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EXPLORING HOW CLINICAL NURSING INSTRUCTORS UNDERSTAND AND FACILITATE CLINICAL JUDGMENT IN NURSING STUDENTS

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Dedication

This work is dedicated to my parents. My mother Linda, my father Russell, and his loving wife Hildy. Your love, support, and unwavering belief in me has given me the strength to keep pushing through.

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Abstract

Clinical judgment is recognised as an essential skill for competent nursing practice. The clinical setting is an ideal place for students to explore clinical judgment. Clinical judgment is often used interchangeably with clinical reasoning, critical thinking, and clinical decision-making. There is limited information from the perspective of clinical nursing instructors. This study was undertaken to explore the experiences of clinical nursing instructors with regards to their understanding of clinical judgment, their perspectives on what enhances and what hinders its development, and to obtain their recommendations for new instructors. Five study participants answered questions regarding these topics. Of interest, was the discussion on hindrances to the development of clinical judgment and participant recommendations for new clinical instructors. Study results can help new and experienced instructors explore and expand their practice, and could be used to help support new instructors during their first couple of years of practice.

Keywords: clinical judgment, nursing education, clinical instructors

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Chapter 1. Introduction

Clinical judgment is a foundational professional requirement to ensure safe, competent, high-quality nursing care (Benner, Sutphen, Leonard, & Day, 2010; Boyer, Tardif, & Lefebvre, 2015; Gerdeman, Lux, & Jacko, 2013; Standing, 2014; Van Graan, 2014). Changes to the contexts in which nurses practice include: workforce reduction, advancing technologies, and access to limited resources (Austria, Baraki, & Doig, 2013; Samuels & Leveille, 2010; Wilber, 2014). Additionally, patient conditions are increasingly acute and complex (Lasater, 2011; Wilber, 2014). All of these can lead to competing demands and conflicts between medical practitioner, patient, and organizational values (Phillips, Duke, & Weerasuriya, 2017; Samuels & Leveille, 2010). These changes have considerable influence on how nurses are required to practice while still maintaining patient safety.

Clinical judgment in health care is a non-linear process through which a variety of data are collected and analyzed to make clinical decisions on appropriate interventions (or no intervention) which can have significant impact on patient outcomes (Benner, Tanner, & Chesla, 2009; Burruss & Popkess, 2012; Lasater, 2011; Standing, 2014). Some of the factors that can influence clinical judgment include: practice context, nurse values, patient values, knowledge and understanding (both nurse and patient), emotion, intuition, experience, and assessment techniques (Burruss & Popkess, 2012; Benner et al., 2009; Standing, 2014; Wilber, 2014). Those who are considered experts in clinical judgment, understand all of these factors, integrate them, and then make clinical decisions

that support outcomes aligned with the patient's goals for their health and well-being (Benner et al., 2009). While attempting to describe clinical judgment, it becomes clear that it is a complex and multifactorial concept.

When one considers that there is a small margin for error where patient outcomes can be dramatically altered by nursing decisions, clinical judgment in nursing has high stakes (Benner et al., 2010; Wilber, 2014). It is the complexities of this concept that makes learning, teaching, and evaluating clinical judgment challenging (Lasater, 2011; Tanner, 2006). Furthermore, there seems to be a disparity between the abilities of newly graduated nurses with regards to clinical judgment and employer expectations (Berkow, Virkstis, Stewart, & Conway, 2008; Del Bueno, 2005). Authors have been calling for a change in the way in which nursing education is undertaken, which could help students transition into their role as new nurses; this includes improvements in their clinical judgment (Benner et al., 2010). While there is considerable literature exploring the topic of clinical judgment, it seems that little is known about how clinical nursing instructors in registered nursing programs understand and facilitate clinical judgment in their students.

Statement of the Problem

The Topic – Clinical Judgment. Clinical judgment is a process that employs the use of critical thinking, and weighing the alternatives (clinical reasoning), to make clinical decisions (Burruss & Popkess, 2012; Standing, 2014). Standing (2014) defined critical thinking as "questioning one's own and others' assumptions, addressing gaps in knowledge to achieve aims, challenging illogical

or unethical beliefs or practice, evaluating the strength of available evidence and presenting a logical, evidence-based argument and defending it when challenged" (p. 210). Clinical reasoning (an aspect of clinical judgment) requires higher order thinking whereby ideas are applied to experience and analyzed in context to form conclusions using cognition and metacognition (Hoffman et al., 2011; Koharchik, Caputi, Robb, & Culleiton, 2015). Balanced by accountability, clinical decision-making is using clinical judgment to select the best option while minimizing risk and addressing patient concerns/needs based on evidence (Standing, 2014). In short, clinical judgment is a process which employs the use of critical thinking, and weighing the alternatives (clinical reasoning), to make clinical decisions (Burruss & Popkess, 2012; Standing, 2014).

Importance of clinical judgment. Companies are working on developing policies and procedures to address many situations that are frequently faced by nurses. Considering the dynamic and intricate settings in which nurses practice, it's not possible for practice guidelines, codes of ethics, and various other policies, procedures, and decision-making algorithms to fully encompass nursing practice and prevent adverse patient outcomes, this complexity amplifies the amount of uncertainty faced by nurses (Wilber, 2014). As an example, Early Warning Systems include triggers for escalating care and intervention if vital signs are outside specific parameters (Standing, 2014). This requires not only assessing the patient, but also evaluating the importance of the assessment findings (Standing, 2014). The risk of relying on protocols, policies, and algorithms is that individual factors and contexts may not be considered; it is nursing clinical judgment that

incorporates specific patient needs into the decision-making and problem-solving processes (Wilber, 2014). Another risk of following protocol without understanding patient condition is that it may lead to missed opportunity for alternative interventions (Perkins & Kisiel, 2013). What makes clinical judgment essential is the awareness of what is important versus what is extraneous information in any given situation, this then leads the nurse to respond skillfully to the needs of the patient (Benner et al., 2009).

Risks of poor clinical judgment. Nurses are responsible for monitoring patient condition and ensuring that appropriate interventions are sought in a timely manner that provides a safeguard for the patients in their care (Wilber, 2014). According to a publication compiled by the Canadian Institute for Health Information (CIHI, 2004), "between 9,250 and 23,750 people per year experience a preventable adverse event and later die" (p. 42). Drug and fluid events make up 24% of medical errors which occur in hospitals (CIHI, 2004). This demonstrates the importance in making sound decisions when it comes to medication administration. According to the study reported on by the CIHI (2004), it was "estimated that adverse events occur in 7.5% of admissions in non-specialized acute care hospitals in Canada. Of these, expert reviewers considered 37% highly preventable" (CIHI, 2004, p. 42). Busy work environments, increased patient to nurse ratios, increased acuity of patients, and carelessness can all contribute to adverse events for patients (Douglass, 2014; Levett-Jones et al., 2010). However, incidents of failure to rescue may also occur due to not recognizing changes in patient condition, misinterpreting the information, or not responding appropriately

to these signs of deterioration (Levett-Jones et al., 2010).

Clinical judgments are made frequently in daily nursing practice (Mann, 2010). These judgments are made in many different situations, including, but not limited to: medication administration (give, hold, dosage, monitoring, reporting), mobilization, and fall prevention strategies (Benner et al., 2009). With regards to student praxis, potential threats to patient safety may also include students not being prepared with appropriate levels of knowledge, poor decision-making, and not taking accountability (Montgomery, Killam, Mossey, & Heerschap, 2014). Medication administration is a higher risk activity which requires clinical judgment: for example, if medication is given at a time when patient condition would contraindicate that medication, the patient is placed at risk (Mann, 2010). Judgment errors often fall into one of two categories: omission (lack of knowledge) or commission (inappropriate application of knowledge) and can lead to patient harm (Van Graan, 2014). Poor clinical judgment can place patients at considerable risk. The process of developing clinical judgment as it pertains to nursing begins in nursing school.

The Research Problem. The problem this study addressed is that little is known about how experienced clinical nursing instructors understand clinical judgment and facilitate its development in their students.

Background and Justification. Clinical judgment is considered an invaluable requirement for Registered Nursing (RN) practice, yet research has shown that new nurse graduates lack the ability to make the judgments expected by their employers (Wilber, 2014). Four studies evaluating judgment

competencies of newly graduated nurses were found. In the United States, a system of evaluating the critical thinking and interpersonal skills of nurses has been utilized by 350 institutions in 46 states (Del Bueno, 2005). A video simulated general medical-surgical scenario was used to evaluate new graduate nurses' abilities to: identify problems, initiate appropriate interventions supported by rationale, and follow-through undertaken within a reasonable timeframe (Del Bueno, 2005). Del Bueno (2005), reviewed the aggregated results from 1995-2004 (over 10,000 novice nurses) and found that approximately 35% of nurses in their first year of practice possess the expected levels of critical thinking (stated by the author as primarily clinical judgment) expected by their employers. Additionally, Del Bueno (2005) discusses the importance of clinical experiences along with coaching and critical questioning as strategies to help improve clinical judgment.

A study completed by the Nursing Executive Center in the United States, where nurse leaders were asked to rate new graduates on 36 competencies, found that only 25% of nurse leaders were fully satisfied with new graduate performance (Berkow et al., 2008). Findings included: lack of satisfaction with both clinical and non-clinical skills; even top skills were rated poorly; significant variation between top and bottom rated skills; the bottom one third of skills tested and found least satisfactory were deemed to be best taught in the clinical setting (Berkow et al., 2008). Both studies found concerns with regards to clinical judgment, where the recognition of changes to patient status and following up were limited or lacking (Berkow et al., 2008; Del Bueno, 2005). These studies

support the need for further research.

In contrast to these two studies, Fero, Witsberger, Wesmiller, Zullo, and Hoffman (2009), completed a study using the same evaluation tool as Del Bueno (2005), but found that of 1211 nurses with less than one year of experience, only 28.5% did not meet expectations. It is prudent to note that this was a smaller study and was focused on 19 different sites within a single university healthcare system. The Del Bueno study was much larger and further reaching; however, the considerable difference in findings cannot be fully explained by these differences.

An Alberta study on new graduate preparedness using the same tool as the Berkow et al. (2008) study was completed by Wolsky (2014). This study had 72 respondents out of 1000 randomly selected College and Association of Registered Nurses of Alberta members who had agreed to being contacted for research purposes on their registration. Nearly 60% of the respondents had been in practice for more than 18 years, in a variety of practice settings. The findings were more encouraging than the studies reported on by Del Bueno (2005) and Berkow et al (2008). In the overall summary of new graduate nurse performance with regards to safe, competent care, it was found that they are just below average but within acceptable levels (Wolsky, 2014). This study did not specifically differentiate clinical judgment, but was looking at practice readiness of newly graduated nursing students.

If new graduates lack these essential skills, they will not be able to provide the necessary observation, recognition, and action required to keep patients safe while in their care (Wilber, 2014). The risks to patients can be varied and these

risks are significant to understanding the importance of having good clinical judgment.

***Education in the clinical setting*.** The challenging nature of nursing practice along with the importance of clinical judgment, necessitates a look at the role and impact of nursing education in preparing students to enter into this role (Benner et al., 2010). Nursing education is undertaken in three main settings: classroom learning, skills lab, and clinical practicums (Benner et al., 2010). Each area of learning has an important role to play in developing student practice. Because nursing is a practice discipline, clinical practice is a pivotal part of nursing education (Montgomery et al., 2014). The clinical learning environment is interactive and experiential (Herron, Sudia, Kimble, & Davis, 2016). Making the clinical experience as effective as possible is important to ensure graduates are prepared to work in the professional setting (Esmaeili, Cheraghi, Salsali, & Ghiyasvandian, 2014). Clinical experiences help to move students towards the professionals they will become through both socialization and knowledge application while facing an array of challenging situations (Stokes & Kost, 2012).

Clinical experiences allow students time to put theory into practice while building their perception of self-efficacy (how they perceive their abilities) (Jahanpour, Sharif, Salsali, Kaveh, & Williams, 2010; Stokes & Kost, 2012). Success in building practice requires student exposure to a variety of settings in these placements, this allows students to practice a greater range of cognitive, psychomotor, and communication skills (Stokes & Kost, 2012). Although risk increases with complexity, it is within the complexity of the clinical setting that

faculty have the opportunity to facilitate the exploration of thinking and judgment (Stokes & Kost, 2012). Clinical experiences have been found to play a significant role in the development of clinical judgment (Pouralizadeh, Khankeh, & Dalvandi, 2017). To develop nursing clinical judgment students must spend time in real care settings with real patients (Herron et al., 2016).

***Clinical instructor role*.** Nursing instructors have considerable impact on the experience and the success of nursing students, particularly during earlier clinical practicums (Borhani, Alhani, Mohammadi, & Abbaszadeh, 2010; Esmaeili et al., 2014; Okoronkwo, Onyia-Pat, Agbo, Okpala, & Ndu, 2013). Clinical instructors have several obligations to students, including: facilitation of learning, aligning student praxis with program expectations, providing guidance, facilitating clinical judgment, building confidence, promoting knowledge and skill development, role modelling professional and ethical behaviours and strong leadership, ensuring patient safety, helping bridge the gap between theory and practice, and effective evaluation and communication; all while being able to adapt to different learning styles (Allen, Ploeg, & Kaasalainen, 2012; Anderson, 2011; Asadizaker et al., 2015; Babenko-Mould, Iwasiw, Andrusyszyn, Laschinger, & Weston, 2012; Borhani et al., 2010; Boyer et al., 2015; Esmaeili et al., 2014; Imanipour & Jalili, 2016; Lasater, 2011; Montgomery et al., 2014; Pouralizadeh et al., 2017; Samuels & Leveille, 2010; Stokes & Kost, 2012).

Evaluation in clinical placements is complicated by the unpredictable nature of the practicum setting, as well as the variability of tasks that are performed (Imanipour & Jalili, 2016). When student performance is poor (lacking

knowledge, skills, awareness, and/or judgment), the clinical instructor plays an important role in not only evaluation but in maintaining patient safety (Montgomery et al., 2014; Stokes & Kost, 2012). Identification of the underlying causes of poor performance in the clinical setting, particularly with decision-making and judgment, is needed to develop strategies that may help the student become successful (Gillespie, 2010). However, because the risk to the patient is high when students are not successfully meeting clinical course criteria, patient safety needs to be taken into consideration and the instructor needs to be prepared to intervene through remediation and potentially student failure (Evans & Harder, 2013). Failure to fail occurs when people with an evaluative role lack the ability or knowledge to successfully assess competence (Tolley, Marks-Maran, & Burke, 2010).

***Challenges in facilitating clinical judgment*.** The development of clinical judgment in nursing students is complicated by many different factors. Although nursing faculty have a duty to help guide the development of strong clinical judgment in their students, one of the problems facing nursing education is the poorly defined and all too often blended and confused terminology (Pongmarutai, 2010; Wilber, 2014). Many things are thought to influence clinical judgment, and several methods to teach it have been described in the literature; however, no comprehensive model has been developed and widely tested, making teaching and evaluating more difficult (Wilber, 2014). Understanding clinical judgment, the process and influential factors, can provide structure for instructors to evaluate their students and have conversations using shared terminology that can help

make this process more explicit for nursing students and assisting them to understand its value and complexity (Lasater, 2011).

According to Benner et al. (2009), another challenge facing development of clinical judgment is the generalization that expert clinical judgment is conscious, deliberate, and analytical, neglecting the influence of many intrinsic factors. The reason this is problematic is because several components of clinical judgment are not easily observable (such as intuition and experience) (Wilber, 2014). How do instructors facilitate and evaluate a skill that is, at least in part, not observable? Nurses are also influenced by extrinsic factors such as socialization and system constraints that can further limit the nursing instructor's ability to teach and evaluate clinical judgment (Benner et al., 2009).

Additional difficulties in facilitating the development of clinical judgment stem from the clinical environment itself. Wilber (2014) discussed the complexities encountered within the clinical setting that creates an environment where students are often focused on psychomotor tasks rather than clinical judgment. Evolving from the burden of heavy patient loads, increased patient acuity, and overworked staff, students are sometimes used as adjunctive staff, rather than as learners (Gaberson, Oermann, & Shellenbarger, 2015). Agency staff do report wanting to be good role models, but they feel conflicted and restricted in their ability to do so because they play a dual role of supporting students while remaining responsible to the care and safety of their patients (Phillips et al., 2017; Stokes & Kost, 2012).

Deficiencies in the Evidence. Clinical experiences and clinical nursing

instructors can have significant influences on the learning and growth of nursing students (Benner et al., 2010; Borhani et al., 2010; Esmaeili et al., 2014; Montgomery et al., 2014; Okoronkwo et al., 2013). Making the clinical experience as effective as possible is important to ensure graduates are prepared to work in the professional setting (Esmaeili et al., 2014). It is within the complexity of the clinical setting that faculty have the opportunity to facilitate the learning of students in their thinking and judgment (Stokes & Kost, 2012). With regards to the literature, clinical judgment has no universal definition, and no comprehensive model of clinical judgment has been widely adopted, making teaching and evaluating more difficult (Pongmarutai, 2010; Wilber, 2014). Although clinical judgment has been discussed within the literature, how clinical instructors understand the concept and facilitate the development of clinical judgment in their students has not been fully explored. A more detailed discussion of the literature will be presented in the next chapter.

Audience. This study can be of benefit to clinical nursing instructors and administrators who can use the findings to reflect on their understanding and practice with regards to clinical judgment. This can allow faculty to determine if any alterations would be appropriate within their facilities. Faculty may benefit by reflecting on their practices and building additional supportive practices, particularly for clinical instructors who are new to teaching. The study can benefit nursing students through improved support and performance, and increased confidence.

Purpose of the Study. The purpose of this qualitative study was to

explore how experienced clinical nursing instructors understand clinical judgment and facilitate its development in their undergraduate students. Exploring these experiences could add to the discourse regarding the perceptions of clinical instructors related to understanding and facilitation of clinical judgment during the clinical experience and evaluating what is working. Once an improved understanding of clinical instructor experiences has been developed, approaches to supporting instructors in their role could be developed to help reduce the disparity between employer expectations and the reality related to the clinical judgment of newly graduated nurses.

Research Questions. There were two central questions, these were: How do experienced clinical nursing instructors understand clinical judgment? How do experienced clinical instructors facilitate the development of clinical judgment in their students?

The following were sub questions:

- What helps the facilitation of clinical judgment in nursing students in the clinical setting?
- What hinders the facilitation of clinical judgment of nursing students in the clinical setting?
- How are hindrances managed?

Chapter 2. Literature Review

Literature reviews are undertaken for two main purposes: surveying the current state of the literature in relation to the phenomenon of interest to determine what is already known, and to use the existing literature to develop the scaffolding (or theoretical framework) on which the study will be based (Bussard, 2013; Merriam, 2014). This literature review served both of these purposes. The literature review can also be used to assist with design decisions, formulating the study question, and how the proposed study will fit into or further develop the current theories around the area of interest (Merriam, 2014). With interpretive description studies, the literature review forms part of the scaffolding on which the study is designed, this includes using the information from the literature review to ensure design decisions will be appropriate for the specific study (Thorne, 2016).

Search Procedure. A search of the University of Alberta library holdings was undertaken to determine the current state of literature related to the development and evaluation of clinical judgment in nursing students. The library holdings were chosen rather than specific databases, because these holdings would include all databases along with dissertations, theses, and books. Keywords used during the first five searches used combinations of "nursing students," "instructor role," "clinical judgment in nursing students," "clinical evaluation," "evaluation of learning," "effective clinical instructors nursing," and "clinical judgment and decision-making." Limits placed on these searches where: 2010-2016, full text, and scholarly. Initial results totalled 390. Titles were reviewed for

relevance, leaving 93 articles. Abstracts of the remaining articles were reviewed further for relevance. Three book titles and one dissertation were identified through these searches. Additional searches of Open Access Theses and Dissertations, National Library of Australia Trove, and Library and Archives Canada were also completed, resulting in an additional five theses and dissertations being identified for this literature review. Authors who were cited frequently in these published works, were purposively added to better develop this literature review, regardless of publication year. A total of 44 articles, theses, dissertations, book chapters, and books were reviewed for this chapter.

A repeat search of the University of Alberta and Athabasca University library holdings was performed during the data collection/analysis stage to update this literature review. Keywords were the same, and dates during this subsequent search were limited to 2016-2019. Full text and scholarly limiters were again used. The search provided 126 titles, that was reduced to 20 after titles were reviewed for relevance. An additional seven articles were added following review of the abstracts. Bringing the total items included in this review to 51.

Definitions

Much has been written in attempts to define and describe the thought processes, the decisions, the judgments, and the reasoning that is required by nurses to be effective practitioners. Despite this extensive discourse, there still remains factors which confound the understanding of the development of clinical judgment in nursing, and in nursing students in particular. One of the biggest issues is the interchangeable and often conflated use of critical thinking, clinical

reasoning, clinical decision-making, and clinical judgment (Benner et al., 2009; Koharchik et al., 2015; Liou et al., 2016; Van Graan, 2014; Wilber, 2014). This lack of consensus on meaning has been named as part of the challenge in teaching the thought processes needed for clinical effectiveness; having no clear definition makes it more difficult to describe to and discuss with students (Chao, Liu, Wu, Clark, & Tan, 2013; Huang, Lindell, Jaffe, & Sullivan, 2016; Lasater, 2011; Mann, 2010; Van Graan, 2014). Gaberson et al. (2015) suggest that having an agreed upon definition for these concepts can help faculty in two ways: it will guide and support teaching and evaluation, and it will improve communication with students about these concepts.

Although these terms are closely related, there are differences between them and several authors feel that they should be considered distinct skills, with their own measures, parameters, and methods for development (Benner et al., 2009; Liou et al., 2016). These skills are an expected outcome of nursing programs therefore, understanding clinical judgment and how it is developed in nursing students is important, because trying to teach skills that are poorly understood and poorly conceptualized can be a daunting task (Gaberson et al., 2015; Wilber, 2014). Complicating attempts to describe and define these terms even further, is their multifaceted nature (Van Graan, 2014). How clinical instructors understand clinical judgment has not been described in the literature. An exploration of their experiences, will add greater depth and understanding to this complex concept.

Critical Thinking. Critical thinking influences nursing performance and

is essential for nurses to be effective in the complex and changing health care landscape (Chao et al., 2013; Huang et al., 2016). Like many of the terms used to describe the thinking, decisions, and judgment used in nursing, there is no agreed upon definition of critical thinking (Lasater, 2011; Van Graan, 2014). One point on critical thinking that is typically agreed upon is that critical thinking forms the foundation of clinical judgment, clinical reasoning, and clinical decision-making (Burruss & Popkess, 2012; Rowles, 2012).

Standing (2014) defines critical thinking as "questioning one's own and others' assumptions, addressing gaps in knowledge to achieve aims, challenging illogical or unethical beliefs or practice, evaluating the strength of available evidence and presenting a logical, evidence-based argument and defending it when challenged" (p. 210). Critical thinking is typically considered to fall within the cognitive domain; however, some authors consider attitude, knowledge, reflection, and mindfulness as an integral part of critical thinking (Gaberson et al., 2015; Huang et al., 2016). Attributes of critical thinkers defined by focus group and then later refined in the study by Chao et al. (2013), include:

> has an open mind, actively pursues truth, exhibits patience and confidence, engages in self-reflection, demonstrates the courage to acknowledge and correct errors, exhibits a neutral perspective, possesses keen observation skills, accepts criticism, displays good communication skills, and accurately documents findings and actions (table 3, p. 208).

Clinical Reasoning. Clinical reasoning (an important aspect of clinical

judgment) is essential to providing safe, competent care and requires a lifelong commitment that includes: practice, experience, and reflection (Koharchik et al., 2015; Liou et al., 2016; Yauri, 2015). It involves gathering and interpreting data, acting on the data collected, and then evaluating the outcome (Hoffman et al., 2011). Clinical reasoning requires higher order thinking whereby ideas are applied to experience and analyzed in context to form conclusions using cognition and metacognition (Hoffman et al., 2011; Koharchik et al., 2015). Essential to clinical reasoning skills are "hypothesis orientation, high specific competence and experience" (Forsberg, Ziegert, Hult, & Fors, 2014, p. 542). One of the challenges with defining, developing, and assessing clinical reasoning is that it is mainly automatic and invisible (Petit dit Dariel, Raby, Ravaut, & Rothan-Tondeur, 2013).

As with critical thinking, many definitions of clinical reasoning exist (Hoffman et al., 2011). Clinical reasoning is described as an evolving, cyclical, problem-solving process (Liou et al., 2016; Petit dit Dariel et al., 2013). Understanding that process can help nurses weigh multiple variables and prioritize care needs based on the available evidence (Tanner, 2006). It is an iterative process involving noticing, interpreting, and responding, critically thinking about patient concerns and condition and monitoring patient response to interventions (Benner et al., 2009; Gaberson et al., 2015). Tanner (2006) defines clinical reasoning as:

> the processes by which nurses and other clinicians make their judgments, and includes both the deliberate process of generating alternatives, weighing them against the evidence, and choosing the

> most appropriate, and those patterns that might be characterized as engaged, practical reasoning (e.g., recognition of a pattern, an intuitive clinical grasp, a response without evident forethought) (pp. 204-205).

Clinical Decision-Making. Every day nurses are required to make decisions which are planned, unplanned, or emergent in nature and that significantly impact patient outcomes (Forsberg et al., 2014; Standing, 2014). Nursing decision-making is supported by clinical reasoning, experiential understanding, and intuition (Koharchik et al., 2015). Many layers of context influence decision-making ranging from the nurse-patient relationship to the impact of the health care system; these contexts need to be recognized to determine their influence on decisions made (Gillespie, 2010). Nurses need to be aware of their own values and presumptions and how these may influence the decision-making process (Gillespie, 2010). A subset of decision-making is ethical decision-making. While a code of ethics may provide guidance, experience and good judgment is needed to explore values and alternatives when facing an ethical dilemma (McLeod-Sordjan, 2014).

Clinical decision-making is acting on clinical judgment (putting judgment into practice), rationally choosing from mutually exclusive options, taking into consideration values placed on and probabilities associated with each option (Benner et al., 2009; Standing, 2014). Balanced by accountability, clinical decision-making is using clinical judgment to select the best option while minimizing risk and addressing patient concerns/needs based on evidence

(Standing, 2014). Tanner (2006) described noticing, interpreting, responding, and reflecting as the four steps in clinical decision-making which form the process of clinical judgment. Gillespie (2010), explained that there are several nonlinear phases of clinical decision-making, these are: "cues, judgments, decisions, and evaluations of outcomes" (p. 37). Van Graan (2014), defines clinical decision-making as:

> making clear choices which produce an outcome – as an action to do or not to do between limited options in dynamic contexts/situations of change and uncertainty using a diverse knowledge base (body of evidence-based literature) a grouping of reasoning techniques accompanied by experience with multiple variables and individuals involved (p. 85).

Clinical Judgment. Clinical judgment requires critical thinking and involves weighing the alternatives (clinical reasoning) before making a decision (clinical decision-making) (Burruss & Popkess, 2012; Standing, 2014). It is not a linear process, nor is it strictly a cognitive process (Lasater, 2011). Clinical judgment must be informed by a variety of evidence including assessment data and researched sources (Standing, 2014).

In part, it is the complex nature of the nurse-patient relationship which contributes to the difficulties of defining clinical judgment, but it is because of this relationship, that the definition is so important (Van Graan, 2014). Clinical judgment often requires more than theoretical knowledge and analytical thinking, it requires understanding the patient's values (or their family members, when

patients are unable to express their wishes, wants, and needs), that are contextually bound and case-based (Burruss & Popkess, 2012; Wilber, 2014).

It begins with the recognition of salient (most important) information gathered through observation, assessment, and intuition (Benner et al., 2009; Standing, 2014; Van Graan, 2014). Interpretation of these data requires critical thinking and leads to reflection and reasoning (Standing, 2014; Van Graan, 2014). The nurse then develops an informed opinion of the situation, and decides whether to respond (or not) using standard, modified, or improvised approaches (Benner et al., 2009; Tanner, 2006). Van Graan (2014), defines clinical judgment as:

> the conclusion at which a nurse arrives through the ability to recognise salient pieces of information gathered by direct observation and patient assessment within an undefined clinical context. Interpretation of meaning is followed by a period of reflection and reasoning over time to come to a clinical grasp/informed opinion of the situation. Appropriate response to the identified salient aspects is based on empirical knowledge, shaped by the nurse's clinical experience, intuition and ethical-moral beliefs to solve the patient's nursing care problems as outcome (p. 82).

Exemplar of Terminology Interrelatedness. Even within the definitions as described above, there is evidence of overlap and interrelatedness. An example, and a concept map are provided here to help clarify the terminology. These are

my interpretations based on the literature review.

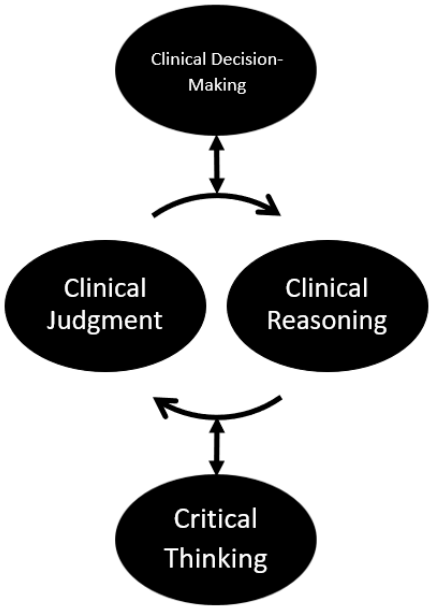

Figure 1. Author conceptualization of interrelationships of critical thinking, clinical reasoning, clinical decision-making, and clinical judgment.

Critical thinking leads nurses to question what they are seeing and what they know. For example, when entering a room, it is noted that a patient is experiencing shortness of breath. Critical thinking propels the nurse into gathering information regarding the situation to determine cause and appropriate action. Clinical judgment leads the nurse to recognize what is important in this situation. Does the patient have asthma or COPD? Has oxygen tubing been displaced or disconnected? Has the patient recently had any procedures, such as PICC line insertion? What are the patient's vital signs? What could these vital signs mean or help rule out? Clinical reasoning is applied to organize these alternatives and consider which is most likely. The nurse can move back and forth between clinical judgment and clinical reasoning, while implementing interventions

(clinical decision-making) and evaluating their effectiveness. This example helps to highlight not only the interconnectedness, but also how closely these processes can work together and in some ways near automatic nature of the overall process.

Factors Influencing Clinical Judgment

Clinical judgment is described as being a continuum where on one end is the quick action intuition and on the other end is the less error-prone researched evidence (Standing, 2014). Novice practitioners tend to rely on protocols, policy, guidelines, and theory when interpreting data; whereas experts are better at recognizing patterns and are better able to combine tacit (embodied or hidden) knowledge with theory (Standing, 2014; Wilber, 2014). Models and methods which control or ignore the implicit influences such as emotion, intuition, experience, and context reduce our ability to understand their role in clinical judgment (Benner et al., 2009). Some factors which influence clinical judgment include: personal beliefs of the nurse, experience, environment (physician orders, available resources, time limitations), knowledge (procedural and theoretical), priority setting, reflection, critical thinking, emotion, and intuition (Benner et al., 2009; Pretz & Folse, 2011; Standing, 2014; Wilber, 2014).

Personal beliefs and experience can influence what the nurse focuses on and prioritizes in each particular situation as well as deciding whether to act or to wait (Wilber, 2014). Experience contributes to the understanding of evolving contexts and can impact how situations are perceived and then influence nurses' actions and reactions (Standing, 2014). This is demonstrated when several nurses are given the same scenario, they will each view the situation differently, focusing

on different aspects and weighing the value of numerous findings with considerable variability (Wilber, 2014). If the nurse's personal perspectives are given greater importance when making decisions, patient health, well-being, and safety could be placed in jeopardy (Wilber, 2014).

Benner et al. (2009) define intuition as a judgment without rationale, that is developed from experience. Standing (2014) stated that the mostly subconscious nature of intuition adds to the difficulties in rationalizing decisions for which intuition was used. The role of intuition in nursing practice has been discussed and debated and it is agreed that it has an influence on clinical judgment, however, its exact role and value is not well understood (Benner et al., 2009; Pretz & Folse, 2011; Wilber, 2014). Intuition in nursing clinical judgment is poorly understood because it is often studied through self-report, which is considered less reliable (Wilber, 2014). Intuition tends to be used more frequently during emergent situations, because it is quicker and nearly automatic (Standing, 2014).

In a study on the use of intuition in nurse clinical judgment, Price, Zulkosky, White, and Pretz (2017), found that novice nurses were more likely to use analysis over intuition. In situations in which they were more familiar, some intuition would be utilized, and it was found that at these times, intuition promoted better outcomes (Price et al., 2017). The authors conclude that encouraging integration of intuition with analysis in clinical decision-making can lead practitioners to recognize signs that further analysis could be warranted in any giving situation and that intuition in nursing should not be discounted because

it is a part of nursing practice (Price et al., 2017).

The development of clinical judgment is also complicated by the difficulties in capturing/understanding the role of emotion; and it can greatly influence the judgment of practitioners (Benner et al., 2009). Emotion can be a construct of our socialization and our environment, this can lead to miscommunications and missed cues when nurses and patients are socialized differently (Benner et al., 2009). Another important consideration is that although these different factors can influence clinical judgment, they don't necessarily improve its accuracy (Wilber, 2014). Recognizing the factors that influence clinical judgment, could help clinical instructors to guide students towards insights in their own thinking and help them navigate the clinical environment (Stokes & Kost, 2012; Tanner, 2006). A study of the factors influencing the clinical judgment of nursing students found five main factors: "thoughtful behaviour, professional ethics, use of evidence-based care, context of learning environment and individual and professional characteristics of clinical teachers" (Pouralizadeh et al., 2017, p. 3).

Models of Clinical Judgment

Another influence on the teaching and learning of clinical judgment discussed within the literature is the lack of consensus on theory, which is made even more problematic by the conflation of terminology previously discussed (Wilber, 2014). As with having unclear definitions, when concepts such as clinical judgment are poorly conceptualized, the difficulties in teaching and learning can become overwhelming for both instructors and students (Gaberson et

al., 2015). As with the expectation of students needing to rationalize their decisions and care by putting theory into practice, so too, should the teaching of clinical concepts such as clinical judgment be based on theory (Standing, 2014). Developing models of clinical judgment in nursing is complicated by the intricacies found within in the nurse-patient relationships along with the use of less explicit ways of knowing (such as intuition) and understanding a clinical situation (Benner et al., 2009; Wilber, 2014). Three different models of clinical judgment were developed and/or presented in the articles examined for this literature review. How or if these models are being applied in clinical teaching and learning is not clear.

Tanner's Model of Clinical Judgment. Tanner (2006) proposed a model of clinical judgment (Figure 1). This model has four stages: noticing ("perceptual grasp of the situation at hand"), interpreting ("developing a sufficient understanding of the situation to respond"), responding ("deciding on a course of action deemed appropriate for the situation"), and reflecting ("attending to patients' responses to the nursing action while in the process of acting") (Tanner, 2006, p. 208). Tanner's (2006) Model of Clinical Judgment has had a far-reaching impact on the discourse of clinical judgment. It was cited by authors of nearly half of the articles in this literature review.

Tanner's Model of Clinical Judgment (2006) has been discussed and adapted by several authors for evaluative purposes. This model was instrumental in the development of an evaluation tool, the Lasater Clinical Judgment Rubric (Lasater, 2011). It has also been recommended to use this model in conjunction

with other educational strategies, such as case studies, as a method to help explore the case and to consider alternatives within that scenario (Gaberson et al., 2015). Although this model has been widely adopted and at times adapted, it has also received some criticism. Wilber (2014), critiques Tanner's approach as being suggestive that clinical judgment could occur within a rule-based approach (such as the Early Warning Systems protocols discussed in Chapter 1), due to her inclusion of decision-making and critical thinking as part of the proposed clinical judgment model, both of which are considered strictly within the domain of cognition.

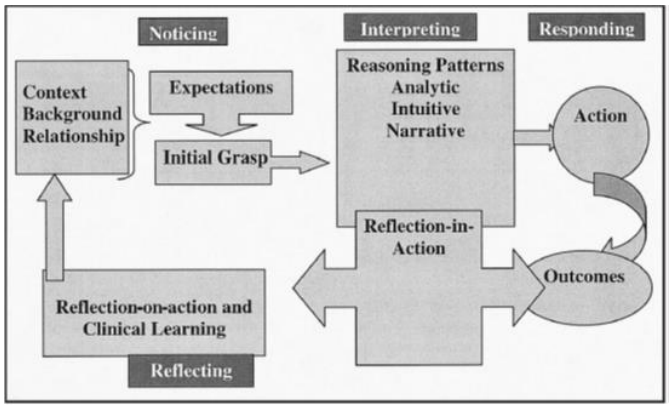

Figure 2. Tanner's Model of Clinical Judgment (2006, p. 208).

Wilber's Model of the Process of Clinical Judgment. Although not widely quoted in current literature, Wilber (2014), described a theory of "Fitting Things Together" as the process whereby nurses in their first three years of practice make clinical judgments (p. 80). In this model, knowing includes "learning in school, learning at work, and knowing the patient" (p. 83). Anticipating is "defined by the properties predicting and being proactive" (Wilber, 2014, p. 95). Prioritizing follows knowing and anticipating and requires

"planning, adjusting, and addressing pressing issues" (Wilber, 2014, p. 100). The properties of observing are: "seeing the patient, assessing, and comparing" (Wilber, 2014, p. 107). Thinking occurs at the same time as observing and contains the properties of "asking why, reasoning, and reflecting" (Wilber, 2014, p. 108). Thinking and observing creates the ability to catch things, but to be effective at catching things, the nurse must know the patient (Wilber, 2014). The next stage of figuring out what's going on is influenced by environmental factors such as time, workload, and risk to patient; leading to determining what needs to be done (monitoring, intervening, or calling for help) (Wilber, 2014). Finally, the nurse returns to observing and thinking, continuing to monitor for effectiveness or need for further intervention (Wilber, 2014).

Wilber's stage of figuring out what's going on includes reference to the use of peers as a source of information for data interpretation, which is not included in Tanner's model (Wilber, 2014). Additionally, Wilber (2014), discusses the importance of specific nursing activities such as bedside report and environmental influences, such as high patient throughput, as influencing the nurse's ability to know their patients and thereby impacting clinical judgment. Despite the previously mentioned criticism of Tanner's (2006) model, there are several areas of overlap between these two models which were stated by Wilber (2014) as providing support of that model. Wilber (2014) stated that some of the differences are likely related to the approach taken when developing each of the models (Tanner used literature review, whereas Wilber used interviews). Both recognize that knowledge base, experience, context, and knowing the patient

influence what the nurse notices or considers salient, which in turn impact clinical judgment (Wilber, 2014).

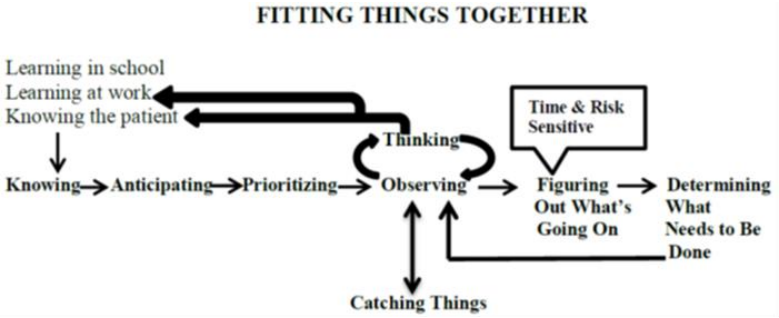

Figure 3. Wilber's model of the process of clinical judgment in new nurses (2014, p. 80).

Pongmarutai's Application of the Lens Model to Student Clinical Judgment. Pongmarutai (2010) conducted a study using an adaptation of the Brunswik Lens Model (from medical education, based on cognitive psychology) to explore its suitability for use to evaluate the clinical judgment of senior nursing students. This model incorporates the fallibility of cues and their interrelatedness which may contribute to incorrect judgment (Pongmarutai, 2010). In this adapted model, judgment accuracy is achieved when student judgment (defined as student identified nursing diagnoses, in this adapted model) matches the patient's actual state (Pongmarutai, 2010). Using the adapted Lens Model, Pongmarutai (2010) developed the Clinical Judgment Assessment tool through expert consultation which was then pilot tested. Validity and reliability were not established for this tool, and the author recommends web-based implementation due to time intensiveness (Pongmarutai, 2010).

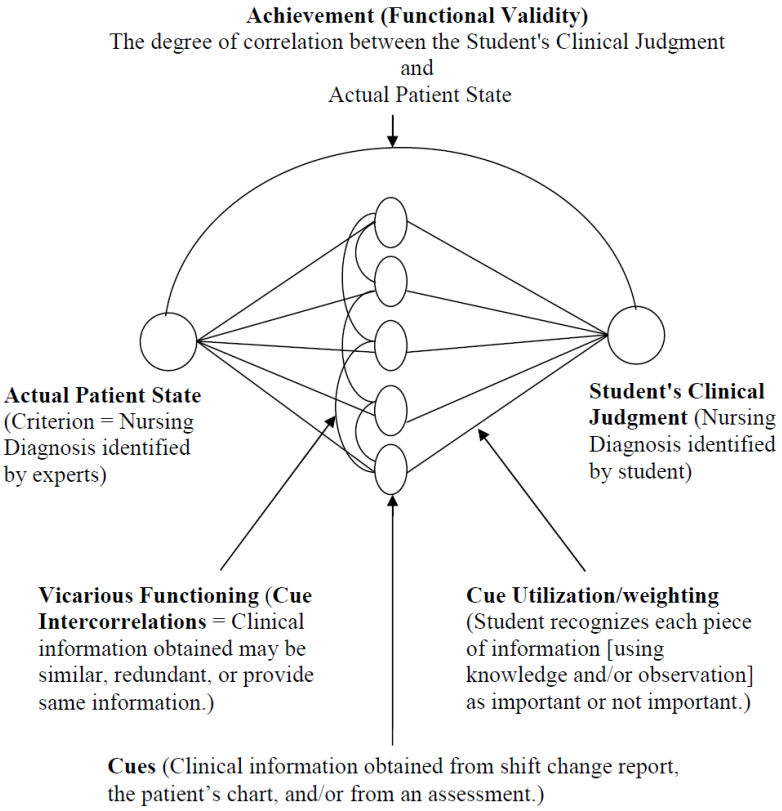

Figure 4. Pongmarutai's Application of the Lens Model to Student Clinical Judgment (2010, p. 37).

The most widely used of these models is Tanner's (2006) Model of Clinical Judgment. It has been adopted and adapted for simulation lab contexts and more recently suggested as a support to preceptorship experiences (Lasater, 2011; Schoessler & Modic, 2013). How it applies to instructor led clinical courses is less clear at this time. The call for implementing scholarly research findings into teaching practices has been around for decades, since the National League for Nursing published their first Review of Research in Nursing Education in 1986 (Patterson & McAleer Klein, 2012). This call for evidence-based teaching practice, leads to more questions. On what evidence are clinical instructors basing

their teaching of clinical judgment? Does this conflation of terminology or the limited evidence of model utility limit the development of clinical judgment in nursing students, and if so, how can instructors lessen this barrier?

Facilitating Factors and Barriers to Developing Clinical Judgment

Nurses represent a large percentage of total health care professionals, giving them a considerable role in patient safety (Pongmarutai, 2010). Quality of nursing care is significantly influenced by nurses' clinical judgment (Yauri, 2015). Accurate assessment and interpretation of the findings are essential aspects of clinical judgment which will guide the nurse to recognize concerns and to prioritize nursing actions providing safe, competent care (Pongmarutai, 2010). Failure to rescue "reflects the quality of surveillance and the effectiveness of the response" (Pongmarutai, 2010, p. 4). Complexities of the current health care system require that new graduates have a high level of clinical judgment, which is not currently a reality of nursing education outcomes (Jahanpour et al., 2010; Pongmarutai, 2010). Many factors which influence the development of clinical judgment are discussed throughout the literature. Understanding these factors can influence the instructor's choices in their teaching strategies to help better support student development of clinical judgment (Stokes & Kost, 2012; Tanner, 2006; Van Graan, 2014).

Van Graan (2014) completed a study exploring the meaning, process, and influences on the development of clinical judgment, and to then develop a teaching-learning strategy. Van Graan (2014) reviewed 34 definitions of clinical judgment and found that none of these mentioned the nurse-patient relationship,

yet this relationship is central to nursing care. Recommendations included incorporating a variety of teaching strategies, yet it was noted that research on effectiveness of current strategies needs further investigation (Van Graan, 2014). Role modeling and guidance in the clinical environment are undertaken as an essential beginning step to help students develop clinical judgment (Van Graan, 2014). Clinical judgment needs to be taught throughout the nursing program and during clinical courses, the role of clinical agency staff in this process should be supported to help improve theory-practice integration (Van Graan, 2014). What measures are being taken by clinical nursing instructors to ensure that students are having the necessary experiences, and that unit staff have the support they need, to help move students toward competence in clinical judgment is unclear at this time.

Clinical Experiences. Nursing is a practice discipline and as such clinical practice is an important part of nursing education (Montgomery et al., 2014). Experiential learning is important to improve student's assessment, interpretation, intervention, and prioritization, and critical self-evaluation (Bussard, 2013). The development of clinical judgment requires that active learning undertaken while in contact with patients in real contexts (Herron et al., 2016). Clinical settings are not always beneficial to student learning and can be difficult for students because of high patient and high staff turnover, higher patient acuity, and increasingly complex patient needs (Stokes & Kost, 2012). Expectations, learning outcomes, and learning strategies must be clearly delineated for learning in the clinical environment to be informative and productive (Stokes & Kost, 2012). Theory-

practice gap occurs when students have difficulty or are unable to put classroom content into practice in clinical, which reduces student effectiveness in developing clinical judgment (Bussard, 2013). The importance of successful clinical experiences is clearly described in the literature and several factors can influence the experience and outcomes. How do clinical instructors navigate this maze of factors to best meet the growth needs of their students?

Bussard (2013) used the data from the reflective journals of 30 nursing students after completion of four high-fidelity simulation experiences. Using these 120 journal entries, Bussard (2013) used Tanner's Clinical Judgment model and the Lasater Clinical Judgment Rubric to evaluate the nature of the development of clinical judgment. Although this study was in the context of simulation experiences, the findings demonstrated that experiential leaning, instructor support and guidance, and reflection are important to the development of clinical judgment in nursing students (Bussard, 2013).

Montgomery et al. (2014) completed a study on third year nursing student perceptions of threats to safety in the clinical environment. Several factors were found to influence both patient and student safety, including: lack of readiness, misdirected practise (ineffective instructors and/or non-proactive students), negation of professional boundaries (disregard for expectations, norms, or student scope of practice), and non-integration (inconsistencies between student "ethics, cognition and praxis, relative to externally accepted protocols") (Montgomery et al., 2014, p. 274). The study results demonstrated that both students and instructors have the potential to create unsafe situations in the clinical

environment (Montgomery et al., 2014).

Faculty Role (Institution and Instructor). Nursing instructors significantly impact the educational experience and the success of nursing students during their clinical experiences (Okoronkwo et al., 2013). Teaching skills are categorized as: instructional (learning strategies), interpersonal (interactions and relationships), and evaluative (determining performance and achievement) (Stokes & Kost, 2012). Nursing instructors need to be strong leaders and facilitators for their students (Babenko-Mould et al., 2012). With regards to student development of clinical judgment, nurse educators recognize the importance of their role (Pongmarutai, 2010). Many different attributes contribute to the effectiveness of a clinical instructor, and effective instructors will provide more opportunities for their students to explore their practice, including clinical judgment. While this doesn't guarantee that clinical judgment will develop, supportive learning environments and effective instructors will provide better opportunities (Babenko-Mould et al., 2012; Okoronkwo et al., 2013).

***Clinical instructor attributes and competence*.** Many different attributes are seen to contribute to the confidence and competence of instructors. Attributes which have been discussed in the literature included: clinically competent (evidence-based), skilled in knowledge, skilled in judgment, and skilled in teaching, collegial, effective communicator, prepared, supportive, stimulating, patient, good role model, enjoy teaching, and effective supervisor (Evans & Harder, 2013; Okoronkwo et al., 2013; Stokes & Kost, 2012).

Competent instructors are able to develop a supportive learning

environment for their students which can be done through a variety of activities and undertakings. Some of the strategies identified to help develop a productive learning environment include providing access to information (such as websites, orientation information, tutorials, etc.) to both students and staff to support early communications about expectations of the clinical experience (Stokes & Kost, 2012). Effective clinical instructors have time to interact with the students, create opportunity for students to practice, match patient acuity with student skill, and integrate theory into practice (Austria et al., 2013). Clinical nursing instructors need to empower their students (through setting and reaching goals and by recognizing achievement) to prepare them for the professional practice of nursing (Babenko-Mould et al., 2012). When negative experiences are incurred, they need to be managed effectively to reduce the risk of harm to the student experience; methods include: debriefing, listening, and accepting the student perception yet encourage the student to explore the experience from other angles (Stokes & Kost, 2012).

In a study on the development of competence of nursing instructors Gardner (2014), interviewed eight nurse educators who were recognized by their peers as being effective teachers. Important factors in teacher development included: mentorship; time to develop style, confidence, and competence; and self-reflection (Gardner, 2014). Effective teachers are those who: have confidence but recognize they may be wrong at times, are flexible, are engaging, keep current, are supportive of other faculty, employ multiple teaching strategies, and accommodate for different learning styles and needs of students (Gardner, 2014).

Teacher effectiveness is influenced by personality, knowledge, teaching methods, and knowledge of learning and teaching theory (Gardner, 2014). Confidence took two to three years to develop and competence took more than three years (Gardner, 2014). Instructors felt their style developed over time through reflection on what was working and what wasn't working, but most began with a mix of "how they learned, how they had been taught, and how they had seen others teach" (Gardner, 2014, p. 109). Since competence in teaching takes time to develop, and clinical judgment is a more complex concept, how can new clinical instructors be supported in developing their practice in relation to facilitation of clinical judgment?

Zakari, Hamadi, and Salem (2014) completed a study on the understanding of research-based nursing pedagogy of new clinical instructors. Twenty clinical instructors in their first semester of teaching were interviewed, observed, and field notes and reflections were reviewed (Zakari et al., 2014). The results demonstrated that new clinical instructors need to further their understanding of researched-based pedagogy, they need support to explore new teaching strategies, and it showed that transitioning into teaching can be stressful and anxiety producing (Zakari et al., 2014). Self-confidence and self-awareness in teaching take time to grow (Zakari et al., 2014). Clinical instructor programs to support new instructors while they develop their practice could improve the quality of clinical teaching, thereby having a positive impact on both instructor and student experiences (Zakari et al., 2014).

Faculty recruitment and development. Several articles have been written

about the transition of expert clinicians into novice instructors and the challenges that are faced (Mann & De Gagne, 2017; Reid, Hinderer, Jarosinski, Mister, & Seldomridge, 2013; Spencer, 2013). There has been a shortage of nursing faculty, which has led to the hiring of expert clinicians, but these newly hired instructors do not often have training in teaching, requiring much of the adjustment to occur on the job (Reid et al., 2013). Okoronkwo et al., (2013), recommend that nursing programs should seek out and train instructors who already possess the skills and personal qualities of effective teachers. Having instructors who are already in possession of these skills will help them to support students to meet the demands faced in nursing practice (Okoronkwo et al., 2013). Once recruited, it is important to support their growth through development initiatives that can, in turn, improve the learning environment for students while keeping patients safe during clinical experiences (Montgomery et al., 2014). Faculty retention can be improved through development of effective teaching skills by helping instructors better understand their role and the teaching experience, and could assist nursing programs which are facing shortages of faculty (Gardner, 2014; Stokes & Kost, 2012). Effective faculty development programs begin with understanding what shapes confidence and competence in nursing faculty (Gardner, 2014).

***Student perceptions on effective clinical instructors*.** Student perceptions on the clinical instructor role and their effectiveness influences the clinical learning experience (Babenko-Mould et al., 2012). This is important to consider because of how important these experiences are in the student educational process (Babenko-Mould et al., 2012). Many personality traits (kindness, cheerful,

practical, honest, responsible, motivated, supportive) were recognized as important to providing a supportive learning environment (Okoronkwo et al., 2013). One of the greatest threats to both patient and student safety occurs when the student perceives the instructor to lack confidence or skill in the clinical setting, perceiving them as ineffective (Jahanpour et al., 2010; Montgomery et al., 2014). Additionally, when students perceive a poor relationship with their instructor, they are more anxious and less likely to seek out assistance, which limits their experience and growth in the clinical setting (Jahanpour et al., 2010).

Student Attributes. In a study on the development of clinical decision-making in nursing students Jahanpour et al. (2010) found that student factors which lead to poorer outcomes include low self-confident, low self-efficacy, and experiencing stress. When students have difficulty putting theory into practice, they experience a decrease in self-efficacy (Jahanpour et al., 2010). Self-confidence was also lowered through negative feedback, particularly that which came from instructors (Jahanpour et al., 2010). Other factors that can influence student outcomes and patient safety are when students lack proactivity in their education or when students are not interested in being there, both of which can increase stress (Montgomery et al., 2014). Experience is an important aspect of developing clinical judgment (Benner et al., 2009). Limited experience increases the student's dependence on others to support and direct clinical judgment; in early stages they have limited ability to extrapolate data to varying contexts (Van Graan, 2014). In each of these situations, the clinical instructor can play a role in reducing the impact on the learning experience (Stokes & Kost, 2012).

Clinical Agency Staff and Unit Influences. Although not discussed as frequently in the literature, student experiences can be significantly impacted by the agency (and its employees) in which the clinical placement occurs. Nursing staff want to be positive role models, but often don't have the time required to provide a nurturing environment (Stokes & Kost, 2012). Staff who are nurturing, warm, supportive, and engaging provide a better learning environment for students (Stokes & Kost, 2012). Conversely, poor attitudes of staff can create an environment which is not favourable to clinical learning (Jahanpour et al., 2010). Staff attitudes can be influenced by acuity and staffing levels, anxiety, and workload (Stokes & Kost, 2012). Increased stress on staff, can lead to incidents of lateral violence (Stokes & Kost, 2012). When these situations arise, failure to help students process the situation can hinder student progress and growth (Stokes & Kost, 2012). When staff chose to cut corners, students may emulate these behaviours and choices, which may impact patient safety (Gaberson et al., 2015). Students place considerable trust in unit staff, and believe that they will not be led astray or into situations which could compromise patient safety (Krautscheid & Brown, 2014). Again, all of these situations can influence the learning outcomes, yet the clinical instructor can play a role in minimizing the risk to students (Stokes & Kost, 2012).

Teaching Strategies

Clinical experiences will vary with different placements and different instructors as well as from student to student in the same group (Bussard, 2013). As students proceed through the program, they should become increasingly

independent, linking old experiences to new, as they gain experience (Van Graan, 2014). Making thoughts visible through planned teaching activities, can guide students through rationalized ethical decision-making (Krautscheid & Brown, 2014). Pongmarutai (2010) asks "can good judgment be taught or it can only come with experience?" (p. 11). The answer to this question, according to Van Graan (2014), is that students are not able to learn the skills they require upon graduation by accident or through watching expert nurses, they must experience these. How can clinical nursing instructors ensure that student experiences help develop this skill (Benner et al., 2009)? That answer, in part, is that emphasis needs to be placed on learning judgment, rather than being task focused, which commonly occurs in the clinical practicum setting (Herron et al., 2016).

Table 1

Summary of teaching strategies described in the literature

General Information	Advantages	Disadvantages
Concept Mapping		
•Provide a visual representation of student thoughts on the relationships between the concepts (Gerdeman et al., 2013) •Correlates condition with interventions and outcomes, creating a holistic picture of their patient (Gerdeman et al., 2013)	•Improves understanding of relationships between conditions, treatments, and outcomes (Gerdeman et al., 2013)	•Does not suit all learning styles (Gerdeman et al., 2013) •Requires instructor knowledge of implementation; students may feel overloaded by the map itself making it harder to read and follow (Gerdeman et al., 2013).

Table 1 (continued)

Summary of teaching strategies described in the literature

General Information	Advantages	Disadvantages
Reflective Journals		
•Value of this assignment must be conveyed to students (may feel like it's wasted time) (Bussard, 2013) •The student reflects on a decision which they were required to make during practice (Lasater, 2011) •Should be formative, not graded (Lasater, 2011) •Important part of nursing practice, it should be used in nursing education (Wilber, 2014) •Metacognitive approach to teaching critical thinking (Huang et al., 2016)	•Help make student judgment and thinking explicit (Bussard, 2013) •Link theory to practice, explore meaning, build professionalism, problem-solving (Blake as cited in Bussard, 2013) •Help develop awareness of nursing role and of decision-making (Standing, 2014) •Guided reflection can be used to assess the student's integration of knowledge into practice (Lasater, 2011) •Helps student process and learn from their clinical experiences (Lasater, 2011) •Assists students to recognize, confront, and then minimize the impact of bias (Wilber, 2014) •Help students become more aware of depth of their experiences (Wilber, 2014) •Helps develop self-awareness and insight (Huang et al., 2016)	•Reading and providing feedback is time consuming (Bussard, 2013) •Time intensive for students (Bussard, 2013)

Table 1 (continued)

Summary of teaching strategies described in the literature

General Information	Advantages	Disadvantages
High Fidelity Simulation		
•What is learned should be applicable in the practice setting (Stokes & Kost, 2012)	•Build clinical judgment (Bussard, 2013) •May fill in gaps for experiences which may not occur in clinical experiences (Stokes & Kost, 2012) •Enhances preparation for safe, competent practice (Montgomery et al., 2014) •Hands on exploration of scenarios which occur less frequently or involve higher risk (Cooper, Prion, & Pauly-O'Neill, 2015) •Less overwhelming environment with no risk to the patient (Evans & Harder, 2013) •Improves student exposure to increasingly complex patient scenarios (Jahanpour et al., 2010)	•Cost (equipment, training, facility space), limited realism, limited group sizes (Mann, 2010) •Doesn't fully encompass the complexities of real-world practice (Wilber, 2014) •High risk incidents such as anaphylaxis or seizures are harder to simulate (Cooper et al., 2015)
Grand Rounds		
•A case with current research is presented and then discussion and collaboration occur (Mann, 2010) •Rarely used in nursing (Mann, 2010)	•Develop critical thinking and clinical judgment (Mann, 2010)	

Table 1 (continued)

Summary of teaching strategies described in the literature

General Information	Advantages	Disadvantages
Debriefing		
	•Can be used in many circumstances; allows students to ask each other questions, helping them learn from each other and develop new ideas (Gerdeman et al., 2013) •Should focus on reflection and synthesis of information (Cooper, Martin, Fisher, Marks, & Harrington, 2013)	•Appropriate facilitation is needed for this to be successful (Bussard, 2013)
Think Aloud		
	•Makes internal dialogues observable to the learner (Yauri, 2015) •Helps teach salience (Lasater, 2011) •Helps explore errors in thinking, uncertainty, and bias (Fisher & Rourke, 2016)	
Critical Questioning		
•Questions such as who, what, when, where, why, and how (Standing, 2014)	•Can help stimulate the critical thinking needed for clinical judgment (Standing, 2014) •Commonly used strategy to help build student thinking (Phillips et al., 2017)	•Conscious effort to learn how to ask higher level questions needs to be undertaken (Phillips et al., 2017)

Table 1 (continued)

Summary of teaching strategies described in the literature

General Information	Advantages	Disadvantages
Peer to Peer Teaching		
•When senior students guide and support newer students (Smith McQuiston & Hanna, 2015) •Communication exercises where novice students are paired with more senior students (Cooper et al., 2013)	•Improvements in communication and teamwork; improves leadership skills (Smith McQuiston & Hanna, 2015) •Increased confidence gained through recognizing the quantity of knowledge they have retained through their program, as well as improved communication skills, since they need to be clear and concise (Smith McQuiston & Hanna, 2015) •Advantages for faculty included increased time to work with individual students to provide support and guidance on specific skills (Smith McQuiston & Hanna, 2015) •Increased confidence in interviewing and therapeutic communication (Cooper et al., 2013)	•Some students are more resistive to peer to peer teaching, as they may not view their peers as appropriate sources for information (Stover & Holland, 2018)
Case Study		
	•Is an example of group learning that is enjoyed by students (Mann, 2010)	•Rarely contains lab values, other tests, or patient responses (Mann, 2010)

Table 1 (continued)

Summary of teaching strategies described in the literature

General Information	Advantages	Disadvantages
Student Dyads		
•Student pairs are more appropriate during earlier clinical experiences, because later experiences should progress toward greater independence (Austria et al., 2013).	•Can ensure students have an increased number of interactions with instructors (Austria et al., 2013) •Students appeared more confident, working in equal partner pairs could help reduce anxiety (Austria et al., 2013) •Students felt greater support and increased comfort related to shared responsibilities (Austria et al., 2013)	•Can be overwhelming for patients (Austria et al., 2013) •Perceived missed opportunities because students need to negotiate and take turns completing tasks (Austria et al., 2013)

Evaluation of Student Learning

Evaluation of students needs to mirror the outcomes that are desired by the program, in the case of nursing this includes clinical reasoning, clinical decision-making, and clinical judgment (Forsberg et al., 2014; Wilber, 2014). Measuring clinical judgment remains challenging because it is necessary to evaluate the effectiveness of the choices being made, using a framework such as those developed by Tanner or Lasater may help (Mann, 2010; Standing, 2014). Other authors have indicated that a more extensive strategy for evaluating and promoting clinical judgment is needed because of its complex nature (Tolley et al., 2010). Could utilization of one or more tools improve the development of

clinical judgment through shared language and improved communication regarding effective clinical judgment (Lasater, 2011)?

Evaluation Tools. Although the need for clinical judgment is clear, few evaluative instruments for it exist (Pongmarutai, 2010). Improving education in nursing clinical judgment needs to begin with effective understanding and measuring of clinical judgment (Pongmarutai, 2010). It is an essential task of nursing instructors to ensure that their students develop the needed clinical judgment, to do this an appropriate tool for measuring clinical judgment would be invaluable (Pongmarutai, 2010). Being able to measure clinical judgment in nursing students is an important aspect to effectively promoting its development (Pongmarutai, 2010). Additionally, an effective tool would provide guidance to clinical instructors in developing strategies to meet student learning needs, focus on areas which are weaker to aid in development, and open doors for conversations where both the student and instructor have a shared understanding of what is expected (Gaberson et al., 2015; Lasater, 2011).

Boyer et al. (2015) combined clinical and academic faculty in their study to develop a model of clinical judgment for nursing education. The assessment tool developed by Boyer et al. (2015), provides indicators to determine what levels of clinical judgment development have been reached, and then feedback can be given regarding which areas require further development. Key learning and development indicators are described to occur at three different year levels in the educational program (Boyer et al., 2015). The results of this study could help in selecting appropriate learning activities for each level and provide useful support

for instructors when giving formative feedback (Boyer et al., 2015).

Tolley et al. (2010) pilot tested the Snapshot tool as a method of evaluating clinical performance of nursing students and determine fitness to practice. This tool was developed in response to the disparity between classroom Objective Structured Clinical Examination (OSCE) failure rates and clinical assessment failure rates, where failure in clinical was much less common (Tolley et al., 2010). Performance criterion are developed (such as rapport with patient, self-awareness, appropriate knowledge, etc.), guidance notes for what is required in each criterion are added, and then student performance is compared against this list (Tolley et al., 2010). Although this tool was tested in the context of simulation, it has implications for the clinical practice setting (Tolley et al., 2010). The authors indicated that this tool could be useful for communication and feedback as well as outlining performance expectations while reducing failure to fail rates (Tolley et al., 2010). The Snapshot tool is intended to be incorporated into multimodal assessment practices, not used in isolation (Tolley et al., 2010).

Another tool which has been developed and cited frequently is the Lasater Clinical Judgment Rubric, which was developed from Tanner's Model of Clinical Judgment (2011). The Lasater Clinical Judgment Rubric divided Tanner's four phases of clinical judgment into 11 dimensions; each dimension is then leveled at four points from beginning to exemplary, and a description for each of these is provided (Lasater, 2011). The Lasater Clinical Judgment Rubric may provide direction for those who are working with students in the clinical settings to provide constructive feedback and help students move toward improving clinical

judgment (Lasater, 2011). Having a well-developed rubric helps instructors focus teaching and evaluating, along with creating a shared language for students and faculty to improve communication (Lasater, 2011).

A study on the effectiveness of evaluating students in the clinical setting using the Lasater Clinical Judgment Rubric was reported by Manetti (2018). A convenience sample of 136 students were evaluated during a medical/surgical clinical placement (Manetti, 2018). The study reported that student scores were higher than expected, but postulated that test administrators may be comparing students to other students as opposed to experienced nurses (Manetti, 2018). Another possibility is that student level of decisions would be less complex, because when patient conditions become critical, nursing staff would step in (Manetti, 2018). This study suggests that the Lasater Clinical Judgment Rubric could be an effective evaluation tool in the clinical setting (Manetti, 2018).

Poor Performance and Student Remediation. Students who are struggling in clinical, need to have the support of the faculty, and there needs to be a plan in place on how best to support the student (Evans & Harder, 2013). Identifying the underlying origins of poor performance in the clinical setting, particularly with decision-making and clinical judgment, is needed to develop strategies which will help the student become successful (Gillespie, 2010). Cole and Adams (2014) described a comprehensive positive progression program implemented to improve successful completion of post graduate licensure examination. The proactive program incorporates many elements (clinical course, remediation contract, exit exam review, problem-solving and clinical judgment

course, and licensure preparatory course); which elements are completed by students is dependent on their performance (Cole & Adams, 2014). Even with remediation, some students may not be able to meet expectations (Evans & Harder, 2013). Failure to fail occurs when people with an evaluative role lack the ability to successfully assess competence (Tolley et al., 2010).

Summary

Nurses are required to process considerable amounts of information every single day, they need to be able to recognize what is important within that information, and to be able to skillfully respond to that information (Benner et al., 2009; Mann, 2010). Clinical judgment plays a significant role in this process (Benner et al., 2009). The clinical learning experience during nursing school provides an opportunity for nursing students to explore clinical judgment in a setting that incorporates real patients and real situations (Herron et al., 2016). Clinical nursing instructors can have a significant influence on the growth and learning of their students (Esmaeili et al., 2014; Okoronkwo et al., 2013). Clinical judgment is influenced by many different factors including both intrinsic and extrinsic factors related to the nurse, systemic factors, patient factors, and the influence of other professionals.

Several interesting questions were brought about during this literature review. How clinical instructors understand clinical judgment has not been fully explored in the literature. It is recommended that instructors use a variety of teaching strategies, yet what measures are being taken by clinical nursing instructors to ensure that students are having the experiences needed to help move

them toward competence in clinical judgment is unclear. The importance of successful clinical experiences is clear in the literature and several factors can influence those experiences. How do clinical instructors navigate the complex clinical setting to best meet the needs of their students? Since competence in teaching takes time to develop, and clinical judgment is a more complex concept, how can new clinical instructors be supported in developing their practice in relation to facilitation of clinical judgment?

The purpose of this study was to explore how clinical instructors understand clinical judgment and their experiences related to supporting and facilitating its development in their nursing students while they take on the many challenges found within the clinical setting. Exploration of lived experiences requires a qualitative approach and the nursing profession requires pragmatic solutions (Thorne, 2011; Thorne, 2016). Methodology used in this study is explained in the next chapter.

Chapter 3. Methodology

Choice of methodology is driven by the type of question or type of answer being sought. The primary research questions for this study were: How do experienced clinical nursing instructors understand clinical judgment? How do experienced clinical instructors facilitate the development of clinical judgment in their students? These questions necessitated a qualitative approach because they were about the lived experiences of clinical instructors with clinical judgment and how they facilitate its development in nursing students in a registered nurse program. Qualitative methodologies are often implemented when seeking to understand the complexities of the thoughts and behaviours of experts within an area of interest (Thorne, 2011). This study was designed using the interpretive description methodology. It is vital that the choices made in study design are appropriate to support the development of a thorough appreciation or grasp on the research question making the results meaningful and useful (Heppner & Heppner, 2004; Thorne, 2016). It is therefore necessary to have a clear vision of how a research study will be conducted, and rationale for the design choices (Oliver, 2014).

Interpretive Description

Description in qualitative research develops through inductive reasoning, using specific observations/data to generalize, finding patterns or theoretical constructs (Thorne, 2016). Description remains relatively close to the collected data, themes are still sought and described, but with lesser transformation of the data (Glesne, 2016; Sandelowski, 2010). Interpretation in qualitative research

involves an abstraction beyond codes and themes, using current theory, connecting personal experience, and exploring alternatives as strategies to interpret the data beyond pure description (Creswell, 2013; Glesne, 2016).

Interpretive description incorporates the pragmatic "what difference would it make if this were true" with the traditional theorizing of the social sciences (Thorne, 2016; Warms & Schroeder, 2012, p. 151). Following systematic analysis, interpretive description then places the analysis back into practical context; producing knowledge that can be put into practice right away (Bussard, 2013; Thorne, 2016). Interpretive description studies produce not only a description of findings, but a coherent conceptual description of commonalities and differences through a thematic pattern analysis, the findings should have practical application potential, but it is not intended to constitute a new truth or an entirely new theory (Thorne, Reimer Kirkham, & O'Flynn-Magee, 2004).

History of Interpretive Description. Nursing is multifaceted. It requires that science, philosophy, and reason come together to support practical knowledge which can be acted upon (Thorne, 2016). It is the complex, multifaceted context of nursing practice that lends itself well to the applied nature of interpretive description as a study methodology (Thorne, 2016). Nursing is a practice discipline and it requires practical solutions to complex problems (Giuliano, Tyer-Viola, & Lopez, 2012). Authors have stated that in certain contexts, such as in nursing, the stringent methodological requirements of more established methods, such as grounded theory, or phenomenology may not best suit the subjects and contexts of interest in nursing, creating a disconnect between method and

reaching meaningful findings (Sandelowski, 2010; Thorne et al., 2004).

Interpretive description was developed by Thorne, Reimer Kirkham, and MacDonald-Emes in the 1990s in response to a call for a methodology which would generate grounded knowledge within nursing contexts (Thorne et al., 2004). It was developed to address nursing research questions using a methodology "that has integrity, rigor, is credible, legitimate, and has a foundation in the philosophy of nursing practice" (Bussard, 2013, p. 58). Borrowing from grounded theory, phenomenology, and ethnography, along with other qualitative methodologies; interpretive description was developed as a response to nurse researchers expressing the need to move beyond the existing methodologies to create contextually relevant, disciplinary knowledge (Thorne et al., 2004).

Philosophical Underpinnings. Thorne (2016), described several philosophical underpinnings of interpretive description. One such concept is that of pluralism, or multiple realities. Pluralism is common in nursing practice and embracing this in nursing research creates an outcome whereby the whole is greater than the sum of its parts (Giuliano et al., 2012). With plurality, both similar and conflicting experiences help improve the overall understanding while recognizing that there remains some uncertainty and that the resultant image is socially constructed and fluid (Thornberg, 2012). This social construction and focus on both commonalities and differences are additional foundations for interpretive description as described by Thorne (2016). These concepts are mirrored in the clinical setting where students and instructors will each interpret

their experiences differently from others within the group (Bussard, 2013). No single perspective is incorrect, yet in isolation from the others that one perspective does not provide an all-encompassing picture.

Why Interpretive Description for this Study? When choosing to use interpretive description as a study methodology, three elements should be involved for consideration: a real-life question, understanding what is known and unknown about the question, and recognition of the contextual and conceptual realm of the target audience (Thorne, 2016). The development of clinical judgment in nursing students is a real-world problem, considerable information is known about the topic, but clinical instructor perspectives have not been explored, and the study outcomes can benefit clinical instructors and educational facilities in supporting the development and growth of their students. Health researchers often "study problems primarily in order to solve them" (Thorne, 2011, p. 447). The complexities facing nurses in practice necessitate practical solutions to the challenge of building clinical judgment in nursing students. While this study does not solve that problem, it helps add another piece to the puzzle.

Methodological Design. Interpretive description is non-prescriptive in its methodology, however, Thorne (2016) explicitly states that it is also not to be an excuse to neglect theoretical and disciplinary underpinnings. Risks of sticking too rigidly to the prescribed methodology include: substance may be lost and in other cases some elements may be inappropriate for the context of the study (Janesick, 1994; Thorne 2011). The lack of prescriptiveness with interpretive description allows for design decisions to me made based on appropriateness for that

particular study (Thorne, 2016). Scaffolding (further detailed in the next section) is the foundation from which these design choices were determined to ensure that they are congruent with the study (Thorne, 2016).

Theoretical Scaffolding

The theoretical scaffolding, or theoretical framework, for an interpretive description study develops from two different areas. First, researcher orientation (or positioning) within the field (which provides some insight into the motive for the study) (Thorne, 2016). Second, theoretical positioning, describes what is currently known about the phenomenon of interest, this is explored through the literature review (Thorne, 2016). What is known about the subject and identified gaps are used to determine the starting point for the study, and will influence the study design (Bussard, 2013; Caelli, Ray, & Mill, 2003; Thorne, 2016). The purposes of scaffolding include both assisting the researcher in remaining focused on the research question through the process of data analysis, as well as reducing the influence of bias (Thorne, 2016). Additionally, scaffolding contributes to reflexivity and trustworthiness, these will be addressed further in this chapter.

Researcher Motives. Researcher motives and positioning are considered part of the scaffolding, because they will influence several aspects of the study including design choices and interpretation of both the literature and the findings (Caelli et al., 2003; Thorne, 2016). Researcher motives are influenced by personal values, experience, and knowledge (Caelli et al., 2003). As a nursing student, I often felt overwhelmed by the task focused requirements of the clinical courses. As a newly graduated nurse, I felt poorly prepared to face the demands of a busy

and often overwhelming workplace. As a preceptor and a staff member who frequently worked with students, I felt concerned about whether or not I could support the learning needs of the students with whom I worked. As a clinical instructor, I continued to worry that I didn't have the information that I needed to support the decision-making that students needed to learn, particularly in the first few years. As a graduate student, I began to further explore what I can do, and became increasingly aware of the depth and breadth of the problem and began to question how I could contribute to creating a change. As a pragmatist, I seek practical solutions.

Researcher Positioning. Researcher positioning refers to where the researcher is located within the field of study and the theoretical world surrounding it (Thorne, 2016). This awareness is needed for several reasons. First, it is important to recognize the influence of the researcher and the likely potential to introduce bias throughout the study (Caelli et al., 2003). The position of the researcher can influence: participant responsiveness (through trust and empathy), the relationship between participants and researcher, as well as influencing elements of the study itself (such as design, research question, data collection, data analysis, and findings) (Berger, 2013).

With regards to my own positioning as a researcher, I had taught clinical courses for four years before moving into a non-teaching position, and then back into clinical teaching following a short hiatus. As a result, I have several presuppositions regarding the development of clinical judgment. First, I believe that clinical judgment can be facilitated (or hindered) within the context of the

clinical learning environment. Second, I believe that clinical instructors have considerable influence over the learning experiences of nursing students, they have the ability to make learning opportunities from a wide variety of situations throughout each day. Third, I believe that there is a shortfall of where newly graduated nurses should be with regards to their judgment and ability to comfortably advocate for their patients (for many, but not all, new graduates). Fourth, I believe that we can improve these outcomes, although I do not believe that we will be able to completely bridge that gap due to a number of intrinsic and extrinsic factors (including, but not limited to confidence, competence, and experience). With regards to clinical judgment development and evaluation, my experience has been limited to using the Lasatar Clinical Judgment Rubric (Lasatar, 2011) to have conversations with students about the various elements of this skill and what their thinking and decision-making currently looks like and what areas could be improved. My practice with clinical judgment has been explored through several different endeavors in adding and adapting teaching strategies. However, this exploration has largely been unspoken.

Disciplinary Positioning. Disciplinary position is an important consideration with regards to ensuring that the study purpose and outcomes are in alignment with disciplinary values (Thorne et al., 2016). “The practice of nursing is intentional and deliberate action, guided by nursing science and other sources of knowledge, performed by nurses, and intended for the benefit of persons and society” (Cody, 2013, p. 9). As a practice discipline, nursing values include: respect for others, focused presence, beneficence, and caring (Cody, 2013). This

study embraced these values with its purpose of exploring the understanding of clinical judgment and how it is promoted through clinical educational experiences. The final goal was to place the study's findings back into the practice setting, helping instructors and students with development of competence in clinical judgment, which in turn benefits patients.

Theoretical Positioning. Using discipline specific theory (which is driven from the literature review) to help lay the foundation for a qualitative study can increase congruence between the study's methodology and its intended outcome, particularly within an applied discipline such as nursing (Thorne, 2016). Several interesting things were noted when reviewing the literature as it relates to understanding clinical judgment.

One of the challenges faced within nursing is the lack of cohesive definitions and the interchangeable use of terminology such as clinical judgment, clinical reasoning, critical thinking, and clinical decision-making (Benner et al., 2009; Tanner, 2006). Much time and effort have been given to attempting to delineate universal definitions of these terms along with describing their characteristics, yet this has been met with limited success. How clinical instructors perceive clinical judgment, what it means to them, and how they recognize it, adds to this discourse, but doesn't solve this ongoing problem. Conflation and lack of consensus in terminology has been partly blamed for the challenges in teaching these more abstract skills; having no clear definition makes it more difficult to discuss with and describe to students (Chao et al., 2013; Huang et al., 2016; Lasater, 2011; Mann, 2010; Van Graan, 2014).

Three models of clinical judgment have been described in the literature, yet their utility within the clinical teaching and learning context has either not be studied, or not been adopted widely (Pongmarutai, 2010; Tanner, 2006; Wilber, 2014). Several methods to evaluate clinical judgment have been discussed and evaluated more often in relation to simulation lab experiences, and being extended into preceptorship contexts, there has been limited support/evidence of the efficacy within the clinical teaching and learning environment (Boyer et al., 2015; Lasater, 2011; Pongmarutai, 2010; Schoessler & Modic, 2013; Tolley et al., 2010). Without clear guidance on how clinical judgment is developed and how it can be evaluated, how can clinical nursing instructors ensure that student experiences help develop this skill (Benner et al., 2009)?

Benner et al. (2010) called for a radical transformation in the way that nursing programs teach their students, they suggested a more integrated approach rather than the existing fragmented and compartmentalized pedagogy where students learn in different areas (classroom, lab, and clinical) and then have difficulty putting it all together. Benner (1984) discussed the movement of novice nurses toward expert practitioners, but states that this is an unattainable expectation within nursing programs largely in part due to experience being one of the key aspects of the development of expertise. Although expertise in clinical judgment may be out of reach within the constraints of nursing education, surely outcomes can be moved beyond the 65% of new graduate nurses who were found to be lacking the clinical judgment that is expected by their employers (Del Bueno, 2005).

Research Design

Participants. Clinical nursing instructors with at least three years full-time or five years part-time teaching experience were invited to participate in an initial 60-minute recorded interview and permission to contact for follow up was requested at the conclusion of each interview. Ethical information regarding participation in the study was discussed prior to commencement of the interview, along with completion of a signed consent form. Further information on this process will be discussed in the upcoming section on ethical considerations. There was no attempt to differentiate between community clinical instructors and acute care clinical instructors because many instructors work in multiple roles and settings and therefore have insight into clinical performance expectations.

Three years of full-time or five years of part-time teaching experience was chosen as the demarcation for this study for several reasons. First, confidence in teaching strategies takes time and practice to develop (Gardner, 2014). Second, newer instructors are usually still exploring their practice and therefore may not be as aware of teaching techniques that support the growth of clinical judgment because of its less tangible nature (Gillespie, 2010). Third, new clinical instructors may be expert clinicians, but they often lack any experience or formal education in teaching (Crocetti, 2014; Sorrell & Cangelosi, 2016). Finally, confidence of new clinical nursing instructors tends to take two to three years to develop and competence can take more than three years (Gardner, 2014).

Sample Size. One of the main reasons sample size is such an important consideration is that it is a beginning step to reaching data saturation which then

supports rigour (Morse, 2015b). Several factors influence the decision to terminate data collection, which dictates the sample size. These factors include: study design and study outcomes, data saturation, redundancy in findings, depth and breadth of findings (creating significance), and when the diminished returns have reached a point of no longer filling gaps in the data being revealed (Cleary, Horsfall, & Hayter, 2014; Saumure & Given, 2008; Thorne, 2016)

Sample size in qualitative studies are determined by the quality of data that is being obtained from the participants, rather than exact numbers of participants (Cleary et al., 2014). Data collection for this study completed after five participants were interviewed. At this point, no definitively new information was coming in while the collected data contained considerable depth and breadth of information within each of the questions being asked. This allowed for more than a superficial understanding of participant experiences which allows for significant meaning to be found within the data (Thorne, 2016). The data collected from these five participants were also sufficient to delineate commonalities and differences in their experiences, and allowed clarification where needed in areas that were muddy (Morse, 2007; Thorne, 2016). This process of focusing on specific areas that are still unclear, or poorly understood, is called theoretical sampling (Morse, 2007; Thorne, 2016). By stopping the data collection at this point, it was possible to avoid having a sample size which is too large, which could have reduced the ability to manage and interpret the data in a meaningful manner (Boddy, 2016).

A challenging question for novice researchers is: How will I know when

data saturation is reached? Is it even possible, considering everyone has different experiences, and their interpretation of those experiences will be unique to them? While there may be some contention around those questions, Morse (2015b) described data saturation as the point in which no new characteristics are being elicited within the categories of information being obtained from interviews, rather than the saturation of experiences. During data collection for this study, participants all had different experiences, but the data from each question were falling into the same categories. Morse (2015b) explained that to reach saturation, attention must be paid to both scope (attendance to all aspects of the phenomenon, including that which is felt to be irrelevant or impertinent) and replication (data being repeated by more than one participant). Throughout the data collection and data analysis phases of this study, experiences that were unique were kept included to allow for ongoing comparison. There were only a couple examples of this, most participants had considerable overlap at the core of their experiences.

Saturation cannot be determined by number of interviews alone, some interview structures (semi-structured versus open-ended) will elicit different amounts of information, therefore requiring a different number of interviews to reach the point of saturation (Morse, 2015b). The interview process for this study was primarily open-ended questions, interspersed with some focused questions, when the participant brought up something that required further exploration or understanding. Saturation is also linked to the researcher's skill to move between data collection and data analysis as well as their familiarity with the subject matter and the ability to make meaning of the findings (Morse, 2015b). As a former

clinical instructor, I had little difficulty moving between data collection and data analysis, but did have to keep in check my own perspectives and bias, this will be discussed later in this chapter. An additional concern that supports the achievement of data saturation include: ensuring participants are familiar with the phenomenon (all participants had considerable experience, and had taken the time to think about the subject prior to the interviews) (Saumure & Given, 2008).

Recruitment. Once ethical approval was received, five degree granting schools in western Canada were approached for ethics approval through their institutions. At that point, the nursing faculties were then asked for their support to circulate the recruitment poster (see Appendix A). Purposeful sampling was undertaken to focus on participants with a variety of both experiences in teaching and in approaches to supporting student knowledge integration. Purposeful sampling can help improve the quality of the data obtained by intentionally selecting participants with more experience or greater awareness of the phenomenon under study which will better inform understanding of clinical judgment (Creswell, 2013; Leedy & Ormrod, 2013).

Data Collection

Data on participant education level, years of teaching, and years of nursing experience were collected on the informed consent forms, and collated to get an overview of the study participants. Digitally recorded, in person and telephone, interviews were used to collect data. They ranged from approximately 22-48 minutes in length, with the average time being approximately 39 minutes. Recordings were obtained via voice recorder software that comes standard with

windows laptops. At the completion of the interview, participants were asked if they were willing to be contacted if there are any follow up questions which arise during the data analysis stage, follow up was not needed. Confidentiality and data handling will be discussed in upcoming sections of this paper.

Semi structured interviews were conducted with five study participants. The guiding questions asked during this interview were: From your perspective, what is your understanding of clinical judgment and how would you define it? How do you facilitate clinical judgment in your students? What strategies do you use/have you used? What helps you with facilitating clinical judgment? What hinders you in facilitating clinical judgment? How do you manage these hindrances? What advice would you give to new clinical instructors with regards to supporting the development of clinical judgment in their students? (Appendix B). Additionally, clarifying questions, probing questions, and statements to ensure understanding were used to explore breath and depth within each question, if these were needed.

Several things were taken into consideration to improve interview quality. It was important to ensure that findings reflect context (time and place) through maintaining social contextual awareness (Thorne, 2016). During the interviews there were points where participants expanded beyond the questions specifically being asked, this information was retained throughout the data analysis stage so that any background context provided by this information was preserved (Thorne, 2016). Throughout the data collection process, I kept open to adding probing and clarifying questions as each interview progressed (Glesne, 2016). I also needed to

maintain professional boundaries while building rapport (beware of sounding like an advocate for any particular component of the inquiry, being careful of how questions were worded, being careful of how I responded when participants expressed concerns about the correctness of their responses), minimizing researcher bias through reflexivity, and embracing the role of curious learner who is approaching those with experience in the area of interest (Glesne, 2016; Thorne, 2016).

Data Management

How data are tracked, stored, sorted, and organized is an important consideration for all researchers (Thorne, 2016). Ethical storing and safekeeping of data will be addressed in the upcoming section on ethical considerations. Thorne (2016) recommends that "experimentation with paper and pencil, basic on-screen highlighting and filing techniques, or even wall-chart graphics" to help prevent new researchers from becoming overwhelmed by software limitations and to help maintain researcher control over the data (p. 152). Additionally, keeping up on the data (including transcription, notes, memos, and sorting) was important to reduce the feeling of being overwhelmed by the volume of data collected (Glesne, 2016).

Data management for coding and organizing purposes of this study was undertaken using NVivo and word processing software. Additional methods to create visual representation of the data included index cards and poster board to help sort and organize themes, concepts, and codes as they arose. Having movable notes allowed for rearrangement of concepts as the ongoing data collection can

create shift as new concepts arise. An audit trail detailing everything from design decisions to collected data and how the data evolved through analysis was an important aspect of credibility through outlining the researcher's logic, discussed later in this chapter (Carcary, 2009; Thorne, 2016).

Data Analysis

It is through the data analysis process where insights are gained and new knowledge develops (Oliver, 2014). Data collection and analysis enlighten the researcher in two ways: improving understanding about the phenomena through comparing and contrasting the incoming data and by guiding the researcher where to look and to eventually (with increasing saturation) make the researcher more certain about what they are seeing (Morse, 2015b). Data analysis is an active, creative, discovery process of looking for possible relationships and then watching if these continue as new data are gathered and analysed (Thorne, 2016). Data transformation into patterns, then into relationships, is supported by asking what are the data showing and why (Thorne, 2016). Scaffolding becomes important through the data analysis process, because it helps keep the researcher on track by remembering the purpose for studying the chosen topic (Thorne, 2016).

During the analysis phase of an interpretive description study, several strategies are implemented to help verify the findings and locate them within the existing body of knowledge (Bertero, 2015). These include concurrent data collection and analysis and constant comparative analysis (Bertero, 2015). The process of concurrent data collection and analysis allows for identification of

areas which may require further questioning or clarification which can be undertaken in follow up interviews or in subsequent interviews with new participants (Morse, 2007; Thorne, 2016). Constant comparative analysis, (new data are compared and contrasted with already collected data) was ongoing from the outset of data collection through all levels of analysis (Charmaz, 2006; Thorne, 2016).

Interpretive description requires ongoing interaction with the data and knowing the data as a whole to develop a complete overall picture of what they are saying (Thorne, 2016). Reading transcripts several times, as well as being involved in the transcription process, can help researchers recognize similarities and differences within and between the passages (Esmaeili et al., 2014; Thorne, 2016). During the initial data analysis process, the researcher is to repeatedly dwell with the data and observe reactions to them, to see what sticks out (usually prototypical and contrasting cases), and to consider why these phrases or words stand out (Thorne, 2016). Patterns become recognizable, but at this point, it's important to retain cases that don't fit into this pattern (Thorne, 2016). Keeping accurate audit trails and the original recordings at this stage is key to ensuring that if information has been missed due to initially appearing less important, it can be added back in once this has been recognized (Thorne, 2016). It is also important to not become locked into any assumptions (allowing the data to speak for itself) too early or to become overwhelmed and then paralyzed by the volume of data (Thorne, 2016). The mind naturally tends toward quick categorization of data which comes from socialization (stemming from experiences and personality)

(Glesne, 2016; Thorne, 2016). This is how hypotheses are developed, but researchers need to be cognizant that these categories stem from the data and not from personal presumptions (Glesne, 2016). Reflective analysis, described later in this chapter, was used to help reduce the influence of these potential biases.

Analysis Strategies. Qualitative coding defines what the data are about by giving a name to a segment of the data that helps summarize them; it is a metaphor for the data (Charmaz, 2006; Dey, 2007). Three types of coding are recommended by Thorne (2016) for interpretive description research: open coding, axial coding, and selective coding; all of which are drawn from grounded theory. Early coding should be less precise while depicting significance and action, while looking at words, phrases, and lines (Charmaz, 2006; Thorne, 2016). Due to the volume of codes created from the amount of information given by each participant in each question, there were times when the process felt overwhelming, particularly with the hindrances question, which had three times the volume of the next largest question. This is not unexpected, as explained by El Hussein, Hirst, Salyers, & Osuji (2014), novice researchers may find the open coding process to be overwhelming, become enmeshed in it, and become distracted from discovering the ideas that emerge. During open coding categories are developed and then subcategories emerge from each, categorization is a less specific process than coding (Creswell, 2013; Dey, 2007).

Following open coding, axial coding was undertaking and was used to develop subcategories to describe relationships (Charmaz, 2006). The data were then further rearranged to develop a visual model where a central phenomenon is

identified and the surrounding data demonstrate: causal conditions, strategies, context, intervening conditions, and consequences (Creswell, 2013). The creation of graphic representation of the data (such as matrices, mapping, and Venn diagrams) can help researchers reduce and compare data, providing an overview of it, and may help explore causation (Dey, 2007). At this stage, concept maps were created to provide a picture of what the data was saying (see Appendix C, for copies of these concepts maps).

Theoretical (or selective) coding is the final stage which weaves everything back together, demonstrating relationships and creating a coherent, analytic story (Charmaz, 2006; Thorne, 2016). Additional strategies that were undertaken to engage with the data included: marginal memos, using different color text, flagging to draw attention, and copying sections of each interview into separate files for easy identification of which question the response related to, and creating a "'quotable quotes' file" (Thorne, 2016, p. 163). Critical reflection was maintained throughout the analysis process to keep a watchful eye on reasoned decision-making (Thorne, 2016). This reflection required reviewing the data to ensure that the codes were not being misapplied. In some areas, there were considerable overlap between influences on students and influences on instructors, and returning to the original interviews during this time was important in staying true to the participant experiences. At this point, it becomes necessary to utilize methods of verifying the patterns and relationships being discovered, this is discussed in the next section on trustworthiness in qualitative research (Thorne, 2016).

Trustworthiness in Qualitative Research

Researchers want the results of their studies to make a practical contribution to their discipline. This requires that the study design and findings be able to stand up to evaluation (Noble & Smith, 2015). Trustworthiness within qualitative studies requires the implementation of several different strategies that, when implemented, will improve the utility of a study (Morse, 2015a; Morse, Barrett, Mayan, Olson, & Spiers, 2002). The elements of qualitative trustworthiness are: credibility, transferability, dependability, and confirmability (Morse et al., 2002; Morse, 2015a; Ryan-Nicholls & Will, 2009). It is essential that strategies to ensure trustworthiness are integrated throughout the study (Morse et al., 2002). Each of these elements have a variety of strategies to ensure that they are met (Morse, 2015a). Some strategies to establish each of these elements were more appropriate for this study than others.

Credibility. Credibility is the extent to which findings represent the experience of those who have had the experiences involved in the phenomenon of study (Morse, 2015a). Strategies used to improve credibility within the parameters of this study were: thick, rich description and negative case analysis (Morse, 2015a). For thick, rich description, sample size needs to be large enough to reach saturation or risk that the study results are predictable and lead to nothing new or of interest being discovered (Morse, 2015a). Data saturation for this study was discussed earlier in the sampling section above. Study participants had considerable teaching experience, and had considered the questions prior to the interview, this helped to ensure sample appropriateness, which is another factor in

developing thick, rich description, by moving toward theoretical sampling as the study progresses, a more complete picture of the phenomenon can be developed (Morse, 2015a).

Negative case analysis involves the careful analysis of the outliers to see what they can add to the understanding of the phenomenon of interest (Morse, 2015a). Outliers occur because not all data will fit within the emerging themes, exploring these can increase the robustness of the assessment of the phenomenon (Creswell, 2013). Outliers were retained throughout the coding process and were evaluated for what they add to the conversation regarding clinical judgment. Contrasting viewpoints were included in the study findings, where appropriate.

Transferability. Transferability is the extent to which the study findings may be extended beyond the context of the study itself (Morse, 2015a; Ryan-Nicholls & Will, 2009). For study findings to be transferable, they must be decontextualized and the emerging theories and concepts be abstracted (Morse, 2015a). There has been some discussion as to whether transferability is the prerogative of the study researcher, or of researchers outside of the original study (Morse, 2015a). Creswell (2012), states that providing a rich, thick description enables readers to determine interconnectivity, and thereby applicability, within their own contexts. Evaluation of the applicability of these study findings into specific contexts has been left in the hands of the readers to evaluate its applicability into their own practice settings.

Dependability. Dependability refers to the repeatability of the study findings; if the study were to be repeated would another researcher come to the

same or similar conclusions (Morse, 2015a; Ryan-Nicholls & Will, 2009). Recommended strategies for strengthening dependability that were appropriate for this study were: member checking and thick description (Morse, 2015a). Member checking in this regard refers not to interviewing participants again, but by asking other participants for their understanding or interpretation of findings which are not well understood by the researcher (Morse, 2015a). Through purposeful sampling of additional participants, researcher interpretations can be clarified, elaborated upon, and confirmed (Thorne, 2016). Member checking was done to some extent, in regards to asking for further details during the interview to clarify challenging or unclear concepts, when necessary. There was no interview during which the participant was asked their opinion of what had been collected already.

Concurrent data collection and analysis allow for the inclusion of more focused questions in the later stages which ensures the researcher is able to push beyond what seems obvious into deeper interpretations with meaning and utility (Morse et al., 2002; Thorne, 2016). The interviews were spaced apart enough (seven months between the first interview and the final interview) that there was time to complete transcription and beginning analysis of interviews to see if further clarification was needed in any specific area. With thick description, concepts overlap and confirm each other (Morse, 2015a). There was considerable overlap found within the data as they were processed, although specific participant experiences were different.

Confirmability. Confirmability refers to the extent to which researcher bias has been contained from influencing the study findings (Morse, 2015a). This

aspect of trustworthiness is challenging due to the very nature of qualitative research and the interactivity between study participants and the study investigators (Ryan-Nicholls & Will, 2009). Strategies used within this study to reduce researcher bias included explicit statements of researcher motive and positioning and ongoing use of an audit trail (Morse, 2015a).

With regards to clarifying researcher bias, awareness of both researcher motives and researcher positioning can help reduce, but will not prevent bias (Caelli et al., 2003). There were many times during the coding process, as well as during categorization, and during drafting and redrafting that I had to review where I was coming from, and ask myself if I was using the lens of my own experience when looking at the data. During this reflective process, some adjustments were required to remove my potential bias. Bias can be introduced through researcher suppositions and study design decisions, and can be minimized through outlining researcher positioning, and then use this in the process of reflexive analysis (discussed shortly) throughout the course of the study (Creswell, 2013; Morse, 2015a; Thorne, 2016).

Audit trail. An audit trail has two main purposes. First, to provide documentation on the decisions made throughout the study (Wolf, 2003). Second, to provide a trail for the researcher to track the evolution of their analysis (Rodgers & Cowles, 1993). Types of documentation recommended to be included in the audit trail consist of the following categories: contextual documentation, methodological documentation, analytical documentation, and personal response documentation (Rodgers & Cowles, 1993).

The audit trail needs to be organized and easy to follow and consists of three elements: raw data, analysis and interpretation, and findings (Wolf, 2003). In this study, the raw data consisted of the audio recordings and the transcripts of those interviews. The analysis and interpretation component of the audit trail includes the codes and memos driven from the data and it provides evidence of analysis and precludes the first draft of the study results (Wolf, 2003). In this study, this second part of the audit trail includes the codes, memos, and themes that arise from the codes. Unfortunately, during the data analysis phase, due to computer malfunction, much of the coding information was lost along with NVivo software. In hindsight, these should have been saved on USB key along with much of the other data. Printed copies of the transcripts with underlining and margin codes have been retained. The findings section consists of narrative and diagrams driven from the second part of the audit trail (Wolf, 2003).

Reflexive Journal. While keeping the study free from bias is the ultimate goal, it's important to remember that bias elimination is unlikely, so reflexivity journaling during all stages of the study was essential (Ryan-Nicholls & Will, 2009; Thorne et al., 1997). Reflexivity refers to the researcher's awareness of the values, experiences, and potential biases they bring to a study, how they may contribute to bias within a study and therefore its findings (Creswell, 2012). Reflexive analysis is the researcher's scrutiny of their own work, their experience, their decisions, and how they interpret the data, along with how their own personality influences the data analysis (Charmaz, 2006). Researcher positioning in conjunction with reflexive analysis are needed to make presuppositions

apparent and explicit, while minimizing their influence on the study elements (Mills, Bonner, & Francis, 2006; Wiley, 2010).

Reflexivity began at the early stages of the study and continued through to study completion. According to Esmaeili et al. (2014) it is an important component of the audit trail that can improve the dependability of the data. Reflexive journaling needs to be undertaken due to the myriad of decisions each researcher must make throughout the research process, beginning from the development of an idea for an area of interest (Mruck & Mey, 2007). These decisions influence all aspects of the process from methodology, to participant selection, to data collection, coding, categorizing, memoing, and finally to the development and drafting of the theory (Mruck & Mey, 2007). This awareness helped to reduce the influence of my own lens as a clinical instructor to minimize bias in everything from the interviewing process, to the interpretation of participant responses (assuming I know what they mean), through to the presentation of how the findings are significant.

Ethical Considerations

Ethical approval was acquired prior to commencement of any study activities, such as recruitment (Athabasca University, 2016). Once ethical approval from Athabasca University was received, MacEwan University, the University of Lethbridge, Red Deer College, Mount Royal University, and Grande Prairie Regional College were approached to determine if ethics approval will be required at the institution level. Once approval was received (see Appendix D for institutional approvals) the recruitment poster, consent form, interview questions

for participants, and the appropriate ethics approvals were submitted to the nursing faculties for circulation to their clinical instructors.

Risks and Benefits. Risks and benefits to participants, researchers, and the public need to be balanced when considering the value of any proposed research study (Canadian Institutes of Health Research [CIHR], Natural Sciences and Engineering Research Council of Canada, & Social Sciences and Humanities Research Council of Canada, 2014). Awareness of any potential risks (discussed next) were disclosed to participants as an integral part of informed, voluntary, and ongoing consent (CIHR et al., 2014). Because registered nurses have post-secondary education, and the Nursing Code of Ethics is in part dedicated to informed consent, it was expected that the participant demographic were aware of their right to autonomy, informed consent, and right to withdraw at any point without fear (Canadian Nurses Association, 2008). Despite the expectation that nurses would be aware of their rights, these principles were made explicit from the outset of the study.

Participants were informed that if they chose to withdraw consent, the data collected to that point will remain included unless they specifically request its removal and destruction, but this could only be done up to one week after the data collection has been stopped. Language of the consent and interview questions by the principal investigator was maintained at an appropriate level for professionals. When the consent was checked with the built in Microsoft Word readability tool, it was found to be at a grade 10.3 level, whereas the questions were at a grade 8.3 level, both considerably lower than the educational achievements of study

participants. See Appendix E for the consent document, a signed copy of which was obtained prior to the collection of any data.

One potential risk was related to mental health due to the potential to create reflection on teaching for the instructors interviewed, which could bring up unpleasant memories if they have faced difficulties or ambiguous challenges or they feel insecure regarding their teaching practices. With regards to benefits, no direct benefits were anticipated. One possible indirect benefit was that the participant might have thought more deeply about their role in developing clinical judgment and began to explore possible additional changes to their own practice, if such changes may be appropriate. Another indirect benefit was the possibility that the participants began having more conversations about clinical judgment with their cohorts, and possibly develop additional strategies to support clinical judgment in their students and improving collegial interactions (if these are not already in place). There were no anticipated risks to the principle researcher.

Undue influence and coercion are two of the possible risks to ethical conduct at the participant recruitment stage (CIHR et al., 2014). For this study: no power imbalances existed, no economic factors needed consideration, no risk of physical harm to either participants or researcher were likely, and no social repercussions were of concern. University of Alberta and Athabasca University instructors were not invited to participate due to the principle researcher's sessional instructor position with the University of Alberta, and the principle researcher's status as a graduate student with Athabasca University, these exclusions prevented potential conflict of interest.

Privacy and Confidentiality. Protection of privacy and maintaining confidentiality is another essential ethical obligation (CIHR et al., 2014). Privacy and confidentiality were maintained by keeping a master list of participants with a unique identifier in a locked safe, along with the signed consent forms. No copies of this information were created or maintained. Any data (transcriptions and coded information) that were kept outside of the safe, were tagged only with the unique identifier and kept on password protected devices (computer and/or USB key). These identifiers were removed during final drafting of the study, keeping this identifier in place until final drafting ensured ease of referral back to the original interviews for clarification purposes and to ensure accuracy of what was derived from the data collected. Indirectly identifying information, such as years of clinical teaching experience were compiled prior to project completion, which reduced the ability for readers to use this data to identify individuals. The only other person with access to the data marked with the unique identifiers was the thesis supervisor. All information with identifiers will be destroyed through shredding and deletion of electronic files, and reformatting of the encrypted USB key following the required five-year waiting period. Pseudonyms were created for quotation purposes and were not gender specific.

Conflict of Interest. Conflict of interests arise when there is incongruence or overlap between research activities and other activities in which the researcher is involved (CIHR et al., 2014). Conflicts of interest may be perceived, real, or potential (CIHR et al., 2014). The principle researcher holds a sessional instructor position (clinical nursing instructor) with the Faculty of Nursing at the University

of Alberta and this was the reason University of Alberta instructors were not included for recruitment. The principle researcher is also a graduate student at Athabasca University, and therefore Athabasca University was also not included in the participant pool. No REB member conflicts of interest occurred. No institutional conflicts of interest occurred.

Limitations and Advantages of the Study Design

Limitations are described as being either outside the researcher's control, or something that was recognized in hindsight where a different choice could have been made (Glesne, 2016). Limitations can occur at many phases and stages of the research process including design decisions of sampling and data collection along with the approach taken (Thorne, 2016). Limitations may be looked at as the context in which the study was conducted or as suggestions for future works (Glesne, 2016). Researcher inexperience was one of the greatest limits of this study. Ongoing support from more experienced researchers was sought to bolster awareness of potential complications and common pitfalls that occur for novice researchers.

Although interpretive description has been around since the 1990s, it is still considered a newer methodology when compared to grounded theory or phenomenology, and therefore there are fewer resources to refer to for guidance when ambiguity arises (Hunt, 2009). These concerns were mitigated by having a committee member who is versed in this methodology as an experienced resource. Another way to reduce this as a limitation, was to be aware of the overlap with other methodologies, such as some of the data analysis techniques are drawn from

grounded theory, so using resources from grounded theory for those specific concerns was helpful (Hunt, 2009). Another limitation was that the exclusion of the University of Alberta and Athabasca University reduced the potential participant pool.

Interviewing as a data collection method has both advantages and limitations. Advantages of interviewing include: first-hand accounts of people experiencing a phenomenon, it is a common technique for which it is easy to obtain guidance and support, it can allow exploration of topics that cannot be directly observed, and it may elicit unexpected information that may not be sought intentionally but may come about through the interview (Glesne, 2016; Thorne, 2016). Disadvantages of interviewing include: time commitment for true in-depth interviews can be restrictive, some concepts are not readily conveyed through language, difficult to differentiate between the subjective and objective views, and experiences are socially constructed and will vary between contexts or may reflect current thinking on the phenomenon (Thorne, 2016).

Timeline

Refer to Appendix F for the timeline for each aspect of the study.

Chapter 4. Results

Five participants were interviewed during the data collection process. The average number of years of nursing experience was 20.2, and the average number of years of teaching experience was 10.4. Educational levels attained were variable. The exact data for education will not be included here due to significant variability which may allow for identification. Both male and female participants were included; and they were employed at more than one of the institutions from where ethical approval was obtained. Pseudonyms were randomly drawn for the five participants, regardless of gender. These names were Alex, Jordan, Kerry, Morgan, and Riley.

Semi-structured interviews were conducted to elicit participant understanding of clinical judgment and their experiences with regard to facilitating clinical judgment development in nursing students who are in clinical practice. The guiding questions in Appendix B were used as a starting point for these interviews. Responses were then divided into the following categories: participant understanding of clinical judgment, strategies to facilitate clinical judgment, supporting the facilitation of clinical judgment, hindrances to developing clinical judgment, and advice for new clinical instructors. Following is a discussion of the findings within each of these main study categories.

Participant Understanding of Clinical Judgment

Study participants were initially asked to describe their perspective of what is clinical judgment. Participants reported that their views on clinical judgment have evolved over time. They indicated that the concept is complex,

dependent on many factors, and variable between practitioners. Three main themes were identified during data analysis: knowledge, acquisition of knowledge, and application of knowledge. Findings from this section are represented in the concept map in Appendix C on page 214.

Knowledge. Knowledge as it relates to clinical judgment refers to the existing body of knowledge that a student possesses. Participants described two aspects of knowledge: learned knowledge and knowledge of self. Learned knowledge is the knowledge students have learned in courses prior to their clinical practice. Learned knowledge requires both breadth and depth and is evidence-based. An important aspect of knowledge that was identified by the study participants was that there needs to be an awareness of what is unknown, to help drive the acquisition of knowledge. With regards to helping students evaluate their knowledge, Riley described using questioning in conjunction with Bloom's Taxonomy to get students thinking about the breadth and depth of their understanding:

> 'Oh! Perhaps my questions have always been in the knowledge or remembering or understanding level. Perhaps I need to challenge myself more …. the reason why I cannot plan what's going on, I can't develop a nursing care plan for my patient, is because I don't have that depth or that breadth of knowledge of what's going on.'

Knowledge of self requires that the student has an understanding of who they are as a person and as a student. Incorporated within knowledge of self was being in touch with emotions/feelings, and intuition, as well as an awareness of

one's own capabilities and challenges. This knowing requires self-reflection. Knowing of self was also comprised of both individual characteristics (questioning, inquisitiveness) and past experiences (life, work, nursing) that will create variability between students.

Acquisition of Knowledge. Acquisition of knowledge is the process whereby students locate and collect the information they need for clinical judgment. Within this theme, the two subthemes were: collection of information and appropriate resources. Collection of information included: patient assessment, scenario assessment, situational awareness, and data gathering. Appropriate resources included: multiple sources including best practices, variable focus, and interdisciplinary consideration. Participants wanted to know that their students were able to locate and access appropriate evidence-based resources. Jordan described acquisition of knowledge as "…gathering all kinds of information about a situation using all kinds of resources to come up with the solution to a problem or an action for a situation." Alex explained the variety of information need to be gathered: "Being able to rely on their previous knowledge, understand challenges that face them, being self-reflective, accessing resources, and knowing where to find those resources…"

Use of Knowledge. Use of knowledge is how students integrate their existing knowledge with their acquired knowledge and then use it in clinical judgment. Within use of knowledge, three subthemes emerged: application of knowledge, patient-centered outcomes, and decisions/actions. The application of knowledge requires process; nursing process, critical thinking, thinking like a

nurse, exploring where thoughts are coming from, and it can be skill/task dependent. Morgan described clinical judgment as including "the different ways that we know and think as a nurse." Participants described the importance of clinical judgment in patient-centred outcomes, humanistic approaches, promotion of optimum outcome, care planning, and how nurses/students interact with the patient. Kerry described clinical judgment as being "one of the practices of nursing to promote patient optimum outcome and using critical thinking skills." Participants felt that clinical judgment requires that a decision be made, that an appropriate action/intervention be undertaken, and that follow up/evaluation of the action/intervention needs to occur.

Strategies to Facilitate Clinical Judgment

Study participants were asked what strategies they use to facilitate the development of clinical judgment in their students. Participants discussed many different strategies and how they use these to guide the thinking of their students. They reported that proper implementation of these strategies helps to improve student competence, confidence, and their thinking processes. Themes present within the data for the responses regarding clinical judgment building strategies were: collaborative conversations, bigger picture/knowledge integration, and context extension. Findings from this section are represented in the concept map in Appendix C on page 215.

Collaborative Conversations. Collaborative conversations are the discussions and questions that occur between students and other players in the clinical setting. Typically, these are with the clinical instructor, but can also occur

within the student group. Participants identified collaborative conversations between themselves and the student to be one of the key strategies that can boost clinical judgment. Kerry explained: “I collaborate with them. I ask them questions. I try to get them to come up with their own critical thinking assessment and evaluation and what they think they should do next and how they're going to follow up.”

Within this collaborative relationship, participants felt that questioning was one of their key strategies. Questioning was described as being useful to explore several areas, including: student knowledge and their application of knowledge, care plan, nursing process, thought origin, accuracy, evidence, precision, detail, clarity, priority planning, and to help guide student thinking and providing feedback. Riley described the value of questioning:

> I would know where they are coming from, it would help me to fine-tune their thoughts and to help me gauge where they’re at, so that I could navigate them and ask them questions given my context and given my background to help them perhaps ask more relevant questions.

Kerry provided some examples of questioning:

> And say, you know “this person is on antibiotics, compared to yesterday, do you think, does it look any better? Is it smelling? What do you think needs to happen?” A lot of times, when they ask questions, I try to engage their critical thinking skills by asking them questions. Reasonable questions, that I know that they know,

within their scope of learning.

Beyond collaboration between instructor and individual students, instructors identified using group collaboration, conversation, and brainstorming as a way for students to learn from each other. Additional collaborative strategies identified included role modelling and providing students alternative experiences such as attending multidisciplinary meetings.

Knowledge Integration/Bigger Picture. Knowledge integration/bigger picture refers to student integration of existing knowledge and acquired knowledge to develop a comprehensive picture of their patient. Participants discussed the value of clinical experiences to help students integrate their classroom knowledge into a patient-centred holistic picture. This whole person perspective is needed to develop complete, inclusive care plans. To help students explore patient centred care, Riley asked students: “Is this fair for the patient? Where’s the patient coming from?” Specific strategies used to help students integrate their knowledge included: SIM lab, case studies, and concept mapping. Identified strengths of concept maps included: connecting related ideas, knowledge gap identification, context specific, scenario dependent, visual tool, and helps to visualize student thinking. Riley described concepts maps:

> … I find concept maps is a great tool to help out students not only connect and relate ideas that they learn in silos, for example, pharmacology, pathophysiology, and nursing practice…. it gives them a visual tool to become more self-aware in their gaps …

Context Extension. Context extension involves taking the existing

scenario and asking the student to hypothesis how they could use this scenario and apply their knowledge in similar situations. Although integration of knowledge is an important function of clinical and it's required for clinical judgment, participants also reported that encouraging students to go beyond that specific scenario helped push their thinking further. They used questioning to guide students towards considering alternative treatments or interventions, exploring the next step (such as follow up or reporting to other team members), extending or changing the context, and to explore the roles of others. In this way, they were trying to get students to see that there isn't always a single answer or a single perspective. Riley provided some example questions to help students extend their knowledge into other contexts: "… how would you report that to the charge nurse? … to use an SBAR format? How would you frame this perhaps in the future if you want to report this to the doctor?" SBAR is an acronym for situation, background, assessment and recommendation; it is a format for communicating between healthcare professionals with the purpose of improving patient outcomes (Alberta Health Services, 2010).

Supporting the Facilitation of Clinical Judgment

Study participants were asked what contributes to or supports the development of clinical judgment in their students. They discussed many different factors which influence the development of clinical judgment, including: patient, staff, and unit factors. The students and instructors themselves were said to play the largest role in effecting the development of clinical judgment. Individuality of all these players was identified as introducing variability to the context in which

students are practicing. Three themes were found in the study participant responses to the question regarding what facilitates the development of clinical judgment in nursing students: safe learning environment, student factors, and instructor adaptability. Findings from this section are represented in the concept map in Appendix C on page 216.

Safe Learning Environment. A safe learning environment is one in which students feel comfortable to ask questions about their practice and their knowledge, as well as being able to admit to not knowing something or that an error was made without fear of being judged/failed, or made to feel bad. The safe environment is influenced by students, instructors, unit staff, and the interdisciplinary team members who interact with students. All participants discussed the importance of having a safe learning environment for both students and instructors. The importance of this safe space includes improving the comfort of students and this then gives them freedom to learn, explore nursing, share their experiences, and celebrate their successes. Other terms used to describe this nurturing clinical environment included: safe space, learning culture, relational space, safe environment, safe container for learning, supportive environment, and intentional culture.

Participants felt that the instructor, the students, the staff, and the overall unit culture are important players in building and nurturing this safe space. They also described intentionally developing and maintaining this supportive environment through discussions with the students on what qualities comprise this type of environment, creating an emotional connection, assisting with anxiety

management, and then holding everyone (including themselves and the staff) accountable to these expectations. Riley described this safe space and the challenges in maintaining it:

> … the inherit challenge of that is to maintain that and to nurture that. Given the different personalities of each student and given how students respond to feedback and given how you as well, as instructor, appraise how the student reacts …. I think, one of the most important facilitators of clinical judgment is creating that safe space to think

Student feedback on their perceptions of how they feel within the clinical context was considered valuable in determining the quality of this safe space ("… getting feedback from students about: Is this space that is being created safe for you to share your knowledge? And if you're not right, how am I reacting?" – Alex). Participants discussed one way of being able to establish a trusting bond is through honest communication that demonstrate instructor vulnerability. Alex described sharing a moment that demonstrates humanity and ongoing learning:

> …as an instructor admitting that you don't know things, that you have to look things up, again reflects that behavior to them that we aren't computers that can recall information. Just because we've been nurses for X amount of years that we still are committed to lifelong learning and looking things up…

Student Factors. Students factors are those that are within the purview of each student. Participants discussed a number of student specific factors that

influence their performance and the development of clinical judgment in the clinical setting. These included: inquisitiveness, mindfulness, eagerness to learn, self-awareness, self-reflection, confidence, past experiences, number of weeks in clinical, student ability, student preparation through research activities, student buy-in with clinical activities, as well as their ability to express their feelings. Participants explained that the busyness of the clinical environment can challenge students to develop their time management and prioritization skills. They felt that students require hands on experience while engaging with patients. Two subthemes presented through the analysis of the data regarding student factors that facilitate the development of clinical judgment: student ownership and processing knowledge.

***Student ownership*.** Student ownership occurs when students take a leadership role in their own learning experience, as compared to waiting for instructor direction. Study participants reported that encouraging students to take ownership of their learning experiences helped improve their engagement in the clinical setting. Engaging students in conversations about their past experiences and what they hope to get out of the current experience can be helpful. Another way study participants reported helping students to become more self-directed was to get student input into which patients with whom they will be working. By taking ownership of the learning experience, students recognized their own responsibility in their growth.

> I do ask them to share with me some of their requests around patient assignments, where they're at in their learning, what types

> of tasks they've had an opportunity to engage with in previous rotations, which ones are they hoping to get exposure to, what kind of patients they've cared for before and what types they are looking to again focus on in the rotation. - Morgan

Processing knowledge. Processing knowledge is how students think about the knowledge they possess and acquire, and then utilize that in their practice. Study participants discussed many different aspects of thinking that they felt influences clinical judgment in nursing students. They discussed the challenges with integrating knowledge due to incongruence between classroom learning and clinical application. They also referred to this as theory-practice gap, and cognitive dissonance. Jordan suggested that variability in curriculum could promote a broader student perspective: "Have a curriculum that allows students to take different electives into their schedules, learn different things, maybe be involved politically, and that sort of thing."

Participants described encouraging students to think beyond nursing knowledge, to engage in interdisciplinary and intersectoral thinking, to bring forward past experiences, and tie class and lab into clinical. Engaging students in higher order thinking (Bloom's taxonomy), and encouraging them to ask increasingly difficult questions, as well as helping them differentiate between quantity and quality information in their patient research, all contribute to the development of student thinking. Riley explained, "So, as we progressed, for me, as I became more explicit in pushing students to the higher order of thinking and questioning skills, I also push them to take ownership about their learning."

Morgan explained that student thinking changes through the term: “The beginning of our … rotation the way a student might answer that question looks very different than at the end of our … rotation.”

Instructor Adaptability. Participants described several instructor factors that are similar to the expectations for students, including: preparing for the experience (including knowing the unit), self-awareness, past experiences, self-reflection, mindfulness, and individuality. There were also unique instructor characteristics and responsibilities that were identified: clear communication and collaboration with staff, students, and other instructors; ongoing education to help explore and adjust teaching strategies with intention; and having both a teaching and a nursing philosophy. Instructor adaptability was the largest theme in regards to supporting facilitation of clinical judgment in nursing students. Within this theme, several subthemes exist: balance, collaboration, and awareness.

Balance. Balance refers to finding a balance between the difference aspects of teaching, such as monitoring practice/clinical skills, evaluating research, discussing decision-making, encouraging reflection, and facilitating judgment. Study participants reported the importance of balance, because clinical time is short and the units are busy for both instructors and students. They expressed the need to find time for students to practice as well as to sit down for one-on-one conversations to discuss research, clinical experiences, and debriefing with students following challenging situations. It was also suggested that some learning opportunities are best undertaken in the moment. Participants felt that finding a balance between communication and tasks can be difficult. Jordan

described finding balance in the clinical setting:

> The biggest challenge I think is finding the time to sit down with students and discuss things on the unit. Between me having to supervise students with things and the students being busy with their care, sometimes it's hard to sit down and discuss it…. I find that as far as discussing and looking at clinical judgment, it's kind of on that instant to instant, situation to situation, and student to one-on-one that's the richest…. It is that balance, that firsthand experience adds so much to their own ability to clinically make decisions…

***Collaboration*.** Collaboration refers to the symbiotic relationship that is developed between instructors, students, staff, and members of the interdisciplinary team. Each of these players will ideally work together to improve patient outcomes. Study participants discussed how they collaborate with many different players. The primary collaboration they have is with the students. Students and instructors move together through the learning opportunities that arise during the clinical course. Another important collaboration partner discussed by participants is the unit staff. Study participants report how invaluable this particular resource is to their work. They discussed nurturing this relationship through providing positive feedback to the staff and taking time to get to know the staff and the unit. They also discussed how maintaining a good working relationship with unit staff reduces the risk of staff bullying students. Riley explained the importance of the clinical agency staff and nurturing that

relationship:

> As I develop a professional relationship with nursing staff, I always … provided them with some positive feedback, when I see that they're actually not only promoting critical thinking of students, but also same time nurturing that safe environment, that's important.… the students really love and enjoy talking with and engaging with staff…

Participants also discussed collaboration with each other and their faculty. These interactions help provide a support system for instructors as well as learning opportunities through sharing resources and discussing what they are trying with their group. Experienced instructors are able to mentor new instructors through a teaching team approach. Study participants stated that these interactions helped to reduce the sense of being an island or being isolated due to working in a remote setting and primarily as individuals.

Awareness. Participants discussed many different things that require instructor awareness for the clinical experience to be successful and promotive of the development of clinical judgment in the students. These included: influence of curriculum (such as program electives), positioning in the program (second, third, or fourth year), self-awareness, and awareness of student individuality.

According to the study participants, instructors need to be aware of unit specifics (staff, policies, and procedures). Jordan described the value of knowing unit specific policies and procedures: "… having enough knowledge about a unit or a place you're working, the routines, the nuances, as well as just the basic care,

basic care for that specific specialty." Participants suggested that additional education is helpful to learn a variety of teaching strategies, increasing the tools available to them, and allowing them to adapt their teaching to individual students.

Participants felt they need to be self-aware ("… it became more … apparent to me the importance of being more mindful of where I'm at in the situation and how I engage students into learning situations…" - Riley), self-reflective ("Did I tell the student right? Where am I coming from here? Is still that the best practice? Is that based on current evidence?" - Riley), and attentive to the stress that they may be feeling in the clinical environment, and to take time to decompress, as needed. Participants also discussed the importance of being explicit with their communication, providing learning opportunities as they arise, while trying to ensure equanimity in learning opportunities, where possible.

Participants described many different student factors that they felt they needed to be aware of, including: student learning styles, student personalities, student learning capacity, and individual student clinical judgment. These are needed to help pursue student specific approaches. Morgan explained that individuality occurs both within groups and between groups: "…I do incorporate a few different strategies… I've found over the years I've never had one clinical group that's exactly the same as another.… I do feel like I need different mentorship strategies with different students…"

Study participants reported encouraging qualities of mindful practice, promoting curiosity, fostering engagement, while providing navigational guidance

for specific situations. Additionally, they report working to guide students to be more focused on nuances rather than tasks, focusing on the patient not the diagnosis, and on the learning experience rather than performance and grades. Participants discussed the need to be aware of the student's reaction, as well as their perception of the student's reaction when providing feedback. They also discussed obtaining student feedback on their perception of the instructor's performance and being open to adapting based on that feedback.

Hindrances to Developing Clinical Judgment

Study participants were asked what hinders the development of clinical judgment in their students, and then asked to describe how they manage these hindrances. Thematic analysis identified four main themes in the participant responses: instructor factors, clinical constraints, interpersonal conflict, and student factors. Due to the volume of data collected, the student factors subtheme was further divided into third level themes to ensure that the depth of responses was fully explored and clearly organized. Findings from this section are represented in the concept map in Appendix C on page 217.

Instructor Factors. The importance of the instructor role in successful clinical experiences was emphasised by participants throughout their interviews. They identified clinical teaching as being a complex role and that, at times, instructors may unintentionally impede learning. Participants described two factors that are directly related to the instructor which may impede their ability to be effective: instructor responsibilities and working in isolation.

***Instructor responsibilities*.** Instructor responsibilities refers to how

instructors determine student responsibilities versus their own responsibilities when it comes to student learning and struggling students. Participants reported feeling guilt at some point if a student was not properly prepared before attending clinical and felt that defining the lines of what they are and are not responsible for was challenging. They stated that they had to learn what are their responsibilities versus what are the student's responsibilities. Riley described instructor self-blame "… if the student doesn't do the work that's required. And sometimes you think … 'Am I not too engaging enough? Or Is my course just boring for them? Or am I not just challenging them enough?'"

They did feel that to be an effective guide, they needed to ensure that students were coming to clinical prepared with a base knowledge. Alex described finding these boundaries:

> When I first started, I used to think that I had to make sure that they were prepared and it isn't my job. My job is to ensure that they have the knowledge in it, but it's not my job to provide that knowledge all the time, and that they have to show some responsibility for themselves.... Because if I walk them through the steps of everything before they do it, well they're never gonna learn.

Participants felt that early recognition of students who were ill prepared was important not only for patient safety, but to give students time to correct the issue. They also felt that this early identification decreases the time commitment that a struggling student can require. Alex described the value of early recognition

and intervention with struggling students:

> … trying to ensure that if I have a student who's struggling that I can identify that quickly and I put in measures fast so that I'm not spending all this time helping them when the other ones are not getting that same help. And putting more the onus on the student to be prepared.

***Working in isolation*.** Participants spoke of how they are away from the college/university most of the term, and typically work in isolation from one another. They felt that this separation can lead to feeling like they have less support ("Clinical teaching is very much a lonely occupation and staff can feel very unsupported …" - Alex), as if they are disconnected from the educational institution, and also lacking a sense of community. They suggested that this can increase the instructor's level of stress. Participants felt that there was a two-way responsibility to reach out, instructors reaching to the faculty and faculty reaching to the instructors. They also felt that when community is created for clinical instructors this can improve their efficacy in teaching. A teaching team approach was described by Morgan as being one way to help build community for instructors:

> I think a teaching team approach has worked really well…. there was an existing teaching team in place when I first came here, and they welcomed me with open arms and shared their resources with me and had a little meeting over lunch with me before we start the term.

Participants suggested another factor in isolation is when instructors are moved around to different units, it can increase this sense of feeling isolated, due to decreased comfort levels. They felt that instructors are more comfortable when they know the unit and the staff, because until the point where they are comfortable and know the people and personalities they are working with, they need to tread more carefully.

Clinical Constraints. Clinical constraints refer to the limitations on the learning experience which are created by the very nature of the clinical setting. Study participants discussed the hectic nature of the clinical environment, the intensity of clinical courses, and the existence of many hidden unknowns. They described several different factors that contribute to limited effectiveness within the clinical setting: time restrictions, limited experiences, and additional demands.

***Time restrictions*.** Time restrictions refer to the restraints placed on instructors and students which limit the time they have to explore clinical judgment. Participants identified two different categories of time restraints within the clinical setting. There are the challenges of getting into the higher level of thinking with students within the time limit of the clinical course, as well as the time restrictions experienced by the clinical instructors. Participants discussed the concerns with shorter clinical rotations being that they only allow enough time for the students to begin getting comfortable on the unit. Participants felt that it is after this adjustment period when instructors are able to push students into those questions that encourage breadth and depth of thought. Jordan explained: "… they just get going and feeling comfortable on the unit, and then we say, 'Whoop, time

to go,' instead of them feeling that comfort and maybe going deeper, learning more from what they could learn there."

It was suggested that during longer rotations students are better prepared to work with increasingly complex patients and still have time to learn from these experiences. Morgan described this difference in complexity during longer rotations:

> … those longer rotations that I'm better … able to understand their decision-making processes and to facilitate their clinical judgment by giving them even more complex patients and even just being able to get ask more in-depth questions and giving them more in-depth experiences because they're more ready for those experiences than they are at the beginning.

Participants also discussed how busy the clinical setting is, and that because of this, it places a lot of stress on them to balance what needs to be done on the unit with supporting students in their learning of clinical judgment ("I'm a facilitator, but I also cannot expect to see everything that they do ..." - Jordan). Participants described occasionally feeling overburdened by excessive demands and being spread too thin ("And I try my best but being on 3 units. It's a circle, so I feel like a hamster in a wheel." - Kerry). They recognized that learning to prioritize and manage their time is important, but they still feel this can be a struggle at times. They also mentioned that when a student is struggling, that student can take a considerable amount of their time to properly support them, taking time away from the rest of the group. Participants felt that all students need

the instructor for guidance and support and finding that balance can be very difficult.

Limited experiences. Limited experiences refer to a lack of opportunities for students to experience a range of skills and other variables within the confines of a particular clinical setting. Participants described the value of exposure to a variety of learning experiences within the clinical environment, but felt that some clinical units provide less exposure to learning opportunities for students. They suggested that this could lead to a loss of opportunities to explore clinical judgment. Participants talked about taking advantage of the opportunities where they could find them and creating them when they were not readily available. Kerry described using questioning of observational experiences as a way to develop thinking: "'In retrospect, how would you handle it? How would you approach the patient differently? Is there anything else that you think the staff should know?' from the student's perspective." Some felt that when variety wasn't possible, that consistency in patient assignment could help, because students could reflect on patient progression.

Participants also discussed the value of alternative experiences such as: running mock codes, case studies, and observational experiences such as watching a central line insertion. They felt these additional experiences increased awareness which then helps the student expand their thinking. Morgan explained the value of these alternative observational experiences:

> … I feel like sometimes they don't understand why aseptic technique is so important. But then when they see a procedure, or

> they have a better understanding of complications, like a blocked PICC line for example. They get the chance to watch a certified nurse unblock a PICC line and … this is putting the [patient] through a lot and if we can try our very best when we're doing our PICC line care or whichever type of procedure to maintain aseptic technique and to do the proper flushing and to promote comfort as we're doing those things.

***Additional demands*.** Additional demands are those that may be either within the course or external to it and reduce the effectiveness of teaching and learning that occurs in the clinical setting. Several different additional demands were identified by study participants. These additional stresses included: external demands (such as employment), extended time studying, and additional assignments. Concerns were expressed that hours completing the expected clinical preparation or working on assignments that are part of the evaluation requirements for the course can drain the student, leaving them tired. Jordan described the effect of these demands on students and instructors:

> And I think, for me, things that hinder are too many demands on the students and myself, and that can be in the way of tasks on the unit, it can be in the way of the number of assignments and things that we'd want our students to do, because that involves us too. But then, students don't have the time to really think about what they're doing and they're not relaxed.

Participants recognized that assignments can give them another

perspective of the student's capabilities, but they can place considerable pressure on the students, as well as increase the instructor workload and stress. It was felt that pass/fail clinical experiences eases some of the pressure created by the evaluative component, because the grading within the clinical course changes the student-instructor relationship and can make students more hesitant to work with the instructor.

Interpersonal Conflict. Interpersonal conflict was described by the instructors as potentially having a big effect on the way in which both individual students and the group as a whole function. They also described some measures to help reduce this impact. The specific interpersonal conflicts that were discussed included these three areas: within the student group, nursing culture, and interactions with staff.

Within the student group. Interpersonal conflict within the student group can result when student personalities are not compatible. Participants explained that students are individuals, and groups can vary considerably from one another. It was felt that some student groups pull together well, mentor each other, and work together. Participants found that sometimes conflicting personalities will create tension and the students within the group may not get along with each other. They also felt that when there is no strong student leader, there can be difficulties within the student group. Participants identified the instructor as having an important role in leadership, building trust, and helping students explore how to navigate these difficult situations. Direct communications and instructor support were recommended to stabilize this type of group. They

suggested that it is important to remember that many students are afraid of conflict, leaving them feeling uncertain in these situations. Morgan described the instructor role within challenging groups:

> … I've had groups where you miss that strong student leader, and they're early in the program, and they're quite unconfident, and they don't get along with each other, and you feel like you have to take a very strong leadership role.

Nursing culture. Interpersonal conflict as it relates to nursing culture can stem from changes in the way in which nurses are taught. There were a few different concerns with respect to nursing culture that were identified by participants. Instructors discussed the differences in the educational process of university/college-based training compared to the hospital-based training of the past. They described the hospital-based training as being more apprenticeship type model and while there was some time spent in class, most of the time was spent in the hospitals observing before doing. Alex described the impact of this 'observation before doing' educational model of the past: "'They should just watch me.' But the student doesn't understand how you came to that clinical decision." Instructors felt that some of the hospital-trained nurses might feel a bit threatened by the changes in entry to practice, educational expectations, and the level of questioning students are expected to develop. It was suggested that as hospital-trained nurses retire that there will be a shift in nursing culture.

Another concern regarding nursing culture is what participants felt was a lack of awareness of the professional expectation that they will mentor the

incoming generation of nurses. It was suggested that perhaps involvement of the colleges could help improve awareness in this respect. Another component of nursing culture mentioned was the challenges nurses face in accepting/owning that they may have a knowledge deficit, described by Alex:

> And we know that nurses are fallible people and they make mistakes. But that's a cultural thing … I feel that in nursing, when mistakes are made, the excuses are often, "Well, they work long shifts. They don't sleep well." There is all these … emotional reasons why people have made mistakes. … I think we need to be more able to say, "You don't have the knowledge to answer that question. And that's okay. But how are you gonna get it?"

***Interactions with staff*.** Interpersonal conflict as it relates to interactions with staff refers to those conflicts that can arise between students and staff, as well as between instructors and staff. These conflicts can be particularly concerning for students, since it can leave them feeling confused and conflicted. Interactions with staff was the largest sub-section within interpersonal conflict, and all participants shared thoughts on this matter. Participants identified many different factors which may influence staff receptivity, or willingness to engage, with students; and that it's a nursing responsibility to mentor the next generation. These include: lack of confidence in their knowledge and ability to communicate, feeling overwhelmed with added responsibilities, time constraints on busy units, and worried about doing a good job teaching. Additionally, it was felt that because staff nurses usually see several cohorts of students each year, they tend to

be less invested in their learning process as compared to a preceptor student. It was felt that when the instructor gets to know the unit routines and policies, this helps the instructor build relational bridges with the staff.

Study participants report that they encourage students to communicate regularly with their primary nurse, this can help build the student-staff relationship. They recommend that students introduce themselves at the start of the shift and share their plan of care as an important first step. During this conversation, participants stated that it may become necessary to adapt the plan of care to accommodate for priorities that are viewed differently or to include specific care expectations of the staff. They also encourage students to continue communicating throughout the day with their primary nurse. Morgan explained:

> … I always encourage my students to have a discussion right at the start of their shift with their primary nurse to share with them what their nursing process/plan is and to have a bit of a two-way dialogue about what the plan is for the day and I'm always available to be at those discussions as they need me to and throughout the rotation.

Participants suggested that when there is conflict between staff and instructor on how to approach a specific situation, students tend to feel torn between these conflicting ideas or advice. They felt that is it valuable for the students to learn to compromise, when appropriate, but when there is something that is clearly off, it may be necessary to check with the nurse educator for the unit to confirm appropriate policy/procedure. Participants described interactions

early in the term as overwhelmingly intimidating for students, but this improves as the term progresses.

Participants felt that their communication with staff needs to include a few different pieces of information. They felt it was important that staff members know where students are in their program, so they know what types of tasks students will be able to complete with the patient, and that as this changes through the term, they need to be updated throughout, preferably at least once per week. Participants also discussed the need to have a clear idea of what the expectations are regarding student performance. They explained that the purpose of the clinical experience needs to be communicated clearly, because often students are viewed as adjunctive staff, yet they are not experienced nurses. Participants reported that one cause of conflict arises from staff having unrealistic expectations on student performance and thinking. Alex explained:

> … sometimes those 25-year nurses expect students to be a 25-year nurse and not a novice nurse…. And sometimes we might be expecting too much out of their clinical judgment. And nurses I sometimes see on units are not leaving space for a student to have discussions, to share their thoughts about a patient.

The staff-instructor partnership was identified as having a significant impact on the student experience. Participants felt that this collaboration can significantly reduce the pressure on clinical instructors. It was felt that often instructors rely on staff to help guide and support students. Participants discussed how they can help support staff in the teaching and mentoring role helping them

feel more comfortable in their interactions with students. These included: giving the staff tools (questioning, think aloud, explaining rationale and decision-making), encouraging reflection on practice, empowering the staff to have those interactions and to provide feedback to the students.

Participants recognized the valuable contributions unit staff make to the student learning experience ("The primary nurses are really important parts…. because they share so much expertise as well as that experience part." - Jordan). When asking a staff nurse to complete something with a student, it was suggested that the instructor should explain why they cannot be present, such as what else is being done. They also felt that conversations between instructors and staff should include positive feedback and encouragement, just as students want to do well and respond to this positive encouragement, so do staff. Riley described:

> … throughout the clinical day I would engage with staff and provide them positive feedback actually.… It's nurturing that relationship with staff "oh, that was great teaching with the students. Thanks for getting back to them there. Thanks for helping me out.…" And I become more explicit in telling them that sometimes, not all doing is learning, and so I've always encouraged the staff to ask them critical thinking questions. The what ifs, what will happen now?

Study participants felt that because students' interpersonal conflict skills typically are not well developed, they tend to avoid crucial conversations. They suggested that the instructor needs to be supportive of students, assertively

advocate for them when appropriate, and be willing to intervene on their behalf. It was suggested that if the student is going to be having a difficult discussion with the nurse, it may be important for the instructor to be present, depending on the student. Jordan described initially guiding the student to manage the situation before stepping in on behalf of the student:

> Usually, if it's not clicking, and of course there are going to be some primary nurses who are more nurturing than others, and different ones have different strengths, so again that's part of knowing your unit a little bit, that oftentimes I will have the students try and work out a strategy so that they can work with that primary nurse. If that doesn't work, talk to the primary nurse. If that doesn't work, very seldom do I have to go to the manager.

Riley described taking a stronger stance when needed:

> … there are only a few instances that I really had to talk to the person directly because I thought it's being rude to the students…. I've learned throughout the years too, how to tell them in a way that encourages reflection and why I felt it was rude to the students.

Participants stated that oftentimes the instructor role requires that they be adept at that PR, building bridges component, this requires a considerable amount of tact. Where this falls apart, participants reported feeling as if they sometimes overcompensate in their interactions with students. It was felt that staff bullying of students occurs rarely, and in these situations, it may be necessary to bring the

unit manager or charge nurse into the conversation to resolve the conflict if it cannot be resolved between the staff and the instructor. They also recommend holding update meetings with the manager to help build and maintain a strong instructor-manager relationship.

Student Factors. Several different student factors were identified by study participants as potentially hindering the development of clinical judgment within the clinical course. The subthemes related to student factors were: personal challenges, knowledge integration, and poor performance.

***Personal challenges*.** Personal challenges are factors that may influence each student to varying degrees, and may hinder their ability to successfully progress in their development of clinical judgment. Study participants discussed many different personal challenges that students face that often stem from being young and inexperienced in life as well as the challenging and overwhelming nature of the clinical setting. Participants thought that students may feel as if their opinions aren't valued, and they may feel overwhelmed by the considerable distance between where they are as students and where they see experienced nurses to be; they feel like it's too far in the distance ("And they feel like they're starting 100 feet from the start line. They feel like they'll never catch up, they'll never be at that place." - Alex). Participants felt that the main challenges for students were lack of confidence, fear, facing difficult experiences, balance, and different motivations.

Lack of confidence. While some students lack confidence in their knowledge, participants felt that with some students, there is a lack of self-esteem

that holds them back from interacting as much as the more confident students ("What hinders critical thinking at times … is a lack of confidence. And it's not that cognitive lack of confidence where they think they don't know the information, its self-esteem…" - Alex). Participants described these types of students as generally preferring to observe before doing and wanting to feel more certain about what they are thinking before sharing it. Some ways suggested to support these students included getting more confident students to mentor them and having instructors openly share their own moments when they have lacked confidence. Participants felt that sharing stories of their own challenging times, along with sharing their imperfections and errors, can help students see the humanity in nurses. One participant mentioned gender differences in relation to confidence.

Fear. Study participants discussed how fear is something that many students experience in clinical. They report that students are scared to make mistakes, scared to speak up, and that they are vulnerable. They recommended that this should be acknowledged by instructors. Participants discussed several ways to help students with fear, including: acknowledging fear, validating fear, and normalizing fear. They felt that students should know that it's okay for them to be afraid, that it is a temporary reaction, and that will pass. With regards to fear, Jordan explained:

> I acknowledge, I validate the fearfulness, I say, "It's okay. I'd rather see you afraid. And I'll say .... that's really normal." and just because you're afraid right now doesn't mean that you'll be afraid

forever.

Study participants identified the evaluative process as one of the things students fear. Participants discussed using shared evaluation as a way to keep communication about student performance in the open. They expect students to self-evaluate throughout the term, and they (participants) then need to respond to those evaluations to ensure both are on the same page. Participants thought that students feel safer with this process, because they feel they have more say in the evaluative process. Participants also felt that pass/fail clinical courses reduced the students' fear of working with instructors. Participants felt that they support students by spending one on one time with each student and trying to get to know them.

Facing difficult experiences. Participants discussed how students can have a strong reaction to the clinical environment, having occasionally difficult days, be it through a decline in patient condition, or through difficult interpersonal interactions. Participants recommended a few strategies to help students during these difficult times. These strategies included: going for a walk with the student to a comfortable place (for example, the chapel), walking side-by-side with the student, giving them privacy, if they prefer that solitude, or letting them cry, if they need that emotional release. Participants suggest giving the student space to talk if that's what they choose but to remember that instructors are not therapists. Kerry described supporting students through these difficult moments:

> I usually just give them privacy and take them for a walk I have quite a few students who have had… like one student had a

> grandparent who was newly diagnosed with [medical condition], their grandma, or their Memaw. So that's traumatizing for the student, because this is their grandma. So, we had to make a lot of trips to the chapel and let her cry. And I walked with her side by side, because she was overwhelmed, it was intimidating, it was overwhelming.

Balance. Participants also described how students may have difficulties balancing external factors. They suggested that these may include familial or personal relationship difficulties, employment, or excessive studying. They felt that these added pressures lead to students not getting enough sleep and thereby not being relaxed or enjoying their learning experiences ("So, … are they tired? Do they work outside of here? Like how much time are they putting in outside of the clinical placement? That I think hinders a lot of clinical judgment." - Alex). Participants felt that recognizing that something is having a negative influence on the student is the first step. Similar to recommendations for other student struggles, participants recommend ensuring that the student feels that they are in a safe environment and to give them space to discuss their concerns, respect for their concerns, and privacy if the student prefers to not discuss whatever is going on. Alex described a conversation with a student about potential concerns where outside factors were potentially influencing clinical performance:

> … I would never tell a student to reveal to me things they don't wanna reveal personally but if I see someone struggling, I like to bring them aside and say, "What's going on? You don't have to tell

> me but if something's going on you maybe just need to give me an idea of where you're at with that. That, is it gonna impact, because I see it impacting your clinical abilities here and how can I help you with that?"

Different motivations. Participants also discussed the influences of motivation. Although ideally students would be internally motivated to learn as much as they can and to get as much out of their clinical experiences, participants felt that this was not always the case. They recognized that some students have external forces placing pressure on them as motivation to be in nursing. Riley explained: "But on the other hand, I think, the assumption that students come to clinical or nursing education to learn, is not always the case. Right? So, it's not always the case. You don't want to learn, always."

Knowledge integration. Knowledge integration refers to how students integrate the knowledge they have learned through classroom and lab courses as well as their own personal knowledge with the knowledge they learn in clinical to develop their overall practice as well as their clinical judgment. Participants discussed many different aspects within knowledge integration that influence the development of clinical judgment in their students. These areas included: structure, research and care planning, reflection, practice, theory-practice gap, and becoming independent.

Structure. Study participants discussed how all students need some guidelines for their own safety as well as the safety of their patients. They recognized that some students need more guidance than others, however, for

others, too many rules can hand-tie them and prevent them from getting the experiences they need. They reported that students like to have checklists, things they can check off (particularly skills) that help them feel like they are striving towards the final goal. Some can be helpful, but too many checklists can be restrictive and lead to students focusing on the tasks rather than the process.

Research and care planning. Study participants discussed the importance of students having a strong knowledge base and then tying these pieces together to develop a care plan that ensures the patient is safe while in their care. They want to see that this care plan is protective, predictive, and integrative. Participants discussed reviewing research with the students and ensuring they have a plan in place, and if they feel something is off, they review the patient preparation work in greater detail. Jordan explained doing a quick check "… at the beginning of the day or the shift, I always go around and touch base with every student to make sure that they have a plan…. if something seems a little odd, I'll say, 'Show me your work.'"

Participants discussed the use of concept maps in student research, and how they encourage students to think about the whole patient; pulling together lab values, medications, comorbidities, determinants of health, etc. They felt this type of prep helps students connect the individual pieces of the research and integrate it into the care plan, which also needs to include interventions, monitoring, and follow up assessment. Participants encourage repetition over memorization.

Reflection. Participants discussed the use of conference time and debriefing sessions to help students reflect on situations they experience in the

clinical setting. They encourage students to look back on a situation and think about what they would do differently or what types of things contributed to the decision they made. Participants felt that giving the students time to reflect can increase their self-awareness, in particular about what additional information they may need in the future. Alex explained that students require more time to reflect and think about their experiences:

> … very experienced nurse might be able to tell you quite quickly like, "This is why; I saw this", a student sometimes might actually not really be aware right away as to how they came to that conclusion. And they might need some time to think. "How did I come to that?"

Through questioning, the participants felt they can increase student curiosity and better facilitate deeper understanding. They also felt that it was important for students to be comfortable in the learning environment; enough that they feel they can say "I don't know" or even to say something and be wrong. In contrast to reflection, participants discussed helping students explore the "what if" and "what next" of any given clinical situation helps them extend beyond the moment.

Practice. Participants felt that oftentimes students become focused on tasks and completing new skills. Participants had several methods to manage this, including: encouraging broader thinking and broader perspective, explaining rationale, explore "what if" and "what now," showing students that nursing is more than tasks, giving them time and space to think, focusing on process,

inquiring about their thinking, exploring consequences for decisions, and making their own thinking explicit/visible. They felt that despite these strategies, sometimes it is hard to get students to focus beyond those skills. It was felt that reminding students that nurses are not remembered for the way they completed a task, but for the way they cared for the patient, advocated for them, problem-solved for them, and made them feel like they were a priority can be helpful in getting students to focus beyond the tasks. Morgan explained it this way:

> … for me, as a registered nurse, my excellent care isn't going to be remembered from the way I hung their IV bag or the way that I inserted their IV…. But the way that you advocate for your patient, for example, or the way you problem-solve…. Those kinds of things will make a big difference in your patient's life and that they will remember you for those kinds of things.

Study participants discuss the importance of students completing tasks/skills safely and that they will learn to master them over time. They felt that students can't learn strictly through observation, they need to do tasks because the important part of mastery is repetition, practice, and time to help them gain confidence ("I think what's most important is for students to get out there and to be able to get the experience and learn within themselves." - Jordan). Participants also discussed the value of allowing students to make safe mistakes, so they can learn to adapt and grow in their practice and their thinking, through considering what now, what can be changed for next time, or how can I proceed from here. Finally, participants suggested that when mistakes happen, to focus on the

positive. Kerry explained focusing on the positive, “I use a lot of positive affirmation and I focus on the areas they’ve done well. And I say ‘well tomorrow you get to practice on the stuff you need to practice on.’”

Theory-practice gap. Participants described the theory-practice gap (also called cognitive dissonance or incongruence in practice) as occurring when what students learn in classroom or in their books doesn’t match with the practice they see on the units. They felt that debriefing and discussion were the best way to support students facing this. Additionally, participants said that they encourage students to think beyond nursing and to consider interdisciplinary and intersectoral thinking, although nursing has a specialized language, it is still a human experience. Riley described encouraging students to question what they are seeing and how it is approached “I call that cognitive dissonance…. but then I tell the students ‘so, how do you navigate this and have a curious attitude.’”

Becoming independent. Study participants reported that students will develop more independence over time, make more connections within their research, will learn to adapt their focus based on situational context, will become more assertive, and better at managing their day. Participants stated that as the term progresses and students demonstrate consistent behaviours, they are ready to take on more and will be advanced to increasingly complex patients, given more to manage, and become increasingly autonomous. As this happens, participants suggest taking a step back to give the student space, but to continue to be a supportive guide. Morgan described this as differing throughout the term as well as between students:

> … I think you almost have to have an understanding for where they're at in their program, but also to figure out there might be one student in the group like you said that's like "yep, let me take the lead I feel confident my knowledge-base this year"

***Poor performance*.** Poor performance refers to situations where students are struggling to implement the knowledge that they have learned in a manner that demonstrates safe and competent care for their patients within the clinical setting. Participants described many different reasons why a student may perform poorly in the clinical setting. These reasons include: lack of confidence, over confident, not preparing, knowledge deficit, language barrier, unsafe practices (compromising patient safety), lack of insight, insufficient motivation, not engaging, not meeting course expectations, and lack of awareness. They felt that once a concerning pattern of behaviour has been noted, it is important to have a direct and explicit conversation with that student. Participants suggested describing the concerning behavior and what the expectations are, obtaining the student's perspective, describe why the behaviour is of concern, develop a mutual plan for improvement, and then give the student the onus to take ownership. Riley described using an advocacy inquiry approach to gain insight into student perspective:

> So, I would use this specific script: "So, Nicole [principle investigator], I see you in the last few days, you are not particularly engaged because of this, this, and that" - these are specific examples I would see – "I would ask you to get back to me about

> this specific question, and I told you to come back to me later, at a later time or the next day, and did not come to me." So that's my observation, and I would put in my view "I feel like you're not engaged, and it's important for me that you are engaged, not only because it's one of the nursing competencies required to pass this course, but also allows you to be engaged in learning I'm curious to see where you're coming from."

Participants discussed how students may lack awareness of what went into the decisions they are making. It was felt that when nurses and instructors talk through their decision-making process it helps to make thinking visible to students. Participants mentioned how some students may also defer their judgment for that of one of the unit nurses, assuming that experience equals good judgment; in these situations, students may not know why a particular choice was made ("… when someone tells you something, so you do it. So, what are you relying on there? You're relying on your knowledge that, 'Oh, this person is a very experienced nurse, so they should make good clinical judgment.'" - Alex). It was felt that this is a missed opportunity for students to develop their clinical judgment. It was also felt that awareness may be lacking with regards to complications because, until it is seen with an actual person, much of what students learn about complications don't seem real to them; rare complications may not be seen during a clinical course, and the rational for procedural protocol may not seem as important.

Advice for New Clinical Instructors

Study participants were asked if they had any advice for new clinical instructors. Analysis of the responses to this question revealed the following themes: instructor factors, support system, further education, instructor-student relationship, and practice environment. Findings from this section are represented in the concept map in Appendix C on page 218.

Instructor Factors. Participants discussed many different instructor factors that, because of how influential the instructor role can be on students, has the potential to impact the judgment of nursing students. They mention that the transition from being an expert as a staff nurse to being a novice instructor is a very humbling experience, that it takes time to adapt to the new role, and that being new often leads to questioning oneself in times of turmoil in the clinical setting. They describe instructing as being a very unique role that can be overwhelming at times. Participants felt that maintaining that humility can help in building relationships with others. It is also important for new instructors to not expect that they will be expert instructors right away, and to consider themselves on a continuum of novice to expert as described by Patricia Benner, and they are still learning ("… having this humility, intellectual humility, I call it in terms of being open to learning." - Riley). Even experienced instructors are still learning. Morgan explained this process of moving into an unfamiliar role:

> And I do think it can be humbling to move from a position where maybe you're very comfortable as a staff nurse, you're really comfortable in your role and how you manage your daily care, and then you move into the role of working with students. And

> suddenly, I almost feel like you're compromising a little bit more when it comes to the way you'd approach a patient. Not in a bad way, but suddenly it's your opinion about how to manage a certain situation, alongside of the student, and alongside of a primary nurse.

Study participants described many great attributes that novice instructors bring with them. These include: being closer to where the students are coming from and having fresher experience with providing direct care ("So, new instructors, I think, have a lot to offer and oftentimes, they're closer to where their students are coming from… they have that firsthand, direct care experience that's really fresh." - Jordan). Instructors should try to remember being a student ("I think they need to remember that they were once a student…" - Kerry). Participants also mentioned that new instructors have good ideas and lots to offer, including a fresh perspective.

Participants suggested that novice instructors need to: reflect on their practice, be curious of the students and their thoughts, trust themselves, be flexible, be aware of their own non-verbal communication, communicate clearly, be self-aware, develop a philosophy of teaching, and explore their perceptions of thinking and judgment. Morgan described the value of knowing who you are as an instructor:

> There's some really interesting articles out there about clinical instructing, and that transition from being a staff nurse to being an educator. And so, once I started getting into more of those… I

> started thinking about ‘who am I as an educator?’ and developing my own teaching philosophy.

Participants encouraged new instructors to do their best, prepare when possible (“… ensuring that I'm prepared to be in a clinical setting, so if something's coming up that I haven't done in a long time, then I need to go back and review…” - Alex), but accept that they will not be able to prepare for all situations (“So, you just don't know what's gonna come at you, but I think being flexible, trying not to be too rigid, that sometimes you have to give leeway to things and just do the best you can with that.” - Alex). Balancing external factors, while continuing to evolve in that teaching role, will help make teaching a more rewarding experience. Kerry described the importance of having patience and remembering that instructors are there to serve students:

> I think patience, be aware of cultural context when they're coming in, like some clinical judgment is scary for somebody who is used … saying “yes teacher” and then suddenly, you know, “what do you think you can do to increase the well-being of this patient? … and then they freeze…. So, a lot of patience and realizing, you know, I've been a nurse for 26 years and I'm still learning. You know, humility, we’re there to serve students.

Support System. Participants suggested finding a mentor, someone they respect, has experience and knowledge, someone they feel comfortable confiding in (“… seek out people of knowledge that, maybe have done this and that you respect their way of teaching.” - Alex). Study participants also encourage new

instructors to nurture a partnership with clinical staff ("I would also advise new clinical instructors to recognize the importance… of the engagement with our clinical partners, and their clinical nursing staff. To empower them, and to help them become partners..." - Riley). They felt that clinical staff can be a valuable resource and role model for students and can take some of the pressure off instructors through delegation to trusted, reliable staff. Participants suggested that when staff have been empowered, they can successfully support students in their clinical experiences. They reported that finding staff strengths, knowing where they are weaker, as well as getting to know the unit (buddy shifts are important) and awareness of unit resources all help support the instructor.

Instructors also discussed the important role of the educational institutions that employ clinical instructors. They mentioned the value of orientation sessions and pondered if hiring processes could be managed differently. They mentioned that last minute hires, assignment changes, etc. can all influence the effectiveness of orientation (or if they can even attend) for instructors. Participants felt that keeping instructors on the same units can help them become comfortable on that unit while they explore their teaching role. The importance of building community for instructors was also mentioned here. Alex explained: "… educators are always gone. They're rarely [on campus], so that connection to the school can be lost…. so, kind of a lack of community for instructors.… Because they're kind of separate."

The other concern participants brought up was the need for meaningful feedback. They felt that while student feedback is often solicited, they wonder if

there are alternatives so that instructors can hear what they are doing well and where they could adapt through a more formal feedback process. Peer evaluation was mentioned as one possibility. They suggest further consideration needs to be given to instructor feedback. Morgan discussed the importance of meaningful feedback:

> … how can we increase the amount of feedback we get from students? And also, is there a way we can provide feedback whether it's peer review or one clinical instructor gives feedback to another? How we can improve our teaching or be more formal evaluation processes? Something so that instructors are getting meaningful feedback about things are doing a great job at and they may never know, or things that they could also be doing.

Further Education. Study participants all discussed the value of ongoing education and remaining open to learning more ("You can be an expert nurse, that doesn't mean you're a great teacher right off at the beginning. So, I think that's where the professional development is very helpful" - Morgan). They spoke of how instructors can't know everything, particularly as novice instructors, but even experienced instructors are still learners ("I think also that it's okay to not know everything when a student asks you something or you're faced with a challenge…" - Alex). Participants felt that by accepting that there are limitations in knowledge, instructors can continue to build an evidence-based teaching practice ("I think that's important. To read more, to learn, to have an evidence-based teaching practice" - Riley). They also felt that as novice instructors evolve

into the teaching role, they are better able to promote clinical judgment.

Educational suggestions included: reading articles and books, taking masters level courses, and instructional certificate programs. Participants suggested that instructors should learn specific teaching strategies, adult learning theory, strategies to overcome the challenges faced in the clinical setting, how to ask the right questions, as well as unit specific knowledge. Morgan described the importance of asking the right questions:

> … if you're not asking the right questions to your students, you're not going to facilitate their clinical judgment. You're only asking them questions about let's say "tell me about what pneumonia is" and that's, let's say, the only question I ask my students before they go on the floor. So then, I'm going to have no idea about what kind of priorities they think are necessary…. I'm not going to have any idea about what their skill base is when it comes [to] approaching that patient. I'm not going to have any idea about how they would manage complications that might arise during the shift. So, I do think investing in learning how to work with adult learners and how to ask those questions and what the right questions are will really help build clinical judgment.

Instructor-Student Relationship. Study participants spoke of the incredibly important role the instructor-student relationship plays in the success of the clinical experience. They felt there needs to be a strong professional and yet emotional connection and because of the smaller group size, it is a more intimate

relationship and can be fragile (“That emotional connection is vital. That professional connection, in a way that nourishes that safe environment, is critical. Sometimes there’s that one incident that may break it, could really affect how everything goes for everyone.” - Riley). They stated that students should see their instructors as a dependable and safe person in whom they can confide, and that this strong connection nourishes a safe learning environment. Subthemes within this theme are: student variances, communication, expectations, and guidance.

***Student variances*.** Study participants discussed the need for instructors to be aware of how student individuality will influence their learning. They recognized that some students will be more scared or timid than others and therefore, may require additional support and encouragement to reduce their fear. Another variable mentioned by participants are the cultural differences, wherein certain cultures are not encouraged to question those in an authoritative position. Another consideration mentioned was that some students prefer a more structured learning environment. Participants felt that being aware of these differences can help the instructor tailor learning experiences. One final factor that was mention was having an awareness of individual student skill base. Kerry described allowing students to flounder a little bit, not rescuing them too early, allowing for more learning and growth: “… I find some instructors that are nervous especially in the beginning, they’ll let's say their student is doing vitals, and they're not, um, they can't get the cuff on, some instructors will just jump in and do it….”

***Communication*.** Participants felt that communication between students and instructors needs to go deeper than just asking questions. They suggested that

instructors need to ask the right questions and seek meaningful answers, all while observing signs in student body language. They also felt that the right questions will help instructors expose uncertainty, explore student thinking, and explore their unspoken thoughts. Study participants discussed how conversations should be kind yet clear in what is meant, and that they don't assume that the student understands ("… I think being kind but also very clear in your communication helps you to have those questions, ask students and then get more meaningful answers from them." - Morgan). They also suggested that instructors should encourage students to provide feedback.

Expectations. Participants discussed the importance of having realistic expectations; to accept that students will sometimes be wrong, and that's okay. They also reported holding themselves to the same level of expectations as they hold their students with regards to preparedness and knowledge ("I think my advice is to expect the same of yourself as you expect from your students." - Alex). They encouraged new instructors to be patient and curious about student thinking ("… one of the things I do is it's just, make myself curious 'I'm curious to know what do you think of this?'" – Kerry).

Guidance. Study participants reported viewing their role as one of support and guidance. They encourage instructors to encourage students in many different ways, including: problem-solving, priority setting, broader thinking, exploring nursing process, encourage curiosity, reflection on practice, and developing patient specific care. They felt that they needed to trust the students and their abilities and to help them gain confidence ("… trust your students. Trust their

abilities. You don't always have to be there at every point in time. So, trust your students, trust yourself." - Jordan). They felt part of their role was to guide students away from being focused solely on tasks and more on the whole picture.

Practice Environment. The clinical practice environment was described as being unique and complex. Four subthemes exist within this theme, these were: personalities, safe environment, space to practice, and reflective practice.

***Personalities*.** Participants described instructors as being in the middle of a triad of personalities that must all be balanced ("It's so difficult because you have staff personalities, you have patients, you have the students and they have their own lives." - Alex). They expressed feeling as if they sit in the middle between staff (and unit culture), students, and patients and how all three must be considered when managing the clinical experience.

Participants mentioned that student youthfulness and staff rigidity can make it difficult to navigate and find this balance. They also discussed the use of compromise where sometimes they felt they needed to adapt their plan, or the student's plan to ensure that staff and patients are happy, and so that unit policies and procedures as well as evidence-based care are maintained. They felt that, although challenging at times, as long as the core responsibilities are maintained, learning to negotiate and compromise is a valuable lesson for students and can create learning opportunities for all parties. Study participants suggested that the instructor has a lot of power to improve the clinical experience, despite challenges that can arise due to the variety of personalities.

Safe environment. Participants recommend that new instructors focus on

creating and maintaining a safe practice environment. They felt that the clinical environment can be unpredictable, and that the group dynamics can be fragile and fall apart with even a moment of lapse on the part of the clinical instructor. They discussed that mistakes will happen, and for the sake of patient safety, students need to feel like they are safe to give their opinions and explore their thoughts, and yet instructors need to monitor for safety issues that may compromise patient safety. Some of the benefits of having a safe space were described by Jordan: "… but the safety space, as well, to express their own thoughts to explore different options, as much as possible."

They suggested that part of this is ensuring that students aren't advanced too fast. They need to be ready to take on the next challenge (more patients, more complexities, etc.). They recommended ensuring that students are surrounded by support when they are facing difficult challenges, remaining flexible and patient, and letting them know they are safe. They also felt that sometimes students need to be able to vent when having a difficult time.

***Space to practice*.** Study participants felt that some structure is needed, but caution that being too rigid can hand-tie students. They suggested that students need space to explore options, consider multiple methods, get to know their patients, and to try different approaches (due to patient variability). Within this space, participants discussed the value of not being present at all times, not rescuing too quickly when a student is struggling, and not spoon feeding or babying them. They felt that this space within their practice gives students time to learn and grow to independence.

Participants reported feeling that their role was one of service to the student. They suggested that seeking learning opportunities or creating them when needed, gives students more opportunity to explore their practice. Participants had differing opinions on the variability of experiences. Some felt that variability challenges students to consider context when applying their knowledge. Others felt that having patient continuity allowed students to reflect on what they've tried and gives them time to try other strategies. It was suggested that both variability and consistency can help build clinical judgment. Kerry described the advantage of having patient continuity for the student:

> … I think continuity is really good in terms of … clinical judgment because you can evaluate what you done the day before and say "okay, is this working or could I have done it this way or that way?" …. she (the student) tried a different approach and you know she tried a couple of different things and eventually she was able to see what really works for this patient.

***Reflective practice*.** Participants talked about the importance of using and encouraging reflection on practice to help students build their judgment. They discussed how challenging experiences come up in the clinical setting, and that there is value in not protecting students from these experiences, while making it very clear that they are supported. They felt that these experiences can help students grow and learn how to manage challenges. Participants felt that helping students to reflect on their experiences, evaluate what worked and what they could do differently, and asking the right questions all help them build clinical

judgment. Kerry described the influence of reflection on judgment:

> I think clinical judgment grows on reflection as well. Because you have time to reflect "okay this is what I did, this is what happened, this is what I did right, this is what I would have liked to do, or this is what I'm going to do next time, this is who I will get involved next time."

Chapter 5. Discussion

The very nature of clinical teaching, the clinical setting, and the requirements of clinical courses themselves can present several different challenges for students and instructors. In this study, experienced clinical nursing instructors were asked to discuss their experiences with clinical judgment, including what they perceive clinical judgment to be, what factors they feel influence the development of clinical judgment in their students, and what advice they have for new clinical instructors. Participants described the complexities of clinical judgment and the many different factors in the clinical setting that influence the development of clinical judgment in their students. Some of the findings (presented in the previous chapter) are consistent with what is found in the existing literature and some new insights and perspectives were put forward which could be used to enhance clinical teaching practice in regards to promoting clinical judgment in nursing students during clinical courses. Following is a discussion of how the study findings fit with the existing literature as well as an exploration of possible implications for practice.

Significance of Findings in Relation to the Literature

The two central questions for this study were: How do experienced clinical nursing instructors understand clinical judgment? How do experienced clinical instructors facilitate the development of clinical judgment in their students? There were three sub questions: What helps the facilitation of clinical judgment in nursing students in the clinical setting? What hinders the facilitation of clinical judgment of nursing students in the clinical setting? How are hindrances

managed? Finally, participants were asked if they had any recommendations for new clinical instructors to help build their practice in relation to the facilitation of the development of clinical judgment in their students.

Understanding Clinical Judgment. Participants described different aspects of clinical judgment, rather than a specific definition. This is consistent with the literature and the lack of consensus on how to define clinical judgment and its related terms. There is considerable overlap with participant identified aspects and those found in the literature. Participants discussed the complex nuances of clinical judgment and identified it as being variable from one practitioner to another and evolving over time. If individual practitioners have variable perspectives on what it means, and the literature has failed to come to an agreed upon definition, one ponders if having that agreed upon definition is even possible or necessary.

Clinical judgment has been described in the literature as the process whereby data are collected, analyzed, and utilized to influence patient outcomes (Benner et al., 2009; Burruss & Popkess, 2012; Lasater, 2011; Standing, 2014). This summation of clinical judgment is similar to how study participants described important aspects of clinical judgment. They understand clinical judgment to include not only knowledge and assessment skills, but an awareness of appropriate resources to find any missing knowledge, and the need for there to be decisions made or actions taken to positively influence the outcome for the patient.

***Knowledge*.** Knowledge as it relates to clinical judgment is referring to the

existing knowledge that students possess. Study participants discussed a variety of types and origins of knowledge. They described knowledge as being more than just what is learned in classes, although classroom learning is a valuable contributor to the body of knowledge the student possesses. Both breadth and depth of knowledge were identified as being important, as well as an awareness of where gaps exist. The question "Do I know everything I need to know for this situation?" is an important question when considering breadth and depth of knowledge. If the answer to this is no, then the student needs to continue to collect further data.

Participants felt that part of knowledge requires that students know themselves, their emotions, their intuition, their abilities and limitations, as well as their past experiences, all brought together through reflection and self-awareness. This aligns with the literature that describes several factors that influence clinical judgment including: context, patient and nurse values, emotion and intuition, and experience (Burruss & Popkess, 2012; Benner et al., 2009; Koharchik et al., 2015; Standing, 2014; Wilber, 2014). Being self-aware, allows the practitioner to recognize when their own values and beliefs may influence their decisions (Gillespie, 2010).

Participants also discussed the importance of knowing the patient. Patient and family values can vary considerably between contexts and patients, so knowing the values of each specific patient becomes an important part of making decisions that will reflect those values (Burruss & Popkess, 2012; Wilber, 2014). Participants felt that all of these aspects of knowledge are required to make

effective decisions.

Acquisition of knowledge. Acquisition of knowledge is the data collection facet required for clinical judgment. It was described by participants as collecting data from multiple sources, including patient, scenario, and situational assessment along with the use of evidence-based resources, best practices, and interdisciplinary consideration. This aligns with the literature where the importance of skillful, accurate assessment is said to be needed in conjunction with appropriate researched sources to guide the practitioner in prioritization, leading to improved care (Pongmarutai, 2010; Standing, 2014; Wilber, 2014). Not only does the student need to be able to collect all of this information, judgment also includes the need to evaluate which of the findings are important (Standing, 2014). Knowledge and acquisition of knowledge are prerequisite to the use of knowledge, which is the portion of clinical judgment where care planning, patient-centred care, interventions, and monitoring are undertaken.

Use of knowledge. Patient-centred care is an integral part of nursing practice. Participants felt that patient-centred care requires a humanistic approach be taken during care planning to optimize patient outcomes. It also requires that students engage with patients in a mindful, caring manner. Benner et al. (2009) explain that the mark of expert clinical judgment is to incorporate their knowledge and the patient's values in decision-making that supports patients in reaching their health-related goals. When doing this, the skilled practitioner displays the ability to recognize what pieces of information are important, and what are extraneous (Benner et al., 2009).

Study participants felt that a decision or intervention was a necessary outcome of clinical judgment. They suggested that decisions or interventions need to be well-reasoned, evidence-based, and patient-centred. Once interventions are completed, follow up and monitoring then needs to be undertaken. This aligns with what was found during the literature review, regarding the need for decisions and follow up to occur as part of safe and competent practice (Del Bueno, 2005). Collected data are used to determine an appropriate response, whether that is to be an intervention (and which intervention) or to continue monitoring (Benner et al., 2009; Tanner, 2006). This ongoing monitoring along with timely and appropriate interventions are core nursing responsibilities and important for keeping patients safe (Wilber, 2014).

Facilitation of Clinical Judgment. Teaching clinical judgment in the clinical setting requires intentional focus on a variety of teaching and learning activities that support well-reasoned thinking, it doesn't happen by accident (Krautscheid & Brown, 2014; Van Graan, 2014). Study participants spoke of the influence instructors can have on the experiences and growth of their students through teaching strategies, ensuring appropriate supports, and through managing and reducing the impact of hindrances. The importance of the role of nursing instructors is echoed in the literature, which states that instructors have considerable influence on the practice and the success of nursing students (Borhani et al., 2010; Esmaeili et al., 2014; Okoronkwo et al., 2013). The intersection of findings for this study in combination with what is reported in the literature strongly suggests that when it comes to the development of clinical

judgment in nursing students, teaching matters.

Within the literature, several different methods of teaching were described, including: reflective journals, high fidelity simulation, debriefing, case studies, grand rounds, think aloud, concept mapping, student dyads, empowerment, peer teaching, formative feedback, and critical questioning. Descriptions along with the advantages and disadvantages of these teaching strategies were summarized in the chart in the literature review of chapter 2, pages 52-56. Study participants did discuss most of these strategies and their experiences with them to varying degrees.

From the literature review: clinical instructors have several obligations to students, including: facilitation of learning, aligning student praxis with program expectations, providing guidance and facilitating clinical judgment, building confidence, promoting knowledge and skill development, role modelling professional and ethical behaviours and strong leadership, ensuring patient safety, helping bridge the gap between theory and practice, and effective evaluation and communication; all while being able to adapt to different learning styles (Allen et al., 2012; Anderson, 2011; Asadizaker et al., 2015; Babenko-Mould et al., 2012; Borhani et al., 2010; Boyer et al., 2015; Esmaeili et al., 2014; Imanipour & Jalili, 2016; Lasater, 2011; Montgomery et al., 2014; Pouralizadeh et al., 2017; Samuels & Leveille, 2010; Stokes & Kost, 2012). Study participants discussed each of these important instructor responsibilities and how they can influence the student-instructor relationship.

***Collaborative conversations*.** Study participants identified collaboration

with students as being an important support to the development of clinical judgment. They felt that guiding conversations that challenge student's knowledge, thoughts, and perceptions, were an important part of helping students explore their practice. This is reflected in the literature, where coaching and critical questioning were identified by Del Bueno (2005) as being valuable tools to help build clinical judgment in the clinical setting.

Critical questioning was used by participants to explore not only student knowledge, but also how they are applying this knowledge to the patient using the nursing process. It was also used as a way to clarify, focus, and guide student thinking. Although the study was focused on critical thinking, the study by Huang et al. (2016) looked at how instructors promoted higher order thinking in their students. As with study participants here, faculty in the Huang et al. (2016) study used questioning to elicit student thought processes, to expand or push student thinking, all while focusing on the thinking process rather than the outcome.

Other collaborative efforts included those undertaken between the students themselves (for example, sharing case studies and brainstorming), as well as other methods such as role modelling (instructor and staff nurses as role models) and alternative experiences (such as interdisciplinary meetings). This sharing of thoughts amongst students, staff, and instructors can help students explore other perspectives on the clinical situation (Huang et al., 2016).

***Knowledge integration/bigger picture*.** Participants discussed the value of the clinical experience in helping students integrate knowledge that they have learned in class and lab into a holistic, patient-centred picture. Nursing students

learn in classrooms, skills labs, and in the clinical setting; all of which are important, but the clinical setting is pivotal to integration of the knowledge learned in the other areas (Benner et al., 2010; Montgomery et al., 2014) Huang et al. (2016) describe the clinical setting as being the ultimate case-based and patient-centred learning opportunity. Questions about the patient perspective were suggested to help guide students in keeping the patient in the centre of the learning experience. This complete picture was felt to be necessary for comprehensive care planning. Methods that were identified to help this integration of knowledge included the use of concept maps and case studies.

Study participants felt that concept maps were useful to not only connect ideas, but also to help students identify gaps, while making their thinking more visible to both students and instructors. Concept maps were described in the literature as demonstrating relationships between concepts (diagnoses, symptoms, interventions, etc.) that represents student knowledge while helping them organize and explore their thinking (Gerdeman et al., 2013). Gerdeman et al. (2013) express the same ideas as study participants with respect to concept maps helping students develop a complete picture of their patient while identifying knowledge gaps. Additionally, within the literature, students reported feeling that the use of concept mapping, in conjunction with a rubric, helped their clinical judgment through improving their awareness and focus on what is important (Kaddoura, VanDyke, Cheng, & Shea-Foisy, 2016).

***Context extension*.** Participants explained that using specific questions such as “what ifs” or changing some details can help push the student’s thoughts

beyond the context of that specific situation. Exploring the next steps (such as reporting or monitoring), or considering alternatives, and looking at the role others play were also identified as ways to expand thinking. The process of context extension was referred to as "zooming in and out" by Huang et al. (2016), whereby students are encouraged to expand their existing or current experiences and apply them to patients in other contexts (p. 242). Participants felt that this helped students tie in what they learn from this situation to what might come up in other situations, as well as help them see that there may be more than one answer or one perspective. Role playing was also used here, where students were asked to give a mock report to build confidence in communication.

Factors that Support the Facilitation of Clinical Judgment. Although participants discussed the influence of patient, staff, and unit factors, they identified students and instructors as being the strongest players/factors influencing the development of clinical judgment in students within the clinical setting. All of these players were reported to introduce variability to the practice setting through their unique individuality. The value of taking into consideration the factors that influence clinical judgment when choosing teaching strategies is that instructors are better able to guide students towards insight into their thinking and help them navigate the clinical environment (Stokes & Kost, 2012; Tanner, 2006; Van Graan, 2014). Safe space/safe learning environment, student ownership, and instructor adaptability were the categories of factors described by participants as influencing clinical judgment.

Safe learning environment. Participants discussed the positive impact of

having a safe learning environment on the students' ability to explore their practice and improving their comfort in exploring clinical judgment. The literature reported that an effective instructor along with a safe space provides better opportunities for developing clinical judgment, but it doesn't guarantee that clinical judgment will develop (Babenko-Mould et al., 2012; Okoronkwo et al., 2013). Some discomfort within a safe space can be beneficial for students to learn to navigate these situations, however, this discomfort can't be allowed to devolve to a destructive point (Kisfalvi & Oliver, 2015).

Participants felt that creating a safe learning space required intentional action and focus from both the instructor and the students, and hopefully the agency staff nurses (because they have such a strong influence). They suggested that having conversations with students about the qualities of a safe space, building both professional and emotional connection between instructor and student helps to create this safe space. Once the space has been developed, they discussed holding both themselves and students accountable to the expectations, as well as eliciting student feedback on how they perceive the clinical space. In alignment with what participants have said, the literature reported that creating the safe environment early, nonjudgment, reflection, mutual respect, ground rules, role modelling, honesty, and listening are all considered cornerstones to developing a safe space (Kisfalvi & Oliver, 2015; Okoronkwo et al., 2013).

***Student factors*.** Several student specific factors were discussed by participants: inquisitiveness, mindfulness, eagerness to learn, self-awareness, self-reflection, confidence, past experiences, student ability, student preparation

through research activities, student buy-in with clinical activities, as well as their ability to express their feelings. Most of these overlap with the individual factors mentioned in the literature: personal beliefs, experience, environment (physician orders, resources, time), knowledge, priority setting, reflection, critical thinking, emotion, and intuition (Benner et al., 2009; Pretz & Folse, 2011; Standing, 2014; Wilber, 2014).

Participants felt that students need to take ownership of their learning experience in the clinical setting. They found that when students take ownership, they were more engaged, more self-directed, and more responsible for their learning. When students are less proactive in their education, or lack interest in being there, the increased stress can have a considerable effect on the outcomes for both students and patients (Montgomery et al., 2014). Participants found that asking students about their past experiences and what their hopes are for the current experience can improve their interest and participation. Another method employed was to get their input into assignments, encouraging them to take more responsibility in their growth throughout the course.

Participants discussed influencing student thinking through pushing students to ask higher order questions (Bloom's Taxonomy) and focusing on quality in their patient research. They also encouraged students to explore other perspectives and bring forward their past experiences. The literature also discussed how past experience contributes to understanding clinical contexts, impacts how situations are perceived, and then influences nurse actions and reactions (Standing, 2014). Wilber (2014) does caution that although these factors

influence clinical judgment, they don't necessarily improve it. However, being aware of these factors and their influence, can help instructors to guide their students towards insights into their thinking while navigating the clinical setting (Stokes & Kost, 2012; Tanner, 2006). Instructors could also use this knowledge to reinforce the value of experience in developing clinical judgment.

***Instructor adaptability*.** Participants identified instructor factors like preparation, self-awareness, past experiences, mindfulness, individuality, communication, intentional practice, and having a teaching and nursing philosophy as being important to ensure they are prepared to be effective in the clinical setting. These attributes are mirrored in the literature: evidence-based practice, clinical competence, knowledgeable, good judgment, teaching knowledge, effective communication, prepared, supportive and patient, role model, and enjoys teaching (Evans & Harder, 2013; Okoronkwo et al., 2013; Stokes & Kost, 2012). Participants felt that clinical instructors need to find balance, promote collaborative relationships with multiple partners, and have an awareness of the wide range of influences on clinical judgment. Within the literature, it is said that instructors have a significant impact on student experiences, and require skills in teaching and learning strategies, interpersonal relationships, and effective evaluation (Okoronkwo et al., 2013; Stokes & Kost, 2012).

Participants discussed the important of finding a balance between ensuring students have time to practice and the instructor having time to supervise, while also having time to sit down with each student one-on-one to have a variety of

conversations (research, debriefing, and their experiences). In the literature, it was reported that effective clinical instructors have time to interact with the students while creating opportunity for students to practice (Austria et al., 2013). Yet students have reported feeling like they are not getting enough of the instructor's time while in the clinical setting (Kol & İnce, 2018). One participant discussed the important of self-forgiveness in regards to being busy and having to miss some opportunities because of how stretched their time can become in clinical.

Study participants identified their collaborative partners as being students, unit staff, and other faculty members. They discussed the importance of nurturing these relationships as part of a much-needed support system in their practice. Collaboration between students, instructors, and staff can be fostered through having clear expectations regarding student learning focus and their abilities and responsibilities, as well as ensuring students understand the instructor role and responsibilities (Stevens & Duffy, 2017). Open and regular communication is important for effective collaborative relationships (Stevens & Duffy, 2017). Study participants reported how invaluable the staff can be as a supportive resource to their work. Participants discussed nurturing the relationship with staff through providing positive feedback and taking time to get to know them.

Clinical instructors need to be aware of many different factors. They need to be cognisant of their own clinical competence, communication skills, providing supportive and stimulating experiences for students, patience, role modelling, effective supervision, skilled judgment, and skilled teaching (Evans & Harder, 2013; Okoronkwo et al., 2013; Stokes & Kost, 2012). Effective teachers are those

who have confidence but recognize they may be wrong at times, are flexible and engaging, keep current, employ multiple teaching strategies, and accommodate for different learning styles and needs of students by matching patient acuity with student skill, and integrate theory into practice (Austria et al., 2013; Gardner, 2014).

This overlaps considerably with what the participants discussed during their interviews. Awareness of curriculum and where students are in the program helps with ensuring that expectations on the students are appropriate. Factors mentioned that were specifically related to the instructor that has an impact on the development of clinical judgment were: self-awareness, self-reflection, explicit communication, and guiding students in their focus. Factors related to student individuality (learning styles and capacity, personalities, and individual judgment), unit specific policies and procedures, and providing experiences were also discussed by participants. Instructors need to be aware of these influences and be able to adapt accordingly to gain any advantages possible while minimizing potential harmful influences.

Hindrances and Management of Hindrances. Study participants identified a wide variety of factors that can have a negative impact on student learning. These range from factors that influence the instructor and may reduce their effectiveness, factors within the clinical setting itself that may impact experiences, interpersonal conflicts that can arise and add an element of hostility to the learning environment (threatening the safe learning environment), and a considerable number of student factors.

***Instructor factors*.** Participants emphasized the importance of the clinical instructor role, its complexities, and the need for mindful intention in practice to reduce the likelihood of inadvertently impeding learning. Participants felt it was important for instructors to clearly outline their role and the student's role along with who is responsible for what. These expectations need to be clearly defined for students to ensure the learning environment is productive (Stokes & Kost, 2012). Another instructor factor was working in isolation and how that can lead to a sense of disconnect from the educational institution. The literature describes additional threats to student and patient safety to occur when students perceive their instructor as being ineffective (lacking confidence or knowledge), or when the student feels there is a poor relationship between themselves and the instructor (Jahanpour et al., 2010; Montgomery et al., 2014). Both students and instructors have the potential to create an unsafe clinical environment (Montgomery et al., 2014).

When discussing early years of teaching practice, participants described blaming themselves if students were not prepared, or if they seemed to not be engaged in the clinical experience. They felt this changed as they learned to delineate between their responsibilities and the student's responsibilities. They describe being responsible for making sure the student is coming in with basic knowledge to practice safely, but they are not responsible to teach everything to the student. When students come into clinical practice unprepared or they lack proactivity in their education, they place themselves and the patient at risk (Montgomery et al., 2014). Participants felt that student education is a shared

responsibility. They also discussed the importance of recognizing early that a student is struggling This gives students time for correction, while reducing the instructor time commitment that can be required by a struggling student.

Participants explained that working away from the educational institution for most of the term can contribute to a feeling of being isolated, and sometimes feeling less supported and lacking professional community. These feelings can increase instructor stress levels. It was reported that when faculties and instructors work together to develop a sense of community, instructors feel more effective in their practice. It was also suggested that keeping instructors at the same agency unit can help their sense of community as well, because they become familiar with the unit staff, and the routines. This helps them become more comfortable. Recommendations to reduce this sense of isolation included: clinical site visits by supportive faculty members, mentorship by an experienced faculty member (for new instructors), have a support person the instructors can contact when issues arise, formalized performance appraisals, instructor self-reflection and self-appraisal, instructor orientation, offering tuition credits/reduced tuition, and planned social events (Koharchik, 2017).

***Clinical constraints*.** Participants identified several different constraints that are inherent within clinical courses and the clinical setting that can complicate the student's development of clinical judgment. Time restrictions (both length of the course and limited instructor time), limited experiences for students (dressing changes, low number of patients), and additional demands (employment, assignments, etc.) all impact student learning experiences. Within

the literature, the fast-paced clinical setting was described as an additional challenge because students are being used as adjunctive staff, rather than being treated as learners (Gaberson et al., 2015; Wilber, 2014). The fast pace of the clinical unit was identified by participants as a source of stress for them when trying to support student learning needs. The clinical setting being busy is also reported as being a detriment from the students' perspective with regards to their ability to learn (Lee, Clarke, & Carson, 2018). Additionally, staff become conflicted between doing what they must to ensure the safety of their patients while wanting to be effective mentors and role models for the students (Phillips et al., 2017; Stokes & Kost, 2012). In a study on stressors in the clinical environment, students reported that the heavy workload and clinical assignments were the most stressful part of their clinical experiences (Ab Latif & Mat Nor, 2016).

One concern discussed by participants related to time restriction was finding the balance to supervise students in their practice, while finding time to sit down with each of them. This was reported to be particularly challenging if a student group is spread over two or even three clinical units and the instructor has to move between these units. Another concern with time is the requirement of trying to get students to higher levels of thinking within the short time frame over which clinical courses run. Students take a few weeks to get comfortable on the unit, and shortly after that time, the course is ending. Participants felt that it is the time after the students have become comfortable where they are best able to challenge students in the breadth and depth of their thinking. As students become

more comfortable on the unit and in their knowledge, they are able to take on increasingly complex patients. It is within these complexities that faculty have the opportunity to facilitate the exploration of thought and judgment (Stokes & Kost, 2012). Participants also described how time intensive it can be for them when a student is struggling in the course, because they need extra support and guidance, and this can take time away from the other students in the group.

Participants recognized the value of different experiences for their students in building clinical judgment. They spoke of the challenges of providing those experiences at times, but also of how they overcome those limitations, and how valuable those experiences can be to deepen student understanding. Two examples of created opportunity would be for students to observe procedures, or to set up mock codes. Some felt that when variety wasn't possible, that consistency in patient assignment could help, because students could reflect on patient progression. This variety is also discussed in the literature, it allows students to practice cognitive, psychomotor, and communication skills, this is important for students to develop a greater sense of self-efficacy (Stokes & Kost, 2012).

Additional demands on students can take away much needed rest, and participants felt that this can hinder the learning of students in the clinical environment, because it leaves them drained. Additional demands identified by participants included: external demands (such as employment or familial obligations), extended time studying, and additional assignments. It was felt that pass/fail clinical experiences eases some of the pressure, because grading within

the clinical course changes the student-instructor relationship and can make students more hesitant to work with the instructor. This pressure described by participants is mirrored by students. Students reported that the pressure of assignments can be overwhelming and prevents them from having some enjoyable downtime (Ab Latif & Mat Nor, 2016).

Interpersonal conflict. Study participants described several interpersonal interactions that can complicate the student experience and hinder clinical judgment. They felt that interpersonal conflict can influence the entire group. Jahanpour et al. (2010) discuss the impact of students feeling as if their relationship with their instructor is poor, leading to anxiety and reducing the likelihood they will seek out their instructor for assistance. Study participants addressed the importance of the instructor-student relationship in regards to recommendations on building it. Participants felt the main influences on student experiences included: group dynamics (student-student conflict), nursing culture, and the staff-student relationship (most prominent). Additional interpersonal relationships which were identified in the literature as having an effect on student learning were those with the doctors, other clinical persons, and with the patient family and friends (Arkan, Ordin, & Yılmaz, 2018).

Participants discussed how group dynamics vary from one group to the next, and that their leadership role changes, depending on how the students within the group manage together. They felt that interpersonal conflict within the group can have a big effect on not only the individuals, but on the whole group. While some groups will work well together and support one another, sometimes

different personalities can create tension. They felt that with most groups a leader will be more prominent, and when a group lacks this leader, it is up to the instructor to fill that role through communication and building trust to stabilize the group. Another consideration found in the literature is that when a group is particularly competitive, tension within the group can increase (Arkan et al., 2018).

Because students are often afraid of conflict, participants felt that it is important to remember that when conflict arises, student will feel uncertain on how to approach the situation. An integrative review of the literature found that nursing students prefer positive conflict resolution styles (collaboration or integration) over negative resolution styles (dominance or avoidance) (Labrague & McEnroe–Petitte, 2017). With regards to group collapse, it was found that poor interpersonal communication and lack of respect were the biggest causes of group breakdown (Wong, 2018).

There were two main concerns with respect to nursing culture that were identified by participants. First, was the change from hospital-based to university-based training for registered nurses. They felt that because hospital-trained nurses were taught through an apprenticeship-style model of learning, that they tend to prefer students initially learn through observation. They also felt that these nurses don’t always share how they are making their decisions with the students and rarely engage students in questioning. It was suggested that as hospital-trained nurses retire that there will be a shift in nursing culture. Teaching style develops from previous experiences such as how they were taught and how they have seen

others teach, but is also influenced by how they learn (Gardner, 2014).

In a study looking at the indoctrination of nursing students in to the culture of nursing, it was found that nursing culture is multifaceted and influenced by many different factors (Strouse, Nickerson, & McCloskey, 2018). Nursing culture was not well defined but did range from caring to eating their young, as well as being seen as continually changing (Strouse et al., 2018). Nursing students are part of this professional culture, just as much as they are influenced by it (Strouse et al., 2018). The second concern with nursing culture is that participants felt there is a lack of awareness of the professional expectation that they will mentor the incoming generation.

Interactions with staff were discussed at greater length by participants. The relationship with the staff nurses has a considerable impact on the learning of students in the clinical setting (Lee et al., 2018). Participants suggested several possible influences on staff interest/effectiveness in working with and supporting students during their clinical practice courses. These influences included: lack of confidence in knowledge, communication, and teaching abilities as well as being overwhelmed by the added responsibilities. It was also felt that with instructor led clinical groups, staff are less invested than when a student is being precepted by one of the staff members.

The literature states that most unit staff want to be effective role models, but often feel restricted in their ability to do so because of the high level of responsibility for patient safety in combination with the additional time requirements of supporting the students (Lee et al., 2018; Phillips et al., 2017;

Stokes & Kost, 2012). Staff attitude and the rapport that students have with them can create either a positive or negative influence on student experiences (Jahanpour et al., 2010; Lee et al., 2018; Stokes & Kost, 2012). When staff are under higher levels of stress, lateral violence incidents are more common (Stokes & Kost, 2012).

Participants discussed the importance of students communicating at the start of and throughout the shift with the primary nurse assigned to the patient with whom they are working and possibly adapt their plan if staff or patient priorities are different. Participants felt that staff need to know where students are in their program and what levels of expectations are appropriate. Staff may need to be reminded that students are learners and should not be expected to think like an experienced nurse. Participants discussed giving the staff tools to interact with and support student development of judgment, as well as giving them positive feedback to nurture the collaborative relationship between instructor and staff. Staff should be supported in their interactions with students because of how big of an influence they can be on the student and how well they integrate theory into practice (Van Graan, 2014).

Participants noted that students are working on developing not only judgment, but interpersonal and conflict skills. Because these conflict skills may not be well developed at this stage, students will sometimes avoid crucial conversations. Participants felt that in these situations, instructors have a critical role in supporting students. Occasionally, participants felt they needed to take a stronger stance and intervene on behalf of the student. Within the literature,

descriptions of the instructor role during situations of lateral violence included how important appropriate intervention is to reduce the potential damage to the student learning experience (Stokes & Kost, 2012).

***Student factors*.** In a study on the development of clinical decision-making in nursing students, Jahanpour et al. (2010) found that student factors which lead to poorer outcomes include: low self-confident, low self-efficacy, and experiencing stress. These overlap with the student factors identified by study participants in the category of personal challenges. The other categories within participant responses were knowledge integration and poor performance.

Personal challenges. Personal challenges described by study participants fell into five categories: lack of confidence, fear, facing difficult experiences, balance, and different motivations. They felt that many of these challenges arise from students being young, inexperienced in life, and overwhelmed by the clinical setting. These stressors that students face can impact their performance, as well as causing emotional distress, behavioural issues, and sometimes physical complaints (Ab Latif & Mat Nor, 2016).

Participants described lack of confidence to include not only lacking confidence in their knowledge, but also lack of self-esteem, both of which decreases how much they interact in the group and on the clinical unit. Confidence is one of the factors that is thought to influence communication (Victor, Ruppert, & Ballasy, 2017). In the literature, it was noted that self-confidence of students was lowered through negative feedback, particularly when it came from instructors (Jahanpour et al., 2010). Participants suggested peer

mentorship and having instructors openly share moments when they lacked confidence (nurse as human) as ways to support students who lack confidence. On the other side, where overconfidence exists, judgments may become inaccurate and outcomes become less than optimal (Thompson, Aitken, Doran, & Dowding, 2013).

Several different sources of student fear were identified by participants, including: fear of making mistakes, fear of voicing their opinions, along with the vulnerability inherent in their position as students, and fear of failure. In addition to fear of making mistakes, fear of causing harm and fear of new and unknown experiences were also mentioned in the literature (Mlinar Reljić, Pajnkihar, & Fekonja, 2019; Suarez-Garcia, Maestro-Gonzalez, Zuazua-Rico, Sánchez-Zaballos, & Mosteiro-Diaz, 2018). Participants recommended acknowledging fear, validating it, and normalizing it for students is one way to help students overcome fear, through accepting it as normal and temporary. Participants felt that using shared evaluation to keep communication open regarding performance, giving students a voice in their evaluation, as well as having a pass/fail clinical helps to reduce student fear of failure. Students expressed fear of evaluation and that they felt instructors were looking specifically for faults while placing high expectations on them, and this decreases their enthusiasm for the course (Arkan et al., 2018).

According to participants, the clinical setting exposes students to a variety of emotionally challenging experiences, such as navigating difficult interpersonal interactions, very busy shifts, and changes in patient condition. Strategies

identified to help students through these challenges included: going for a walk with the student, find a comforting place to sit with the student (chapel, for example), give the student privacy if that is their preference, or just letting them cry if they need that release. Much of this is overlapped with the literature, which stated that negative experiences must be managed effectively to reduce the impact on student's experience (Stokes & Kost, 2012). Recommended strategies included: debriefing, listening, acknowledging student perspectives, and guiding the student to explore other sides of the picture (Stokes & Kost, 2012). Emotional reactions in the clinical environment can be an obstacle to mindfulness, which improves awareness of thinking processes (Huang et al., 2016). Developing a trusting instructor-student relationship helps create a more emotionally stable environment (Kol & İnce, 2018).

Participants also reported that difficulties external to the clinical setting (such as, home life) can have a considerable impact on student performance. They described students having difficulties finding balance between home, work, and education. They felt that this could lead to students not getting enough rest and ultimately not taking as much joy in the learning process. Recognizing that a student is struggling with something, then providing them with a safe space to discuss their concerns, or giving them privacy if they chose to not discuss things were mentioned as important ways to support students when external factors are negatively influencing their performance in the clinical course.

Finally, with regards to personal challenges for students, participants described different motivations for students to be in the nursing program. They

felt that in an ideal world, all students would be internally motivated to be in the nursing program, but they recognized that some students take nursing for other reasons, such as family pressure. Montgomery et al. (2014) found that when students are not interested in being in the clinical setting, stress can be increase. Enjoyment of learning as well as obtaining support and respect were found to increase student motivation to learn (Yauri, 2015). As students build a beginning professional identity, they are more likely to become increasingly motivated in their studies (Reid, Dahlgren, Dahlgren, & Petocz, 2011).

Knowledge integration. It was felt that occasionally students will lack the foundational knowledge needed for safe practice, or have difficulties tying the various pieces together, but more often if students are having difficulties with clinical judgment with regards to knowledge, it is related to knowledge application. Students feeling that they lack knowledge was identified as a common stressor for them in clinical practice (Ab Latif & Mat Nor, 2016). When this lack of knowledge does occur, it poses a potential threat to patient safety through poor decision-making (Montgomery et al., 2014). Judgment errors that can lead to patient harm occur through either omission or commission (Van Graan, 2014). An example of a high-risk activity requiring judgment from students is medication administration, ensuring that medications are not given at a time when patient condition would be contradictive is important to ensure patient safety (Mann, 2010).

Participants reported that knowledge integration within the clinical practice requires enough structure to keep patients safe, without being so

restrictive that it hand-ties the students or shifts their focus away from process towards tasks. Furthermore, they suggested that each student may require different amounts of structure. The literature recommends instructors remain flexible in their teaching style to encourage and support students (Anderson, 2011). Both mentors and students reported that flexibility in approach was important in effective leadership (Allen et al., 2012; Knisely, Fulton, & Friesth, 2015).

Participants discussed the importance of students having a strong knowledge base to help ensure patient safety, they want to see students come to clinical with an integrative, predictive, and protective care plan. It was felt that concept mapping was one tool that helped students envision the patient in a more comprehensive manner by connecting individual pieces. Participants felt that repetition was better than memorization to help students solidify their knowledge. Another challenge for students when preparing their care plan is that they sometimes focus on all possible information without an awareness of what is extraneous and this can lead to not responding skillfully (Benner et al., 2009). Participants felt that students sometimes become overwhelmed by details that are interesting, but have limited value in making skillful decisions, leading students to study excessively rather than getting enough rest. Instructors have the ability to help students focus on the most important learning activities in preparation, which can reduce the amount of time they spend preparing (Cowen, Hubbard, & Croome Hancock, 2018).

Reflection was identified by participants as being an essential part of the

development of judgment, because it increases student awareness on what influences their decisions. But they report that student reaction time or time to process and reflect will likely be longer than that of an experienced nurse. They felt that using conference time and debriefing sessions were an effective way to help students reflect on their experiences and consider how a situation could be approached differently. Reflective writing was found to help students with: critical thinking, self-awareness, knowledge synthesis, and professional growth (Naber & Markley, 2017).

Participants discussed how students need time and space to practice, they cannot learn strictly through observation, and successful practice builds confidence. When students are having some challenges in their practice, they felt that focusing on the positive can help build student confidence. They also discussed how learning can come through making safe mistakes, for example, allowing them to struggle a bit with the blood pressure cuff, rather than jumping in to rescue too soon. This direct experience is an important aspect of developing clinical judgment (Benner et al., 2009). Until students have gained enough experience, they are more dependent on the judgment of others and may simply follow direction rather than understanding why, this can limit their exploration of judgment (Van Graan, 2014).

Within practice, participants discussed how sometimes students will become more focused on tasks and skills over thinking and judgment processes. To help ensure that students are focused on learning clinical judgment, instructors need to place less emphasis on skill and more on judgment (Benner et al., 2009;

Herron et al., 2016). Participants described using “what ifs” and “what now” questions to help guide students towards broader thinking and moving them away from the focus on tasks. Another strategy mentioned was to remind students that nurses are remembered not for their skills, but for their problem-solving, advocacy, and how they made patients and families feel during their interactions.

Study participants recognize that there is a theory-practice gap, where classroom learning doesn’t match the practice they see in the clinical setting. They felt that discussion was the best way to support students when they are facing this. In contrast, the literature describes the theory-practice gap as happening when students having difficulty putting what they’ve learned in class into their clinical practice and can reduce the ability for students to develop clinical judgment (Bussard, 2013; Jahanpour et al., 2010).

Participants felt that students should become increasingly independent and take on more complex patients as the term progresses, as they gain experience and confidence. Participants reported that as students gain experience, they make more connections, and learn to adapt their responses based on context, become more assertive, and learn to better manage their time. This is mirrored in the literature. In early stages, students have limited ability to extrapolate their knowledge into different contexts; as they gain experience, they are better able to link old experiences to new ones while moving towards independence (Van Graan, 2014). Participants stated recognizing when students are ready to take on more through consistent performance, at this point they take a step back into a more distant but supportive position. Student perceptions on effective teaching

included an expectation that they will gain independence and instructors will step back as they are able to take on more (Matthew-Maich et al., 2015).

Poor performance. Participants spoke of the impact of poor performance and possible student failure. Poor performance factors identified by participants included: lack of or too much confidence, insufficient knowledge or preparation, language barrier, unsafe practices, lack of insight or awareness, insufficient motivation, not engaging, and/or not meeting course expectations. The literature attributes poor performance to: poor preparation, inappropriate knowledge, poor decision-making, and not taking accountability (Montgomery et al., 2014). Participants felt that once a pattern of behaviour is noted, direct conversations are the beginning steps in developing mutual understanding and goals, and then the student needs to be given the opportunity to work on meeting expectations. Participants felt that early recognition of a struggling student was important, to give the student time to grow and be successful, and to help reduce the time commitment on the instructor's part. Additionally, the literature states that identifying the causes for poor performance needs to be determined and a plan to address these concerns needs to be put in place to support the student (Evans & Harder, 2013; Gillespie, 2010).

Participants considered poor clinical judgment to include following other's judgment without questioning where it's coming from. This creates a lack of awareness that is needed in clinical judgment. Likewise, issues can arise when protocols are followed without attention to the nuances (Wilber, 2014). Despite efforts at remediation, some students are still unable to meet course expectations

(Evans & Harder, 2013). When this happens, the instructor plays an essential role in both evaluation and ensuring patient safety (Montgomery et al., 2014; Stokes & Kost, 2012).

Recommendations for New Clinical Instructors. Study participants were excited to share their recommendations for new clinical instructors, and had many great ideas. Participants encouraged new instructors to consider that even though they are new, they have a lot to offer in the clinical setting. It was felt that new instructors tend to be closer to where students are coming from, their direct care experiences are still fresh, plus they bring new perspectives and thoughts into the faculty. In the literature, important factors in teacher development included: additional training, working in relative isolation, mentorship, time to develop style, confidence, competence, and self-reflection (Gardner, 2014; Koharchik, 2017). Participants discussed these factors and many more. Advice given by study participants fell into five themes: instructor factors, support system, further education, instructor-student relationship, and practice environment.

***Instructor factors*.** Instructor factors are those factors that are inherent to being a new instructor. Participants discussed the challenges and humbling nature of the transition from being an expert in the clinical practice setting into becoming a novice instructor. It was suggested that maintaining that humility can help with building relationships. They also mentioned that during this transition process, novice instructors will regularly question themselves. Gardner (2014), and Zakari et al., (2014) discuss growth in confidence and competence as a process that takes time to grow, at least two years and three years, respectively. During this period

of growth, anxiety often occurs (Zakari et al., 2014). It is common for new instructors to feel unprepared for their new role (Mann & De Gagne, 2017). Well rounded orientation programs and courses on how to teach can help reduce these early struggles (Mann & De Gagne, 2017; Zakari et al., 2014).

Clinical instructing was described by participants as a unique, challenging, and sometimes overwhelming role, and it is complicated by the unpredictable nature of the clinical site. They encouraged new instructors to remember that they, like students, are on a learning continuum, and they should not expect to be expert teachers from the start. Due to a shortage of clinical faculty, it is common for experienced clinicians who have little preparation for teaching to be hired into clinical instructor positions, this means these new instructors have to learn on the job (Reid et al., 2013). Orientation sessions aimed at improving instructor knowledge on specific aspects of teaching (such as evaluation, legal aspects, choosing assignments, and managing multiple roles) can help improve performance, retention, and teacher effectiveness (Reid et al., 2013; Rice, 2016). Although orientation sessions are helpful, it was felt that they are often too short and lack sufficient depth for instructors to feel prepared (Mann & De Gagne, 2017).

Additional suggestions made for new instructors in this category included: stay open to learning, reflect on practice, prepare by reviewing things that haven't been done in a while, have some rules, but not too rigid, have patience while serving the students, and most importantly trust themselves. Reflection on practice was found to be one of the key ways in which instructors develop and

grow their practice (Gardner, 2014). Teacher effectiveness was viewed by students to require that the instructor: have confidence with a willingness to accept being wrong at times, be engaging, use multiple teaching strategies, accommodate different learning styles, and be adaptable (Gardner, 2014). Participants recommended taking time to explore who they are as instructors, including developing a philosophy of teaching and learning, as part of that transition to instructing. Having this understanding of oneself helps new instructors be aware of how their personal beliefs may influence their teaching style and where this might create both strengths and weaknesses. Finally, participants suggest the need for balance with external factors, such as home life, so that teaching doesn't take over.

***Support system*.** A support system refers to network of supportive persons that can be found either in the faculty or in the clinical setting. These people can help ease some of the pressure experienced by new clinical instructors as well as provide some much-needed guidance and feedback while they develop their practice. Participants had several suggestions for new instructors that would help them build a support system while exploring and growing their practice during this transition time. Finding trusted support persons, such as an experienced mentor can give the instructor someone to turn to when needed. Having support from a mentor, and other faculty has been found helpful to instructors who are new and still developing their practice (Mann & De Gagne, 2017).

Empowering staff can help reduce some pressure on the instructor while ensuring the students have additional role models. Other suggestions to help

instructors included: preparing for the clinical experience (get to know the staff and unit routines and resources through buddy shifts), building bridges with the educational institution to reduce the feeling of isolation, and seeking out meaningful feedback. Participants felt that feedback from students is important, but it was suggested that new instructors need feedback from the faculty and their peers to be able to have a more comprehensive picture of their practice, though there was some uncertainty expressed about how that feedback could be obtained since instructors typically work alone.

***Further education*.** All participants discussed the importance of ongoing education to grow their practice. They also spoke of recognizing that they can't know everything, but having some knowledge in adult learning theory as well as unit specific policies and procedures, can go a long way to help them build an evidence-based teaching practice. They suggested that as clinical instructors evolve in their teaching role, they will be better able to promote clinical judgment in their students. As with the expectation of students needing to rationalize their decisions and care by putting theory into practice, so too, should the teaching of clinical concepts such as clinical judgment be based on theory (Standing, 2008). Teacher effectiveness is influenced partly by teaching methods, and knowledge of learning and teaching theory (Gardner, 2014). Being an effective clinical instructor requires competence in both nursing practice and in teaching (Mann & De Gagne, 2017).

Formalized educational undertakings have been recommended in the literature, as well as by study participants. New clinical instructors could be

supported through taking clinical instructor programs aimed at helping them develop their practice through understanding teaching pedagogy, this could improve the quality of teaching and learning for students and instructors (Zakari et al., 2014). Participants suggested that new instructors can learn more about specific teaching strategies, overcoming challenges in the clinical setting, as well as teaching and learning theory by reading articles and books, taking masters level courses, and instructional certificate programs. This added learning during the transition to teaching could help with faculty retention by helping instructors better understand their role (Gardner, 2014; Stokes & Kost, 2012). Graduate level courses that included adult learning theory were found to be helpful in supporting new clinical instructors to develop their practice (Mann & De Gagne, 2017).

***Instructor-student relationship*.** The quality of the instructor-student relationship can have considerable impact on the effectiveness of the clinical learning experience to promote the judgment that nursing students need to learn (Shahsavari, Parsa Yekta, Houser, & Ghiyasvandian, 2013). Participants spoke of the importance of developing and then nurturing the instructor-student relationship, finding a balance between being professional while still allowing for an emotional connection. They felt that students need to see their instructor as being dependable and safe. Participants described the instructor-student relationship as being vital, yet fragile and can be damaged with a moment of unintentional interaction. Maintaining a strong, professional relationship with students was identified as a key role for clinical instructors (Mann & De Gagne, 2017). Participants discussed how instructors need to be able to take on different

roles because student personalities are variable, some are timid and require more encouragement, while others need more space and opportunities to take on leadership roles. They also mentioned that cultural variability is something to be aware of, because in some cultures, students are taught to not question those who they see as being an authority figure.

They recommended being direct but kind in communications, being clear and realistic about expectations, being there to provide guidance, and being curious of the students. Participants suggested seeking meaningful answers to the right questions, while observing student body language. They stated that sometimes students will be wrong, but it's okay. They reported holding themselves to the same level of responsibility and accountability as they expect from their students. Study participants reported viewing their role with the students as being supportive and providing guidance, encouraging students to explore their practice along with their thinking, problem-solving, and judgment. Participants also highlighted the importance of trusting the students.

In a study on the relationship between nursing students and their instructor, it was found that several factors influenced the quality of the interactions between these two players, specifically: the presence of other people (clinicians, patients, family members, etc.), closer contact, perceptions of each other (observation of interactions, perception on skillfulness, etc.), disputes in the clinical setting (between any persons within the clinical setting: physicians, patients, nurses, instructor, students, other health care workers, etc.), and instability/uncertainty (Shahsavari et al., 2013).

***Practice environment*.** The literature describes the importance of hands on, experiential practice in developing clinical judgment (Bussard, 2013; Herron et al., 2016; Montgomery et al., 2014). Participants discussed the complexities of the clinical practice environment and clinical instructing. They encouraged new instructors to consider several different influences on this environment: personalities, safe environment/space, practice space, and reflection on practice. Participants described the instructor position in the centre of a triad of personalities (staff, patient, and student). They described the challenges of navigating these different personalities, and the importance of learning to compromise and negotiate to best meet the needs of all involved. They felt that having the students watch instructors navigate and negotiate can help them build their own skills in these areas.

Providing a safe learning space for students while giving them space to practice were also identified as important factors to help students grow to become independent while developing their clinical judgment. Creating and maintaining this safe space is an ongoing endeavor (Kisfalvi & Oliver, 2015). Factors that influence this safe space included: instructor self-awareness, giving students space to express their thoughts and explore treatment options, as well as not rescuing students too early. Letting students fumble in a safe manner (such as putting on a blood pressure cuff) can be an important learning opportunity. Rescuing too early takes that away from them and can hinder their development of self-efficacy (student perception of their ability to effectively perform in the clinical setting) (Jahanpour et al., 2010). Self-efficacy was identified as a key component in

student decision-making (Jahanpour et al., 2010). Another part of this safe space identified by participants was not advancing students too quickly, they need to be ready for the next challenge while being supported to take it on.

Participants recommended providing some structure for students so that they know their boundaries, but not being too rigid. Boundaries were described as being an important component in giving students a sense of security while they progress toward increasing autonomy (Kisfalvi & Oliver, 2015). It was felt that being too rigid hand-ties students and prevents them from exploring their practice. Students need space to explore their practice, get to know their patients, and experiment with alternative approaches, this allows them to grow towards independence. There was some disagreement on the amount of variability of experiences that students should be given. Participants felt that too much variability increases the workload on the student, yet not enough fails to challenge and stimulate student learning.

Participants spoke of the importance of reflection on practice as being an important tool to help students grow their practice and their judgment. Reflection is a cognitive process and was stated to be a component in clinical judgment (Van Graan, 2014). Reflective journaling was found to positively correlate with student perceptions on their ability to put theory into practice (Douglass, 2014). When difficulties arise in clinical, it was felt that students should not be protected from those experiences but they need to know that they are supported. Allowing them to experience challenges and then guide them through reflection on these moments can help them to grow and build judgment.

Implications for Practice

Despite not having a consensus on terminology (which was not an aim of this study), participants demonstrated resourcefulness in using a variety of strategies and dedication to helping build clinical judgment in their students. Conversations within faculties discussing the terminology around clinical judgment as well as what it entails could help support clinical instructors in developing their practice in this area. Specifically, in helping them develop a framework from which to have conversations with students about the judgment that they are expected to develop throughout their time in their nursing program. This would be particularly helpful during the early transition years into clinical teaching practice. Likewise, having conversations about the implementation of strategies for supporting the development of clinical judgment, not just specific teaching strategies, but building an environment that is conducive to its development would be valuable for instructors, particularly new instructors.

The term “academic freedom” is used within faculties to say that instructors have the freedom to explore and grow their practice. This is such an important concept as instructors become more experienced, but during those early years, additional support can help instructors explore their practice with a bit more confidence. In several ways, this study has shown some interesting similarities between the needs of nursing students in clinical practice and the needs of new clinical instructors. Some additional support, boundaries, and rules could be helpful for new instructors while they develop their practice. How extensive these should be would likely vary from one individual to the next. Along side of this,

stronger bonds between clinical instructors and the educational institution could impact the sense of isolation that instructors report.

Each of the participants discussed the literature, books, or authors to some extent. They have built their teaching practice upon the literature, developing an evidence-based teaching practice. They report that it takes time to build this practice. They need to review the literature, explore how it fits in their own practice and then reflect on how it works for them and their students, and then adapt as needed.

There are so many different factors that interplay in a complex manner to influence student learning. Some influences may be more subtle than others, but all can add to or detract from their clinical judgment. Helping instructors build awareness of these factors can help them develop their practice and utilize positive factors in the best way possible while reducing the negative factors or at least reducing the potential harm from them.

Chapter 6. Conclusion

This thesis project was born from my interest in working with nursing students as a clinical instructor and recognizing that within my own practice I had more questions about how to develop a more rounded practice, in particular when it came to supporting the thinking processes, decision-making, and overall judgment of my students. While reviewing the literature for my own practice, I seemed to develop more questions than answers. This project was, in part, my way of exploring my own practice to a depth that I wouldn't have otherwise been able to accomplish, while looking for practical solutions to a real-world nursing instructor dilemma, as well as a way to share this exploration with others.

I began this process with a lot of questions about what the literature was saying, and how clinical instructors were putting this information into practice, as well as how effective it was for them, considering how busy and overwhelming the clinical environment can become for both students and instructors. I also came into this project with my own assumptions. Mainly influenced by a sense of being unprepared during changes in my career path, be it from student to graduate nurse, from graduate nurse to registered nurse, from registered nurse in acute care to clinical nursing instructor. I began to wonder if there was a way to better prepare future generations of nurses throughout their educational experiences.

I came into this study with several presuppositions regarding the development of clinical judgment. First, I believed that clinical judgment can be facilitated (or hindered) within the context of the clinical learning environment. Second, I believed that clinical instructors have considerable influence over the

learning experiences of nursing students, they have the ability to turn a wide variety of situations throughout each day into learning opportunities. Third, I believed that there is a shortfall of where newly graduated nurses should be with regards to their judgment and ability to comfortably advocate for their patients (for many, but not all, new graduates). Fourth, I believed that we can improve these outcomes, although I do not believe that we will be able to completely bridge that gap due to a number of intrinsic and extrinsic factors (including, but not limited to confidence, competence, and experience). Additionally, I am a pragmatist, I seek practical solutions.

Using the qualitative methodology of interpretive description this study was designed to explore experienced clinical instructor understanding of clinical judgment and how they facilitate student development of clinical judgment. Five experienced clinical instructors (average of 10.4 years of teaching experience) were asked to describe how they perceive clinical judgment, how they facilitate clinical judgment, what supports the development of clinical judgment, what hinders clinical judgment (and how they manage hindrances), and what advice they have for new clinical instructors.

The first question asked of participants was: From your perspective, what is your understanding of clinical judgment and how would you define it? Three main themes and five subthemes (in brackets) were identified: knowledge (learned knowledge and knowledge of self), acquisition of knowledge (collection of information and appropriate resources), and use of knowledge (application of knowledge, patient-centered outcomes, and decision/actions). These responses

reflect the complexities of clinical judgment, the amount of knowledge that is needed to make effective clinical judgments, as well as the wide range of factors (internal and external, conscious and subconscious) that influence clinical judgment and its development in nursing students. Participants also highlighted that clinical judgment may vary from one practitioner to another, and that their understanding of it has evolved over time.

The second question consisted of two parts. These were: How do you facilitate clinical judgment in your students? What strategies do you use/have you used? Three main themes were present within the data: collaborative conversations, bigger picture/knowledge integration, and context extension. The importance of the clinical instructor role was highlighted throughout the responses to this question. Having conversations with students was the primary strategy used by participants, these conversations were used to question thoughts, perceptions, decisions, and sometimes gently guide students to consider a broader perspective, or a greater depth of understanding, as well as to consider how their experiences might influence future practice.

The third question posed to participants was: What helps you with facilitating clinical judgment? Three main themes and five subthemes (in brackets) were found in participant responses: safe learning environment, student ownership (student ownership and processing knowledge), and instructor adaptability (balance, collaboration, and awareness). The instructor and students were felt to be the most significant players that influence student experiences. While other people can have an influence, students and instructors can reduce the

impact of those external forces. Awareness of the learning environment, along with the student and instructor factors can help both instructors and students take advantage of what is within their control to improve the overall experience.

The fourth question contained two parts. These were: What hinders you in facilitating clinical judgment? How do you manage these hindrances? Four main themes and 11 subthemes (in brackets) were found during thematic analysis: instructor factors (role with students and isolation), clinical constraints (time restrictions, limited experiences, and additional demands), interpersonal conflict (within the group, nursing culture, and interactions with staff), and student factors (personal challenges, knowledge integration, and poor performance). The student related factors were further subdivided into tertiary level themes to explore the full breadth and depth of the data presented by study participants. There were 11 tertiary level themes.

The fourth question was, by far, the one that received the larges response, highlighting how complicated the clinical environment can be to navigate for both students and instructors. The key takeaways from this question include: instructors need a strong support network, roles and responsibilities of both instructors and students need to be clearly defined, balancing home and work/school is difficult for students and instructors and this needs to be considered before adding on additional courses/projects/assignments to an already busy work/study load for all, conflict needs to be managed swiftly but tactfully, and students need to feel empowered and supported to make decisions within their scope of practice.

The fifth question posed to participants was: What advice would you give to new clinical instructors with regards to supporting the development of clinical judgment in their students? Analysis revealed the following five themes and eight subthemes (in brackets): instructor factors, support system, further education, instructor-student relationship (student variances, communication, expectations, and guidance), and practice environment (personalities, safe environment, space to practice, and reflective practice). Participants encouraged new instructors to have patience with themselves, to have realistic expectations while they transition into a new role, keep open to learning, build a support system, and to recognize that they do have skills and knowledge to contribute and build upon. Taking on additional training/certifications can help build practice, and understanding the variety of influences on students and themselves, can help new instructors maneuver their way through the first couple years while building their practice.

Further Research

Many of the participants indicated that their understanding of clinical judgment has evolved through their years of teaching practice. It would be interesting to know if they felt that they would have had an easier time developing their teaching practice around this challenging concept by having a definition from which to work, as well as an outline of concepts they can incorporate into student evaluation.

The study participants who partook in this study were well read, seasoned instructors who put considerable thought and time into their practice. It would be interesting to compare that experience with the understanding and perspectives of

new instructors. Participants discussed the evolution of their understanding, it would be helpful to understand where new instructors are coming from, and if additional conversations during those early terms of teaching would make a difference on their perceptions, their teaching practice, and their confidence in their teaching.

Ongoing research into effective evaluation tools that are user friendly for both instructors and students would be useful to help support them working together to build student clinical judgment. Another interesting avenue for exploration would be to consider if new instructors would do better with some clearly defined rules and boundaries for practice while they first undertake teaching practice, and slowly remove these training wheels as they become more confident in their practice and abilities to meet the learning needs of their students.

Study Limitations

One of the limitations of this study was limited variability of educational institutions where the participants were teaching clinical. Participants came from two out of the five educational institutions invited to participate; greater variability could have provided some additional perspectives. Inclusion of University of Alberta instructors could have added to this variability but was not included due to ethical considerations. Another limitation was the lack of community clinical setting instructors. Study participants did work in a range of acute care clinical settings (pediatric, mental health, and medical/surgical), but adding perspective from community instructors may have added some additional

variances.

The use of interviews was largely an advantage, however, there were points where the recording quality was poor. These points of poor sound quality made transcription challenging. Transcription close to the time of the interview helped with this issue, as well as helping with the interpretive description expectancy of dwelling with the data (Thorne, 2016). This allowed for familiarity and comfort with the data obtained through these interviews. Another limitation was the principle investigator's familiarity with the subject matter. There were times during the interviews where it felt like assumptions were easy to be made. This needed to be monitored closely during the data analysis phase to ensure that findings were coming from the participants rather than from my own experiences.

Conclusion

It was not possible to gather a complete picture of the complexities of the clinical environment mixed with the complexities of nursing judgment mixed with the complexities of the learning experiences and needs of nursing students within the confines of a single study. I believe that the findings of this study increase the presence of clinical nursing instructors' voices with regards to the topic of clinical judgment. The findings also add a piece to the puzzle with regards to the complexities faced by clinical instructors and how they are managing their practice. Finally, the findings also contain encouragement for clinical instructors, particularly those who are new to teaching nursing students in the clinical setting.

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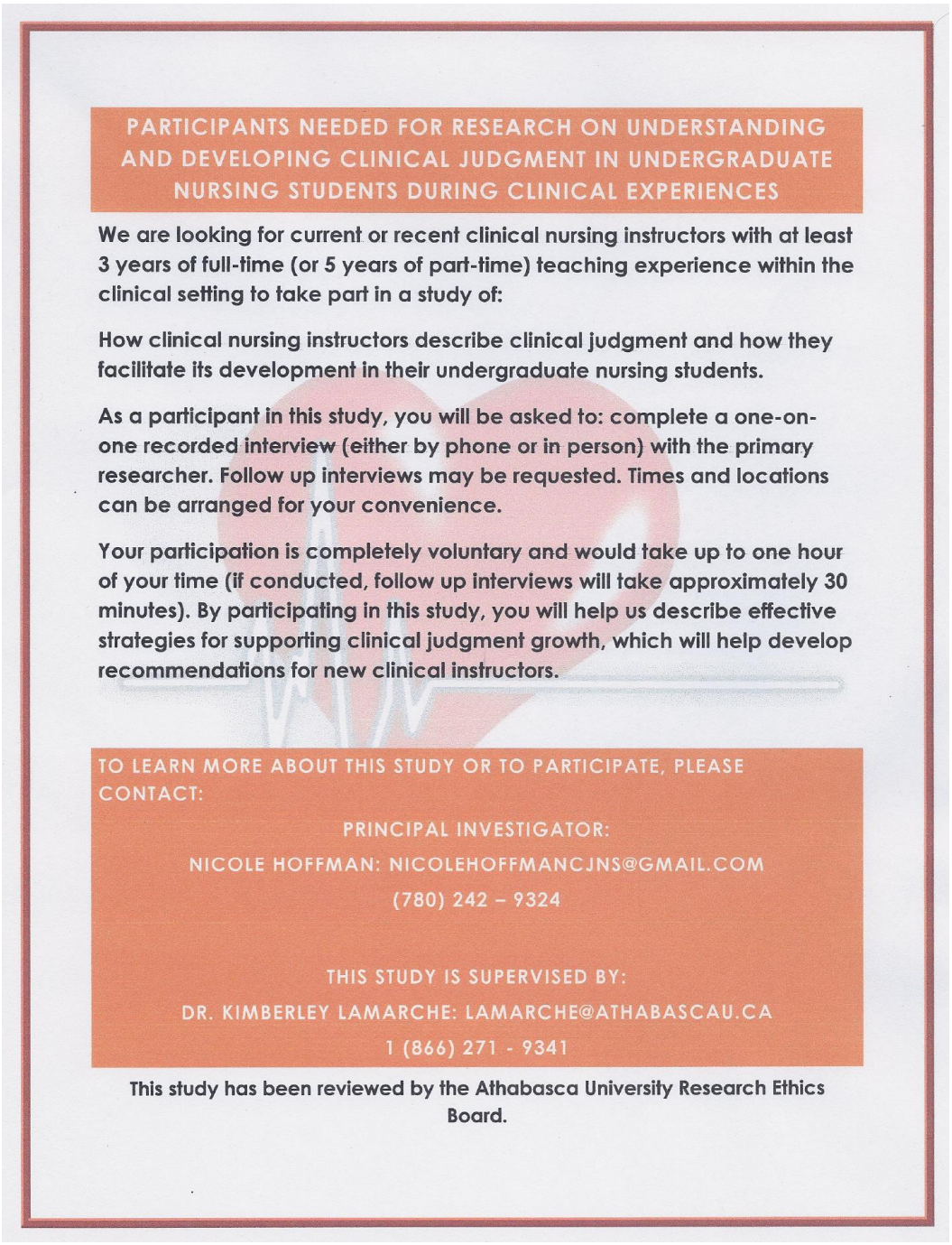
Appendix A. Recruitment Poster



PARTICIPANTS NEEDED FOR RESEARCH ON UNDERSTANDING AND DEVELOPING CLINICAL JUDGMENT IN UNDERGRADUATE NURSING STUDENTS DURING CLINICAL EXPERIENCES

We are looking for current or recent clinical nursing instructors with at least 3 years of full-time (or 5 years of part-time) teaching experience within the clinical setting to take part in a study of:

How clinical nursing instructors describe clinical judgment and how they facilitate its development in their undergraduate nursing students.

As a participant in this study, you will be asked to: complete a one-on-one recorded interview (either by phone or in person) with the primary researcher. Follow up interviews may be requested. Times and locations can be arranged for your convenience.

Your participation is completely voluntary and would take up to one hour of your time (if conducted, follow up interviews will take approximately 30 minutes). By participating in this study, you will help us describe effective strategies for supporting clinical judgment growth, which will help develop recommendations for new clinical instructors.

TO LEARN MORE ABOUT THIS STUDY OR TO PARTICIPATE, PLEASE CONTACT:

PRINCIPAL INVESTIGATOR:

NICOLE HOFFMAN: NICOLEHOFFMANCJNS@GMAIL.COM

(780) 242 – 9324

THIS STUDY IS SUPERVISED BY:

DR. KIMBERLEY LAMARCHE: LAMARCHE@ATHABASCAU.CA

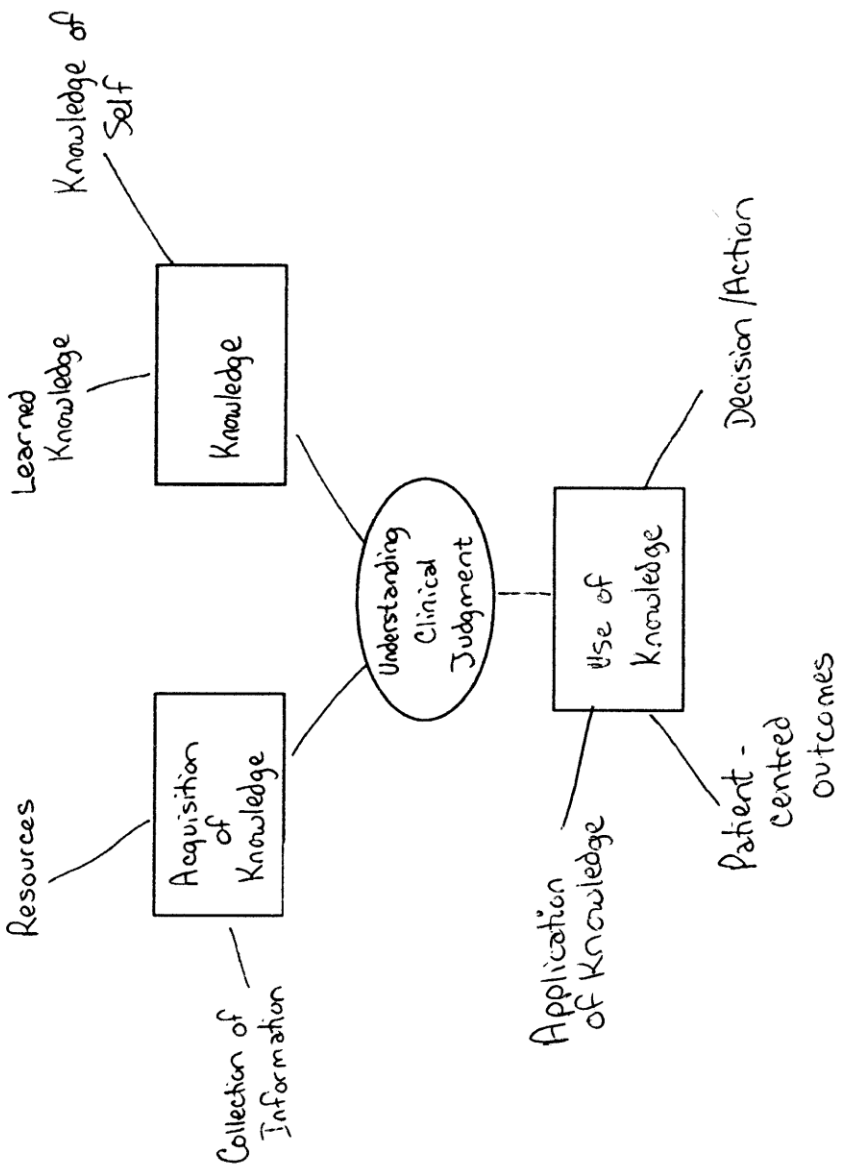
1 (866) 271 - 9341

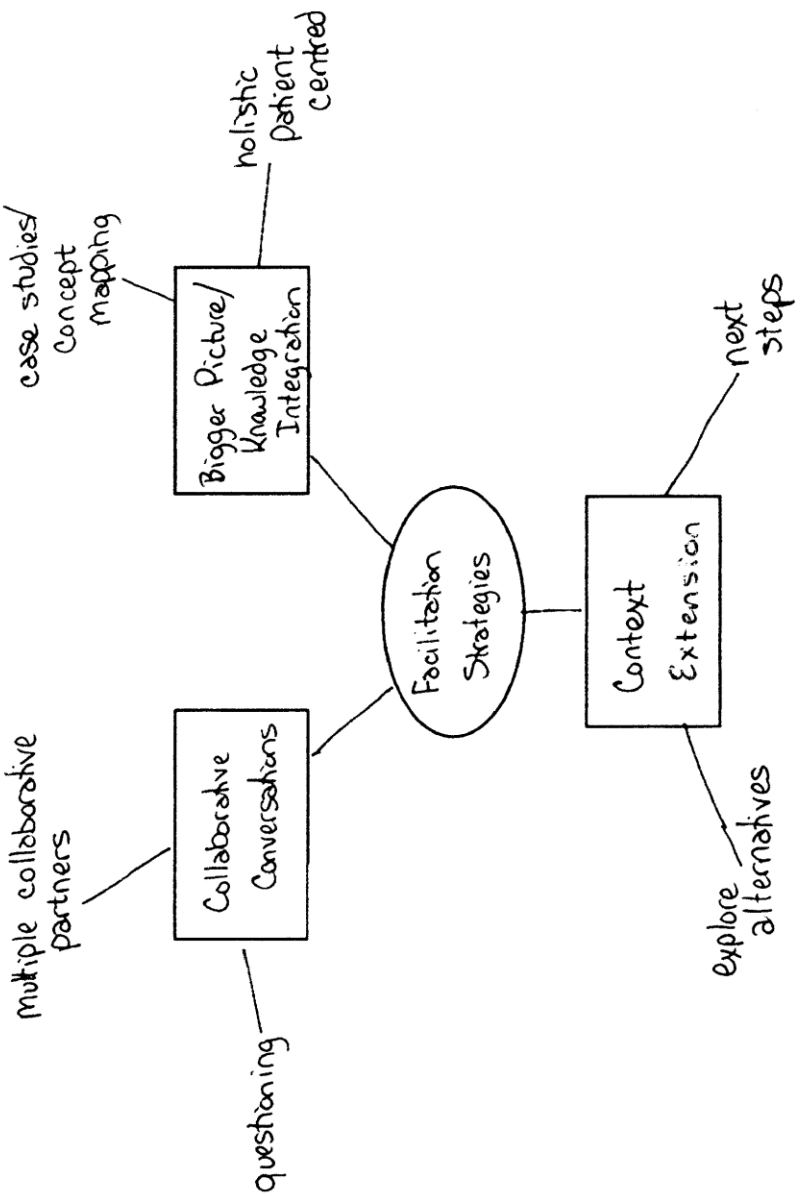
This study has been reviewed by the Athabasca University Research Ethics Board.

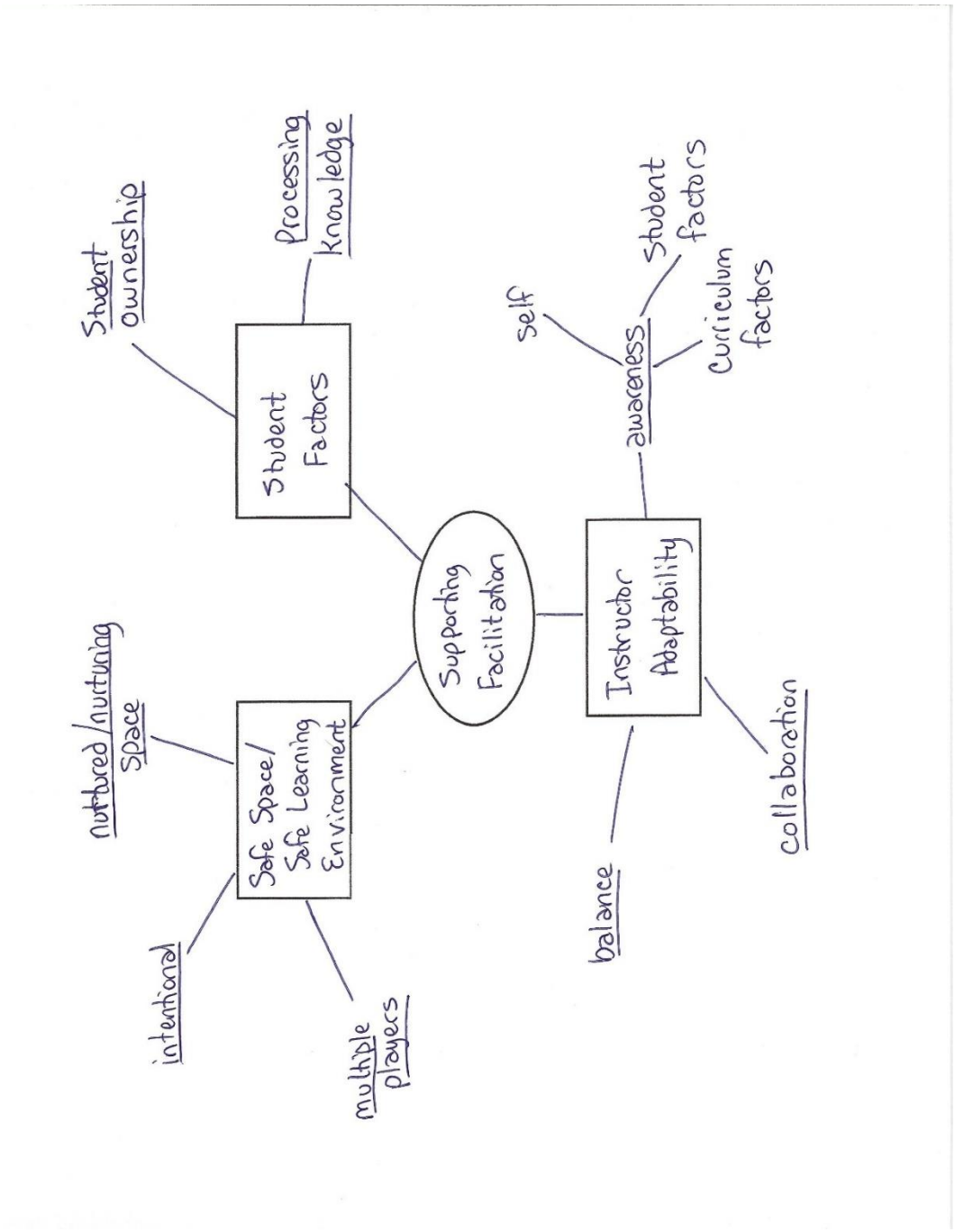
Appendix B. Interview Questions for Participants

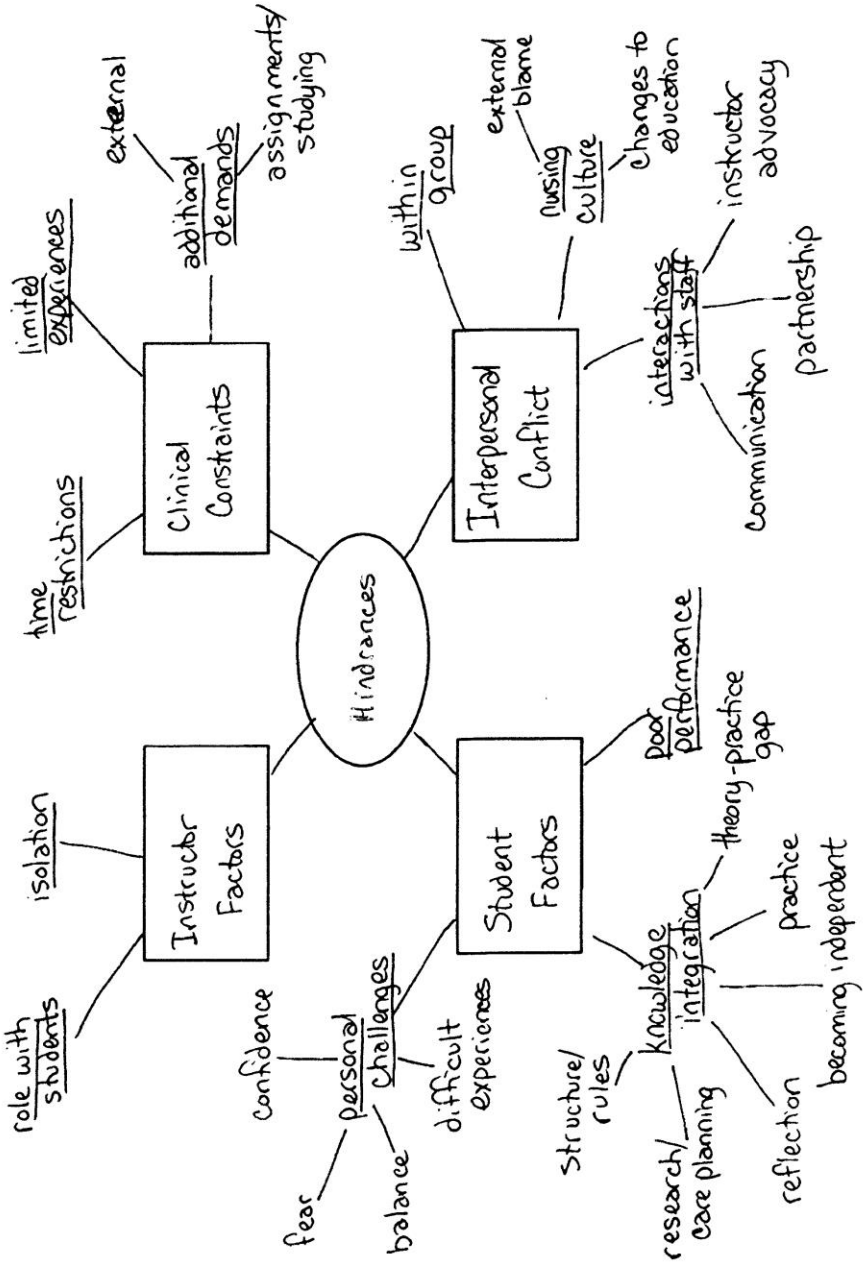
1. From your perspective, what is your understanding of clinical judgment and how would you define it?
2. How do you facilitate clinical judgment in your students? What strategies do you use/have you used?
3. What helps you with facilitating clinical judgment?
4. What hinders you in facilitating clinical judgment? How do you manage these hindrances?
5. What advice would you give to new clinical instructors with regards to supporting the development of clinical judgment in their students?

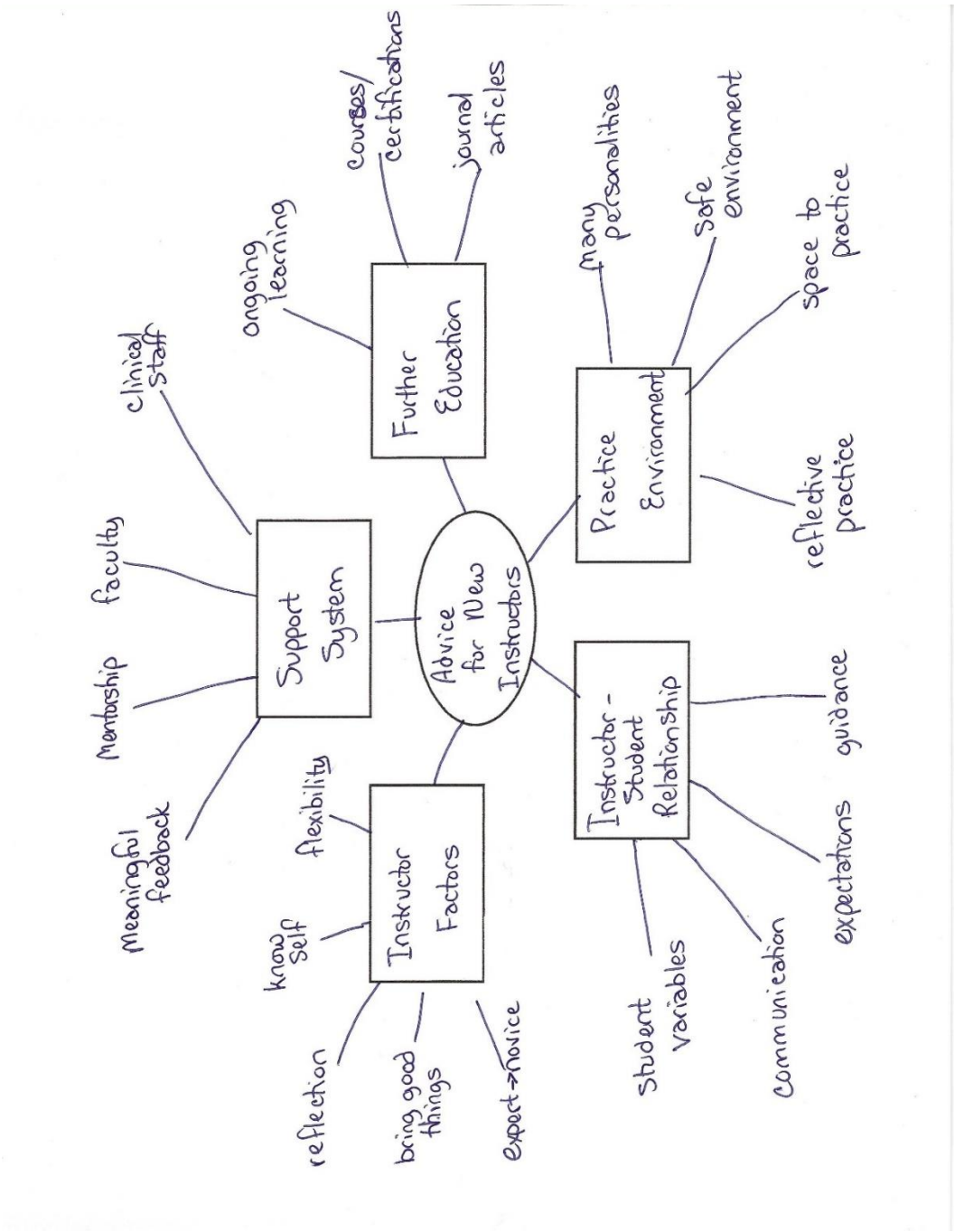
Appendix C. Concept Maps of Results




Facilitation Strategies
Bigger Picture/ Knowledge Integration
holistic patient centred
case studies/ Concept mapping
Collaborative Conversations
multiple collaborative partners
questioning
Context Extension
next steps
explore alternatives


Supporting Facilitation
Student Factors
Student ownership
Processing knowledge
Safe Space/ Safe Learning Environment
nurtured/nurturing Space
intentional
multiple players
Instructor Adaptability
self awareness
Student factors
Curriculum factors
balance
collaboration


Hindrances
Clinical Constraints
limited experiences
additional demands
external
assignments/ studying
time restrictions
Interpersonal Conflict
within group
nursing culture
external blame
changes to education
interactions with staff
instructor advocacy
partnership
communication
Instructor Factors
isolation
role with students
Student Factors
poor performance
theory-practice gap
knowledge integration
practice
becoming independent
reflection
research/ care planning
structure/ rules
personal challenges
confidence
fear
balance
difficult experiences


Advice for New Instructors
Support System
clinical staff
faculty
Mentorship
Meaningful feedback
Further Education
ongoing learning
courses/ certifications
journal articles
Instructor Factors
flexibility
know self
reflection
bring good things
expect->novice
Practice Environment
many personalities
safe environment
space to practice
reflective practice
Instructor - Student Relationship
guidance
expectations
communication
student variables

Appendix D. Institutional Approvals

Athabasca University
RESEARCH ETHICS BOARD

The future of learning.

CERTIFICATION OF ETHICAL APPROVAL

The Athabasca University Research Ethics Board (AUREB) has reviewed and approved the research project noted below. The AUREB is constituted and operates in accordance with the current version of the *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS)* and Athabasca University Policy and Procedures.

Ethics File No.: 22603

Principal Investigator: Nicole Hoffman, Graduate Student, Faculty of Health Disciplines, Centre for Nursing & Health Studies

Supervisor (if applicable): Kimberley Lamarche, Assistant Professor, Faculty of Health Studies

Project Title: 'Exploring How Clinical Nursing Instructors Understand and Facilitate Clinical Judgment in Nursing Students'

Effective Date: June 29, 2017 **Expiry Date**: June 28, 2018

Restrictions:

- Any modification or amendment to the approved research must be submitted to the AUREB for approval.
- Ethical approval is *valid for a period of one year*. An annual request for renewal must be submitted and approved by the above expiry date if a project is ongoing beyond one year.
- A Project Completion (Final) Report must be submitted when the research is complete *(i.e. all participant contact and data collection is concluded, no follow-up with participants is anticipated and findings have been made available/provided to participants (if applicable))* or the research is terminated.

Approved by: **Date: June 29, 2017**
Sherri Melrose, Chair
Faculty of Health Disciplines (CNHS), Departmental Ethics Review Committee

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Athabasca University Research Ethics Board
University Research Services, Research Centre
1 University Drive, Athabasca AB Canada T9S 3A3
E-mail: rebsec@athabascau.ca
Telephone: 780.675.6718

Athabasca University
RESEARCH CENTRE

CERTIFICATION OF ETHICAL APPROVAL - RENEWAL

The Athabasca University Research Ethics Board (AUREB) has reviewed and approved the research project noted below. The AUREB is constituted and operates in accordance with the current version of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS) and Athabasca University Policy and Procedures.

Ethics File No.: **22603**

Principal Investigator:
Ms. Nicole Hoffman, Graduate Student
Faculty of Health Disciplines\Centre for Nursing & Health Studies

Supervisor:
Dr. Kimberley Lamarche (Supervisor)

Project Title:
EXPLORING HOW CLINICAL NURSING INSTRUCTORS UNDERSTAND AND FACILITATE CLINICAL JUDGMENT IN NURSING STUDENTS

Effective Date: May 22, 2018 **Expiry Date**: May 21, 2019

Restrictions:

Any modification or amendment to the approved research must be submitted to the AUREB for approval.

Ethical approval is valid *for a period of one year*. An annual request for renewal must be submitted and approved by the above expiry date if a project is ongoing beyond one year.

A Project Completion (Final) Report must be submitted when the research is complete *(i.e. all participant contact and data collection is concluded, no follow-up with participants is anticipated and findings have been made available/provided to participants (if applicable))* or the research is terminated.

Approved by: **Date:** May 22, 2018

Joy Fraser, Chair
Athabasca University Research Ethics Board

Athabasca University Research Ethics Board
University Research Services, Research Centre
1 University Drive, Athabasca AB Canada T9S 3A3
E-mail rebsec@athabascau.ca
Telephone: 780.675.6718

Athabasca University
RESEARCH CENTRE

CERTIFICATION OF ETHICAL APPROVAL - RENEWAL

The Athabasca University Research Ethics Board (AUREB) has reviewed and approved the research project noted below. The AUREB is constituted and operates in accordance with the current version of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS) and Athabasca University Policy and Procedures.

Ethics File No.: **22603**

Principal Investigator:
Ms. Nicole Hoffman, Graduate Student
Faculty of Health Disciplines\Centre for Nursing & Health Studies

Supervisor:
Dr. Kimberley Lamarche (Supervisor)

Project Title:
EXPLORING HOW CLINICAL NURSING INSTRUCTORS UNDERSTAND AND FACILITATE CLINICAL JUDGMENT IN NURSING STUDENTS

Effective Date: May 21, 2019 **Expiry Date**: May 20, 2020

Restrictions:

Any modification or amendment to the approved research must be submitted to the AUREB for approval.

Ethical approval is valid *for a period of one year*. An annual request for renewal must be submitted and approved by the above expiry date if a project is ongoing beyond one year.

A Project Completion (Final) Report must be submitted when the research is complete *(i.e. all participant contact and data collection is concluded, no follow-up with participants is anticipated and findings have been made available/provided to participants (if applicable))* or the research is terminated.

Approved by: **Date:** May 21, 2019

Carolyn Greene, Chair
Athabasca University Research Ethics Board

Athabasca University Research Ethics Board
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1 University Drive, Athabasca AB Canada T9S 3A3
E-mail rebsec@athabascau.ca
Telephone: 780.675.6718

University of Lethbridge

Office of Research Ethics
4401 University Drive
Lethbridge, Alberta, Canada
T1K 3M4
Phone: (403) 329-2747
Fax: (403) 382-7185
FWA 00018802 IORG 0006429

CERTIFICATE OF HUMAN PARTICIPANT RESEARCH
University of Lethbridge
Human Subject Research Committee

PRINCIPAL INVESTIGATOR:	Nicole Hoffman
ADDRESS:	Faculty of Health Disciplines Centre for Nursing & Health Studies Athabasca University
PROJECT TITLE:	Exploring How Clinical Nursing Instructors Understand and Facilitate Clinical Judgment in Nursing Students
INTERNAL FILE:	2017-042
INFORMED CONSENT:	Yes
LENGTH OF APPROVAL:	July 7, 2017 – July 6, 2018

The Human Subject Research Committee, having reviewed the above-named proposal on matters relating to the ethics of human research, approves the procedures proposed and certifies that the treatment of human participants will be in accordance with the Tri-Council Policy Statement and University policy.

Susan Berry, Ethics Officer
Human Subject Research Committee

July 7, 2017
Date

MacEwan UNIVERSITY | RESEARCH ETHICS BOARD

Date: July 28, 2017

Principal Investigator: Nicole Hoffman
Supervisor: Kimberly Lamarche

REB Reference No.: 17-18-002

Study Title: Exploring How Clinical Nursing Instructors Understand and Facilitate Clinical Judgment in Nursing Students

Subject: Outcome of REB Review: **APPROVED**

Approval Expiry Date: July 27, 2019

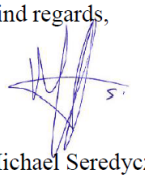
After reviewing your application, the above research project has been granted ethical approval. For multi-year projects, approval may be extended following submission of the annual renewal request before this approval expires. Once the study has expired, you will be required to resubmit a new application. In accordance with the Tri-Council Guidelines (TCPS-2) and the MacEwan University Policy C5052: *Ethical Review of Research with Human Participants*, any proposed changes to the study must be submitted to the MacEwan University's REB for approval prior to implementation. All relevant forms may be found on our website: MacEwan.ca/REB.

At this point, you are also reminded of your obligation to advise the REB of any unanticipated issues or events that occur during the approval period (as per C5052: 4.6.1).

Additionally, if your project activities involve acquiring information through an institution, organization or other group, you should be aware that these bodies may have their own ethics requirements, or additional requirements beyond REB review, for allowing access to their sites (e.g. to prospective participants) and to the use of their resources (e.g. email or space). As your project does not involve critical inquiry about organizations or institutions (TCPS-2, article 3.6), it is your responsibility to formally collaborate with the relevant body to seek permission to proceed with the project.

Please do not hesitate to contact me if you have any questions or concerns.

Kind regards,



Michael Seredycz, Ph.D.
Chair, Research Ethics Board
email: seredyczm@macewan.ca
phone: 780-633-3312

MacEwan.ca

MOUNT ROYAL UNIVERSITY
1910

Human Research Ethics Board

t: 403.440.8470 | f: 403.440.6299
e: hreb@mtroyal.ca
research.mtroyal.ca

June 18, 2018

Nicole Hoffman
Centre for Nursing & Health Studies
Athabasca University

Dear Miss. Hoffman:

Re: Application Number 101479
Exploring how Clinical Nursing Instructors Understand and Facilitate Clinical Judgement in Nursing Students

You provided us with the Athabasca University's REB approval certification, application form, recruitment poster, interview questions and consent forms. The submitted documents were found to be in order on **June 18, 2018.**

HREB and Mount Royal University adhere to the Tri-Council Policy Statement, "Ethical Conduct for Research Involving Humans". As such, I am pleased to advise you that ethical clearance for this proposal has been granted to **May 21, 2019.** Please note that this clearance is contingent upon adherence to the submitted protocol submitted on June 8, 2019. Prior permission must be obtained from the Board before implementing any modification(s) to the submitted documentation.

Researchers are required to notify the Mount Royal University HREB immediately if any untoward or adverse event occurs during their research or if data analysis or other review reveals undesirable outcomes for participants (including the researchers).

You are required to submit a progress report by **May 2019.** If this study is concluded before **May 2019**, a study completion report will be required by **May 2019.** Study progress and completion report templates are available on-line at under the "events" tab at the following link:
https://mru.researchservicesoffice.com/Romeo.Researcher/Login.aspx?ReturnUrl=%2fROMEO.Researcher%2f

Failure to submit the progress or study completion report by the due date (noted above) will result in the closure of the file for this study and no further data collection can occur after this date.

Please accept the Board's best wishes for continued success in your research.

Yours sincerely,

Cynthia Gallop, PhD
Chair, Human Research Ethics Board

4825 Mount Royal Gate SW, Calgary, Alberta, Canada T3E 6K6

RDC

CERTIFICATION OF ETHICAL ACCEPTABILITY FOR RESEARCH INVOLVING HUMAN PARTICIPANTS

Project Title	**Exploring How Clinical Nursing Instructors Understand and Facilitate Clinical Judgement in Nursing Students**
Principle Researcher	**Nicole Hoffman**
Approval Date	**June 15- 2018**
Expiry Date	**June 15 - 2021**
Application Number	**2017-18-46**

The Red Deer College Research Ethics Board, having examined the application for the project named below, consider the procedures, as outlined by the applicants, to be meet the requirements of RDC's *Research Involving Humans* policy, and full ethical approval has been granted.

The standard conditions of this approval are:

- Conduct the project strictly in accordance with the proposal submitted and granted ethics approval, including any amendments made to the proposal required by the Research Ethics Board.
- Advise immediately of any issues in relation to the project which may warrant review of the ethical protocols. The REB's role is to advise in such instances to ensure the safe and ethical continuation of research projects. Such matters include:
    - Serious or unexpected adverse effects on participants
    - Proposed changes to protocols
    - Any changes to the research team
    - Unforeseen events which might affect continued ethical applicability of the project

(continued)

RDC Research Ethics Board | www.rdc.ab.ca/ethics
Red Deer College | 100 College Boulevard | Box 5005 | Red Deer | AB | Canada | T4N 5H5 | ethics@rdc.ab.ca

- Made submission for approval of amendments to the approved project before implementing such changes.
- Provide an Annual Status Report (form available at www.rdc.ab.ca/ethics) at the completion of the project or by JUNE 30. Annual Status reports are required for every year the research is ongoing.
- Advise in writing if the project has been discontinued.
- Advise of any change in the affiliation or contact information of the Principle Researcher.

Please note that failure to comply with the conditions of approval and the *Research Involving Humans* policy may result in withdrawal of approval for the project.

If advising the REB of any of the above, please email ethics@rdc.ab.ca

You may now commence your project. I wish you all the best in this endeavor.

Krista Robson
Chair, Research Ethics Board
Phone: 403-314-2499
krista.robson@rdc.ab.ca

GPRC

Research Ethics Board

June 29, 2018

Research Involving Human Subjects

Ethics Reference Number	201804
Research Title	Exploring how clinical nursing instructors understand and facilitate clinical judgement in nursing students
Name of Researcher(s)	Nicole Hoffman
Name of Supervisor(s)	NA
Date of REB Meeting	June 29 2018

Dear Nicole Hoffman,

Thank you for submitting your application to Grande Prairie Regional College Research Ethics Board.

It is the decision of the board (quick review sub-committee) that your research proposal, as presented in the documents you have submitted to the REB Chair June 3 & 27, 2018 meets the minimum ethical requirements for research involving human subjects. Therefore, I am pleased to inform you, that the board has approved your application to conduct the above titled research as outlined by your submission and its supplementary declarations.

Any changes that may occur in connection with this research that may have an impact on ethical consideration must be reported immediately to the Research Ethics Board – please contact Research & Innovation directly.

This approval is valid until 30 June 2019 and is granted on the condition that the relevant principles in the Tri-Council Policy Statement and the GPRC Research Involving Human Subjects policy are strictly observed.

You are required to provide the REB (via the Research & Innovation office) with an annual update complete with either a request for additional time or confirmation that your research has been concluded by June 30, 2019.

Sincerely,

Vanessa Sheane

Chair or designate of the GPRC Research Ethics Board
VSheane

Appendix E. Consent Document

EXPLORING HOW CLINICAL NURSING INSTRUCTORS UNDERSTAND AND FACILITATE CLINICAL JUDGMENT IN NURSING STUDENTS: LETTER OF INFORMATION AND PARTICIPANT CONSENT FORM

Principal Researcher:
Nicole Hoffman
nicolehoffmancjns@gmail.com
(780) 242 – 9324

Thesis Supervisor:
Dr. Kimberley Lamarche
lamarche@athabascau.ca
1 866 271 9341

You are invited to participate in a research study about how experienced clinical nursing instructors understand and facilitate clinical judgment in nursing students. I am conducting this study as a requirement to complete my Masters of Nursing.

As a participant, you are asked to take part in a face-to-face, or telephone/video-conferencing (digitally recorded) interview about how you, as a clinical instructor understand clinical judgment and how you facilitate their learning/understanding of this skill. Participation will take approximately 60 minutes of your time.

Risks are limited to time commitment of participation in the interview, as well as the possibility of bringing about challenging memories. Benefits are projected to be primarily related to reflection on the topic of clinical judgment, and for new teaching faculty to help build their practice. Participation is voluntary, and you may refuse to answer any questions, or withdraw consent (by notifying the researcher) at any time during the interview or at any time during the data collection period, which is expected to be concluded by June 30, 2018. Should you withdraw consent, any data collected will be retained for the study, unless you specifically request its removal and destruction prior to the final stage of analysis where the unique identifiers are removed and data is no longer identifiable (about one week after the final interview of this study). No identifying data from the interview or regarding your institutional affiliation will be included in the final written thesis.

Recorded interviews will be transcribed, and all identifying information will be removed. Your voice may be recognizable to the principle investigator during the transcription process, but following transcription, you will no longer be identifiable. A unique identifier code will be assigned to each transcribed interview, and a master copy for contact information (e-mail address with identifier code only) will be kept in a locked safe for five years from the completion of the project, at which time it will be destroyed. Information is retained for five years as per Athabasca University policy. If you would like to add to or clarify your answers/thoughts after the interview, you are welcome to contact the principal investigator.

Results of this study may be compiled and distributed to participants if you would like to review the summary of findings, please check the appropriate consent below. The completed thesis will be available to you, should you request it.

If you have any questions about this study or require further information, please contact Nicole Hoffman or Dr. Kimberley Lamarche using the contact information above.

This study has been reviewed by the Athabasca University Research Ethics Board. Should you have any comments or concerns regarding your treatment as a participant in this study, please contact the Office of Research Ethics at 1-800-788-9041, ext. 6718 or by e-mail to rebsec@athabascau.ca.

Thank you for your assistance in this project.

CONSENT:
I have read the Letter of Information regarding this research study, and all of my questions have been answered to my satisfaction. I will keep a copy of this letter for my records.

My signature below confirms that:

- I understand the expectations and requirements of my participation in the research;
- I understand the provisions around confidentiality and anonymity;
- I understand that my participation is voluntary, and that I am free to withdraw at any time with no negative consequences;
- I am aware that I may contact the researcher, Nicole Hoffman, or the Office of Research Ethics if I have any questions, concerns or complaints about the research procedures.

Name: _____

Date: _____

Signature: _____

Researcher Signature: _____

Additional Specific Permissions:

By initialing the statement(s) below,

_____ I acknowledge that the researcher may use specific quotations of mine, without identifying me

Review of Results:

_____ I would like to receive a copy of the results of this research study by e-mail

e-mail address: _____

If you are willing to have the researcher contact you at a later time by e-mail or telephone for a follow-up interview, please indicate so below. You will not be contacted more than six months after your interview.

_____ Yes, I would be willing to be contacted

Demographic Data	Unique Identifier Number: _____
Number of years clinical teaching experience: ___	
Number of years RN experience: ___	(circle) RN, BN, BScN, MN, other: _____

Appendix F. Timeline