. Beatrice noted, “This whole project showed me how many things we can miss and what should be done about it. Unfortunately, nobody record us in other projects or situation and we cannot see how our interactions affect our patients.”

Interpretation of the participants’ experiences and understanding of clinical judgment. My observations of the participants’ experiences in this scenario led me to interpret that their culture of care influenced their approach and their interactions with the patient. They stated that, although they understood the need to communicate (which they identified based on their exposure to the two previous scenarios), it was a challenge in this scenario. The experience of watching themselves as they provided care to the patient allowed them to witness how their culture of care influenced their interactions. Further, it allowed participants to make meaning of their overall experience. The experience in this scenario provided a better understanding of how assumptions and underexposure to circumstances can compromise patient-care outcomes; as such, it is a critical factor in the understanding of clinical judgment.

In this scenario, the participants’ actions and reflections suggest that they were beginning to understand that they needed to stop making assumptions and to consider the whole of what they observed; further, they demonstrate an awareness of patient care as a holistic phenomenon, in which subjective and objective findings are integral. Through

their reflections, participants began to understand the value and meaning of clinical judgment. Peter articulated this understanding: “I need to use clinical judgment in assessing the emotional status of the patient.”

Overview of the Three Scenarios

The findings from the observations of the three scenarios provide a clearer understanding of IENs’ experience of clinical judgment. The learning that occurred over the course of the three simulated scenarios demonstrates that clinical judgment involves a holistic culture of care. This culture of care includes communication, collaboration, and teamwork with the interdisciplinary and intradisciplinary teams, as well as with the patient, who is an integral part of the health-care system. This experience led participants to the understanding that the need to appreciate one’s subjectivity is an imperative element to positive patient-care outcomes. Further, this exposure to an unfolding case scenario provided participants with an opportunity to explore different ways of being and interacting with the patient and the health-care team, which further developed their understanding of clinical judgment.

Although the participants illustrated a level of confidence when providing care to the simulated patient, particularly in the way they performed nursing interventions and procedures, they lacked the ability to employ communicative and interactive skills—skills that are integral elements of the CNO entry-to-practice competencies (CNO, 2014). These responses indicate that the participants’ practice was at a novice level. This conclusion is supported by observations made during the study: Participants a) based decisions on assumptions, which could have had negative implications for patient care; b)

made patient-care decisions without involving the patient; and c) did not view the patient as the center of care.

Making assumptions was an integral piece of the participants' experience in the study. They made reference to the fact that their knowledge was based on "book knowledge" and that their experience in the study allowed them to appreciate the patient's subjectivity and to view a patient as a person. Their experience led to the realization that misinterpretations and assumptions can negatively impact safety. They came to understand that the need to conduct an initial assessment on every patient is a responsibility of the practitioner. This experience changed their thinking and led to a paradigm shift, which, in turn, led to a better understanding of clinical judgment. Evidence of this will be provided through the analysis of the themes that emerged in the study.

Analysis of Themes

The main intent of this project is to investigate IENs' experience and understanding of clinical judgment while engaged in a simulated clinical environment, stimulated recall activities, and reflective practice. The following research question guided this study:

- What is the experience and understanding of clinical judgment of IENs when engaged in High Fidelity Patient Simulation (HFPS) and stimulated recall and reflective practice?

This study provides an understanding of how a sample of IENs actually responded to various patient-care situations. In doing so, it underscores the need to provide IENs with the teaching and learning tools necessary to ameliorate their transition to practice and to

facilitate their integration into their adoptive community. The implications of the findings for pedagogy and policy, theory, and research will be discussed in Chapter 6.

The study uncovered essential themes in relation to IENs' understanding and experience of clinical judgment. This section will provide a description of the themes that emerged from the findings and discuss their implications for the teaching and learning of IENs. Six themes pertaining to IEN's experience and understanding of clinical judgment emerged from the observations, stimulated recall activities, and focus groups: the shift from expert to novice, the need to rethink cultural competence and culturally competent care, the acknowledgement that culture and diversity are integral to understanding clinical judgment, the role of communication as a means to understanding clinical judgment, the recognition of unlearning as a way to understanding clinical judgment, and the phenomenon of unknowing as a dimension to understanding clinical judgment.

IENs' Experience of Clinical Judgment: A Shift From Expert to Novice

The theme that emerged from the video recordings, observations, and field notes was that the participants' experience was that of expert to novice. Although IENs were experts in their previous clinical settings, they were novices in their approach to the culture of care in the Ontario context. The experience led them to an enhanced understanding of their shift back to novice in the context of this different environment.

IENs bring a wealth of knowledge, experiences, and skills to their new practice area and may be considered experts in their own countries, which may be highly valuable in multicultural societies such as Ontario (Adeniran et al., 2008). Although the participants' responses during simulation illustrated that they were knowledgeable and confident in performing clinical procedures, they acknowledged that the approach to care

expected during the simulation was different from their prior clinical experience. This finding is supported by the literature (Bohnen & Balantac, 1994; Chege & Garon, 2010; McGuire & Murphy, 2005; Tregunno et al., 2009), which identifies the need to both accommodate and facilitate IENs' transition into the Ontario nursing workforce.

The participants' level of expertise when communicating and interacting with the patient and the interdisciplinary team identified them as novices in the Ontario context. This finding provides valuable insight in the context of understanding clinical judgment. To illustrate this point, consider this example: One of the expectations for the second scenario was to provide discharge teaching to the patient. The participants neither provided nor planned to provide discharge teaching for the patient. When asked to share their rationale, one participant indicated that discharge planning and teaching begins only when there is an order by a physician. This both emphasizes a difference in cultures of care and illustrates potential implications for practice.

Although it is the physician's role to write an order for discharge, in the Ontario context it is the responsibility of the nurse to conduct the appropriate assessments at the time of care and to determine if the patient is actually ready for discharge. Further, the nurse is to consider the patient when creating a plan of care; this acknowledges the need for individualized care, as two patients may have the same diagnosis, yet want or require a different plan of care. The experience of IENs in the study illustrates that they were unaware of the nurse's role as teacher in the context of this scenario. This lack of awareness of the teaching function of the nurse may influence the decision-making process and may have negative implications for patient safety.

The research in the area of patient education emphasizes that “hospitalization presents an opportunity to address patients’ unique urgent learning needs” (Nettles, 2005, p. 45), and highlights the importance of beginning patient teaching on admission and continuing it throughout the hospital stay; it further notes the importance of patient teaching in discharge planning, as being discharged and returning home represent significant risks to patient safety. A lack of discharge teaching may also lead to higher readmission rates (VanSuch, Naessens, Stroebel, Huddleston, & Williams, 2006). According to a study by VanSuch et al. (2006), patients who received complete discharge instructions were significantly less likely to be readmitted to hospital than those who received incomplete instructions. Initiating, planning, implementing, and evaluating patient education and planning discharge teaching illustrate the decision-making abilities of the nurse.

According to the literature, clinical decision-making is aligned with a certain level of expertise (Benner, 1984; Dreyfus & Dreyfus, 1986). Benner (1984) recognizes an expert as one who uses an analytic approach only when a problem occurs. Although the participants used an analytic approach in their care and demonstrated confidence in the way they performed during the simulated clinical experience, they presented characteristics of a novice practitioner in the context of their overall care. Benner defines a novice as one who has no experience in the situation in which they are expected to perform (Benner, 1984); in this regard, IENs may be considered novices in the Ontario context. However, the definition also refers to a novice as someone who lacks confidence to demonstrate safe practice and who requires constant verbal and physical cues. Through Benner’s lens, IENs can be considered both experts and novices when they transition to

the Ontario context or from one context to the next. Given this paradox, my study questions the definitions of expert and expertise. Additionally, the study illustrates the need to build in another element to Benner's novice to expert model. Although Benner's model is portrayed as a continuum, there is no notion of fluency or transition between the phases as one moves towards developing expertise. Benner illustrates the stages to becoming an expert by outlining the characteristics of novice versus expert, but does not explain how one transitions from one level to the next. There is a need to identify the catalyst for these transitions. Further, the focus seems to be on becoming an expert, rather than on developing expertise. More attention needs to be paid in this area.

Although the participants illustrated confidence in the way they provided care to the simulated patient, and while they may have been considered experts in their countries of origin, the level of expertise they demonstrated in the simulated clinical arena is not congruent with Benner's (1984) description of an expert. Benner describes an expert as one who no longer relies on rules and guidelines and who uses analytic approaches only when problems occur. Further, an expert has a deep understanding of the area of practice and an ability to both apply authoritative knowledge of the discipline and see the overall "picture," including alternative options and approaches. Although the participants illustrated an analytic approach in their care and portrayed an understanding of the area of practice, they were not able to see either the whole picture or potential alternative approaches to the situation. For example, in the third scenario the participants identified that the patient had a stroke and determined how to assess his neurological deficits; however, they were not able to see the bigger picture or that communication with the patient could change the course of his care.

Finally, Benner (1984) suggests that an expert moves from relying on abstract principles to using past concrete experiences to guide actions. According to this view, the abstract concrete dimension is a balance between a decrease in abstract thought and increase in concrete thought. Although this can be applied to various settings, it may not necessarily always be the case in nursing practice, particularly in the areas of decision making and problem solving.

My research questions the characteristics that Benner ascribes to experts, particularly as pertain to the abstract and concrete dimension. Chi, Feltovich, and Glaser's (1981) study, which considered the categorization and representation of physics problems by experts and novices, supports my view. In their study, experts in the field of physics were able to solve problems through application of deep and abstract constructs, while the novice to physics solved problems at a concrete and "superficial" level. The findings from my research echo their observations and, thus, illuminate a need to consider how one develops expertise as opposed to how one becomes an expert. Benner's model does not account for the complexity of phenomena linked to developing nursing expertise, particularly in the contexts of the application of emotions and the affective domain, both of which impact human interactions. Further, Benner's model does not take into account one's individual and cultural differences. This lack of acknowledgment has implications for nursing education and delivery of effective nursing care.

According to the findings from my study, participants identified that guidance was needed to support the learning that occurred. This guidance is needed to develop expertise in the area of fluency and to facilitate the transition to expert. My study questions whether the missing element in Benner's model is guidance, as the model

neither provides an explanation nor demonstrates what happens as one transitions from novice to expert or vice versa. Benner's novice to expert model connects to Tanner's Model of Clinical Judgment in that both recognize that, in order for one to become an expert or "think like a nurse" (Tanner, 2006, p. 209), one must have the ability to apply clinical judgment. My study identifies that although this may be true, guidance from the educator is necessary to facilitate both understanding and developing clinical judgment and expertise. Developing expertise involves the application of clinical judgment, which is a dynamic process that is immersed in reflection. However, Benner's model describes the expert with characteristics that suggest a static process.

Given the lack of scholarly discussion regarding how one becomes an expert or transitions from one phase to the next, the idea of fluency, particularly intercultural fluency, emerges as an element of this transition. Intercultural fluency is a way to interact across cultural contexts while appreciating the culture and needs of the adoptive environment. In this definition, culture refers not only to ethnicity but also to the culture of an organization or unit.

Benner's novice to expert model groups or categorizes individuals based on their level of experience and expertise. The complexity of grouping individuals into such categories has been raised by my study: These categories fail to take into account one's personal experiences and cultural views or to consider that one can be fluent in one area but less fluent in another. Further, Benner (1984) refers to the stages of novice to expert by defining behaviours, rather than discussing how individuals develop expertise. Further, the model does not consider how long it takes one to reach the expert level or at what point one becomes an expert. The notion of becoming an expert is very different

than developing expertise and has implications both for practice and for the development of clinical judgment.

Through their experiences and reflections on their responses in the simulation activities, participants arrived at the understanding that, in Ontario, nurses are considered independent and autonomous practitioners who play an important role both in communicating potential recommendations to members of the health-care team and advocating on behalf of patients who are under their care. The participants provided examples of how IENs' experience and exposure to different circumstances could influence patient-care outcomes. These examples highlight IENs' shift from expert to novice and emphasize their need for guidance in order to develop these communicative, interactive, and leadership skills and frame their learning in and from practice.

The Need to Rethink Cultural Competence and Culturally Competent Care in Understanding Clinical Judgment

Further to the notion of culture, and based on participants' perceptions of a culture of care, the theme of rethinking cultural competence emerged. A CNA position statement (2010) refers to cultural competence as a "prerequisite to working effectively in global health" (p. 5). The literature indicates that nurses who are employed in westernized countries encounter unique challenges that affect their "relationship with patients, coworkers and employers" (Xu, 2007, p. 246). Given this view, it is important to question who is perceived as competent and what role culture and cultural competence play within the context of health care and health-care organizations.

Rethinking cultural competence from this perspective is vital, as culture is not a homogenous concept nor are IENs a homogenous group. The following example

illustrates this: During the second scenario, the patient's chest incision had dehiscence and was at risk for infection, and a dressing needed to be applied. Although participants were competent in terms of knowing how to care for the patient's incision and perform related interventions, they became aware that their nursing approach was not necessarily congruent with the standards of nursing practice in Ontario. The approach the participants took in this case was related to their own cultural norms and cultural expectations. A statement by Beatrice highlights the need to rethink cultural competence from this context:

Previously, from my experience, we were trained mostly on "what I do" not on "how or why I do it." So basically here if it was back home, my intervention is to change the dressing, to assess the site, to check the fever, and patient goes last. So you don't talk that much with the patient, unless I was with the kids and I had to. You cannot behave with kids as with adults, you can't skip this part, you need to talk to kids. Back home we don't usually talk that much to patients. We don't explain procedure itself and we just do it and patient expects that as normal. It's normal for them.

The other participants corroborated that their cultural background influenced their approach during the scenario; this was particularly true of their experience during the third scenario, in which they cared for the patient who had undergone a stroke. Beatrice related her experience of caring for the simulated patient by reflecting on a time when she had cared for an unconscious patient. She stated that speaking to an unconscious patient was a "strange" practice: "In my country we were not supposed to speak to patient with neurological deficits or if they are unconscious."

Molly agreed that speaking to a patient who cannot verbally respond was not a socially accepted behaviour or expectation in her previous practice setting: “Yeah we would not speak with unconscious patients and if I tried to do that...they [other health-care providers] would think I am strange. It will be very strange for the nurse colleagues.” Beatrice added, “If I would see her talking to an unconscious patient I would think ‘oh my gosh.’ Yeah, this is the same perception we have.”

Through the course of the study, participants tended to focus mainly on the pathological processes of the patient’s disease as opposed to their psychological experience of illness. This was reflected in their lack of communication and interaction with the patient and lack of attention to either the patient’s emotional wellbeing or his affective side. When the participants were questioned about their patient-care priorities in the third scenario, Molly responded, “For my intervention.” This indicated that her priority was to ensure that the Foley catheter and NG tube were placed correctly, rather than to complete a thorough assessment, which would have included collecting subjective finding and establishing a way to communicate and continuously interact with the patient. Beatrice concurred:

My perception about the patient is that there is things that needed to be in place for continuity of care like NG tube for feeds and urinary catheter for input and output monitoring and those were my initial perception about the patient.

By the end of the three activities, participants recognized that attention to the psychosocial domain and other determinants of health is an important aspect in the care of the patient, and that it can improve the patient’s care outcomes. Participants were able to demonstrate an understanding of the relationship between culturally defined care or

cultural perspectives and the delivery of effective nursing care. Beatrice made the following comment:

What I learned [as part of the scenario] is how we talk to patients. From today I know this is the area I need to improve because as she [Molly] said, when you talk to a person and you are getting no reply or they respond the way we don't understand, you just don't interact anymore and this is the skill which I need to improve. I need to think about the person not as a patient here on my table that needs to be cared in case of catheter or NG tube or IV. He is a person and it's like a whole new other world and I need to treat it or treat him appropriately maybe he is from another religion or another county and he has [his] own beliefs and I did not even look into his chart about the religion. Maybe he is against um... me as a woman to insert the catheter [urinary]...if he prefers a male to care for him.

This statement illustrates the relevancy of cultural competence in the context of care. In the scenario described, the type of care the participants provided and the manner in which they provided it were not associated with their level of competence; rather, they resulted from the participants' cultural norms and lack of exposure to these type of situations.

The participants' statements indicate that, although their culture of care did not expose them to these experiences, they were able to demonstrate their competence as practitioners. My understanding of the participants' experiences allowed me to further understand that cultural differences can influence patient-care outcomes. Further, it indicates that rethinking cultural competence is both relevant in the context of understanding clinical judgment and paramount in the context of this study.

Cultural diversity in Canada, and particularly in Ontario, is a growing reality. The magnitude of its effects challenges health-care practitioners to care for individuals from practically anywhere in the world—individuals who may behave, think, believe, and communicate differently than the practitioners. This evolving reality has led to a necessity and professional mandate to both understand culture from the context of diversity and rethink the meaning of cultural competence. In order to better understand the meaning of cultural competence, it is critical to attain a fuller understanding of the meaning of *culture*. According to Chamberlain (2005), culture represents “the values, norms, and traditions that affect how individuals of a particular group perceive, think, interact, behave, and make judgments about their world” (p. 197). Culture can be defined as “an integrated pattern of human behaviour including thought, communication, and ways of interacting, roles and relationships, and expected behaviors, beliefs, values, practices and customs” (Taylor 1997, cited in Denboba et al., 1998, p. 47). From this perspective, culture is grounded in the essentialist perspective; it is a matter of ethics, respect, and trust and is strongly related to both individual and organizational values and beliefs.

Cultural competence is a concept that has become common in the nursing literature of the past three decades (Leininger, 1996, 1997, 1999, 2002; Purnell, 2002; Tortumluoglu, 2006). There are varied means of interpreting the concept of cultural competence which include a) identifying cultural competence as the knowledge and skills needed to interact with people of different cultures, b) recognizing cultural competence to be a set of attitudes, and c) attributing cultural competence to policies within organizations.

Cultural competence is defined as the ability to interact effectively with people of different cultures (Burchum, 2002; Campinha-Bacote, 1995; Edwards & Davis, 2006; Tortumluoglu; 2006). According to Cross, Bazron, Dennis, and Isaacs (1989) cultural competence is “a set of congruent behaviours, attitudes and policies that come together in a system, agency and among professionals and enables that system or agency or those professionals to work effectively in cross cultural situations” (pp. iv–v). My study questions the concept of congruence in this definition of cultural competence: If one’s values and beliefs are not congruent with those of the system, agency, or other professionals where they are practicing, is one, then, considered culturally or professionally incompetent? If the values and beliefs that shape one’s experiences and subjectivity are not congruent with “a set of behaviours” in the dominant culture of professional practice, does that mean one is deemed to be professionally incompetent? Moreover, can one be deemed incompetent if one is underexposed or unexposed to given circumstances?

Campinha-Bacote’s (2002) Model of Cultural Competence in Health Care Delivery, identifies cultural competence as a process that involves five constructs: a) cultural awareness, b) cultural knowledge, c) cultural skill, d) cultural encounters, and e) cultural desire. This model is the basis for the design of the Inventory for Assessing the Process of Culture Competence Among Healthcare Professionals (IAPCC), which measures the level of cultural competence in health-care delivery among health professionals and students in the health care and allied health fields. It consists of 25 items and measures the five cultural constructs of Campinha-Bacote’s model. The IAPCC lists four levels of cultural competence: unconscious incompetence, conscious

incompetence, unconscious competence, and conscious competence. Unconscious incompetence is defined as being unaware that one is lacking cultural knowledge, while conscious incompetence is defined as being aware that one lacks knowledge about another cultural group (Campinha-Bacote, 2006; Purnell, 1998). This begs the question: If one comes from a different culture, is one deemed to be culturally incompetent in their current context? Moreover, does this mean that the way one practices in one context may be considered to be incompetent in another context? The term *cultural competence* needs to be revisited, as it suggests associated notions of moral responsibility and discrimination. Even people who were part of the same culture may not exhibit the congruent behaviours or attitudes that the definition of cultural competence implies. My research study questions this one-size-fits-all perspective, as the findings raised through the study indicate otherwise. These findings shed light on the notion that cultural competence needs to be rethought, as each individual is an inter-subjective being who creates his reality based on his beliefs, values, and overall experience.

Although cultural competence may involve understanding of and interaction with people across different cultures, in the context of this study cultural competence is considered to be not only an awareness of one's own cultural worldview or attitudes towards cultural differences but also an acceptance of another's values and beliefs and views of the world. From this view, an understanding of culture can influence the way one opens up to dialogue with a person from a different background, as one is able to acknowledge the humanness of another's actions and beliefs. The main source of problems in caring for patients from diverse cultural backgrounds is the lack of understanding and tolerance of otherness.

Furthermore, the literature in the field of cultural competence, as related to health care and particularly to nursing, strongly focuses on the patient or the recipients of care, but there is little research that considers the caregiver's culture. Existing research highlights the nurse's need to understand and acknowledge the culture of the patient (RNAO, 2007). But there is also a need to investigate how a caregiver from a different culture is perceived—both within the context of health care and through the eyes of the patient—and if this perception impacts the nurse's approach and overall culture of care. When considering one's cultural competence, it is imperative to acknowledge the culture from which that competence originated; this is significant to both nursing practice and holistic nursing care. In my study, the notion of rethinking the idea of cultural competence emanated from the participants' recognition of how their cultural perspectives influenced their practice and their need to expand their perspectives in order to provide effective nursing care. From my interpretation of the findings, the participants recognized that their past experiences may complement and enrich their experience, current practice, and professional competence. For example how one practices in one society may be new and unheard of in another. Peter illustrated this when he commented that, in his home country, patients expect the nurse to “understand how they feel” and to “put” themselves in the patient's shoes. In the Ontario context, however, such actions are considered to undermine the subjective factor of patient care.

From this view, the need to rethink cultural competence in the context of understanding clinical judgment can be perceived as a lifelong process of self-reflection. The starting point for such an approach is not an examination of the patient's belief system, but rather a careful consideration of assumptions and beliefs that are embedded in

one's own understandings. This approach reflects on the nature of knowledge, professional knowledge, and expertise and on how we construct and assess these, both here in Canada and elsewhere in the world.

Rethinking cultural competence involves more than learning to identify and respond to sets of culturally specific traits (both those of the patient and of the nurse); it requires the development of a practice that embraces self-awareness and reflection on diverse points of view as well as the development of skills for exploring differences in assumptions and expectations that nurses and patients bring to any interaction. These factors are required not only of the caregivers, but also of the educators of the IENs.

Moving beyond the notion of cultural competence as “a set of congruent behaviours and attitudes” allows, instead, for an understanding of the culture of care comprised of diverse cultural paradigms; this is critical in the context of teaching approaches and implications for the teaching and learning of clinical judgment. In the unfolding case study, participants' responses demonstrated their technical competence but did not demonstrate their affective side—not because they were incompetent but because they lacked exposure. Through reflection, participants came to the understanding that patient care is complex and that the emotional and interactive process is a major constituent to understanding and developing clinical judgment, professional competence, and expertise.

Acknowledging That Culture and Diversity Are Integral to Understanding Clinical Judgment

Through the course of the study, participants acknowledged that their behaviours toward illness and health were influenced by culture. Peter commented that one's culture

includes the fundamental aspects of values and beliefs, which include background, faith, and sexuality, and which influence the way one provides and receives care. The participants recognized that one's culture and cultural background play an important role in terms of how one perceives patient care and interprets clinical findings (e.g., whether within normal limits or pathological) and interventions. They indicated that, in order to establish a relationship with a patient, it was important to understand his culture. Peter reflected on an incident that occurred at his clinical placement that exemplified how culture impacts patient care and outcomes:

Canada is a multicultural place...like it happened in my placement. A woman did not want me to care for her. I called my preceptor to the bedside and told her that the patient does not want me to do it [provide care]...I was going to apply topical cream to her perineum area and she did not want me to and that she needed a female nurse or wait for her daughter. I am bringing that to this scenario...that for instance [if] in this man's [the simulated patient] culture a woman is not supposed to see him naked and then the nurse could just leave and go to the chart and write that he refused catheterization.

There was an understanding among all participants that culture was a phenomenon that impacted both the caregiver and the recipient of care. The participants repeatedly raised the notion of the impact of their cultural experiences on patient-care outcomes in the Ontario context. For example, through the course of the study they demonstrated an understanding that clinical judgment is associated with the need to collaborate with the interdisciplinary team members and communicate clearly with and listen to the patient; they also demonstrated an understanding that these behaviours

greatly impact overall patient care-outcomes. All these elements indicate an understanding of patient-centered care. Peter illustrated this point:

When caring for my patient, we always need to collaborate with other health-care team [members], which we did not do effectively here. So I would like to bring that into my future practice, collaborating with the physician, the RT [respiratory therapist] the pharmacist and these are part of my responsibility to ensure the care for the patient is efficient...so I think that is something I would like to bring to my future practice.

Although there is a great emphasis on the idea that the transition challenges of IENs are related to gaps in knowledge and clinical skill (Edwards & Davis, 2006), my study illustrates that the challenges are mainly due to the sociocultural differences that IENs encounter in their adoptive country, including the structure of the health-care system and the unfamiliar new surroundings. In the context of this study, culture was recognized as a concept that relates not only to the attitudes and behaviours of a particular group, but also to the participants' interpretation of the manner in which nursing care is provided to and perceived by the patient. Over the course of the study, participants began to develop an understanding that both the care provided to the simulated patient and the patient's response to this care were very much influenced by culture, particularly their culture of care; they also came to understand that culture is more than a set of beliefs and that practices can be identified as a paradigm or a set of learned and shared knowledge and meanings within a given context. In this respect, the nature of culture becomes integral to the way one interacts with others and to the concept of social learning or cumulative cultural adaptation (Pagel, 2012; State of Queensland,

2002).

Mark Pagel (2012), author of *Wired for Culture: Origins of the Human Social Mind*, explains the evolutionary significance of living in a collaborative culture. He refers to humanity or to the question of what makes us human as a uniqueness that “lies in the mystery of consciousness, morality, or our capacity for shame, kindness or empathy” (p. 23). Furthermore, Pagel reinforces that what makes us unique, as humans, is the ability “to produce distinct cultures consisting of sets of shared beliefs, knowledge, skills, languages and religions” (p. 24). He indicates that cultures are responsible for both our development and our worldwide success as a species.

Given that, in health-care environments, culture is an integral part of both patients and health-care providers, the need to acknowledge cultural diversity and rethink cultural competence has important implications for nursing education, practice, research, and public policy. The findings from my study indicate that culture is related to a repertoire of ideas and possible actions that people can choose from to form their own understanding of themselves and their world. Additionally, the participants viewed culture less as a notion of ethnicity and more as one of diversity of care. Participants conceived of culture in terms of understanding of their identity and as they move between and are exposed to various cultures on an ongoing basis—from the family culture to workplace culture, school culture, social culture, and religious culture. Moreover, culture intersects with and is complicated by one’s age, personal experiences, gender and sexual orientation, religion, political perspective, level of education, social class, and language (Pagel, 2012). The implication of this complex notion of diversity is paramount in nursing care and plays an important role in how one experiences and understands clinical

judgment. Acknowledging culture from this perspective opens opportunities to develop both as an individual and as a nurse; such development is imperative to understanding clinical judgment and to developing expertise and professional competence.

The Role of Communication in Clinical Judgment

The term communication was repeatedly mentioned during the course of the study, as participants became increasingly aware that communication was a vital component that informs nursing practice in Ontario. Participants' experiences led them to an understanding that communication was not only an interchange of words but also a life-long attitude and approach to nursing practice. After observing their behaviour on the video recordings, participants were able to identify the impact of communication on the care they provided. Beatrice noted that her lack of communication impacted the delivery of care to a patient with a neurological condition:

I think that for me working as a nurse my ability to work with neurological patients...the way of communication and assessment for them usually I do my assessment like...is he responsive or not or is he able to move his legs or not.

Molly corroborated:

We should keep to communicate to him even when he is not [communicating] which is a gap in my practice...because in my country we were not supposed to speak with patient with neurological deficit or if they are unconscious. I know in the hospital (in Canada) they would go and say I am going to clean you I am going to check your tube I am going to feed you but I in my country doing this kind of work with patients with neurological disorder you would not speak with them.

When reflecting upon their interaction with the patient, participants illustrated an understanding of the concept of communication; they identified a need to communicate with the patient in order to collect subjective findings, which provide a better understanding of what is actually happening with the patient. They agreed that there was a relationship between appreciating one's subjectivity and overall nursing practice. Peter illustrated:

I learned that, in Canada, patient is best that can relate to what is going on. It's the first-hand best presence. So we don't have that over there. The patients are the last and what we have learned in the book is the first. Just from my book knowledge I am trying to figure out how to help him and not what he is saying. But here [in the scenario] what he is saying lead up to and can help me and that is the actual practice.

Although the participants' experiences in this study illustrate that the role of communication is an important element in understanding clinical judgment, in the third focus group participants noted that they needed more practice in this area. Although their academic program exposed them to various courses, including a communication course that highlighted the relevance of communication and related concepts within nursing practice, participants stated that they were unaware of how to transfer the concepts from the course into practice, particularly when caring for the simulated patient. Molly made reference to this:

We are talking in our courses about communication and nurse-patient relationships and here the obvious case was we could not even establish a *yes* and

no answer for the patient from this case. I thought my communication wasn't excellent but it was okay and from today what I learned is how we talk to patients.

This statement acknowledges the need to expose participants to realities of practice through simulation or other means. Moreover, the *how* that was raised in the participant's statement is a critical component to the notion of their experience and understanding of clinical judgment. The *how* indicates not only the ability to make connections, interpret ideas, and develop ways of understanding the concept of communication, but also the understanding that communication is about the ability to adapt, change, and generate new knowledge in order to improve nursing care and practice.

By making this connection, participants developed an appreciation and understanding of how a lack of communication can cause misinterpretations and assumptions and adversely affect patient care. Participants also acknowledged that misunderstandings can arise when people operate from differing core beliefs. Through this lens, communication can be perceived as a creation of meaning and understanding and a means by which "culture is transmitted and preserved" (Tortumluoglu, 2006, p. 4). Communication is critical in health-care environments, particularly for those who are working with patients around the clock and are conducting assessments and planning, coordinating, delivering, and evaluating patient care and outcomes. In the literature, the concept of communication has been mainly discussed in terms of language and speech. The literature also notes that the lingering issue of difficulties in communication is most common and challenging to international nurses (Xu, 2007, 2008). Xu (2007) suggests that gaps in language, as a form of communication, are the major cause of lack of

transitioning to the workplace. Yet the findings from my study suggest that language is only one component of this definition of communication. An example from the findings demonstrates this: When the participants were required to communicate with a patient who, having suffered a stroke, was unable to verbally express himself, they indicated that “communicating” or speaking to a patient in this state was “strange” practice. Upon reflecting on their responses, they illustrated an understanding that communication was not only about language or an interchange of words or speech, but also about interaction, which is integral to understanding. This shift in thinking led to the understanding that nonverbal skills are paramount in the context of communication.

While language skills are critical to the ability to communicate and understand one another, non-verbal communication forms are similarly integral. The literature indicates that the majority of communication effectiveness is determined by nonverbal cues, which account for 93% of the way we communicate (Mehrabian, 1981). Nonverbal communication forms may include patterns of social interaction, paralinguistic conventions, patterns of social reasoning, behavioural and emotional communication, and kinesics and proximity (Winkelman, 1994). This understanding was a valuable part of this study, as participants were able to make a shift in thinking from objectification to humanization of the patient. From this respect, the participants’ understanding of clinical judgment was more than objective knowledge; it was influenced by what nurses bring to situations.

Over the past 50 years, the notion of communication has expanded. It is no longer viewed as simply an intentional act designed to transfer an idea; rather, it now encompasses the issue of how to make people understand what is being said (Cheney,

Christensen, Zorn, & Ganesh, 2004). It questions: Why do individuals who seem to be saying similar things achieve very different results? How does the act of communication change, or even define, who one is? Acknowledging this shift in definition led participants to realize that assumptions defer communication and that their assumptions and presumptions were an obstacle to the way they delivered care.

Bearskin (2011) suggests that culture is about people and the way they live, view the world, and communicate. The notion of understanding the need to communicate and its importance to providing effective delivery of patient care was evident in the study, as was the notion that communication is a dynamic process, determined by one's approach and ability to interact. Both these ideas suggest that a lack of effective communication can negatively impact patient safety. Yi's (1993) study of Korean nurses' adjustment to working in a hospital in the United States reveals similar findings; it describes how a nurse from Korea was frightened to pose questions to the physician due to both cultural beliefs and lack of communication skills, and notes that this could have compromised patient care and, potentially, patient safety. From this view, it is apparent that both culture and communication can impact the delivery of care and that a difference in perception regarding delivery of care can compromise patient safety.

Recognizing the Need to Unlearn as a Way to Understanding Clinical Judgment

According to Hedberg (1981) unlearning is defined as the process of eliminating or reducing old knowledge in order to make room for new learning. The term *unlearning* was used several times during the course of the study. Participants noted that the way nursing practice is perceived across cultures is very different and requires a level of

unlearning. The following conversation between Peter and me provides an example of how this can impact the nurse-patient relationship.

Peter: Where I practiced in my country that is contrary to what is being done here. If you tell the patient, I know what you're going through that is the best thing they want us [nurses] to say. They feel better.

Principal Investigator: And reassuring them in this way is okay?

Peter: That is okay and what you're [making reference to a patient] going through and you're [making reference to a patient] going to be better. It's opposite here [Canada]. When you tell a patient in my country that [knowing what they are going through]...that is the best medicine you are giving that patient that day. They will believe that you're putting yourself in their position...if you say, "tell me more about it [the pain]" then they [the patient] would abuse you. They will tell "Don't you know, can't you see I'm in distress." Here [Canada] it's opposite. In my country if you tell them [the patient], you know what they're going through it's like them feeling or thinking this is a very good nurse and he's seeing everything from my perspective.

Principal Investigator: That is very interesting. So is that something you learned from your clinical practice or is that something which was reinforced in school?

Peter: Definitely society...whether in hospital or home. That is the best response you can give them [patients] that you know what they [patients] are going through. That they [patients] are going to be okay. That is the best practice they [patients] expect from you. When I was preparing for my RPN [registered

practical nurse] exam I had to unlearn a lot of things... my education is based on medical knowledge. No psychosocial...it's all empirical.

This statement exemplifies that, for the participants, clinical judgment is experienced and exercised as empirical and, potentially, technical. This perspective does not encompass the psychosocial, emotional, and affective dimensions to care, which may suggest a type of knowledge, or knowing, that needs to be acknowledged. Peter's statement about unlearning indicates that past experiences and ways of learning impact the delivery of health care in Ontario, which again involves the concepts of culture and communication. The statement was corroborated by other participants, which led to further exploration of its meaning in the context of the study.

The need to unlearn was repeatedly raised by the participants, particularly in relation to making assumptions. Consider, for example, the scenario in which the patient was moaning as a way of expressing himself. In response to this, the participants administered a painkiller. I clarified this response through the following conversation.

Principal Investigator: Why is this patient moaning?

Molly: Pain.

Peter: I think it is a general discomfort.

All: He is in pain.

Upon reflecting on the consequence of this assumption the participants indicated that their assumption to intervene with the administration of a painkiller might have negatively affected the patient in this case. The participants learned that making an assessment of the patient's condition, as opposed to making an assumption, was critical.

Beatrice commented:

Yeah...I think in most cases I initiate my intervention based on assumptions. That is an area I need to further reflect on. Everything should be based on your observation, not on your assumption. That should be based on subjective and objective findings not assumptions or a colleague's perception.

After carefully analyzing their performance, the participants recognized that assuming how to intervene without conducting a full assessment of the patient's condition was unsafe. Additionally, they noted that making the assumption that they should administer a medication without gaining a full understanding of the patient's needs may have negatively affected the patient in this case. The participants learned both that assumptions have an impact on the care they deliver and that a proper assessment of the patient includes assessing not only the state of his physical being but also his capacity to communicate and interact.

Unlearning, within the context of safety, became relevant during the course of the study, as the participants developed an understanding that replacing or unlearning what they had learned before was necessary in order to provide safe care. Peter elaborated:

Yes, it comes down to safety and replacing or unlearning what I have before.

Because I worked in different environment, it's totally different and we don't approach seniors like this. So everything is different, psychosocial and safety and everything. So I need to unlearn that and replace it with what I learn now.

I continued by clarifying Peter's definition of unlearning, which led to the following dialogue.

Principal Investigator: Can you give me an example of what you mean by unlearn based on your previous experience?

Peter: For example, in this very scenario we [nurses] did not pay so much attention [to the simulated patient]. Where I'm coming from, we won't pay so much attention to what the patient is saying. It's more or less book knowledge. I will just look at the patient and whatever it's [patient] saying is rubbish. I try to figure out what I have to do and it's [patient] talking is disturbing me. It's disturbing what I've learned. I want to practice what I've read.

Unlearning, in this context, was vital to the way the participants experienced and understood clinical judgment. By the end of the study, participants were able to provide examples on how they came to understand or unlearn the significance of patient-centered care in the context of patient-care outcomes. Beatrice commented:

Here [Canada] is more like treating the person as an individual. The way we think here is very different. It changed my perception of people and life... me as a person... and this scenario has already changed me. I have been in nursing for 15 years...but here I think I will see person more or a patient more as a person and not as one just getting care...

Peter corroborated:

In my country, if it [patient] keeps talking, it's just disrupting my thoughts. And now I understand that it's [patient] talking that can help me, 'cause patient is the best person that can say what is going on with them.

Participants identified that the way patient care is provided varies across cultures and, in the context of the study, required a degree of unlearning. Their experience led them to recognize that the need to unlearn was important in understanding clinical judgment. The participants acknowledged that their understanding of clinical judgment in

relation to patient care changed based on their experiences in this study and recognized that their past experiences were very different from what is standard to the Ontario context. Beatrice illustrated this: “My perception of the patient would be different now than I would’ve had back home.” Participants were particularly able to identify the impact of the care they provided to the patient once they observed their performance on the video recording.

Lillian corroborated:

Participation in many opportunities like this [simulation activity and stimulated recall] that could give me the opportunity to be able to let go of what I have in me from where I came from, and trying to put together what’s not practiced in Canada.

The literature on unlearning provides a number of definitions of this concept. According to Hedberg (1981), whose work is recognized as seminal in this area, unlearning is defined as a process of eliminating or reducing old forms, logics, behaviours, attitudes, and habits to make room for new ones. Newstrom (1983) emphasizes that unlearning requires the elimination of preexisting knowledge, as it would otherwise create “a barrier to new learning” (p. 36).

Although it is an interesting thought that the theoretical and empirical legacy of unlearning makes a compelling case for knowledge interference, my study indicated that unlearning was not about the undoing of existing knowledge or behaviours that interfere with learning. To the contrary, unlearning, in the context of my study, illustrates that existing knowledge needs to be addressed in order to facilitate cognitive, behavioural and affective mechanisms; it is related to adopting a new practice or enhancing the view of

certain situations. Additionally, my study identified that the process of unlearning was not a static and fragmented process but, rather, a dynamic process that reflects invisible cultural assumptions about the way the world works and functions as a catalyst for growth and development, leading to a new way of understanding oneself and the world. This suggests that the commonly cited definition of unlearning be revised from a description of a fragmented and disconnected process to one of an ongoing process of learning. In order to view the world or experience the world from a different position, there is a need to actively strive to see things from a different angle.

Through an explication of the findings, the notion of unlearning emerged as a means of changing and enhancing views, both of the importance of the affective and emotional component and of human interactions and their implications regarding how one perceives and is perceived by others. From this perspective, living systems can also be considered as learning systems. The findings show that the process of unlearning is not merely a deconstruction of knowledge, but also a creation and evolution towards new knowledge. The notion of deconstruction suggests breaking down or fragmenting a process. But my research questions whether knowledge can be traced back to where that knowledge originated. For example, Peter indicated that the way he provides care to patients is reflected by the way he thinks and behaves, which are dependent on his experiences in his nursing practice. He referred to these experiences as “unlearning.” This was an interesting revelation, which I explored further in order to get a better understanding of the meaning behind it. Peter stated that his thoughts and behaviours were influenced by “society.” He noted that his way of interacting was acceptable in his previous experience with patients, as was providing false reassurance to patients by

stating, “You are going to be okay.” He described this as both an expected practice and the “ best response” a nurse can provide to acknowledge what patients are going through.

Additionally, my study questions whether what takes place is unlearning or is simply an emergence of new knowledge, influenced by our connection and interaction with our world. From this perspective, the process of learning is fluid and continuous. Life is always engaged in learning and, as individuals, we are always engaged in learning. We take in information and react to what we perceive. Our perception is impacted by who we are and how we have been perceived in the past. The process is not one of “un” learning but of “active” learning, from which learning can be viewed not as a revolutionary process but as an evolutionary one. Beatrice commented, “From this [simulation activity] we are learning that to be a nurse is ongoing process,” meaning that prior experiences expand the role of the nurse. Participants illustrated that their past experience influenced how they provided care to the simulated patient, which, for the majority of the time, was based on hard rather than soft skills. Yet those experiences are important to their learning and practice, as they will complement the participants’ practice in the Ontario context. Being exposed to a different experience, in a different context, encouraged participants not only to think differently but to apply their past knowledge. Engaging in simulation and interacting with the simulated patient allowed participants to recall and apply the learning they had accumulated, not only in a different context but through a different lens; this illustrates how past experience can be applied to future situations and, thus, supports the notion that unlearning is an active form of learning.

The Phenomenon of Unknowing as a Dimension to Understanding Clinical Judgment

Nursing is a profession that requires the development of multiple ways of knowing and the capacity to apply them to complex situations. Carper (1978) identifies the *ways of knowing* as an essential process in the development of the professional nurse. She also notes that the process consists of four components: empirical, moral, personal, and aesthetic knowledge. The work of Munhall (1993) proposed that the concept of “knowing,” as portrayed in Carper’s model, may lead one to close oneself to alternative ideas, based on confidence in one’s own interpretation of knowledge; this idea led Munhall to identify a fifth pattern of knowing, which he termed *unknowing*.

Unknowing stems from the idea that “we don’t know what we don’t know” and can be considered a prerequisite for *knowing* or *prior to coming to know*. For example, when the simulated patient tried to express himself by moaning, the participants continued to provide direct care but did not communicate with the patient. Molly explained her rationale for this response: “You stop communicating with a patient who cannot respond.” While reflecting on these actions and responses, participants came to perceive that their lack of interaction influenced the patient-care outcomes. This perception led to the understanding that the outcome might have been different if they had responded differently.

Further, their assumptions impeded the process of communication and of understanding the “Other.” The patient was verbal and was clearly able to respond and communicate, as evidenced by his ability to moan. Although he was not able to express himself with words, he was verbal. In fact, the lack of interaction during the scenario was

due to the participants' inability to understand the patient's way of communicating. The underlying conviction that emerged through reflection was that perhaps it was the participants' who lacked understanding and who were unable to communicate in a manner that the patient could understand. The incident led participants to be cognizant of the notion of the Other and see the Other as an important constituent to the care they provide.

The participants' experience led them to understanding that the patient was able to communicate, but not in a way that they understood. This experience highlights the concept of unknowing, which is integral to understanding clinical judgment. In response to this idea, Beatrice stated, "I never thought about it that way."

Unknowing, from this view, can be further perceived as being underexposed or unexposed to certain circumstances. Molly exemplified:

I have so much I have to learn, many things to improve. I don't even know where to start. How can we react on this kind of situation? If I didn't have any clinical experience before and then I have patient like that I cannot imagine me there.

This quote illustrates the nurse's or IEN's need for clinical exposure in order to provide safe and effective care. Moreover, lack of clinical exposure affects the way patient care is delivered, which has a considerable impact on the health-care system. Participants agreed that "not knowing" affects the "whole system." Molly noted:

I don't know that I have to talk to him [the patient] and it affects the whole idea of health care. For example, how I should establish my communication style with this kind of patient because I never did this and I did not see this in my practice.

We had patients who were confused, but I did not have good examples how to establish communication, which we did here.

Molly made reference to the need for exposure to realistic circumstances and the need to be taught how to cope with realities of practice that often do not match the textbook portrayal. There was a general agreement among the participants that there was a direct relationship between unknowing and providing safe care. Peter commented:

To me the whole processes of the three scenario where you make us focus... if you [referring to group] go to real practice no one is going to teach us what to do or how to do and everybody expects you to do and to use the judgment that you have and they assume that you have it they trust you. But without those exercises [simulation] I saw so many mistakes I can make not only skills itself with patients with communication with CNO standards.

Molly commented on the need to be exposed to realistic experiences, which are not always provided in the textbook:

They [IENs] pass the registration exam for RPNs and then they go into practice. For example if I am thinking if I am an RPN and I will prepare for the RN exam and I will do my readings on different things and I pass the CRNE and get the license and then I come to floor and I get a patient like this and I have no idea with my previous experience that I have to talk to him that I need to communicate somehow.

The statement is related to the fact that many IENs practice as registered practical nurses (RPN) prior to writing the RN examination. The participant made reference to the fact that the role and competencies of the RPN are different than those of the RN. She

also noted that RNs need to be exposed to realistic situations, such as they are likely to encounter in Ontario, before or after writing the exam; this illustrates how unknowing may impact one's method of providing care and one's understanding of clinical judgment. Both Beatrice and Lillian illustrate how unknowing, which can be attributed to having no or little exposure to situations, impacts both delivery of patient care and the health-care system.

Beatrice observed:

How should I establish my communication with this kind of patient...because I never did this and I did not have this or see this in my practice. We had patients who were confused but I did not have good examples how to establish communication, which I did here.

Lillian questioned:

How do I establish a method of communication with a patient?...How is that...it affects and changes health care and the entire care of the patient.

Beatrice concurred:

Me too...how should I establish my communication style with this kind of patient because I never did this and I did not see it in my practice.

Enacting unknowing as part of the teaching and learning process initiates relatedness, attentiveness, and generosity. "This kind of teaching and learning can happen only when knowledge is not the ultimate goal of education" (Zembylas, 2005, p. 156). The Western education system is rooted in an obsession for knowledge and is partly the reason why the value of unknowing has not been realized (Zembylas, 2005). It could be argued that education should not focus on only knowing how and what but look beyond

knowing which is the other radical way of knowing of openness in communication and attention to the unknowable (Todd, 2003).

Summary

The findings suggest that the understanding of clinical judgment develops from the application of cultural experiences, which include cultural background and clinical experience. The integration of these prior experiences allowed the participants to create meaning for their future practice in Ontario. The themes that emerged from the data illustrate that the participants understood clinical judgment in a narrow and technical way. Yet, through reflection-in-action and reflection-on-action, the participants came to understand that clinical judgment not only encompasses more than technical judgment, but the ability to interpret and view practice as a holistic approach to care leading to reflection-beyond-action.

The experience of providing care to the simulated patient allowed participants to see that nursing practice in Ontario required them to communicate clearly, collaborate and work as a team, and integrate the patient as part of the health-care team. They illustrated an understanding that effective nursing care is dependent on interactions and is very much associated with the emotional and affective domain of care. Further, they understood that this approach has a great impact on the overall practice and culture of care as well as patient-safety and -care outcomes.

The participants' experiences in this study led them to realize that nursing care is centred on the patient, and that patient-centred care involves accurate data collection, effective communication, and not relying on assumptions; this, in turn, led them to an understanding that clinical judgment requires a holistic approach. Peter described his

experience in the study and how it has contributed to his understanding of clinical judgment:

Like this one [an incident that occurred during a simulated scenario] can happen in everyday life. Absolutely when I come across something like this in practice this is going to come to my mind. The discussion we are having will come back to my mind. It is very important, especially if we have not started practicing here. If I come across a patient like this, I will know based on this discussion what to do at every point, and I know whom to consult and everything would be the way we just discussed. Even the previous ones [activities] we did they are so important to me especially when we have never practiced here. I know whom to consult and I know how I should consult and how things should be. I can now understand how the theory [nursing theory] becomes important.

The themes in this study illustrate that the participants' experience of clinical judgment was influenced by the transition from one culture to another. Their understanding of clinical judgment was evident in both their shift in thinking and their construction of knowledge. The analysis of the study's findings identified that the process of engaging in reflective practice contributes to knowledge attainment, clinical reasoning, and the development of clinical judgment, all of which are critical to nursing practice (Lasater, 2007; Shinnick, Woo, Horwich, & Steadman, 2011) and are "desired outcomes in nursing education" (Dreifuerst, 2012, cited in Jeffries, 2012, p. 99). Through reflection-in-action and reflection-on-action, participants identified an awareness of their practice, which led them to transform as individuals and practitioners. The significance of

the research and its potential implications to nursing practice and education will be discussed in Chapter 6.

CHAPTER SIX: DISCUSSION

The aim of my research study was to investigate IENs' experience and understanding of clinical judgment, within the context of simulated clinical settings that employ HFPS and stimulated recall. Knowledge of how IENs experience and understand clinical judgment is a key element in developing an array of pedagogical approaches to support the teaching and learning of IENs as they transition to nursing practice in Ontario.

The research in the field of nursing education emphasizes an increasing need to determine best practices in the teaching of undergraduate nursing students, especially in the area of clinical judgment, and best methods for accelerating development of expertise in novice practitioners (Orsolini-Hain and Malone, 2007; Tanner, 2006; Lasater, 2007). This need is even more significant for IENs, whose culture of care may differ from that of their adoptive community. Failure to address these differences in the practice of IENs may, potentially, lead to concomitant, negative patient-care outcomes, which pose a problem for both the public and the nursing profession. In this chapter, I will summarize the findings of the study, discuss the significance of the findings, outline implications for nursing education and practice, address limitations of the study, and suggest recommendations for further research.

Summary of the Study

The effective application of clinical judgment is an essential factor to patient-care outcomes and overall nursing practice. Nurses who are able to demonstrate and apply clinical judgment exhibit the ability to generate new ideas and fluency in expressing

those ideas; further, they are able to apply clinical judgment to various concepts in specific ways. In order to provide IENs with tools to aid in their transition to nursing practice in the Ontario context, it is first necessary to identify their experience and understanding of clinical judgment. This understanding informed the research question that guided this study:

- What is the experience and understanding of clinical judgment of IENs when engaged in High Fidelity Patient Simulation (HFPS) and stimulated recall and reflective practice?

Understanding IENs' experience and understanding of clinical judgment is fundamental to the education of IENs, as it assists in identifying the best pedagogical approaches for the teaching and learning of IENs. Further, this understanding allows educators to respond pedagogically in a manner that supports IENs efforts to learn clinical judgment and decision-making skills. Findings from this study provide greater insight into two key areas: a) the experience of IENs when engaged in a clinical simulation setting using HFPS, and b) the influence of reflection and stimulated recall activities on IENs' understanding of clinical judgment.

Limitations

A number of limitations to this study have been identified. These include a) sample size and composition, b) role of the researcher and position in relation to the study, and c) setting where the research took place.

Limitations of the Sample Size in This Study

Although the sample size was small, it was appropriate in the context of this study. The literature indicates that, for the purposes of simulation, a group of four

students is ideal (Wagner, Bear, & Sander, 2009). Further, given that the study conducted preliminary research, the sample size was appropriate. The small number of students participating in this study, and their enrolment in the IEN program, limit the researcher's ability to generalize the finding of this study to other populations. It should also be noted that research was conducted with the sample performing as a group, as opposed to individually, which could present a threat to the validity of the findings. Although the findings of the study did contribute to the literature on clinical judgment, a larger sample size may have generated more data. In future studies with similar focus, a larger sample size may lead to diverse perceptions and more extensive findings.

Another limitation was that the sample was not broken down by gender or culture, nor was it large enough to do that. The participants consisted of one male and three females from different cultural and work-related backgrounds; these differences in gender and previous work-related experiences also may have influenced the findings. This indicates the need to research IENs by culture or gender, as one's culture may have an influence on one's culture of care and nursing practice and one's gender may have an influence on one's culture.

The Limitations Associated With My Role and Position in the Study

My role within the study, both as an educator in the program and as an "insider," may have influenced the findings. Although I was not teaching the participants at the time of the study, they knew me as an educator in the program. Participants' perception of me, as an insider, may have influenced their responses and actions during the simulation activities, group stimulated recall, and focus group sessions.

Moreover, being an insider provided me with insider knowledge of the institution and its social systems and, thus, may have influenced the research outcomes. This type of knowledge can, potentially, impact the researcher's degree of objectivity and, therefore, expose the research to concerns regarding both the validity of the research process and the possibility of researcher bias in the process of data collection and analysis. However, I would argue that, in most cases, it is impossible to access practice without involving the practitioner, as action or practice is informed by value systems and beliefs that may not be fully accessible from the outside. Oftentimes, researchers are not fully aware of the meaning of their values until they try to embody them in their actions.

The Limitations of the Setting in the Study

Other limitations to the study are that it was conducted in one university and that the participants were all in the same cohort of IENs and in the same stage (their 4th semester) of the program. The IENs were selected from an academic, university-level program, rather than from other bridging programs available in Canada. The knowledge the participants had already gained through their enrolment in the program may have influenced the thinking that occurred during data collection and the findings. This indicates the need to conduct similar research in non-academic settings.

The roles participants assumed in each case scenario of the simulation experience may present another limitation of the study. Variations in clinical skills demonstrated by students may have been a result of their previous clinical or work experience and may have influenced their selection of roles to play during the case scenarios. Although the participants in this study had the option to choose their roles, they sometimes chose to limit the breadth of the experience. For example, one participant chose the same role in

two of the three scenarios. For similar, future research studies, it is recommended that participants be rotated among simulation roles, in order to ensure that they have the opportunity to practice and exhibit the full range of behaviours they will be expected to apply in practice.

There is a need for further research to determine whether opportunities such as these (participation in simulation activities and stimulated recall) will transfer to clinical practice, particularly in the area of clinical judgment. Further studies of the development of clinical judgment, conducted either with a larger group of IEN participants or with other cohorts, are needed to reinforce the findings from this study. Research that focuses on the role of reflective practice in the development of clinical judgment would be particularly useful. Although this study has answered a number of questions about IENs' experience and understanding of clinical judgment, many questions still remain such as, how does this experience or understanding of clinical judgment transfer to the clinical arena and associated patient-care outcomes? These remaining questions may be better addressed by other researchers from different cultural or professional backgrounds, such as practice leaders, academic and policy makers, and those from different conceptual frameworks, as they may bring a different perspective to the meaning of clinical judgment and its integration in the transition to practice.

Significance of Findings

The findings and themes identified illustrate that IENs' experience and understanding of clinical judgment involve a paradigm shift to their way of thinking. This shift facilitates both their developing expertise and their transition to nursing practice in the Ontario context. I call this transition intercultural fluency, in recognition of the fact

that one's prior sociocultural experiences and subjectivity are significant in the context of nursing care and patient outcomes. All participants corroborated that their worldview changed due to their experience in this study; further, participants illustrated this point as, through their participation, they gained a broader and more inclusive understanding of the influence of cultural differences and its overall impact on professional competence and clinical judgment. This understanding stemmed from the participants' reflection-in-action and reflection-on-action, which ultimately led participants to self-awareness and critical consciousness of the meaning of patient care and overall nursing practice. In the context of this study, I refer to this awareness as *reflection-beyond-action*. Reflection-beyond-action provides an ability to recognize how the reflection of societal influences and the dynamics of culture and communication impact the way one perceives oneself and others.

Implications for the Teaching and Learning of IENs

Two concepts emerged from the themes and their analysis: reflection-beyond-action and intercultural fluency. This section will provide potential approaches to apply these concepts in the teaching and learning of IENs, in order to support them as they transition to practice in Ontario.

Reflection-Beyond-Action

Reflection-beyond-action was the first concept to emerge from the understanding of IENs of clinical judgment. It is rooted in reflection-in-action and reflection-on-action and can be indicated as mindful practice (Sherwood & Horton-Deutsch, 2012). The work of Rolfe (1997) discusses the concept of mindful practice, which he refers to as being "beyond expertise" (p. 93). According to Rolfe (1997), beyond expertise is a form of mindful practice that informs theory. At this level, "the practitioner constructs informal

theory out of practice, applies that theory back into practice, and reflexively modifies the theory as a result of the changed clinical situation” (p. 93).

Mindful educators encourage the development of mindful learners. Such learners are more aware of themselves, their actions toward patients, and their interactions with interprofessional team members, which allows them to develop insights into how awareness, both of self and of others, shapes their thoughts, emotions, and actions. Developing mindfulness is an essential bridge to higher level cognitive skills; it is a tool that encourages metacognitive skills and reflective learning, as it requires one to purposefully pay attention to thoughts, feelings, and judgments (Sherwood & Horton-Deutsch, 2012).

From this perspective, reflection-beyond-action is an approach that provides one with the ability to interpret and view practice as a holistic approach to care. Reflection-on-action and reflection-in-action were integral to this study. This process of reflection elicited the participants’ interpretations by gaining access to their thoughts, feelings, values, and actions. In doing so, it led participants to recognize the challenges they face as they transition to practice, as illustrated by the notion of unlearning and unknowing.

Unlearning, for the purposes of this study, is described as a way to build on previous learning; it recognizes that experience and previous learning add to and complement the way individuals learn. Some research in the field of unlearning depicts the brain as an object where information is stored and where obsolete memories must be continually discarded before new knowledge can be assimilated (Hedberg, 1981). This study, however, suggests that unlearning is a process of building expertise and that old knowledge is foundational to the creation of new knowledge. Through reflection,

participants were able to recognize the need for self-observation in order to be self-informed and to unlearn.

Unlearning brings one closer to developing as a professional and to gaining professional competence, as it provides a broader perception of both the world and the individual's role in it. In the context of the study, the participants' ability to watch themselves, through video recordings, led them to realize how their behaviour could be changed or improved when providing care.

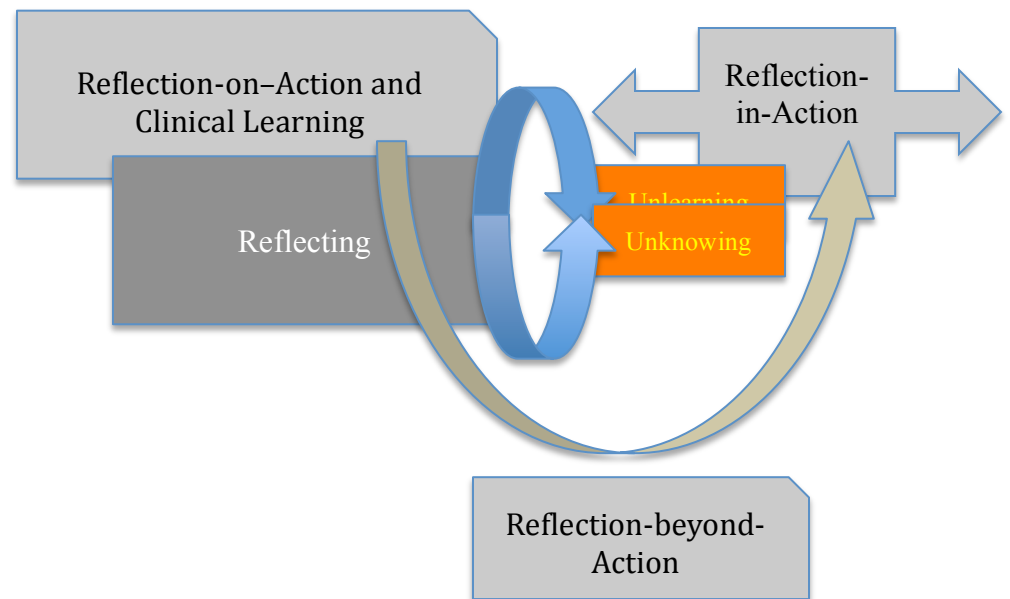
Taylor (1994) emphasizes that one's experiences of incongruity during integration in the host culture, which he calls "cultural disequilibrium" (p. 169), are a component of the learning process and "a catalyst for change," as "its emotional nature is the driving force that pushes participants to become interculturally competent" (p. 169); Taylor observes that disequilibrium challenges individuals' "meaning perspectives, pushing them to learn new ways to bring equilibrium back into their lives" (p. 169). This equilibrium, or balance, represents a notion that intercultural competence influences one's interpretation of one's learning and, thus, is a component of developing professional competence.

Unknowing emerged through participants' experience of being underexposed or unexposed to circumstances presented in the study and was determined to be a prerequisite to knowing. Both unlearning and unknowing are integral to the education of IENs, as they call upon the learner to examine prior beliefs and assumptions and to consider their implications for practice. Both unlearning and unknowing are rooted in values that shape experiences and understanding of the world and impact practice, as

values reflect on who we are and how we perceive reality. This, in turn, impacts practice, as who we are is who we bring to practice (Sherwood & Horton-Deutsch, 2012).

The process of stimulated recall, as a form of reflection, reinforced reflective practice; it provided participants with an opportunity to step outside of themselves, perceive the phenomenon from the vantage point of the Other, and make meaning of their practice through their interactions with the Other (both the other participants and the simulated patient). The emergence of this understanding and experience is part of the change that occurred over the course of the study. It illustrates how the acts of reflection and observation are integral to understanding clinical judgment and to developing professional competence.

Figure 2. A Modified Version of Tanner's Model.



Analysis of the participants' understanding of clinical judgment led me to modify Tanner's Model of Clinical Judgment by adding another layer to the "reflecting" stage. Figure 2 illustrates this modified version, in which unlearning and unknowing become

components of reflection-in-action and reflection-on-action. Ultimately, this integration provides the practitioner with the ability to reflect beyond action. This form of reflection is necessary for the development of both professional learning and professional competence.

Intercultural Fluency

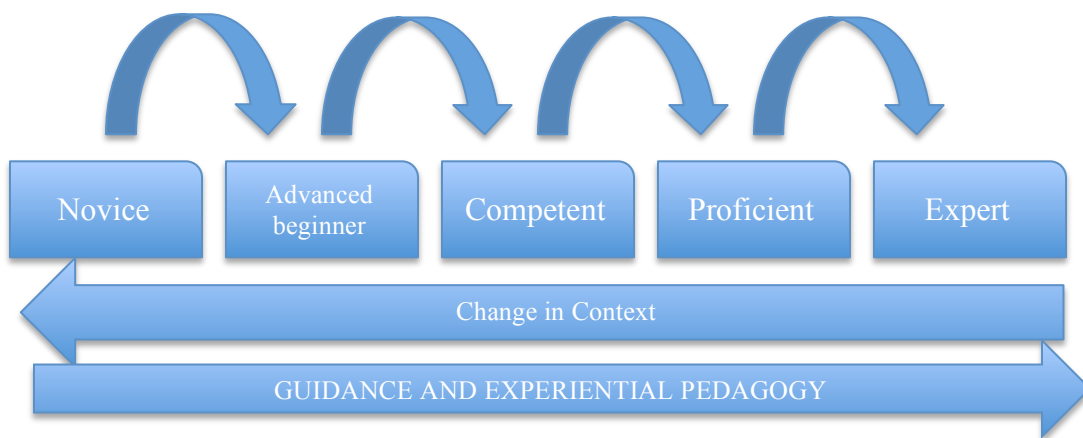
The concept of intercultural fluency emerged from the theme illustrating IENs' experience of clinical judgment. In the context of this study, fluency is regarded as a process that allows one to regress and progress on the continuum of novice to expert; it is dependent on the social, cultural, or sociocultural context of a situation.

The development of expertise through experience and through exposure to different sociocultural situations is supported by this study's findings and analysis and by the literature on professional learning and the development of competence (Eraut, 1985; Kolb, 1984 Schön, 1983). Yet, there is a need to acknowledge that individuals regress or progress from novice to expert, and vice versa, in relation to their current context.

Intercultural fluency represents expertise as being individually constructed and culturally defined. This fluency between the novice to expert phases illustrates the need to recognize that one may be a novice in one setting but an expert in another, whether that setting is a country, unit, or organization. From this position, IENs' experience and understanding of clinical judgment can be framed, within the context of intercultural fluency, as professional learning. Fluency explains how one's expertise can regress when one is in an unfamiliar situation or when one encounters cultural differences; this notion needs to be identified and accommodated in the teaching and learning of IENs as they transition to nursing practice in Ontario.

Given this, my study identified guidance as a potential catalyst to facilitate the transition from one phase to the next, as guidance in the teaching and learning environment can facilitate the development of fluency. The need for guidance, in the context of transition into practice, supports the concept of fluency and acknowledges the complexity of developing expertise. The analysis of my findings provides examples of how guidance, through reflection or post-experience analysis and stimulated recall, allowed participants to acknowledge that, although they were experts in their culture, they illustrated regression toward the level of novice in the context of simulation.

Figure 3. Developing Expertise in Nursing Practice: A Modified Version of Benner's Model



With the guidance of the facilitator, the participants were able to interpret these experiences and recognize areas that presented challenges, which provided them an opportunity for reflection and progression toward the notion of expert. The need for guidance, both within the curriculum and while transitioning on the novice to expert continuum, is illustrated in Figure 3. In this illustration, I have modified Benner's Novice to Expert Model of Skill Acquisition to reflect the findings of my study. The addition of

the element of guidance and authentic learning situations, which are rooted in reflective practice, changes the dynamics of the original model and portrays guidance and experiential pedagogy as effective mediums in the transition to developing expertise.

Guidance, from this view, provides the learner with a better understanding of *knowing what* and *knowing how*. This understanding is essential for identifying salient learning opportunities. Mann, Gordon, and MacLead's (2009) review of 29 studies on reflection and reflective practice in health-care professionals' education discussed educators' influence on reflection. The review noted that mentors and supervisors' behaviours could either inhibit or encourage reflective thinking and that learners were able to make connections with assistance of the facilitator.

Further, the modified model illustrates how regression and progression may occur, particularly when a practitioner is introduced to a different culture of care. Fluency occurs as one moves from one context to the next. The arrows on top refer to Benner's model. The arrows at the bottom of the model illustrate that the expert may, potentially, become a novice when introduced to a different context but may, with guidance, become an expert in the new context without having to move through all of the other phases of the model. The ability to move from expert to novice and back to expert, as illustrated in this study, is what I refer to as intercultural fluency. The notion of intercultural fluency incorporates the concepts of communication and culture and facilitates socialization to the professional nursing role and transition into practice.

IENs' transition to nursing practice in Ontario can be supported through innovative pedagogical methodologies that enhance clinical judgment and through guidance within the classroom. This is reflected in the study, in which the use of

simulated clinical environment and stimulated recall were further reinforced by the guidance of a facilitator.

Guidance should be provided to transitioning IENs in ways that allow them to understand the underlying concepts. Embedding realistic case scenarios within the curriculum is one means of providing this type of guidance, as the scenarios enhance understanding of the complexity of care, in which both cultural background and culture of care are critical factors. The role of the educator is to create and coordinate these opportunities as well as to facilitate the integration of these realities and, thus, portray the complexity of patient care.

The educator's role is to set the stage and provide an environment in which students can articulate and critically reflect on their assumptions, perspectives, and actions (Cranton, 2006). My study confirms that the presence of an instructor or facilitator is needed to guide the process of reflection-in-action, reflection-on-action, and reflection-beyond-action. The participants indicated that they benefited from my presence as a facilitator throughout the reflection process. The study illustrated that the presence of a facilitator is essential in guiding learners to think accurately about an experience and to consider it from a realistic perspective. Further, the teacher, as facilitator, has a responsibility to warn of, or make reference to, areas that indicate risks for practice, particularly when these risks represent negative consequences of students' actions. Hertel and Millis (2002) advise that facilitators need to be prepared for, and alert to, negative consequences. They further note that the "most effective moment for this correction is immediately after the error" (Hertel & Millis, 2002, p. 62); this underscores the value of direct and immediate feedback.

Implications for Nursing Education, Practice, and Research

In Canada, nursing is regulated both at the national and provincial level. The role of regulatory bodies is to ensure that nurses are safe, ethical, and competent health-care practitioners. This mandate is achieved through a variety of regulatory activities, including conducting mandatory registration for practicing nurses, describing the scope of nursing practice, identifying competencies required for entry-level practice, and setting standards which govern both nursing education and practice (CNO, 2014). The need for further research in the area of clinical judgment is integral to the future of nursing education and practice in Ontario and elsewhere.

Clinical judgment is integral to both nursing education and practice as it influences patient outcomes. Errors in clinical judgment have been shown to account for more than half of adverse clinical events. Further, “reflection on practice is often triggered by a breakdown in clinical judgment and is critical for the development of clinical knowledge and improvement in clinical reasoning” (Tanner, 2006, p. 204). Continued research in the area is needed, as it will enable an exploration of how students experience or understand clinical judgment and, thus, may identify the teaching and learning methods that best transfer clinical judgment skills to the practice arena.

Implications for Education

The major goal of nursing educators is to develop programs and institute practices that will allow nurses to develop a deep sense of professional identity and commitment to professional values and to act with ethical comportment. Research in the area of nursing education indicates that nurse educators tend to overload the curriculum with content that focuses more on skills and knowledge and less on a deeper understanding of the material

(Drago-Severson, 2004; Sherwood & Horton-Deutsch, 2012). In the nursing literature, the two main ways of learning are identified as informational and transformational learning (Drago-Severson, 2004). Informational learning is focused on the banking concept of education suggested by Freire (1970), which compares students to receptacles that are to be filled with the content and information by the teachers narration; students are expected to memorize and be able to recite information given in class. In contrast, transformational learning can be defined as a way of both transforming the learner's perspectives, worldview, and understanding of constructs and enabling the learner to make meaning of the learning experience.

Transformational learning allows integration of experiences, particularly nursing experiences, to enhance and challenge students to “think like a nurse” (Tanner, 2006, p. 210). Transformational learning requires more than knowledge application and the ability to question assumptions, values, and perspectives. Learning in this way allows students to cope with the realities that attend practice—realities that are often neither reflected nor represented in the textbook. In this study, participants demonstrated that, despite being introduced to nursing theories and skills in the classroom, they were unable to apply them during the simulation.

Although the current IEN curriculum includes courses that were created to meet the entry-to-practice competencies, participants in my study did not demonstrate these competencies when they engaged with the simulated patient. This observation supports the need for guidance in developing expertise: While simulated scenarios expose learners to the realities and complexities of practice in the Ontario context, it is the application of guidance that highlights why, how, and when to apply the competencies in practice

circumstances. Facilitated unfolding case scenarios provide learners with educational experiences that reflect realities and complexities of practice that are not commonly portrayed in textbooks. Approaching curriculum from this perspective recognizes the knowledge that IENs bring to nursing practice in Ontario and allows for development of both professional expertise and competence through intercultural fluency.

This suggests the need for approaches that engage IENs in their learning by allowing them to participate in realistic circumstances in the classroom, which they may not have witnessed or experienced before. Additionally, this study indicates that a form of experiential method may benefit nonclinical courses, as the knowledge provided in these courses (e.g., nursing ethics, nursing theory, communication in nursing practice, and nursing leadership) was neither reflected in the participants' responses nor effectively transferred when providing patient care.

The participants themselves commented that, despite being introduced to concepts in class, they were not able to apply and transfer the concepts to practice, particularly in their care to the simulated patient. These comments are of paramount importance to the teaching and learning of IENs and have implications for the education of novice practitioners. This finding also indicates the need for additional research in order to identify how experiential pedagogy can be incorporated in nonclinical courses.

Another finding from the study highlights the need for reflection as a constituent to the development of expertise. Reflection is vital to the process of understanding and growth, specifically in the education of professionals (Schön, 1983). Yet, the research on “the effectiveness of strategies to foster reflection and reflective practice is still early in development” (Mann, Gordon, & MacLead, 2009, p. 609). Further, the literature on

reflection and reflective practice is “dispersed across several fields and [it] is unclear which approach may have efficiency or impact” (Mann, Gordon, & MacLeod 2009, p. 595). According to the nursing literature, there is a need to explore how the use of reflection in the curriculum impacts the development of clinical judgment and reasoning (Jeffries, 2012) as “reflective capacity is regarded by many as an essential characteristic for professional competence” (Mann, Gordon, & MacLeod, 2009, p. 595). According to Mann, Gordon, and MacLeod, (2009) “the evidence to support and inform these curricular interventions and innovations remains largely theoretical” (p. 595).

Given that reflection is an integral part of developing clinical judgment and competence, as illustrated in this study, there is a need for innovative pedagogical activities that support incorporating reflection into the curriculum. Evidence from my study illustrates the utility of reflection and reflective practice through the application of stimulated recall, as it supports IENs’ understanding of clinical judgment. Further, the use of reflection provides “an opportunity to step back and examine one’s assumptions, question one’s motives and objectives, and examine one’s participation (or nonparticipation) in the learning experience” (Taraban-Gordon, Trilokekar, & Fynbo, 2007, p. 235). In my study, participants’ reflections enhanced their understanding of clinical judgment, and provided me with an opportunity to identify implications and make recommendations for clinical practice.

In the study, stimulated recall, as a form of reflection, was a beneficial tool for understanding clinical judgment and developing expertise. The participants reported that viewing themselves on the video recording allowed them both to consider themselves from a different perspective and to acknowledge what they had “missed,” what they

needed to learn, and, potentially, how they needed to learn. The findings clearly indicate that this self-observation facilitated the participants' understanding of clinical judgment through the process of reflection-beyond-action. A continuous process of "experience, observation and reflection, theorizing and conceptualizing and applying the knowledge to new situations" (Taraban-Gordon et al., 2007, p. 235) is most meaningful to academic learning programs.

Although a range of studies have suggested that reflective practice is a means to improving and enhancing professional development, educators need to be prepared for the possibility that students may not know how to reflect (Schön, 1983; Epstein & Hundert, 2002; Boud, Keogh, & Walker, 1985). To promote meaningful reflective practice, it is vital that nurse educators recognize the value of reflection and that they model this behaviour for their students. My observation of the participants' responses both enhanced my understanding of teaching and transformed me as an educator, by affording me an opportunity to be more consciously aware of my pedagogical approach and my way of interacting with students.

Implications for Self-Reflection as an Educator

In this section, I will reflect on how my understanding and interpretation of the meaning of educator has developed through the process of my research. From my ontological perspective in relation to the context of education, I believe that each student has an individual identity, which encompasses unique values, beliefs, experiences, abilities, and ways of being, knowing, and learning. From this perspective, each student deserves to be respected and acknowledged for the limitless capacity of his or her thoughts and contributions to the arena of education. In the capacity of an educator within

higher education, I personally believe that my role is to provide the best possible opportunities for students' learning, both in and out of the classroom environment. Through this lens, pedagogy can be considered to be a relational exploration between individuals and a process of "intersubjective encounters that entails transformative possibilities" (Zembylas, 2005, p. 140). This perspective on education informed the nature of the research study and in turn, the findings of the research have informed this perspective.

The study enhanced and provided meaning for my own professional learning. Through this research, I have come to a better understanding of how clinical judgment evolves, both from a personal and professional position. The findings of the research allowed me to shift my knowledge base and create my own knowledge as an educator of the nursing profession. Throughout my career as nurse educator, I have found that the majority of teaching is related to an informational learning process, as opposed to a reflective or transformative learning process. Through the study I have learned that, as an educator, my role is both to encourage learners to question their assumptions and to aid in the development of new pedagogical approaches. Although the primary intention of using simulation in my study was as a methodology, the findings indicate that it is also an appropriate and effective medium to facilitate reflection. This genre of teaching and learning methodology is ideal for promoting mentorship and for understanding and applying clinical judgment.

Furthermore, I strongly believe that it is the role of educator to create a culture of teaching and learning that engages dialogue¹¹ with learners in order to understand the

¹¹ In *On Dialogue*, David Bohm (2004) perceives dialogue as thought, and thinking as something that occurs collectively. Bohm emphasizes the notion that thought is a movement that runs through us. He refers

context and culture of the practice setting. I arrived at this conclusion through the process of transcribing the conversations that took place during my research study. During the stimulated-recall activities and focus groups, I was surprised by the tone of my speech and my reactions to the participants' answers. I found that I kept trying to guide participants in the right direction; this led me to the realization that I need to revisit my teaching approach to further my development as an educator. Through reflection on my approach, I developed a sense of mindfulness towards my teaching practice (Sherwood & Horton-Deutsch, 2012).

The findings of the research have informed my view of the importance of collaborative, participatory, and transformative learning practices within the context of higher education. I realized that developing a community of learners or “knowers” requires a safe space, where one can reflect and accept change and where the unknown can be encountered. This is particularly true in the context of adult education, where learners come with their own understanding of the world. Through this lens, students are not seen as fixed beings (Zembylas, 2005). In *The Pedagogy of the Oppressed*, Freire (1970) critiques the traditional “banking model” (p. 73) of pedagogy: He states that learners should not be viewed as empty bank accounts that need to be filled with information. Rather, Freire espouses liberatory educational practice, in which learners are treated as co-creators of knowledge, as an ideal structure for adult education. Freire emphasizes that learning occurs through dialogue between students and educators and that, in this context, both subjects must be considered to be equally knowing. Further, he

to thought as a system—a set of connected things, including feelings, the body, and, essentially, the whole society—that shares thoughts as one process. From this view, dialogue is recommended as a mode of pedagogical engagement, one which is likely to promote autonomy, learning, and understanding of one's self in relation to others.

identifies the need for the educator to recognize the social reality in which individuals exist, as cultural beliefs and values become vital components of reality or truth.

My experience with this form of understanding and dialogue leads me to conclude that change is possible, as learning occurs in a continuous exploration through praxis: Objectivism can become subjectivity; reductionism can become holism; and rationalism can become relativism. Furthermore, Freire (1970) affirmed that “there is no right thinking without understanding, and that this understanding from a correct thinking point of view is not something transferred but something that belongs essentially to the process of co-participation” (p. 42).

Reflection and reflective practice involve self-awareness and social awareness, and one way to develop this type of awareness is through emotional intelligence. Emotional intelligence is another concept that has received much recognition in the social-psychology literature (Burnard, 1994; Gardner, 1993; Goleman, 1996, 1998; Thorndyke, 1920) and in nursing journals (Cadman & Brewer, 2001). Emotional intelligence is the ability to identify, understand, interpret, regulate, and respond to the emotions of others and “to monitor our own and others’ feelings and emotions, to discriminate among them, and to use this information to guide thinking and actions” (Sherwood & Horton-Deutsch, 2012, p. 197). Emotional intelligence recommends engaging in self-reflective practice to promote awareness of one’s values and prejudices.

I learned that emotional intelligence is a vital component of self-awareness and self-reflection—two qualities that are relevant in the context of my research study. These qualities encompass the ability to understand the Other and to work in cooperation, as emotions are vital in both developing interactions and influencing the emotions of others.

While the value of emotional intelligence is becoming recognized in the nursing literature, it is overlooked in the nursing curriculum. The findings from my study illustrate that emotions are imperative in the context of patient outcomes and overall nursing care; thus, the findings highlight the need for emotional intelligence to be both recognized and embedded in the nursing curriculum. Further, the link between emotional intelligence and positive patient outcomes emerges as a fruitful area for further research and endorses curriculum strategies that enhance emotional intelligence within nursing education. Emotional intelligence needs to be applied in all levels and contexts of nursing education and within a range of courses (e.g., nursing ethics, nursing leadership, medical surgical nursing, mental health nursing, and community nursing). The application of curriculum strategies to enhance emotional intelligence may have professional, personal, and economic benefits and may also positively impact patients, nurses, and employers.

McMullen (2003) notes that, while cognitive intelligence is imperative to the practice of health-care providers, it does not prepare them for the emotional challenges they will meet in the course of their careers. Although McMullen refers to medical practitioners in his study, his claim is equally appropriate for nursing practice; it suggests that emotional intelligence is an area that needs to be explored by both the educator and the learner.

Further to emotional intelligence, the study has allowed me to understand that confronting my own ethnocentrism was the most vital component in my personal transformation of intercultural insight. Ethnocentrism, in this capacity, refers not merely to racism or discrimination, but to the ability to move away from what “I” know and to acknowledge the Other’s contribution to the way I have come to know. My reflection of

the study allowed me to better understand my position as a learner, a professional, and a human. I learned that my way of seeing, behaving, or providing care to the patient is not better than that of those I teach; rather, it is complemented through my interactions with them.

The study also afforded me the opportunity to consider the impact of my mannerisms. In particular, as I transcribed my data from the audiotapes, I noticed my tone and the speed of my speech. In reflection, I believe that the way I communicated, through my verbal and nonverbal mannerisms, may have influenced the participants' reactions and their use of judgment. Further, it may have influenced the participants' understanding of clinical judgment and, thus, may have affected, or even changed, the data. I believe that even those mannerisms that we take for granted can influence how we perceive ourselves and how others perceive us. The notion of rethinking cultural competence, as discussed in this study, stems from this belief.

The process of my research offered me opportunities for self-reflection and, thus, for personal and professional growth. This placed me in a position to critically observe my own way of thinking and my perceptions of how things *are* or *should be*. The experience moved me through a series of cognitive and emotional changes, which led me to become more sensitive to others' ways of doing and thinking and, hence, being. Through my research, I have come to understand that culture is deeply embedded in the notion of identity and that we each inform our own cultural beliefs and values based on how we understand ourselves. Further, I've come to understand that, as humans, we all share a cultural tradition and that the notion of culture is relative to the environment or reality that one creates for oneself. I believe that, with the support of the participants in

my study, I have contributed to the knowledge of my field and have improved the quality of the educational experience for both the participants and myself.

This leads me to question whether nursing educators should reflect on their teaching practice, as it may deepen their own understanding of clinical judgment. The findings from this study provided a clearer understanding that reflection is a collaborative process that requires engagement and participation, and that the educator plays an integral role in this process. I learned that part of the educator's role is to be able to reflect on situations introduced in the classroom and in practice and examine how their own presence or facilitation impacts student performance. Additionally, the findings from the research highlight the importance of understanding that reflection is not merely a tool for looking back on an experience; rather, it is an experience in itself. Given that there is little research or literature related to actual outcomes of reflection, this is an area to consider from an education and practice perspective. The findings call for further examination of how reflection impacts the role of educator, which may lead to answers regarding how reflection is learned, taught, and implemented in daily nursing practice. This has implications not only for nursing educator but also for other educators in post-secondary institutions.

Implication for Nursing Practice

Given that the application and understanding of clinical judgment is a significant part of nursing practice, the teaching and learning of clinical judgment has implications for practice. The findings from my research study have contributed to the understanding of how IENs experience, understand, and learn clinical judgment, which is integral in their transition to the practice arena.

Exploring the experience and understanding of clinical judgment is essential in identifying pedagogical approaches within the education of undergraduate nursing students to facilitate their transition to nursing practice. In order to meet the CNO's standards of practice, there is a need to promote pedagogical approaches that will lead students to a) implement safe, effective, and culturally sensitive therapeutic interventions; b) communicate effectively with individuals, families, groups, and populations; c) employ critical thinking to make competent decisions; d) apply principles of leadership and management while working in interdisciplinary teams; and e) exercise professional, ethical, and sociopolitical responsibilities.

Clinical judgment is a key component of the CNO's entry-to-practice requirements. Recognizing the importance of clinical judgment is paramount to advancing nursing education, as employers expect novice practitioners in the health-care arena, including IENs, to demonstrate the ability to make complex clinical judgments. Nursing can be perceived as a complex set of interactions and relationships including those with individual patients, their families, communities, and inter- and intradisciplinary team members. The complexity manifests the need to adapt to evolving situations, participate in interprofessional teams, and work with patients and families from multiple cultures with different health beliefs and values (Sherwood & Horton-Deutsch, 2012).

The experience and understanding of clinical judgment, both in the context of this study and as a constituent to the transition to practice in Ontario, encompasses the development not just of competence but, moreover, of capability. Feedback on performance and the challenge of unfamiliar contexts can enhance the experience and

understanding of clinical judgment, as can the students' abilities to adapt to change, generate new knowledge, and continue to improve their performance. Moreover, the understanding of clinical judgment refers not merely to learning the norms of one culture, but to being able to adapt or develop fluency in the context of new circumstances. The ability to develop new learning through unknowing and unlearning and through real life experiences supports IENs as they develop expertise, as it enables them to adapt to, or coevolve with, new situations.

The distinction between developing expertise and becoming an expert is integral to this study. Through this study, I have come to a better understanding of the complexities inherent in the notion of being an expert. Being so categorized may have the effect of impeding both individuals' subjectivity and their evolving professional learning, as it suggests a static goal, which, once attained, requires no further personal development or effort to maintain. But, while the term *expert* may limit or stop nurses' further development, both as individuals and professionals, the phrase *developing expertise* suggests a dynamic and ongoing process of attaining and augmenting professional competence.

Various forms of transition attend nursing practice including transition from a) student nurse to registered nurse; b) one nursing specialty to another (e.g., moving from midwifery to critical or acute care); and c) practicing in one geographical area to practicing in another (e.g., moving from England to Canada, as in the case of IENs). In this study, intercultural fluency acknowledges that the transition to practice refers not just to the application of knowledge or skill but, potentially, to a transition from one practice style to another and to an appreciation of cross-cultural experiences.

According to the Organization for Economic Cooperation and Development (OECD), internationally educated professionals accounted for more than a quarter of the medical and nursing workforces in developed countries including Canada, Australia, and the United Kingdom (2003). Due to a shortage of nurses, there is an increase in demand for IENs (Canadian Nurses Association & Canadian Association of Schools of Nursing, 2010; International Council of Nurses, 2004). Society is able to benefit from this migration of IENs when successful integration and transition programs accompany them (CNO, 2006; CNO, 2007). Conversely, inability to transition into the workplace has been indicated to lead IENs to abandon nursing entirely (Xu, 2008). There is a need for transition programs that encourage the ability and afford the knowledge to communicate and to understand behaviours influenced by culture. Having this ability and knowledge can eliminate barriers to the delivery of health care. In 2008, 8.4% of Canada's nursing workforce graduated from an international nursing program (CNA, 2011c). In Ontario 12.3% of nurses are IENs, as compared to BC, which has 15.8% (CNA, 2011c). The shortage of nurses and increased demand for IENs is indicative of the need to both understand and embrace diversity. Moreover, organizations need to understand the importance of intercultural influences, as the integration of intercultural experience and intercultural understandings are essential constituents to "intercultural competency" (Taylor, 1994, p. 173). Further rethinking or revisiting the notion of cultural competence from the context of diversity of IENs and its implications on nursing practice is needed. Having said that, organizations need to acknowledge and provide appropriate orientation to practice areas; they must also reflect the values and principles and demonstrate behaviours, attitudes, policies, and structures that enable IENs to work effectively and

cross-culturally.

Implication for Research: Recommendations and Next Steps

According to recent studies, more than a third of novice nurses believe they are poorly prepared to improve the quality of patient care or to provide quality assurance (Kovner, Brewer, Yingrengreung, & Fairchild, 2010). The problem we face in nursing is that early nursing education often focuses on the tasks involved in providing patient care and does not provide exposure to a systems approach to care (Sherwood & Horton-Deutsch, 2012). The understanding of the experience and understanding of clinical judgment of novice health practitioners, particularly IENs, is critical in order to reinforce curriculum and pedagogical development, as the knowledge and skills embedded in judgment are key foci in nursing education.

Reflection becomes imperative in this context, as research continuously demonstrates that the quality of patient care varies according to the reflective abilities of the practitioner; this indicates that nurses who are not engaged in or who minimally demonstrate reflective abilities provide illness-oriented care, whereas nurses with adequate reflective skills implement care based on the individual needs of the patient (Conaway, 1998, cited in Jeffries, 2012).

Reflection has also been identified as a critical aspect of the development of clinical reasoning and the transfer of learning. According to Schön (1983), reflection requires a process of self-monitoring that begins when an individual is engaged in an experience and continues after the experience, when the individual engages in a conscious review of the interaction. According to the Interprofessional Education Collaborative Expert Panel (2011), the process of reflection results in meaningful

learning, which develops students' thinking, engages them in active inquiry, and shapes their future actions and decisions through deeper understanding of the clinical situation they experience.

Although, in recent years, the rhetoric of reflective practice has permeated the literature in the field of nursing and education, the idea of reflective practice has become more disparate, as authors and researchers use their personal lens, worldview, and experience when defining the term. A concern not addressed in the literature is that one may only reflect on what one is conscious of, "so reflective practice as it currently stands does not consider learning that occurs outside one's conscious awareness" (Ruth-Sahd, 2003, p. 495). More research is needed to understand the role of unconscious knowing or unknowing and how the reflective process affects it.

The findings from the research study illustrate that reflection is an intersubjective process that requires contemplative thinking; they also highlight the need to address whether reflection can be taught as a discrete skill. Although this may be the case, educators need to consider how to embed reflection in their teaching to allow students to better examine their experiences, thoughts, understandings, and feelings of situations. One way to allow students to develop this skill is to create and provide environments that support targeted reflection. The findings illustrate that reflection is effective in small groups and in situations where individuals are able to view themselves from a different lens (e.g., on a video recording), as this affords individuals the opportunity to observe their interactive skills, communicative skills and mannerisms, nonverbal behaviours, and responses in given contexts.

Additionally, Jeffries (2012) indicates “additional research is needed to provide evidence that demonstrates the relationship between reflective learning and improved patient-care outcomes when guided reflection is integrated into a simulated or clinical learning experience” (p. 98). My research demonstrates that, from both an educational and practical perspective, engaging in stimulated recall as a form of reflection allows for the development of clinical judgment. However, although my research demonstrates how reflective learning can both lead to and influence improved patient-care outcomes, there is a need for more research in other areas (such as other bridging programs) and within different courses, as such research has implications for curriculum development. Further to that, although my research illustrates the experience and understanding of clinical judgment of IENs within simulated clinical environments in an academic setting further research on how clinical judgment transfers with simulation to clinical judgment in practice is also needed. Moreover, the fact that my research was conducted in only one setting, and in the only academic (BScN) bridging program for IENs in Canada, suggests that similar research should be conducted in other bridging programs.

Although my research illustrates how guidance from the educator may impact the understanding of clinical judgment and development of expertise, it would be beneficial to conduct similar research in a larger scope, throughout the curriculum, or with a larger number of participants across and within different levels of nursing programs (e.g., collaborative and second-degree entry). I have provided a summary of further recommendations, based on the findings of this study.

A Summary of Further Recommendations for Research

1. There is a need to further explore evidence that demonstrates how reflective learning practices influence patient-care outcomes through guided-reflection activities (e.g., stimulated recall).
2. There is a need for more research in the area of the application of simulated learning environments in combination with reflective practice (e.g., stimulated recall); in particular, further exploration should be conducted within other courses within the IEN curriculum.
3. There is a need to further explore the relationship between reflective practice and level of clinical experience, particularly prior health-care experience, and to identify how the number of years of clinical experience influences reflection. How does the notion of experience influence the practice of care?
4. There is a need for further research on how clinical judgment transfers with simulation to clinical judgment in practice.
5. There is a need for further research to explore the development of clinical judgment of IENs from different geographical, educational, and practice backgrounds.

Simulation activities and stimulated recall affords students the opportunity to practice team behaviours with learners from different health-professional disciplines. Even though nurse educators believe that students have a good understanding of what other professionals do, students have only a superficial knowledge of others' roles and responsibilities (Morey, Simon, & Jay, 2002). From a sociocultural position, there is a need to address this as part of the curriculum, both through reflective practice and

through immersive simulation exercises with other professionals. These approaches serve to enhance students' confidence and to guide them to effectively communicate and collaborate with and learn the roles of other multidisciplinary members (Ostergaard, Ostergaard, & Lippert, 2004).

Conclusion

Through the course of the research study, it has become clear that there is no such thing as one type of learner or one way of learning, nor is there one type of setting in which learning takes place. It has also emerged that knowledge is both culturally situated and individually constructed. The act of learning, in this study, refers to an evolution of knowledge or knowing that was constructed by the individual (Loughlin, 1993).

As novice health-care practitioners to Canada, it is important to support IENs in their transition to practice in Ontario and to ensure that they are in the best position to practice safely. The process of integration and transition into practice in a new setting can be overwhelming, given the unfamiliar roles that nurses may be expected to play in this new context, not to mention the often significant differences in health-care systems and the specialized language of nursing. These factors make the process of integration and adjustment difficult.

Although IENs can be considered novices within the Ontario health-care context, this study found that IENs come with great amounts of knowledge and are experts in their countries of origin. The findings suggest a need for further discussion in the academic literature regarding how we view clinical judgment and the expert. That being said, it is important to guide and facilitate education through new and innovative ways that illustrate the complexity of nursing care and consider different cultures of care.

Acknowledging and recognizing these differences within the IEN program will both enhance clinical judgment and support transition to practice.

Hence guidance, coupled with opportunities for reflection in the classroom, is needed to support reflection-beyond-action and the development of expertise. In relation to the transition-to-practice setting, developing expertise is synonymous with developing a sense of fluency; further, it is a key factor in understanding clinical judgment and the sociocultural transformation of IENs from which intercultural fluency stems.

This study has advanced the understanding of both how participants learn within the context of reflection and how reflective practice influences developing expertise and clinical judgment. It has contributed to the advancement of both Tanner's Model of Clinical Judgment and Benner's Novice to Expert Model of Skill Acquisition; in doing so, this study enhances understanding of the needs of IENs and contributes to pedagogical methods to support IENs as they transition to practice in Ontario

Knowledge gained in this study represents merely the tip of the iceberg in understanding how IENs learn, experience, and understand clinical judgment in a simulated setting and through stimulated recall and reflection. Further research—including similar studies that incorporate samples that are larger or that include participants from a wider range of cultural backgrounds—is needed in this area.

The ideas raised in this chapter will better equip faculty members to implement pedagogical implications and develop educational resources for IENs. Further, these ideas represent a means to facilitate the development of expertise and the transition to practice in Ontario. The findings of my research provide insight into the culture of care and culture of practice of IENs and, thus, contribute to the overall development of

nursing knowledge and pedagogy. The study illustrates that learning occurs when guidance is given during reflection-on-action and reflection-in-action, and that these activities lead to reflection-beyond-action.

I believe that the results of this research make a contribution to the learning of IENs and the process of the transition to practice in Ontario. Both the findings and analysis provide a deeper understanding of the meaning of teaching, learning, and pedagogy. In doing so, they highlight the need to acknowledge both the significance of different cultures of care in nursing education and the complexity of nursing practice.

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APPENDIX A: Letter to Participants

Dear IEN student,

I am currently enrolled in a PhD program and in the process of initiating my research study, which is associated with the education of IENs and ways of ameliorating teaching quality within bridging programs.

I am writing to invite you to be part of my study

The focus of my research study will enable creating ways of supporting IENs in their transition to nursing practice in the Ontario context. The purpose of the study is to understand development of clinical judgment using a simulated clinical setting, specifically High Fidelity Simulation (HFS).

What will be required of you?

1. A brief preliminary interview identifying your demographics and educational, clinical and professional background
2. Being involved in three activities (50 minutes) which will be followed by a stimulated recall session and focus group (1.5 hours)
3. A total time commitment is expected to be three hours for each activity (9 hours for the entire study)

Your participation in this study is voluntary and you may choose to stop participating at any time. Your decision not to continue in this study will not influence the nature of the ongoing relationship you may have with the primary investigator, York University, or any other group associated with this project.

A copy of the informed consent form is provided for a more detailed description.

If you would like to participate in the project kindly forward your name to Eva Peisachovich at peva@yorku.ca

If you have questions about the research in general or about your role in the study, feel free to contact Eva Peisachovich either by telephone at (416) 736-2100 33931 or by email at peva@yorku.ca.

Thank you kindly.

Eva Peisachovich
PhD candidate and Faculty
Faculty of Health, School of Nursing

APPENDIX B: Consent Form Copy

Study Name: Developing Clinical Judgment within the Context of Reflective Practice:
The case of IENs in Ontario

Researcher: *Eva Peisachovich*, Principal investigator
PhD in Education, Faculty of Education, York University
peva@yorku.ca

Purpose of the Research: The purpose of this study is to understand how Internationally Educated Nurses (IENs) develop clinical judgment overtime using a simulated clinical setting, specifically high fidelity patient simulation (HFPS) and within the context of reflection. The data in this study will be used entirely for the purpose of creating ways of supporting IEN students in their transition to the Ontario context.

What You Will Be Asked to Do in the Research: You will be asked to do the following, a) participate in preliminary interview which will involve collecting demographics and asking questions associated with your educational, clinical and professional experience, b) use a simulated clinical setting, particularly comprising of SimMan™ manikins in a high-fidelity, interactive clinical simulation and provide care to an “unstable patient”, and c) be involved in a stimulated recall and focus group after every clinical simulated activity.

The simulation-based activities will be based on an unfolding case, which will unfold three times therefore comprising of a total of three sessions, each lasting 50 minutes. A 50 minutes period is appropriate in order to allow you to experience the simulated-based learning activity including the debriefing session (20 minute for the activity and 30 minutes for debriefing).

The clinical simulated activities will be videotaped and will only be viewed by the researcher and participants involved. Both stimulated recall and focus group sessions will be audiotaped.

After every activity you will be involved in a stimulated recall session followed by a focus group. These sessions are expected to last 1 hour to 1.5 hours.

Both simulation activities and stimulated recall sessions and focus groups will be delivered at a mutually convenient time that will not interfere with your lectures or other course work.

The simulated activities will take place in the Nursing Resource Center at York University, which already has 4 SimMan™ manikins equipped to undergo the simulation-based activities.

Risks and Discomforts: I do not foresee any risks or discomfort from your participation in the research. Although I am an instructor in the program, I will not be teaching you during the course of this study. The results of the data will not in any way have an influence on your grade or performance in the program.

Benefits of the Research and Benefits to You: The information gained from the research will benefit future IENs in their transition to the nursing profession within Ontario. In addition, participation in the project will provide the opportunity for improvement and creation of learning resources and ways of supporting IENs within bridging programs in their transition to the Ontario context, specifically related to clinical judgment. The direct benefit is that participation in the project will provide you with the opportunity to improve your learning related to application of clinical judgment and culturally competent care when caring for an unstable patient.

Voluntary Participation: Your participation in the study is completely voluntary and you may choose to stop participating at any time. Your decision not to volunteer will not influence the nature of the ongoing relationship you may have with the researcher or the nature of your relationship with York University either now, or in the future.

Withdrawal from the Study: You can stop participating in the study at any time, for any reason, if you so decide. Your decision to stop participating, or to refuse to answer particular questions, will not affect your relationship with the researcher, York University, or any other group associated with this project. In the event you withdraw from the study, all associated data collected will be immediately destroyed wherever possible.

Confidentiality: All information you supply during the research will be held in confidence and unless you specifically indicate your consent, your name will not appear in any report or publication of the research. Data collection will involve videotaping and audiotaping. The simulated activities will be videotaped. The data from the stimulated recall and focus group sessions will be collected through audiotapes. I will also use a laptop or similar electronic device in taking notes. The transcripts or any data collected during the course of the study will be stripped of identifying information and neither remains strictly confidential nor is presented in a way that reveals the participants. The data will be safely stored in an external drive and kept in locked facility. Only my supervisor and myself will have access to this information. The data will be stored for 2 years after which it will be destroyed by deletion of all records hardcopy and electronic. The data will not be archived.

Due to the nature of the study you will be interviewed in a focus group, which will identify you to others who participate in the study. In this sense absolute confidentiality and anonymity will not be guaranteed. Individual students will not be identified in the report of this study.

In the event that findings from the data will support further recommendations of the research the researcher will require approval to use quotes provided from participants
Kindly check the following to provide your consent

I permit quotes to be used

Questions About the Research? If you have questions about the research in general or about your role in the study, please feel free to contact me either by telephone at (416)

736-2100, extension 33931 or by e-mail (peva@yorku.ca). You may also contact my supervisor Dr. Theresa Shanahan at in the Faculty of Education office (tshanahan@edu.yorku.ca). This research has been reviewed and approved by the Human Participants Review Sub-Committee; York University's Ethics Review Board and conforms to the standards of the Canadian Tri-Council Research Ethics guidelines. If you have any questions about this process, or about your rights as a participant in the study, please contact the Sr. Manager & Policy Advisor for the Office of Research Ethics, 5th Floor, York Research Tower, York University (telephone 416-736-5914 or e-mail ore@yorku.ca).

Legal Rights and Signatures:

I _____, consent to participate in the study titled: *Developing Clinical Judgment in the Context of Simulated Clinical Settings and within the Context of Reflective Practice* conducted by Eva Peisachovich. I have understood the nature of this project and wish to participate. I am not waiving any of my legal rights by signing this form. My signature below indicates my consent.

Signature _____
Participant

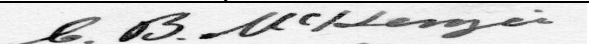
Date _____

Signature _____
Principal Investigator

Date _____

APPENDIX C: Unfolding case study

Case study #1

York University Hospital		Ben Lowe
Physician Order Sheet		V 0006574
MRP: Dr. C.B. McKenzie		123 Streetwise Way
Allergies: seafood, sulpha		Somewhere, On
		A0B C1D
		DOB 1954, 12, 25
Date	Time	Orders
xx/xx/2012	0700	Admission diagnosis mitral valve surgery
		Co morbid: type 2 non insulin dependent diabetes melitius
		DAT 1800 kcal diabetic diet
		AAT
		Lasix 20mg po BID
		Digoxin 0.25mg PO OD
		Salbutamol 2.5 mg in 3 ml of NS neb QID PRN
		Tylenol #3 i-ii po q4h PRN
		Glyburide 2.5 mg po BID
		Coumadin dosed as per INR
		D/C intermittent staples day 7
		Keep SaO2 at <92%
		Coumadin dose as per INR
		

Ben Lowe V 0006574 123 Streetwise Way Somewhere, On A0B C1D DOB 1954, 12, 25 MRP: Dr. C.B. McKenzie										Medication Administration Record Allergies: seafood, sulpha														
	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	2	2	2
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Furosemide 20 mg po BID																								
	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Digoxin 0.25mg OD																								
	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Salbutamol 2.5 mg in 3 ml of NS neb QID PRN																								
	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tylenol #3 i-ii po q4h PRN																								
	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Glyburide 2.5 mg po BID																								
	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coumadin dosed as per INR																								
Codes: PD: patient declined Initials: dose given											Signature										Initials			
										Eva Peisachovich										EP				


Blood Work For Case #1

WBC 4-11 x 10 ^{9/L}	10.4
Hgb 130-170 g/L	120
K 3.5-5.5 mmol L	4.5
Na 135-145 mmol/L	140
BUN 3.6-7.1 mmol/L	6.1
Cr 50-110 mmol/L	60
BS fasting 4-6mmol/L	10

Notes for nurse report off to participants

Nursing notes June 14, 2012 0730	<p><i>Pt in bed no c/o pain or discomfort. VS stable. SaO2 92% on 2L via NP. No SOB or tachypnea. Audible crackles to left lower lobes. 1 neb of Salbutamol administered at 0700. Talking to wife on phone. Call bell within reach. Report given to assigned RN.</i></p> <p>—EP. RN</p> <hr/> <hr/>
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Case study #2

York University Hospital		Ben Lowe
Physician Order Sheet		V 0006574
MRP: Dr. C.B. McKenzie		123 Streetwise Way
Allergies: seafood, sulpha		Somewhere, On
		A0B C1D
		DOB 1954, 12, 25
Date	Time	Orders
xx/xx/2012	0700	Admission diagnosis mitral valve surgery Co morbid: Type 2 diabetes
		DAT 1800 kcal diabetic diet
		AAT
		Lasix 20mg po OD
		Digoxin 0.25mg po OD
		Salbutamol 2.5 mg in 3 ml of NS neb QID PRN
		Glyburide 2.5 mg po BID
		Coumadin dosed as per INR
		Tylenol #3 i-ii po q4h PRN
		D/C intermittent staples day 7
		Keep SaO2 < 92%
		

Ben Lowe V 0006574 123 Streetwise Way Somewhere, On A0B C1D DOB 1954, 12, 25 MRP: Dr. C.B. McKenzie										Medication Administration Record Allergies: seafood, sulpha														
	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	2	2	2
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Furosemide 20 mg po BID																								
	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Digoxin 0.25mg OD																								
	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Salbutamol 2.5 mg in 3 ml of NS neb QID PRN																								
	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tylenol #3 i-ii po q4h PRN																								
	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Glyburide 2.5 mg po BID																								
	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coumadin dosed as per INR																								
Codes: PD: patient declined Initials: dose given											Signature										Initials			
										Eva Peisachovich										EP				


Blood work for Case #2

WBC 4-11 x 10 ^{9/L}	15.7
Hgb 130-170 g/L	140
K 3.5-5.5 mmol L	4.5
Na 135-145 mmol/L	140
BUN 3.6-7.1 mmol.L	6.1
Cr 50-110 mmol/L	60
BS fasting 4-6mmol/L	6

Notes for nurse report off to participants

Nursing notes June 21, 2012 0830	<p><i>Pt inquired about discharge date. Pt states "I feel I have been here for too long. When will I go home?" Have left a message with Dr. Mckenzie regarding this inquiry. VS stable. SaO2 at 92% on 2L. Auscultation to lung fields reveals A/E equal bilaterally with no audible adventitious sounds. Pt ambulating in hallway independently. He c/o no pain or discomfort. Report given to assigned RN. —EP. RN</i></p> <hr/> <hr/>
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Case study #3

York University Hospital		Ben Lowe
Physician Order Sheet		V 0006574
MRP: Dr. C.B. McKenzie		123 Streetwise Way
Allergies: seafood, sulpha		Somewhere, On
		A0B C1D
		DOB 1954, 12, 25
Date	Time	Orders
xx/xx/2012	0700	Admission diagnosis mitral valve surgery Co morbid: Type 2 diabetes
		Digoxin 0.25 mg po OD
		Tylenol #3 i-ii po q4h PRN
		Heparin drip as per protocol Give bolus of heparin of 70 units/kg and increase drip by 4 units/kg/hour
		Lasix 20 mg po BID
		Ciprofloxacin 500 mg po QID for 10 days
		Coumadin dosed as per INR
		Glyburide 2.5 mg po BID
		Obtain CBC, PTT, PT prior to initiation of heparin therapy if not already done in previous 24 hours Obtain PTT q6 h after initiation of heparin infusion. Obtain CBC every third day unless otherwise ordered during heparin therapy
		Insert NG tube for gavage and consult dietician re regimen
		Insert an indwelling Foley catheter
		Wet to Dry dressing to sternum to be changed OD and PRN. Cleanse with NS 0.9%.
		Keep SaO2 at 92%
		

Blood Work for Case #3

WBC 4-11 x 10 ^{9/L}	12
Hgb 130-170 g/L	140
K 3.5-5.5 mmol L	4.5
Na 135-145 mmol/L	140
BUN 3.6-7.1 mmol.L	6.1
Cr 50-110 mmol/L	60
BS fasting 4-6mmol/L	6

Notes for Nurse's report off to participants

<p>Nursing notes June 28, 2012 0800</p>	<p><i>Upon assessment at 0530 pt. found unable to verbalize. Neurological assessment reveals R sided weakness to upper and lower extremities. Pt was sent for CT at 0600 which revealed L sided CVA. Pt is currently in bed. VS stable. SaO2 92% on RA. Auscultation reveals decreased A/E equal bilaterally with audible wheezes. Pt remains on telemetry and is currently in sinus rhythm. Heparin drip in situ. IV site intact. Call bell within reach to L side of pt's bed. Pt's wife has been informed of pt's status by Dr. McKenzie. Report given to assigned RN. —EP. RN</i></p> <hr/> <hr/>
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APPENDIX D: Unfolding Case Study Emailed to Participants

Unfolding Case #1

Ben Lowe has been on the unit for 3 days. He is able to ambulate to the washroom and has had several walks in the hallway with the assistance of the physiotherapist and the nurse. He is on a regular diabetic diet. His incision is now open to air and healing well. His urinary catheter has been discontinued and he is voiding clear yellow urine. Bowel sounds present to all quadrants. No complaints of pain or discomfort. BM x1. He is still attached to a telemetry monitor and is hemodynamically stable. He remains on 2L of oxygen. Auscultation reveals adventitious sounds with audible crackles to his left lobe and decreased air entry throughout lung fields. You are the nurse caring for this patient.

Unfolding Case #2

Ben Lowe has been on the unit for 7 days. He is able to ambulate independently. He is on a regular diabetic diet. The staples are due to be removed from his sternum. He is voiding adequately and bowel sounds are present to all quadrants. He is still attached to a telemetry monitor due to history of atrial fibrillation. Currently he is hemodynamically stable. He SaO₂ is 98% on room air and auscultation reveals air entry bilaterally with no adventitious sounds. You are assigned to care for this patient.

Unfolding case #3

Ben Lowe has been on the unit for 10 days. He has decided to stay in bed, as he feared that his dehiscence would worsen, despite the nursing staff's education on related risks. He has agreed to get up to the commode, but otherwise remained in bed. Upon assessment today the nurse finds that the patient is presenting with right-sided weakness and inability to verbalize. The patient has been sent for a CT, which reveals a left-sided cardiovascular accident (CVA). The dressing to his sternum is dry and intact. He is still attached to a telemetry monitor and is currently in sinus rhythm. His vital signs are stable with a SaO₂ of 95% on room air and auscultation reveals decreased air entry bilaterally. You are assigned to care for this patient.

APPENDIX E: HFPS Background Demographics

BACKGROUND

Biographical Data

- Name: Ben Lowe
- Age: 58
- Height: 157 cm
- Weight: 58 Kg

Cultural Considerations

- Language: English
- Ethnicity: Scottish
- Nationality: Canadian

Demographic Data

- Marital status: Married
- Educational level: technical school
- Religion: Catholic
- Occupation: Textile factory worker

Current Health Status

- Post-operative mitral valve surgery

History

Past Medical History

- Diagnosed with Type Two non-insulin dependent diabetes melitus two years ago

Psychological History

- Social support family
- +25 years smoking history approximately 20 packs per year

Family History

- Father died of heart attack at the age of 60
- Both maternal grandparents had history of hypertension
- Father was diagnosed with chronic obstructive pulmonary disease at the age of 59