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UNIVERSITY OF NORTHERN COLORADO

Greeley, Colorado

The Graduate School

ESTABLISHING GUIDELINES FOR THE CLINICAL POST-CONFERENCE: A DELPHI STUDY

A Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy

Staci Lynn Warnert

College of Natural and Health Sciences
School of Nursing
Nursing Education

May 2021

This Dissertation by: Staci Lynn Warnert

Entitled: *Establishing Guidelines for the Clinical Post-Conference: A Delphi Study*

has been approved as meeting the requirement for the Degree of Doctor of Philosophy in College of Natural and Health Sciences, School of Nursing, Nursing Education Program

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ABSTRACT

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The clinical post-conference is an established component of nursing education; however, little research exists related to the clinical post-conference. This study sough to develop guidelines for use by nursing faculty to facilitate clinical post-conference and to determine perceived outcomes of clinical post-conferences in the overall goal of student nurse development of clinical competence. The Delphi method was used to obtain consensus about clinical post-conferences from full-time nursing faculty with experience using clinical post-conferences. Full-time nursing faculty with experience facilitating clinical post-conferences were sent three rounds of questionnaires. The Round 1 questionnaire consisted of open-ended questions asking about recommendations for the clinical post-conference. One hundred ten faculty participants met the inclusion criteria and responded to the Round 1 questionnaire, making up the expert panel of participants. The Round 2 questionnaire asked participants to indicate their level of agreement with statements obtained from responses to the Round 1 questionnaire. Consensus was met when 70% of participants agreed. The Round 3 questionnaire asked participants to reconsider their responses to statements not meeting consensus in Round 2. In Rounds 2 and 3, 244 statements about the clinical post-conference met consensus. Faculty recommended clinical post-conferences to be held for 45 minutes to one hour immediately following the clinical experience in a private and comfortable setting. Discussion was the main teaching strategy recommended by faculty for the clinical post-conferences. Faculty also recommended student-led clinical post-

conferences. The perceived outcomes of the clinical post-conference included clinical reasoning, reflection, and tying didactic content to clinical experiences. Consensus among faculty identified the clinical post-conference as an essential component of nursing education. Further research exploring actual outcomes of the clinical post-conference should be further explored.

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CHAPTER I

INTRODUCTION

In 1966, Lister described the clinical post-conference as a time for instructor-student communication centering on clinical material. Lister suggested students present pertinent patient care problems during clinical post-conferences to allow for discussion and problem solving. Over 50 years later, the clinical post-conference continues to be described as a discussion involving an exchange of ideas between student and instructor based on clinical experiences (Oermann et al., 2018). Despite changes in healthcare and nursing education, the definition of the clinical post-conference has remained relatively unchanged and little research examining the clinical post-conference exists. The clinical post-conference is a tradition in nursing education with little knowledge about its current role and the way it should be facilitated in today's healthcare and learning environments. This research study examined the current role of the clinical post-conference in clinical nursing education as well as established guidelines for the implementation of clinical post-conferences. This chapter describes the background and significance of the problem addressed, provides a purpose for the study, lists the research questions, and defines conceptual and operational definitions of terms related to the study.

Background

Clinical conferences first emerged as nursing programs moved from hospital service-based settings into institutions of higher education (Wink, 1993). Lister (1966) and Matheney (1969) originally presented the clinical post-conference as a new teaching and learning strategy for clinical nursing education to promote analysis of nursing care and problem solving. Lister

suggested discussing patient cases and using questioning techniques to promote learning during clinical post-conferences, and Matheney endorsed student debate with instructor questioning and guidance. Today, instructor facilitated student discussion continues to be a primary teaching strategy for the clinical post-conference (Gubrud-Howe, 2020; Megel et al., 2013; Oermann et al., 2018). Clinical post-conference discussions could be used to debrief clinical situations, clarify concepts, and develop critical thinking and clinical judgment skills (Gubrud-Howe, 2020; Oermann et al., 2018; Twibell et al., 2005; Vezeau, 2016); however, research has shown that nursing instructors often ask low-level questions when conducting clinical post-conference discussion and, consequently, do not promote deeper level thinking (Hsu, 2007; Rossignol, 2000; Wink, 1993). Furthermore, specifics regarding how and when clinical post-conference discussions should be conducted are unclear. Consequently, faculty rely on the way they were taught or experienced clinical post-conferences as nursing students to guide their own facilitation of clinical post-conferences.

Format and Timing of Clinical Post-Conference Discussions

Clinical post-conference discussions typically center around student clinical experiences and frequently involve students reporting patient information and describing patient care performed (Hsu, 2007; Rossignol, 2000; Vezeau, 2016). Debriefing through discussions provides students with the opportunity to reflect and analyze clinical experiences (Oermann et al., 2018). Clinical post-conference discussions could be varied with questions raised by the instructor or students or might be integrated with other teaching activities (Oermann et al., 2018). While clinical post-conference discussions have been depicted as open communication between instructors and students, providing additional structure to clinical post-conference discussions has also been suggested (Rossignol, 2000).

Although nursing faculty have presented ways to standardize the clinical post-conference, their suggestions have not been studied. Standardization might include using a structured set of questions or using a step-by-step process to guide discussion (Harrison et al., 2019; Harvey, 2015; Jessee, 2019). For example, Jessee (2019) suggested structuring clinical post-conferences using a three-step prioritization method for discussion. In step 1, students give a report to one another about their patients; in step 2, the instructor facilitates a compare and contrast discussion about each patient's risks and priorities; and in step 3, the instructor asks students to discuss which patient is at risk, who they would see first, and their rationale (Jessee, 2019). Though various innovative ideas have been shared, the structuring of clinical post-conference and what should be included in the clinical post-conference has not been directly studied and warrants further investigation.

Typically, clinical post-conferences are held immediately after an eight-hour clinical rotation (Vezeau, 2016); yet, the exact timing of the clinical post-conference has not been fully researched. Letizia's (1998) survey of clinical nursing faculty at three nursing schools revealed the majority of faculty conducted clinical post-conferences following each clinical day but some faculty only conducted clinical post-conferences once weekly. Other faculty reported holding clinical conferences in the middle of the clinical day or varying how often post-conferences were held depending on the type of clinical experience or course. When implementing a conceptual model focusing on transitional care, Mood et al. (2014) gathered students experiencing different clinical rotations once a week for a two-hour integrated clinical post-conference. Yehle and Royal (2010) moved the clinical post-conference to an entirely different day from the clinical experience, secondary to student fatigue immediately following clinical activities.

To combat fatigue, provide student flexibility with timing, and solve challenges with physical space, technologies such as teleconferencing, online written discussion, and online virtual reality have been used for clinical post-conference discussions rather than the traditional face-to-face format (Adegbola, 2011; Berkstresser, 2016; Bristol, 2012; Cooper et al., 2004; Geister, 2019; Hannans, 2019; Hermann, 2006; Hermanns & Kilmon, 2012; Neumeier & Small, 2014). Although online clinical post-conferencing has been suggested to be a viable format for clinical post-conferences, Vezeau (2016) expressed concerns with clinical post-conferences being held solely online or hours or days after a clinical experience as "students and faculty can best process difficult learning situations in a timely and contextualized manner" (p. 271). Faculty make choices for when and how clinical post-conferences are held based on their own judgments. There is no consistent agreement about the timing or formatting for clinical post-conferences.

Alternative Activities for Clinical Post-Conference

Though not directly studied, nursing leaders have proposed a variety of teaching and learning strategies other than discussion for clinical post-conference. Such activities include student presentations on clinically relevant topics or about research articles, student evidence-based practice assignments, case studies, concept mapping, guest speakers, role-playing, digital storytelling, gaming, and writing activities (Beek et al., 2014; Kan & Stabler-Haas, 2017; Mood et al., 2014; Moore, 2009; Oermann, 2008; Shellenbarger & Robb, 2015; Waldron et al., 2016; Wink, 1995). Specific topics for clinical post-conferences might include learning about quality and safety, exploring ethical issues and values, or reviewing labs or disease-related concepts (D'Eramo, 2012; Mood et al., 2014; Oermann, 2008; Oermann et al., 2018). Although individual nursing educators could make suggestions for innovative teaching strategies for clinical post-

conferences, there has been a lack of evidence to support best practices for clinical post-conference execution.

Significance

Nurse educators are tasked with preparing today's students to make clinical decisions while working with patients in complicated healthcare environments. To highlight the trend of nurses making increasingly complex patient care decisions, the new generation of the National Council Licensure Exam (NCLEX) included content focusing on clinical judgment and decision making (National Council State Boards of Nursing [NCSBN], 2019). To adequately prepare students for the new generation of the NCLEX and current clinical practice, clinical teaching and learning strategies should be purposeful. The Institute of Medicine's (cited in Cronenwett, 2011) *Future of Nursing* report stated nurse educators need to better integrate didactic content and clinical experiences to assist students with application of knowledge and development of clinical reasoning skills. The clinical post-conference was suggested to serve as an opportunity to bridge didactic and clinical knowledge, yet empirical evidence supporting connecting didactic and clinical knowledge in the clinical post-conference does not exist and implementation is unclear (Heid, 2015; Vezeau, 2016).

Clinical Competence

Clinical competence is a complex combination of multiple elements that are necessary for safe patient care (Eng & Pai, 2015; Lewallen & Van Horn, 2018). The elements of clinical competence are the outcomes of clinical education and include the application of theoretical knowledge and skills, clinical judgment, professional attitudes, values, ethics, and communication (Eng & Pai, 2015; Kiekkas et al., 2019; Oermann et al., 2018; Wu et al., 2015). Performing competently in the clinical setting is imperative to providing quality and effective

patient care, promoting patient safety, and establishing positive patient outcomes (Kukkonen et al., 2020; Lewallen & Van Horn, 2018). Development of clinical competence is a process that occurs over time with education and experience (Brykczynski, 2018; Hansen & Bratt, 2015). Establishing adequate teaching-learning strategies and authentic learning environments is necessary for effective development of clinical competence (Hansen & Bratt, 2015; Kiekkas et al., 2019; Wu et al., 2015). Clinical post-conferences could be used to assist with clinical judgment (Twibell et al., 2005) as well as reflection and the development of the affective domain (Lutter et al., 2018). However, specific strategies for the clinical post-conference have not been established. Although the clinical post-conference is a time for the development of clinical competence, the specific objectives for clinical post-conferences are not well known. Furthermore, priority outcomes for clinical post-conferences have not been established.

Purposes of the Study

The purposes of this research study were to (a) develop guidelines for use by nursing faculty to facilitate clinical post-conferences and (b) determine outcomes of the clinical post-conference in the overall goal of student nurse development of clinical competence.

This Delphi study sought consensus on what clinical nursing faculty believed was important for clinical post-conferences. The Delphi method is a multi-staged survey process where expert participants are sent questionnaires and provide feedback in a number of rounds to achieve consensus on an important issue (Keeney et al., 2011). The benefit of the Delphi method is its ability to address incomplete information about a topic by capturing collective knowledge using structured group communication (Stitt-Gohdes & Crews, 2004). Since little empirical knowledge about the clinical post-conference exists, consensus of expert clinical faculty could

provide guidelines for facilitation of the clinical post-conference. The Delphi method is discussed in further detail in Chapter III: Methodology.

Meleis's (2015) transitions theory and Kolb's (2015) experiential learning theory were the frameworks to guide this study. Meleis's transitions theory describes how individuals experience transition. Students experience a transition from learning in the didactic setting to learning and applying knowledge in the clinical setting in order to competently care for patients. Kolb's experiential learning theory describes how learning occurs through a transformation of experiences with reflection and conceptualization of the experience forming new knowledge. Clinical learning can be portrayed through Kolb's experiential learning theory as a concrete experience followed by debriefing where reflection occurs and conceptualization of concepts begins. The theoretical basis for this study is discussed in further detail at the beginning of Chapter II: Literature Review.

Research Questions

The following research questions guided this study:

Q1 What is the recommended structure for the clinical post-conference?

Q2 What is the recommended setting for the clinical post-conference?

Q3 What are the recommended processes detailed by nurse experts regarding clinical post-conference?

Q4 What do nursing educators describe as the outcomes of the clinical post-conference?

Summary

The clinical post-conference has been used as a teaching strategy in nursing education for over 50 years with little knowledge to support clinical conference best-practices. The clinical post-conference is often described as a designated time for debriefing and analyzing patient care

after clinical learning experiences (Harvey, 2015; Megel et al., 2013; Oermann et al., 2018) and serves as a way to assist students with the development of clinical competence. Discussion is the primary teaching strategy for the clinical post-conference; however, variability in the structuring, timing, and formatting of clinical post-conference discussions exists (Berkstresser, 2016; Letizia, 1998; Vezeau, 2016). Activities other than discussion are used for the clinical post-conference (Kan & Stabler-Haas, 2017; Oermann, 2008). Precious clinical time is dedicated to the practice of post-conference; therefore, it is imperative that teaching strategies used during clinical post-conferences add value to the educational experience. A lack of empirical evidence and variability in suggested teaching methods for the clinical post-conference has left nursing faculty with little guidance with how to conduct clinical post-conferences. Nurse educators are tasked with preparing students for clinical decision making in an increasingly complex healthcare environment as well as the new generation of NCLEX testing. Clinical competence is essential to safe patient care and it is the nurse educators' responsibility to produce competently prepared nurses (Lewallen & Van Horn, 2018). As the clinical post-conference is a staple in clinical education, nursing faculty could benefit from guidelines developed by experts to effectively facilitate clinical post-conference.

Definitions

Clinical. Derived from the noun *clinic*, clinical means involving direct care or observation of the patient (Oermann et al., 2018).

Clinical competence. "The theoretical and clinical knowledge used in the practice of nursing, incorporating psychomotor skills and problem-solving ability with the goal of safely providing care for patients" (Wu et al., 2015, p. 348). "The combination of skills, knowledge, attitudes and abilities that underpin effective and/or superior performance in

a professional/occupational area, as well as the overarching set of knowledge, skills, and attitudes required to practice safely and effectively without direct supervision" (Kiekkas et al., 2019, pp. 267-268).

Clinical experience. What the student goes through in the clinical setting clinical activities and/or clinical rotations (Oermann et al., 2018).

Clinical post-conference. "Time for students to share knowledge gained through clinical experiences with fellow student nurses and faculty members" (Megel et al., 2013, p. 525). Provides a forum for analyzing patient care and engage in thinking about and reflecting on clinical practice (Oermann et al., 2018). Designated time after a clinical experience or after part of a clinical experience where faculty engage with nursing students.

CHAPTER II

REVIEW OF THE LITERATURE

The purpose of this chapter is to review theoretical and empirical literature related to and about the clinical post-conference. For a teaching strategy that has and continues to be commonly used in nursing education, a paucity of research has examined the clinical post-conference. Issues related to using clinical post-conferences as a means of reflection, instructors asking lower level questions during clinical post-conferences, the clinical post-conference learning environment lacking structure, discussion being the main teaching strategy for the clinical post-conference, online clinical post-conference formats, and instructor support are addressed.

Theoretical Frameworks

Two theoretical frameworks were used to guide this study: Meleis's (2015) transitions theory and Kolb's (2015) experiential learning theory. Nursing students can experience a transition as they move from didactic learning to clinical learning and application of knowledge to clinical situations. Nursing students learn through experiential learning as they experience and reflect upon observations and provide patient care in the clinical setting. The clinical post-conference is a component of clinical education that has been suggested to assist with the application of didactic knowledge to the clinical setting as well as reflection and development of clinical competency.

Transitions Theory

Meleis's (2015) transitions theory describes the process of transition in order to identify nursing interventions to promote successful transitions. Although transitions theory was originally developed by observing patient and family transitions, the theory has also been applied to nursing students and educational transitions. Nursing students go through a transition from understanding information in the didactic setting to learning and applying knowledge in the clinical setting to safely care for patients (Dearmon et al., 2013; Hart & Swenty, 2016; Houghton et al., 2013; Ruth-Sahd, 2011). As change occurs to the student's learning situation, the transition begins with anxiety and a feeling of imbalance (Hart & Swenty, 2016). Studies have demonstrated that students exhibit anxiety, fear, and lack of confidence and knowledge as they enter the clinical practice setting for the first time (Jamshidi et al., 2016; Reljic et al., 2019; Ruth-Sahd, 2011). Anticipatory preparation for clinical learning, experience, faculty support, approachability, and facilitation of learning assists students during the transition (Flott & Linden, 2016; Hart & Swenty, 2016). Inadequate faculty knowledge, poor communication, and a negative clinical organizational culture could hinder clinical learning (Flott & Linden, 2016). Characteristics of a successful transition to clinical learning include increased knowledge, increased self-confidence, decreased anxiety, increased self-efficacy, a sense of belonging, and development of competency (Dearmon et al., 2013; Hart & Swenty, 2016).

In transitions theory under the overarching concept of *transitions* are four major concepts: change triggers, properties and conditions, nursing interventions, and patterns of response. The major concepts support the structure of transitions theory and are further defined by several sub-concepts. The multiple components make the theory flexible to use as researchers choose what components fit the specific transition they are examining (Chinn & Kramer, 2015).

For this study, each major concept in Meleis's (2015) transitions theory is discussed and related to the student transition from didactic learning to clinical learning and competency. An adapted model of transitions theory including the important components of student transition for this study can be found in Appendix A.

Change Triggers

Meleis (2015) defined change triggers as the type of transition an individual might experience and identified them as developmental, situational, health-illness, and organizational. The student transition is defined as a situational and developmental transition (Meleis et al., 2000).

Properties and Conditions

Properties describe transition as a process (Meleis, 2015). As nursing students progress through a course or curriculum, they continually learn new theoretical knowledge that can be applied to the clinical setting. The student develops clinical competency over time while learning to apply theoretical knowledge to vast and complex clinical situations. Time span, disconnectedness, awareness, and critical points of a transition are also properties that might affect a transition (Meleis, 2015). In clinical education, a time span might be defined as the duration of a course, semester, or program. Critical points might be defined as competencies or objectives students must meet as they progress through a course, semester, or program and as steps to developing clinical competency. Conditions that might facilitate or inhibit a transition include personal, community, society, and global factors (Meleis, 2015). For clinical learning, conditions might include personal reactions to being in the clinical setting as well as the clinical facility culture and learning environment.

Nursing Interventions

Meleis (2015) proposed the following interventions nurses could implement to assist with a transition: clarification of roles, competencies, and meanings; identification of milestones; mobilization of support; and debriefing. The nursing interventions in transition theory could be defined as teaching strategies for nursing education. Although evidence-based teaching strategies for clinical post-conferences have not been identified, during clinical post-conference faculty might provide support, address competencies and meanings through questioning, and debrief clinical experiences (Hsu, 2007; Letizia & Jennrich, 1998; Lutter et al., 2018; Megel et al., 2013). Consensus from faculty regarding specific strategies for clinical post-conferences could assist faculty with helping students transition from didactic learning to clinical application of knowledge and the development of clinical competency.

Patterns of Response

Patterns of response have two sub-concepts: process and outcomes (Meleis, 2015).

Process. Process includes positive signs an individual might exhibit while going through a transition such as engagement, seeking and receiving support, and acquiring confidence. Through discussion and questioning during clinical post-conferences, students seek and receive support from faculty (Rossignol, 2000). Student engagement is a goal of the clinical post-conference (Cooper et al., 2004) while confidence is a component of clinical competency.

Outcomes. Outcomes of a successful transition include resourcefulness, healthy interaction, perceived well-being, fluid and integrative identity, and mastery of content (Meleis, 2015). Successful student performance in the clinical setting includes being resourceful, having healthy interactions with patients, and feeling comfortable in the clinical environment. The identity of the student nurse could be related to identification of oneself as a nurse. Last, mastery

of the content or, in this case, clinical learning equates to the development of clinical competence.

The clinical post-conference could assist students with the transition to competently caring for patients in the clinical setting and has been suggested as a time to bridge didactic and clinical learning as well as develop clinical competency (Heid, 2015). Transitions theory might help clinical faculty understand how the nurse educator could assist students through the transition to clinical learner and competent student nurse. However, transitions theory does not explain how students actually learn. Kolb's (2015) experiential learning theory explained the process of how students learn through experiences, e.g., clinical.

Experiential Learning Theory

Kolb's (2015) experiential learning theory claimed knowledge is created through a continuous transformative process where experience is translated into cognitive structures (Poore et al., 2014). According to Kolb's experiential learning theory, the individual learns by experiencing, reflecting on the experience, making generalizations and theories about what they learned, and then applying those generalizations in new situations and contexts (Poore et al., 2014). Experiential learning theory is rooted in constructivism that purports learners build upon previous knowledge. Learning is a cyclic process grounded in the experiences of the learner with building of knowledge from new and previous experiences (Kolb, 2015). Learning begins with a concrete experience followed by reflective observation, abstract conceptualization, and active experimentation where the learner plans and applies what they learned (Kolb, 2015; see Appendix B). Experiential learning theory could be used to describe learning in nursing based on clinical experiences.

Educators play a role in the learning process and could assist students with building knowledge at each step in the cyclical process (Kolb, 2015). The educator acts as a facilitator by drawing on concrete experiences to assist the learner with reflective observation (Kolb, 2015). The clinical post-conference serves as a time in which clinical faculty guide students to reflect upon their clinical experiences. After reflective observation, educators serving as subject matter experts assist learners with organizing and connecting their reflection to the knowledge base of the subject matter (Kolb, 2015). In nursing education, clinical faculty are experienced clinicians; thus, they serve the role the subject or nursing experts who analyze and organize reflections and subject matter to assist students with conceptualizing knowledge. Finally, educators assist students with active experimentation by evaluating student performance and providing consistent feedback (Kolb, 2015). After a clinical experience, nursing faculty assist students with reflection and solidification of understanding to create knowledge during the clinical post-conference that could then be applied to new clinical situations and experiences.

Review of the Literature

To find supporting research, a search of electronic databases Cumulative Index of Nursing and Allied Health Literature (CINAHL), PubMed, Education Resources Information Center (ERIC), and PsycINFO was conducted using the following search terms: clinical, conference, clinical conference, postconference, post-conference, post-clinical, clinical discussion, traditional clinical, clinical debriefing, debrief, clinical learning, and nursing education. A time limit of 20 years was initially set; however, when the search yielded minimal results, the time limitation was removed to find historical and all literature about the clinical post-conference.

In CINAHL, the search terms yielding the largest result of 16,027 articles were “clinical” and “conference.” Adding the limits of “academic journal,” “peer reviewed,” and “English language” resulted in 9,023 articles. The limit of “nursing education” was added due to the top resulting articles being related to professional conferences and clinical trials and yielded 137 articles. Of those 137 articles, 42 were related to professional conference, 55 were related to simulation, and 12 were about staff nurses or new graduate nurses. The remaining 28 were screened for relation to nursing clinical post-conferences and seven articles were identified; however, of those seven articles, only one article was a research study. Searching “post-conference” OR “postconference” yielded the most meaningful results in all electronic databases. For example, in CINAHL, 98 articles resulted from searching “post-conference” OR “postconference” with “English language” and “peer-reviewed” as limiters. Of the 98 articles, 52 related to professional conferences and 16 were about patient-centered support, patient education, or physician-patient conference sessions. Of the remaining 30 articles, 24 articles were related to clinical post-conferences and nursing education; of those 24 articles, eight were research studies.

After relevant articles and research studies were identified by searching the databases, the reference section of each article was reviewed to detect any additional supporting research. The complete search revealed 13 published research studies examining the clinical post-conference (see Appendix C). Due to the limited number of identified research studies, ProQuest was searched for relevant unpublished doctoral research.

Clinical Post-Conference Outcomes

Little research existed examining the outcomes of clinical post-conferences. Opinions by nurse educators indicated the clinical post-conference played a role in the development of

clinical competency; however, there was no overarching consensus regarding what the most important objectives were for clinical post-conferences. This might be the reason why research studying outcomes from teaching and learning strategies used in the clinical post-conference was lacking. What was known about this teaching strategy was the clinical post-conference could play a role in reflection after clinical experiences and the development of critical thinking.

Reflection

Because post-conferences predominantly occurred after clinical experiences, the clinical post-conference was thought to be a key time for students to reflect on their clinical experiences. Often during clinical-post conferences, students shared patient information and discussed what occurred during the clinical day. Crowley's (1995) doctoral study examined the lived experiences of three faculty members and their clinical groups of students during clinical post-conferences as students learned to care for patients. The Crowley study revealed during clinical post-conferences students predominantly shared feelings and reflected on patient care they provided during the clinical day. Recently, Lutter et al. (2018) guided students to reflect on clinical experiences during clinical post-conferences by using a series of art-based learning activities. Twenty-nine nursing students from a private Midwestern college engaged in drawing, painting, collage, poetry, reflective writing, and music during one-hour clinical post-conference sessions over the course of a semester. Qualitative data were collected and analyzed from students' reflective papers about the art-based learning activities. Analysis resulted in four themes: developing new perspectives, appreciating the patient experience, reflecting on feelings and growth, and recognizing the value of art-based learning activities (Lutter et al., 2018). The promotion of reflection of clinical experiences and patient interactions during clinical post-conferences assisted students with emotional awareness, valuing others' perspectives,

development of empathy, awareness of learning, and professional growth (Lutter et al., 2018). In a qualitative doctoral study, Zapko (2014) examined student nurse reflections by interviewing participants and collecting transcripts from online clinical post-conferences. Students displayed overall increased levels of reflection with the more online, reflective clinical post-conference sessions in which they participated. The Zapko study demonstrated a student's ability to reflect on clinical experiences at deeper levels could develop over time by practicing reflection during clinical post-conference discussions.

Hannans's (2013) quasi-experimental doctoral study tested the effect of a reflection education intervention on the level of reflection during online clinical post-conference sessions. Forty-seven baccalaureate students were divided into intervention (n = 32) and comparison (n = 15) groups. The intervention group received education about reflective nursing practice while the comparison group received education about documentation. Levels of reflection during online clinical post-conference sessions were determined by three raters analyzing and scoring online clinical post-conference transcripts. Although no significant differences in level of reflection were found between the intervention and comparison groups, the guided questioning technique used for the online clinical post-conference sessions itself might have led to reflection in both groups.

Delaying clinical post-conference discussions, such as with the online format, could provide students with ample time to reflect (Hannans, 2013; Zapko, 2014). While comparing online and face-to-face clinical post-conferences, Cooper et al. (2004) asked students to evaluate the clinical post-conference by responding to open-ended questions. Students in the online clinical post-conference group reported they had more time for thought and reflection and felt they were more accountable for processing their clinical experiences. Students in the online

clinical post-conference group as well as the face-to-face clinical post-conference group revealed clinical post-conferences to have the following purposes: “1. to reflect on and discuss clinical experiences, 2. to learn from each other’s’ clinical experiences, 3. to ask and answer questions, 4. to learn content presented in case studies, and 5. to use critical thinking skills to analyze clinical experiences” (Cooper et al., 2004, p. 163).

Critical Thinking

Critical thinking is an important and necessary outcome of clinical competency. Faculty believed the clinical post-conference could be used to develop critical thinking as well as bridge the gap between didactic and clinical learning (Heid, 2015; Twibell et al., 2005). In Twibell et al.’s (2005) case study, analysis examining faculty perceptions of students’ critical thinking in the clinical setting faculty identified the clinical post-conference as a key area for critical thinking development. Faculty reported posing scenarios and asked questions during clinical post-conferences to assist with the development of critical thinking (Twibell et al., 2005). Similarly, students also identified the clinical post-conference as a time for learning and the application of critical thinking skills (Cooper et al., 2004). Although faculty and students believed the clinical post-conference was a place to develop critical thinking, how critical thinking was developed remained unclear.

Rossignol (1997) studied the relationship between faculty and student discourse strategies and levels of student critical thinking. Interactions among 10 faculty members and 57 students over three clinical post-conference sessions per faculty member (30 total) were audiotaped and individual dialogue was analyzed. Rossignol found the relationship among faculty discourse strategies and student critical thinking to be inconsistent. Although faculty use of high-level questioning was significantly associated with level of student critical thinking for each of the

three clinical conference sessions examined, the direction of the relationships was positive for two conference sessions and negative for the third (Rossignol, 1997). Only 27% of faculty discourse strategies and 24% of student discourse strategies involved questions that produced high levels of cognitive thinking (Rossignol, 2000). During the conferences, students talked more (61.8%) than did faculty (38.2%) and the increased student talking, participation, and student-to-student interaction related to lower-levels of student critical thinking (Rossignol, 1997). Rossignol (1997) concluded lower-level critical thinkers participated more frequently in the clinical post-conference sessions with high participation rates. The findings suggested faculty should play an active role in clinical post-conferences to help facilitate the quality of dialogue.

Lower-level questions are those at the knowledge and comprehension level of Bloom's taxonomy and promote simple recall rather than deeper thinking (Hsu, 2007). In Hsu's (2007) qualitative study observing faculty and student interactions during 20 clinical post-conferences at a university in Taiwan, faculty used low-level questioning most frequently. More than 90% of the questions asked by nursing faculty were low-level questions at the knowledge and comprehension levels of Bloom's taxonomy (Hsu, 2007). Higher level questions such as questions at the application and analysis level of Bloom's taxonomy were asked only 4.1% and 1.8% of the time, respectively (Hsu, 2007). Although evidence in the literature suggested faculty believed the clinical post-conference was a place to develop critical thinking, evidence of the actual use of strategies to promote critical thinking was lacking.

In an effort to improve the level of questions asked by nursing faculty during clinical post-conferences, Wink (1993) studied the effect of a faculty education program. Wink conducted a quasi-experimental, pretest-posttest treatment and comparison group study to examine the use of cognitively high-level questions in the clinical post-conference before and

after an educational program designed to increase the level of faculty questioning. Eighteen faculty members and students in their clinical laboratory groups from four undergraduate nursing programs were divided into intervention and comparison groups. Faculty members participating as part of the intervention group received a seven-hour in-service discussing the goals of the clinical post-conference, faculty-student interaction in the clinical setting, types of questions and development of questions based on Bloom's taxonomy (Hsu, 2007), and the dynamics of effective questioning. A week after the in-service, faculty in the intervention group audiotaped one of their clinical post-conferences and were provided feedback via a written narrative analysis as well as an article about questioning techniques. Last, as part of the intervention, the researcher led a one-hour seminar discussion where faculty self-critiqued their ability to use the techniques presented in the in-service and discussed any difficulties they faced while implementing the strategies. Data for both the intervention and comparison groups were collected via audiotapes of eight clinical post-conference sessions per participant. For the intervention group, four post-conference sessions were audiotaped before the intervention and four after. "The cognitive levels of questions asked by faculty and their students were analyzed using the Teacher Pupil Questioning Inventory" (Wink, 1993, p. 359). Eight of 10 faculty in the intervention group compared to only one of four faculty in the comparison group increased their cognitive level of questioning from the first four audiotapes (pretest) to the last four audiotapes (posttest; Wink, 1993). A significant difference ($p = 0.012$) was found in the level of questions asked by nursing faculty during clinical post-conferences in the intervention group after the program compared to the comparison group (Wink, 1993).

In Stroup's (2019) doctoral study, the development of clinical reasoning was studied by comparing students participating in a structured debriefing process through clinical rounding ($n =$

33) and students participating in standard clinical post-conference discussions (*n* = 13). The clinical reasoning post-test revealed higher scores in clinical judgment for those participants involved in the structured clinical round when compared to the traditional clinical post-conference classroom discussion. The Stroup study suggested the clinical round where students and faculty discussed patients at the bedside might be more beneficial than the clinical post-conference; however, it was possible the structure implemented in the clinical round versus the unstructured clinical post-conference was the factor that improved clinical judgment rather than solely the clinical round itself. Stroup and Wink's (1993) findings suggested guidance for faculty facilitation of clinical post-conferences could be beneficial to develop student critical thinking during clinical post-conferences.

Clinical Post-Conference Environment

The clinical post-conference environment occurs or what students and faculty experience during clinical post-conferences. Letizia and Jennrich (1998) developed the Clinical Post-Conference Learning Environment Survey (CPLES) to provide insight about the factors that affected the clinical post-conference learning environment. The CPLES measures perceptions by faculty and students about what occurs in the clinical post-conference learning environment and the importance of those factors. Letizia and Jennrich used literature review, observation of clinical post-conferences, interviews with content experts, and the content validity index to develop the final 54-item, six subscale instrument. Each item on the CPLES was rated twice on a 7-point Likert scale to depict (a) actual prevalence and (b) perceived importance. Faculty and students (*N* = 457) from three baccalaureate nursing programs in the midwestern United States participated in Letizia and Jennrich's study to test the CPLES. Students and faculty were asked to consider their collective experiences over many clinical post-conferences on the following

subscales: student involvement, cohesion of the clinical post-conference group, teacher support, task orientation, order and organization, and innovation. Megel et al. (2013) conducted a repeat study using the CPLES with baccalaureate nursing students (n = 136) and faculty (n = 42) at a four-campus midwestern university. For the different subscales, both Letizia and Jennrich and Megel et al. found a significant difference between the means of the rankings of the actual occurrence of the factors versus the rankings of the importance of the factors with importance being rated higher than actual occurrence. The findings indicated what was considered important was not actually occurring in clinical post-conferences and effective execution of clinical post-conferences might be lacking.

The Crowley (1995) study, examining the lived experience of faculty and students during clinical post-conferences, identified a lack of overall goals was noted for time spent in clinical conferences. When examining student viewpoints related to the characteristics of clinical conferences in Iran, Gheidanzadeh et al. (2017) found baccalaureate nursing students (N = 134) rated planning, execution, and satisfaction of conferences as mediocre (53%) to poor (45.5%). Weak ratings of clinical post-conferences in the Gheidanzadeh et al. study and factors rated as more important than actual occurrence in clinical post-conferences in the Letizia and Jennrich (1998) and the Megel et al. (2013) studies indicated a desire for some structure and clarity for instructor facilitation of clinical post-conferences.

Clinical Post-Conference Activities

In both the Letizia and Jennrich (1998) and the Megel et al. (2013) studies, innovation in the clinical post-conference environment was ranked the lowest in both use and importance. Innovation was measured on the CPLES (Letizia & Jennrich, 1998) by statements asking about differing structure and activities, variety in content and discussion, and students thinking

creatively and independently (Letizia, 1996). Although the CPLES measured if there was innovation in clinical post-conferences, the CPLES did not address specific teaching and learning strategies used in the clinical post-conference. Furthermore, statements about innovation were general.

Letizia (1998) conducted a survey of faculty to determine what teaching and learning strategies were used in the clinical post-conference and found discussion to be the main reported teaching strategy. In other research studies, clinical post-conference discussions were also identified as the main teaching strategy (Hsu, 2007; Rossignol, 1997). Rossignol (1997) specifically studied discourse between faculty and students while Hsu (2007) found questioning was used most often to facilitate discussion. When analyzing specific types of discussion discourse, Rossignol (2000) found 66.2% of clinical-post conference talk was students and faculty reacting and responding to something someone else said, suggesting active and spontaneous discussions. Discussion surrounding clinical experiences and the clinical day was the most frequent strategy reported by faculty and observed by researchers in Hsu's study; however, role play, psychomotor skill practice, and report reading were also used by three out of 10 faculty participants. In Letizia's survey, following discussion, case studies, coverage of theoretical content and nursing ethics, student presentations, guest speakers, and nursing research were the next most frequently used teaching strategies reported by faculty. Lutter et al. (2018) implemented and studied the newer teaching strategy of art-based learning for nursing education to promote reflection in the clinical post-conference.

The Crowley (1995) study noted a mix of the use of unstructured discussion and formal presentations in clinical conferences centered on the care of actual patients. Crowley concluded the clinical post-conference should be about caring for specific and unique patients and not

generic or typical patients used in case studies and the classroom. In contrast, a pilot study by Heid (2015) evaluated student and faculty perceptions of four online clinical post-conference sessions based on pre-selected case scenarios. Ten students in one clinical group from one program participated in the study. For each clinical post-conference, students were given a case scenario with several questions to discuss over a two-week time period. At the end of the pilot study, students were surveyed about support during the conferences and indicated they liked the case study discussions within the online clinical post-conference. Although case scenarios were used in the Heid study for an online clinical post-conference, students in the study also still participated in lunch conferences and a brief post-conference session to discuss their specific clinical experiences. The clinical post-conference might be the only time students and faculty were able to discuss care for real patients (Crowley, 1995). Although other nurse educators have implemented and discussed various teaching strategies, no further research existed regarding specific teaching strategies for the clinical post-conference.

Online Clinical Post-Conference

Cooper et al. (2004) as well as Neumeier and Small (2014) conducted studies comparing face-to-face and asynchronous online clinical post-conference formats. Cooper et al. found no significant difference between students receiving face-to-face versus online clinical post-conference on an instructor-created quiz; however, students' evaluations of the clinical post-conference experience were higher for students in the online clinical post-conference group than for the face-to-face clinical post-conference group. Participants participating in online clinical post-conferences (n = 33) had significantly higher ratings for four areas: participation by all students (p = 0.000), convenience of timing of clinical post-conference (p = 0.001), motivation to learn in clinical conferences (p = 0.000), and the descriptions of other students' experiences

helped with learning ($p = 0.003$). Consistent with the Cooper et al. study, Neumeier and Small found students participating in online clinical post-conference discussions were satisfied with the online format and felt the online format was effective for their learning. Both the Neumeier and Small and Cooper et al. studies had small sample sizes with researcher-created measurements of unknown reliability and validity; thus, information about the efficacy of online clinical post-conferences was still limited.

In the Heid (2015) pilot study, faculty anecdotally reported using online case scenarios for clinical post-conference promoted deeper thinking by allowing students to relate course content to the clinical scenarios. Students were surveyed and agreed or strongly agreed with statements indicating the online clinical post-conference was beneficial to their learning and assisted with correlating theory to practice but no testing or statistical analysis was performed (Heid, 2015). Ebersole-Berkstresser (2013) examined the correlation between asynchronous online clinical post-conference and critical thinking and found no significant difference in critical thinking between students engaged in face-to-face ($n = 21$) versus online ($n = 23$) clinical post-conferences. The non-significant findings suggested the online environment is a viable option for clinical post-conferences; however, details describing what teaching strategies were used in the face-to-face and online clinical post-conferences in the Ebersole-Berkstresser study were unknown and could have affected the results.

The descriptive study by Hamera and Wright (2004) used asynchronous online clinical conferencing over two-week periods with 10 psychiatric graduate nursing students during their psychiatric practicum rotations. Topics for students to discuss during the clinical conferences were presented by both faculty and students during the practicum course. Online transcripts were analyzed and student discussion statements were characterized as personal, emotional, or

metacognition interactions. The number of statements classified as personal, emotional or metacognition interactions varied by topic; however, Hamera and Wright (2004) concluded the online clinical post-conference discussions met course outcomes.

Faculty Support

The role of faculty in the clinical post-conference included facilitation, providing support, and answering questions (Cooper et al., 2004; Crowley, 1995; Rossignol, 2000). In both the Letizia and Jennrich (1998) and the Megel et al. (2013) studies, teacher support was ranked highest in both the actual and importance subscales by both students and faculty. The findings suggested faculty played an important role in the clinical post-conference:

> Teacher support was measured in the instrument by statements including treating students equally, facilitating post-conference discussion, showing interest in student problems, respecting students, expressing confidence in students, and emphasizing positive aspects of clinical experiences. (Megel et al., 2013, p. 527)

In contrast, Hsu (2007) found teacher support to be the least observed of Letizia's (1996) factors for the clinical post-conference environment; however, the Hsu study was conducted in Taiwan and per the researchers, cultural factors likely played a role in the lack of observable instructor praise, support, or friendliness. In the Crowley (1995) study, the lived experiences of faculty and students during clinical post-conferences revealed a community of support built by faculty and students. Students with a sense of camaraderie explored knowing the patient in more detail in an effort to develop a caring relationship and recognized the impact of their own selves as caregivers. Students were able to encourage and help one another while also offering honest appraisal and critique of patient care (Crowley, 1995).

Summary

Meleis's (2015) transitions theory and Kolb's (2015) experiential learning theory were used to support the need for examining the clinical post-conference. Students experience a transition as they move from didactic learning to clinical learning with application of knowledge to competently care for patients. Faculty can assist students with the transition through teaching strategies to provide support and debrief experiences. The clinical post-conference could serve as a time for such nursing interventions and assist students with becoming competent in the clinical setting. Nursing students in the clinical environment learn through experiential learning. Clinical experiences are concrete experiences students reflect upon and contextualize to form knowledge. Nursing faculty during the clinical post-conference could assist students with reflection and forming knowledge that could then be applied in new clinical experiences.

Aligning with Kolb's (2015) experiential learning theory, research depicted the clinical post-conference as a time for reflection and critical thinking. Although critical thinking is portrayed as an outcome of the clinical post-conference, faculty do not routinely ask high-level questions that promote deeper level thinking. There is a lack of implementation of what is considered important in the clinical post-conference environment. Identifying suggested teaching and learning strategies for the clinical post-conference could provide nursing faculty with a better understanding of how to effectively facilitate clinical post-conferences. Discussion is the main teaching strategy in the clinical post-conference; however, other strategies have been suggested. Various formats such as online clinical post-conferences have also been proposed. Knowledge about the clinical post-conference is lacking and strategies for the clinical post-conference remain unclear. Furthermore, minimal research examining the clinical post-conference has been conducted at single institutions. A broader perspective with consensus from

various clinical faculty experts could provide a better understanding of the strategies and priorities for the clinical post-conference. Faculty support and facilitation of clinical post-conference is considered important; thus, guidelines to support faculty facilitation of clinical post-conferences would be beneficial to clinical nursing education.

CHAPTER III

METHODOLOGY

The purpose of this chapter is to describe the research methodology for the study. The study design was chosen to develop guidelines for nursing faculty to use when implementing clinical post-conferences. The Delphi Method is a survey technique that seeks the consensus of experts through a series of anonymous, structured questionnaires classified as rounds. After each round of questionnaires, responses are summarized and provided to the expert participants to solicit further opinions.

Research Design

The Delphi method originated from Rand Corporation in the early 1950s for the purpose of forecasting military technology but has since been used in medicine, nursing, and health services research (Hasson et al., 2000; Stitt-Gohdes & Crews, 2004). The Delphi method is a structured communication process used to solicit responses from a group of experts to produce a detailed examination of a topic (Stitt-Gohdes & Crews, 2004). The Delphi is best used when "the problem does not lend itself to analytical techniques but can benefit from subjective judgments on a collective basis" (Stitt-Gohdes & Crews, 2004, p. 56). Establishing guidelines for the clinical post-conference were achieved by seeking collective opinions from nurse educators with experience in clinical education and clinical post-conference facilitation. The Delphi method provided a foundation for making recommendations about a topic, establishing guidelines, and identifying key components of an intervention (Stitt-Gohdes & Crews, 2004; Trevelyan & Robinson, 2015). Using the Delphi method to determine guidelines and recommendations for the

clinical post-conference was appropriate because little is currently known about teaching and learning in the clinical post-conference. Nurse educators might benefit from expert opinions to make evidence-based choices when using clinical post-conferences as part of their pedagogy.

With the Delphi method, expert views are shared anonymously and feedback is provided to afford the experts the opportunity to form agreements about a topic. The Delphi method reduces the associated time and cost it takes to schedule live meetings with experts to discuss a topic (Stitt-Gohdes & Crews, 2004). Furthermore, the anonymous nature of the Delphi allows for experts to voice their true opinions without feeling pressured or being overshadowed by those with stronger personalities (Keeney et al., 2011; Stitt-Gohdes & Crews, 2004).

The classic Delphi employs four rounds of data collection; however, the Delphi has commonly been shortened to two or three rounds (Foth et al., 2016; Keeney et al., 2011). Shortening the Delphi is justified due to the difficulty of retaining a high response rate with multiple rounds of surveys (Keeney et al., 2011). To limit participant fatigue and attempt to decrease attrition, a three round Delphi was used for this study.

The classic Delphi method uses open-ended questions in the first round. Round 1 for this study followed the classic approach by using a questionnaire with open-ended questions. De-identified data from Round 1 were used to inform the questionnaire used in Round 2 and de-identified feedback about Round 1 responses were provided to participants. Data from the Round 2 questionnaire were collected and helped refine the Round 3 questionnaire. In Round 3, the group's statistical summary feedback from Round 2 was provided to participants and participants completed the Round 3 questionnaire with the aim of achieving consensus. The e-Delphi is use of the Delphi method with questionnaires sent electronically via email or hosted on an electronic platform and is a feasible option for soliciting group responses (Keeney et al., 2011). This study

used the e-Delphi by using Qualtrics and sending each round of questionnaires via a link to the participants' emails to be filled out electronically.

Research Questions

The following research questions guided this study:

Q1 What is the recommended structure for the clinical post-conference?

Q2 What is the recommended setting for the clinical post-conference?

Q3 What are the recommended processes detailed by nurse experts regarding clinical post-conference?

Q4 What do nursing educators describe as the outcomes of the clinical post-conference?

Sample

Purposeful sampling techniques are used in the Delphi method to identify expert participants about the topic at hand. The Delphi method does not provide specific criteria for choosing experts for a study; however, those classified as an expert in a Delphi study are assumed to have more knowledge about a topic than most people (Keeney et al., 2011; Trevelyan & Robinson, 2015). Nurse educators with experience with clinical teaching and clinical post-conference facilitation were sought for this study because it was assumed nurse educators with experience teaching in the clinical setting and using clinical post-conferences as part of their pedagogy were the most knowledgeable about the topic. The quality of a Delphi study depends on the experts chosen; thus, the definition of an expert must be clearly defined for the study (Hsu & Sanford, 2007). The following working definition of the term *expert* was used for this study: Nursing faculty working full-time at an institution of higher education and teaching in a pre-licensure baccalaureate or associate accredited program of nursing; have been a RN for at least

six years; and have held clinical post-conference sessions with at least five clinical groups of nursing students over the past five years.

The sample size for the panel of experts in a Delphi study can range from 10 to over 100 participants (Keeney et al., 2011). Sample size might vary depending on the type of sample solicited and the collection of qualitative versus quantitative data in the first round (Stitt-Gohdes & Crews, 2004). A sample size of 10 to 15 experts is appropriate for a Delphi method when a homogenous sample is sought (Keeney et al., 2011). Experts in a field of study are a homogenous group and must have common knowledge in order to form a consensus. For this study, a homogenous sample of nurse educators with experience in clinical teaching and facilitation of clinical post-conferences was sought; thus, a smaller sample was justified.

With the collection of qualitative data, too many participants might produce an overwhelming amount of data to be analyzed and provided back to participants (Stitt-Gohdes & Crews, 2004). Collecting too much qualitative data in the first round could pose problems for a Delphi study as the researcher would need to either determine what not to include from the first round, possibly compromising the data in the second round, or create a very lengthy second round questionnaire that would likely affect attrition (Keeney et al., 2011). Attrition is common with the Delphi method; thus, sampling must also account for possible attrition. The final round must have enough participants to make the data meaningful; additionally, reliability of the Delphi increases with the number of participants (Keeney et al., 2011). In this study, to achieve a balance between collecting a manageable amount of data from Round 1's open-ended questionnaire and account for possible attrition between rounds, a target sample size was set at 30 participants.

Participants were solicited through purposeful and snowball sampling techniques. Accredited undergraduate nursing programs and their associated program directors were identified through the Accreditation Commission for Education in Nursing (ACEN, 2020) public website listserv. Schools accredited by the ACEN were chosen because the ACEN accredits all levels of nursing programs and faculty teaching in both baccalaureate and associate pre-licensure programs were sought for generalizability of the Delphi results. The target population was nursing faculty working full-time teaching in pre-licensure baccalaureate and associate degree nursing programs with experience facilitating clinical post-conferences. Faculty teaching in diploma programs were excluded due to diploma programs' fundamentally different approach to clinical education.

An email with an initial letter of invitation was sent via email to 827 ACEN (2020) accredited baccalaureate and associate nursing program directors, asking them to forward the information to nursing faculty who met expert participant requirements and who might be interested in the study. The email contained a link to a consent form for the study and a place for willing participants to provide their email contact information to receive the Round 1, Round 2, and Round 3 questionnaires. Within one week, 183 participants reviewed the consent form and provided their email contact information, indicating willingness to participate in the study. A link to the questionnaires for each round and a demographic survey were emailed to 183 initial participants at their provided email addresses.

Protection of Human Subjects

Institutional Review Board approval from the University of Northern Colorado was obtained prior to solicitation of participants and collection of data (see Appendix D). Potential participants were provided an invitation to participate (see Appendix E) and a consent form

including a description of the study purpose and procedure, participant time commitment, and risks and benefits of the study (see Appendix F). Participation was voluntary. After the consent was read, participants who wished to participate were asked to and provide an email address. Once participants for the study were identified, a cover letter for Round 1 (see Appendix G) and a Qualtrics link with the Round 1 questionnaire (see Appendix H) and a demographic survey (see Appendix I) were emailed to participant provided emails. Collecting demographic information in Round 1 was essential to identifying whether participants met the inclusion criteria to be part of the expert panel. Demographic information also provided insight into the characteristics of the expert panel. Completing the demographic survey and the questionnaires for each round implied consent to participate. After participation in Round 1, a cover letter for Round 2 (see Appendix J) and a Qualtrics link with the Round 2 questionnaire (see Appendix K) were emailed to participants. For Round 3, a cover letter (see Appendix L) and a Qualtrics link with the Round 3 questionnaire (see Appendix M) were emailed to participants. Individual emails were sent to participants to protect participant anonymity. Participants remained anonymous to one another; however, participant responses could be identified by the researcher in order to collect data and provide feedback to participants. All participant information was kept confidential. Participant email addresses, demographic information, and individual questionnaire responses were only known to the researcher. Email addresses could be identified by the researcher but no names or other personal identifiers were used. A code was assigned to each participant to link participants to their questionnaire responses in order to provide accurate feedback between rounds. Participant email addresses and coded data were saved in different files and stored separately.

Participation was voluntary; thus, only those interested in participating provided an email address and responded to the questionnaires for each round. Participants were able to refuse to

participate in the study at any time by not filling out the questionnaires for each round. Participants had the ability to skip answers and submit incomplete questionnaires. Individual participants were not directly compensated for their time; however, participants completing all three rounds of questionnaires were entered into a raffle for a $100 Walmart gift card. The benefits to participants included assisting nursing faculty with improving future teaching and learning during the clinical post-conference and advancing the profession. The study included only minimal risks to participants in that participants might have felt uncomfortable or stressed when answering one or some of the questions found on the questionnaires.

Data Collection and Analysis

Participation in a Delphi study involves commitment of participants to participate in multiple rounds of surveying. Predetermining the number of rounds, providing formal feedback to participants, and defining consensus prior to data analysis strengthens the Delphi method (Foth et al., 2016). This study consisted of three rounds with feedback provided after each round. Feedback from Rounds 1 and 2 were provided on the subsequent round's questionnaire and a final analysis was provided to participants after Round 3. There is no set recommendation for the level or percentage of agreement between participants to indicate consensus in a Delphi study. Researchers have set the level of consensus anywhere between 51% to 80% (Keeney et al., 2011); however, consensus is usually set at 60% or higher (Foth et al., 2016). In Foth et al.'s (2016) review of the use of the Delphi in nursing education research, the average level of consensus was set at 75%. To determine the level of consensus, Keeney et al. (2011) suggested considering the objectives of the study and understanding that the higher the criteria for consensus, the harder consensus was to achieve. To determine guidelines and outcomes for clinical post-conferences, the level of consensus for Rounds 2 and 3 of this study was defined as

70% agreement among participants. Details for data collection and analysis for each round are described further.

Round 1

Round 1 involved collecting qualitative data with an open-ended questionnaire. Questions for the Round 1 questionnaire were developed from the literature and corresponded with the research questions (see Appendix H). To improve clarity, the questions for Round 1 were reviewed by nursing faculty members with experience with clinical post-conferences. A Qualtrics link with the Round 1 questionnaire was emailed to each expert panel participant. Participants were given two weeks to respond to the questionnaire. Two weeks was chosen because providing less than one week might not have given participants enough time to respond; however, more than two weeks might have made the questionnaire a low priority for participants to complete (Keeney et al., 2011). Participants who had not completed the questionnaire within one week were sent a reminder email (see Appendix H).

Responses from the Round 1 questionnaire were collated and developed into a questionnaire for Round 2. A qualitative software, NVivo, was used to code data and complete a content analysis. Data from the Round 1 questionnaire were analyzed by grouping statements generated by the expert panel into similar themes or content areas. Statements for each theme were further examined for responses that were exactly the same or were similar enough that they meant the same thing and could be collapsed into one statement. Responses to each question were analyzed for statements of similar meaning first and then responses to questions related to the same research questions were examined again for statements of similar meaning. Statements from the expert panel remained as true to the wording as possible when the statements were developed to be used on the Round 2 questionnaire (Keeney et al., 2011). When collapsing

statements, wording was kept as true as possible to one of the statements provided by the expert panel participants. Unique statements provided by the expert panel that did not fit within one of the identified themes were retained as worded and included in the Round 2 questionnaire (Keeney et al., 2011). Once all the statements had been identified, collapsed, and combined with the unique statements, the statements were reviewed and organized into themes. Organizing the final list of statements provided insight into the broad content areas identified by the panel as well as provided an organization scheme for the Round 2 questionnaire that would make answering the questionnaire easier for participants (Keeney et al., 2011). Frequencies and descriptive statistics were used to analyze demographic data from the demographic survey.

Round 2

The Round 2 questionnaire (see Appendix K) consisted of statements participants were asked to rate on a 5-point Likert-scale indicating agreement or disagreement with the statement. The response options contained the following ratings: 1 = *strongly disagree*, 2 = *disagree*, 3 = *undecided*, 4 = *agree*, and 5 = *strongly agree*. The number of statements on the Round 2 questionnaire was determined by the amount and variety of data collected in Round 1. The Round 2 questionnaire was a Qualtrics link sent to participants via email. Participants were given two weeks to respond to the questionnaire. Participants who had not completed the questionnaire within one week were sent a reminder email (see Appendix K).

Data were entered into the Statistical Package for the Social Sciences and analyzed using frequencies and descriptive statistics. Consensus was considered when 70% or more of the expert panel participants were in agreement regarding rating of individual statements. Statements not achieving consensus were included in the Round 3 questionnaire.

Round 3

Group communication through feedback is central to the strength of the Delphi method. Statements achieving consensus were listed for participants to view and statements not reaching consensus were included on the Round 3 cover letter (see Appendix L). Removing the Round 2 statements achieving consensus showed participants how the process was working as well as shortened the Round 3 questionnaire. This might have encouraged participants to continue to participate in Round 3 (Keeney et al., 2011).

Exclusion of statements reaching consensus in Round 1 might have provided an opportunity for statements included in Round 3 to gain higher consensus ratings than those achieving consensus in Round 2; however, overall consensus was more important than the degree of consensus (Keeney et al., 2011). In Round 3, participants were provided their responses from Round 2 as well as the median responses of the group for each statement not reaching consensus in Round 2. Participants could reconsider their ratings of the statements from Round 2 in the context of the group's responses. Participants were then asked to either retain their initial rating or revise their rating (Stitt-Gohdes & Crews, 2004). Participants were given two weeks to respond to the questionnaire. Participants who had not completed the questionnaire within one week were sent a reminder email (see Appendix M).

Data were entered into Statistical Package for the Social Sciences and analyzed using frequencies and descriptive statistics. If any item had more than 15% change in the mean rating from one round to the next, it would have been considered unstable (Stitt-Gohdes & Crews, 2004). Consensus was considered when 70% or more of the expert panel participants were in agreement regarding rating of individual statements. Agreement could also be determined by acceptance of items that were rated at the upper or lower portions of a Likert scale such as

accepting consensus for ratings of 4 and 5 on a 5-point Likert scale (Foth et al., 2016). Consensus for ratings on the upper portion of the Likert-scale, ratings of 4 (*agree*) and 5 (*strongly agree*), were considered for a combined consensus level of 70% in Round 3.

Limitations of the Delphi Method

A limitation of the Delphi method was the selection of the expert panel. There is no single definition of expert for a Delphi study, creating vulnerability surrounding who is chosen as an expert to participate (Fink et al., 1984; Foth et al., 2016). It was assumed nurse educators with experience in clinical teaching and clinical post-conference facilitation had knowledge about the topic to form the expert panel; however, true expertise was not guaranteed. Thus, opinions from the expert panel might not differ from other nurse educators with less experience with clinical education and facilitation of clinical post-conferences.

The selection of the number of participants can be a limitation as the reliability of the Delphi method increases with more participants (Fink et al., 1984; Keeney et al., 2011). The targeted sample size for this study was chosen to obtain a manageable amount of data. Additionally, homogenous samples require less participants. A larger number of participants might increase reliability but might also produce an unwieldly amount of data to include on Round 2 and Round 3 questionnaires (Keeney et al., 2011). More data on the Round 2 and Round 3 questionnaires would create longer questionnaires for participants to complete and might cause participant fatigue.

Participant fatigue and subsequent attrition between rounds is a concern with the Delphi method. The reliability of the Delphi also increases with the number of rounds; however, there is a higher potential for participants to withdraw from the study (Fink et al., 1984; Keeney et al., 2011). The Delphi method requires ongoing time and commitment from participants. A three

round Delphi was chosen to limit participant fatigue; however, participant attrition between rounds might still have occurred.

Another limitation of the Delphi method is the possibility of the expert panel feeling pressure to conform to the group. Although participants remained anonymous to one another, they might still have felt pressure to agree with the rest of the panel of experts. Participants with divergent opinions might end up conforming due to social pressures or abandon the process and withdraw from the study (Keeney et al., 2011). Consequently, there was a possibility the results of this Delphi study might have represented collective bias rather than true expert knowledge (Keeney et al., 2011).

Summary

This chapter described the methods for this study. This study used a three-round, electronic Delphi method for data collection and analysis to answer the research questions. Institutional Review Board approval was obtained prior to solicitation of participants and data collection. All participant information was kept confidential and participation was voluntary. Round 1 consisted of an open-ended questionnaire with qualitative data analysis. Data from Round 1 informed the Round 2 questionnaire. In Round 2, expert panel participants were asked to rate their agreement with statements derived from Round 1. In Round 3, participants were given feedback regarding their responses and the panel group responses and asked to reconsider their responses. Limitations included potential attrition of expert participants and pressure of participants to conform to the group. The aim of the study was to reach consensus about strategies and objectives for the clinical post-conference.

CHAPTER IV

RESULTS

The purpose of this chapter is to present the results of the Delphi study. Nurse educators with experience facilitating clinical post-conferences were identified to participate as part of the expert panel for the study and provide their opinions through three rounds of data collection. This chapter is organized by presenting the data collected from each round. The demographic information for the panel of experts is presented first, followed by the data obtained from Rounds 1, 2, and 3.

Expert Panel

The panel of experts for this study was obtained through purposeful sampling. Nursing directors were contacted and asked to forward study information to nurse educators meeting inclusion criteria who might be interested in participating. One hundred eighty-three nurse educators agreed to participate in the study by reviewing the study consent form and providing their email address to be sent each round of questionnaires. The Round 1 questionnaire and demographic survey were sent to the 183 identified participants via their provided email addresses. After two weeks, 119 participants had completed the Round 1 questionnaire. Attrition from obtaining consent to completion of the Round 1 questionnaire was 35%. Appendix N depicts attrition of participants from recruitment through Round 3 of the study.

Based on the demographic data provided in Round 1, nine participants did not meet inclusion criteria of the study. One participant chose not to complete the demographic information; thus, eligibility to participate as a panel expert could not be determined. One

participant indicated they had only been an RN for four years rather than the required six years and was excluded from the study. One participant responded ‘no’ to teaching in an accredited nursing program and two participants indicated they taught in a program other than an undergraduate associate or baccalaureate degree nursing program. Lastly, four participants held clinical post-conferences with less than five groups of students in the last five years and were excluded from the study. The remaining 110 participants became the expert panel for Round 1. Although one participant did not indicate how long they had been an RN, the participant indicated they had been a full-time nursing faculty member for 34 years so it was assumed they met the inclusion criteria and were retained as an expert panel participant.

Demographic Data

Most of the expert panel participants were female (94.5%), between the ages of 50 and 59 (37.3%), and teaching in an associate degree program (77.3%). Participants were located across the United States with most teaching in the South (43.6%). Participants had been RNs for an average of 27.2 years and teaching as a full-time nursing faculty member for an average of 11.7 years. Tables 1 and 2 depict the demographic information for the expert panel.

Table 1

Gender, Age, Region, and Program of Delphi Expert Panel Participants

Demographic	*n*	%
Gender		
Female	104	94.5
Male	5	4.5
Total	109	100.0
Age		
20-29	1	0.9
30-39	14	12.7
40-49	22	20.0
50-59	41	37.3
60-69	29	26.4
>69	2	1.8
Total	109	100.0
Region		
West	15	13.6
Midwest	32	29.1
Northeast	14	12.7
South	48	43.6
Total	109	100.0
Program		
Associate	85	77.3
Baccalaureate	19	17.3
Associate and Baccalaureate	6	5.5
Total	110	100.0

Table 2

Number of Years as a Registered Nurse and Full-Time Faculty Member of Expert Panel Participants

	n	Minimum	Maximum	*M*	Median
Years as a RN	109	7	48	27.19	29
Years as a Full-Time Nursing Faculty Member	110	1	45	11.70	10

Round 1

The Round 1 questionnaire consisted of 16 open-ended questions related to the clinical post-conference. The originally developed questionnaire for Round 1 included 16 questions; however, upon review of the collected Round 1 data, it was discovered that one question was unintentionally omitted from the Round 1 questionnaire in Qualtrics. The narrative responses of participants to the 15 questions were organized in NVivo by statements of similar meaning. Statements determined to have the same meaning were condensed to one representative statement used in the Round 2 questionnaire. Due to the large number of participants and subsequent data collected in Round 1, statements were shortened as much as possible for clarity and to control the length of the Round 2 questionnaire. Lengthy participant responses were condensed to try to limit statements on the Round 2 questionnaire to those representative of only one concept. The Round 2 questionnaire consisted of 289 statements formulated from the data collected in Round 1. The Round 2 questionnaire can be found in Appendix K. This section provides examples of narrative statements provided by participants in Round 1 and is organized by the four research questions of the study.

Recommended Structure of the Clinical Post-Conference

Responses addressing the structure and organization of the clinical post-conference included the types of clinical experiences for which the clinical post-conference was recommended, when clinical post-conferences should be held, how long clinical post-conferences should last, and for what educational levels of student clinical post-conferences were recommended. In Round 1, consensus was reached for the level of students for which clinical post-conferences were recommended after 109 out of 110 participants stated clinical post-conferences should be used for all levels of students. A statement regarding the levels of students

and clinical post-conference was not included on the Round 2 questionnaire as 99% of participants already agreed in their narrative responses. Statements included on the Round 2 questionnaire were condensed from multiple narrative statements when the meaning was determined to be the same. Appendix O provides examples of final statements used on the Round 2 questionnaire about the structure of the clinical post-conference along with example quotes that were condensed.

Fifty-two participant statements indicated clinical post-conferences should be held for all types of clinical experiences. Different participants stated: “All clinical experiences should include post conference for students to discuss what went well, what could be improved, and for their instructor to provide additional information”; “I recommend post conference for all experiences”; and “All clinicals should have a post conference to review any important details of the day.” The next most mentioned clinical experiences were simulation and face-to-face clinicals. Participants mentioned using clinical post-conference after simulation as a form of debriefing 30 times and for face-to-face clinical experiences 26 times. Different participants stated: “Simulated and direct patient care clinical activities are recommended for clinical post-conferences”; “Any type of experience that requires patient care from the student, simulation could count. Although usually termed debriefing with simulation”; “All clinical/ hands-on experiences, as well as simulation experiences”; and “For face-to-face clinicals with students in any clinical agency; also, as a debriefing with simulation clinicals.”

The use of clinical post-conferences for observational experiences was expressed as unnecessary by two participants. One participant stated: “The only clinical experience that wouldn't require post conferencing would be observational experiences.” However, another participant stated clinical post-conferences should be used for observational experiences: “Post-

conference should be done for all clinical experiences even if the student is in the observation role." The use of clinical post-conference for observational experiences was listed neutrally on the Round 2 questionnaire to allow the expert panel to express their opinions either in favor, against, or neutrally for the use of clinical post-conference with observational experiences.

Participant responses regarding the length of the clinical post-conference were expressed in minutes, hours, and time ranges. Time on the Round 2 questionnaire was listed in order from 15 minutes to 3 hours as expressed by participants. Numerous participants expressed the length of the clinical post-conference was dependent on factors such as the number of students in a clinical group or the type of clinical experience. Different participants stated: "Depends on the number of students in your group. Anywhere between an hour and 1.5 hours"; "The length of post conferences should be dependent on the level of the nursing student. Beginning students will need a longer post conference time in comparison to last level students"; and "It depends on the clinical, but at least 20 min."

The question "When should clinical post-conference be held? (e.g., frequency, timing during and/or following a clinical experience)" was inadvertently not included on the Round 1 questionnaire; however, multiple participants provided statements about the frequency and timing of the clinical post-conference in their responses to other questions on the questionnaire. Such statements about time included "Any clinic setting where an instructor is present with any student group. I don't think more than once a week is necessary," "Post conferences are conducted at the end of a clinical experience day," "90-120 minutes for onsite clinical day and virtual clinical sessions. Intermittent (not every week)," and "Holding post-conference after an 8-hour and especially after a 12-hour clinical shift is an unrealistic expectation for students and

instructors." Statements about the timing of the clinical post-conference in response to other questions were included on the Round 2 questionnaire.

Recommended Setting for the Clinical Post-Conference

Participants were asked to describe the ideal setting where clinical post-conferences should be held as well as an effective learning environment for the clinical post-conference. Responses describing the ideal setting and then the effective learning environment overlapped with common themes and statements found under both narrative questions.

A conference room or classroom was listed as the most ideal setting for a clinical post-conference by 32 participants. A quiet place was mentioned 46 times and a private setting was mentioned 39 times. Different participants stated: "The ideal setting for post-conference should be in an area that is private and quiet," "Some place quiet, where the students feel safe to review any mistakes they have made. Must be private to preserve the privacy of the patient," "A quiet area where we can review the information," and "Private room at the hospital or some other place where no one can hear and students feel safe to talk." Other statements from participants regarding the setting and learning environment for the clinical post-conference included access to various equipment, location in the clinical facility, and an environment where students felt safe to share their feelings. Three participants mentioned virtual videoconferencing in general while three participants mentioned videoconferencing, specifically while nursing programs are facing challenges with the COVID-19 pandemic. On the Round 2 questionnaire, statements were created to distinguish videoconferencing during the COVID-19 pandemic and videoconferencing after the COVID-19 pandemic, when nursing schools were not facing the same challenges with instruction, and to understand participant recommendations more clearly. Appendix P provides

further examples of final statements and quotes that were condensed related to the clinical post-conference setting.

Recommended Process for the Clinical Post-Conference

The process for the clinical post conference included recommended teaching strategies, engagement of students, faculty support, student and faculty roles and responsibilities, and factors that affected teaching and learning during the clinical post-conference. Participants listed teaching strategies as well as provided detailed examples. Teaching strategies were listed on the Round 2 questionnaire for brevity. Detailed examples were analyzed and categorized or condensed to one of the listed teaching strategies. For example, the participant response below was classified as a critical thinking activity:

> Instructor prompts students, but lets students think through things independently. For example, have student explain pt scenario. Have class identify actual and potential nursing diagnosis (or identify pt problems) and work through the nursing process. Could use the NGN process if preferred. Also ask students about identifying when primary nurse used problem solving/critical thinking/clinical judgment (whatever the current buzz word is) to provide patient care.

Discussion was mentioned most frequently by participants as a teaching strategy for clinical post-conferences. Thirty-eight participants specifically mentioned discussion as a teaching strategy. Two participants mentioned "Discussion, avoid lecture. Have students be learning from each other" and "Discussion about patient care which is guided by the instructor." Other participants described teaching strategies that might include discussion such as questioning students and having students share their clinical experiences: "Questions to encourage thinking and get to info you want the student to share."

Ten participants mentioned student presentations as a teaching strategy. Participants listed presentations as a teaching strategy while some described presentations in more detail. For example, one participant stated:

> I also have them run post-conference a couple times and give them that control. For example, each student researches a different disease they may not learn much about in class (like ALS, Zika virus, and Rocky Mountain Spotted Fever) and then they present their findings during post-conference.

Other participants stated the following about presentations as a teaching strategy: "Presentation from students on an EBP they observed or would like to discuss with the group"; "Nursing/inter professional/research article presentations (for example evidence-based recommendations), conditions presentations including unusual patient situations, difficult situation discussions"; and "Student presentation of a unique case that all the students can learn from." Although 10 participants mentioned presentations, presentations as a teaching strategy were inadvertently not included on the Round 2 questionnaire for further analysis.

Responses about engaging students overlapped with responses related to recommended teaching strategies and ways for faculty to provide student support. Responses about engaging students were either condensed and included in the teaching strategies portion of the Round 2 questionnaire or included under recommendations for faculty during clinical post-conference. Engaging students specifically through active participation and questioning were most frequently mentioned by participants ($n = 30$). Different participants stated: "Encouraging active participation of all students during post conferences"; "Include active question and answering sessions. Rotating so that all students can have an active participation role during each conference"; "Require participation and asking open ended, 'what do you think' kind of

questions"; and "I have found that 'forcing' participation is the most effective. I ask the students a lot of questions and have them come up with the answers instead of just giving them the answers."

Maintaining a non-judgmental or non-threatening atmosphere was mentioned 30 times as the most effective way for faculty to provide support to students. Participants revealed: "Students have to feel their post conference environment is a judgement free zone and respect each other when discussing the day," "Being non-judgmental and non-confrontational while encouraging critical thinking," and "DO NOT SHAME THEM for not knowing something—they are STUDENTS." Providing feedback to students was listed 27 times as an important way for faculty to support students or as a key responsibility of faculty and being positive was listed 11 times. Participants identified facilitating as the main role and responsibility of nursing faculty during clinical post-conference: "Faculty are present as facilitator to the student learners" and "Faculty should be more of facilitators, guiding discussion and learning, rather than being tasked with presenting information or preparing lessons for post-conferences." While facilitation was mentioned as the main responsibility of faculty, participation was identified as the main responsibility of students. Students assuming the responsibility to participate was mentioned 47 times. Other student responsibilities included coming to clinical post-conference prepared, respecting their peers, and reflecting on their own performance.

The main factor participants (n =39) said affected teaching and learning during the clinical post-conference was lack of adequate space and privacy. Participants expressed difficultly finding an adequate location to hold clinical post-conferences. One participant said:

> The location of post-conference is number one as many times I have to meet the students in the cafeteria so we have to make sure to keep our voices low, make sure not to violate

HIPAA, some students are uncomfortable to share some things about their day because of the location where if you are in a private conference room students can share freely without worry that a family member or staff member is present.

Fatigue was the next most mentioned hindrance to teaching and learning during the clinical post-conference (*n* =24). Participants said: "Exhaustion is a large one I see. Students are tired from being up late the night before preparing, then the long clinical shift" and "Post conferences after a long clinical day can be affected with student/instructor fatigue. Students are often hungry/thirsty. Sometimes they feel mentally exhausted if their experience was emotionally challenging that day." Emotional clinical experiences, such as patients dying, were also mentioned as a factor affecting teaching and learning during clinical post-conferences: "Death of a patient will affect the entire group. Other unit incidents will also affect the group (violence, codes, staff drama) and should be discussed in post-conference" and "If the students have had a difficult day, I find I am not able to engage them in a topic I have planned." Participants also listed other distractions such as cell phones, noise, interruptions, and students arriving late as factors affecting the clinical post-conference. Appendix Q provides examples of final statements used on the Round 2 questionnaire and quotes that were condensed related to the recommended processes for an effective clinical post-conference.

Outcomes of the Clinical Post-Conference

The outcomes of the clinical post-conference included the objectives, topics that should be addressed, the role of the clinical post-conference in nursing education, the success of the clinical post-conference, and expectations for students. The main objective for the clinical post-conference, identified by participants, was connecting theory or classroom content to clinical (*n* = 31). Participants also mentioned helping students "connect the dots" during clinical post-

conference. One participant stated: “Connect the dots. Identify what has been discussed in the classroom and how it is present in the clinical setting. Using real-life experiences to apply the theories and content learned in the classroom.” Reflection (*n* = 27) and going over information from the clinical day (*n* = 25) were the next most common objectives mentioned. Participants also stated objectives for the clinical post-conference were dependent on the objectives for the course, the level of students, the clinical day, the concept or content taught for the week, the patient population, and the clinical site.

Numerous topics were listed by participants when asked what topics should be included in the clinical post-conference. The Round 2 questionnaire included 49 specific topics listed by participants as well as statements indicating any topic that comes up during the clinical day and any nursing-related topic appropriate for clinical post-conferences. Topic examples included ethics, lab values, collaboration, handoff reporting, patient related outcomes, priority of care, and National Patient Safety Goals.

Forty participants listed student participation as an indicator of a successful clinical post-conference. One participant stated: “For me, a post-conference is successful when students and faculty participate. Not just one student or the faculty talking the whole time. But sharing things learned and reviewing activities of the day through the eyes of the nurse.” Other common responses related to increased student knowledge (*n* = 24), light bulb or ‘ah ha’ moments (*n* =19), and a sense of fulfillment (*n* = 22). Appendix R provides examples of final statements used on the Round 2 questionnaire and condensed quotes that related to clinical post-conference outcomes.

Round 2

Ninety-five participants completed the Round 2 questionnaire. Attrition from Round 1 to Round 2 was 13.6%. Of the 289 statements, participants reached a consensus of 70% or greater for 61 statements. The statements reaching consensus in Round 2 can be found in in Appendix S. All statements reaching consensus reached consensus by participants strongly agreeing with the statement; the level of consensus ranged from 70% to 92%. Participants strongly agreed at a level of 92% with the statement: "When it comes to clinical post-conference students should respect others." The next most agreed upon statement met consensus at 90% with participants strongly agreeing that clinical post-conferences should be used for hospital-based clinical experiences.

Round 3

Sixty-seven participants completed the Round 3 questionnaire. Attrition from Round 2 to Round 3 was 29.5%. Of the remaining 228 statements that did not reach consensus in Round 2, seven reached consensus at a level of 70% or greater in Round 3. The remaining statements were analyzed for consensus by combining "strongly agree" and "agree" opinions and combining "strongly disagree" and "disagree" opinions. When combining opinions, 176 additional statements reached consensus. In total, 183 statements reached consensus in Round 3. Appendix T depicts if consensus was met and at what level for the 228 statements included in Round 3. Of the original 289 statements created for the Round 2 questionnaire, 244 reached consensus (84.4%) in either Round 2 or Round 3. Forty-five statements (15.6%) did not reach consensus in Round 2 or Round 3. Eight statements reached consensus by participants strongly disagreeing or disagreeing with the statement while 236 of the statements reached consensus by participants either strongly agreeing or agreeing with the statement.

CHAPTER V

DISCUSSION

Summary

This chapter presents a summary of the Delphi study and recommendations for the clinical post-conference drawn from the data presented in Chapter IV. This chapter also provides a discussion of the implications of the study, limitations of the study, and recommendations for further research. The clinical post-conference is a tradition that has been used in nursing education for over 50 years; yet, little research examining the clinical post-conference exists. Nurse educators are tasked with preparing clinically competent students to provide safe and effective patient care. It is important to ensure clinical activities, including the clinical post-conference, are meaningful to assist students' preparation for nursing practice. The purposes of this research study were to (a) develop guidelines for use by nursing faculty to facilitate clinical post-conferences and (b) determine perceived outcomes of the clinical post-conference in the overall goal of student nurse development of clinical competence. The following research questions guided this study:

Q1 What is the recommended structure for the clinical post-conference?

Q2 What is the recommended setting for the clinical post-conference?

Q3 What are the recommended processes detailed by nurse experts regarding clinical post-conference?

Q4 What do nursing educators describe as the outcomes of the clinical post-conference?

The Delphi method was used to answer the research questions by gaining consensus from a group of nursing faculty with experience conducting clinical post-conferences. Nursing faculty were recruited by emailing nursing administrators and asking them to forward the study information to faculty meeting inclusion criteria. Nursing faculty interested in participating in the study provided their email addresses to be sent three rounds of questionnaires. Nursing faculty who responded to the Round 1 questionnaire made up the expert panel of participants. The Round 1 questionnaire consisted of open-ended questions asking about recommendations for the clinical post-conference. Participant responses to the Round 1 questionnaire were taken and condensed into 244 statements to create the Round 2 questionnaire. Participants were sent the Round 2 questionnaire and asked to provide their level of agreement with the 244 statements. Statements were determined to reach consensus when at least 70% of participants reached the same level of agreement. In Round 2, 61 statements reached consensus. All statements not reaching consensus in Round 2 were sent to participants to reconsider in Round 3. For participants to reconsider the statements in Round 3, participants were sent their individual responses to the statements in Round 2 as well as the expert panel's median response. In Round 3, levels of agreement were combined to determine consensus. Faculty participants reached consensus for 183 statements in Round 3.

Recommendations for the Clinical Post-Conference

Recommendations for the clinical post-conference were determined by final consensus of the expert panel of participants. This section highlights the most prevalent and noteworthy recommendations for the clinical post-conference as well as discusses the identified outcomes perceived as important by faculty for the clinical post-conference. Each research question is addressed.

Recommended Structure for the Clinical Post-Conference

The structure for the clinical post-conference addressed when clinical post-conferences should be used in nursing education. Participant responses related to the clinical post-conference structure emphasized the importance of the clinical post-conference in nursing education. Faculty also recommended traditional timing of clinical post-conferences occurring immediately after a clinical experience.

Importance of the Clinical Post-Conference

Nursing faculty agreed in Round 1 that clinical post-conferences should be used for all educational levels of nursing students, thereby solidifying the use of conferencing throughout a nursing program. Consensus was quickly reached in Round 2 when participants strongly agreed at 90% that clinical post-conferences should be used for hospital-based experiences and strongly agreed at 89% that clinical post conferences should be used for acute-care setting experiences. This was not unexpected as traditionally, clinical experiences occur in the hospital or similar setting with clinical conferencing taking place after these experiences (Oermann et al., 2018). However, participants also strongly agreed at a consensus of 83% in Round 2 that clinical post-conferences should be used for all clinical experiences in any clinical facility where students interact with patients and other professionals. By Round 3, all types of clinical experiences listed on the questionnaires met consensus with participants either strongly agreeing or agreeing clinical post-conferences should be used. The faculty recommendation to use post-conferences for all levels of students after all clinical experiences highlighted the importance of the clinical post-conference. Furthermore, participants strongly agreed and agreed at 98% in Round 3 that the clinical post-conference is an essential part of nursing education.

The importance of using a debriefing or reflective session after a clinical experience is described in nursing research related to simulation. Clinical post-conferences occur after a clinical experience in the same way a debriefing session occurs after simulation. Furthermore, participants in this study recognized debriefing following a simulation as a form of clinical post-conferencing. Shinnick et al. (2011) examined student knowledge about heart failure before simulation, after simulation, and after debriefing with 162 prelicensure nursing students. Shinnick et al. found heart failure knowledge only increased after debriefing, emphasizing the need for debriefing with simulated clinical experiences. Ryoo and Ha (2015) examined the significance of debriefing after simulation with 49 second year nursing students in South Korea and found significant differences with improved performance competency, self-reflection, and satisfaction in the group receiving debriefing versus the comparison group. Best practice standards for simulation created by the International Association for Clinical Simulation and Learning Standards Committee (2016) stated all simulation-based experiences are expected to "include a planned debriefing session aimed at improving future performance" (p. s21). In the same way debriefing is considered necessary for student learning following simulated experiences, in this study, nursing participants identified clinical post-conferences as important following all types of clinical experiences.

Timing of the Clinical Post-Conference

Through the consensus process, participants agreed on a recommended timeframe for the clinical post-conference. Short post-conferences ranging from 15 to 20 minutes and post-conferences over one and a half hours were not recommended by the panel as participants disagreed and strongly disagreed with these timeframes. Participants strongly agreed and agreed clinical post-conferences should last 45 minutes to one hour in length. Consensus was not

reached for 30 minute or one and a half hour clinical post-conferences, which might be due to faculty agreement that the length of time for post-conference might be affected by the number of students in the clinical group, the length of the clinical day, the type of clinical experience, and the educational level of students.

Clinical post-conferences should occur at the end of the clinical day or immediately following the clinical experience. In Round 3, participants strongly agreed and agreed at 98% that clinical post-conferences should occur immediately following the clinical experience, and strongly agreed and agreed at 95% that clinical post-conferences should occur at the end of the clinical day. Holding clinical post-conferences at the end of the clinical day fit with the traditional use of conferencing and aligned with Letizia's (1998) faculty survey about the clinical post-conference. Waiting to hold clinical post-conferences long enough for students to have time to think, holding clinical post-conferences within 24 hours of the clinical experience, and using a platform such as an online discussion board or videoconferencing did not meet consensus in this study. In past studies, students were satisfied with the online clinical post-conference format (Cooper et al., 2004; Heid, 2015; Neumeier & Small, 2014); however, research related to actual effectiveness of the online clinical post-conference was limited. Hamera and Wright's (2004) study concluded online clinical post-conference discussions met course outcomes. Ebersole-Berkstresser's (2013) doctoral research found no significant difference between student engagement in face-to-face versus online discussion board clinical post-conferences. However, the limited evidence surrounding online clinical post-conferencing might be the reason why participants did not reach consensus for the use of online discussion boards in this study. The use of videoconferencing after the COVID-19 pandemic also did not reach consensus. Videoconferencing during the COVID-19 pandemic reached consensus in

Round 3 at 73%, further demonstrating the importance of continuing to find a way to hold clinical post-conferences despite clinical challenges due to the pandemic.

Recommended Setting

Participants determined the recommended setting for clinical post-conferences included a quiet and private environment free of distractions where students could safely share their knowledge, thoughts, mistakes, and feelings. Ideally, clinical post-conferences should occur in the clinical facility but in an area away from the unit, staff, and patients. A conference room or classroom with adequate lighting, tables for students to write or spread out materials, seating in a circle where students could see each other, and enough space for students to be comfortable were also recommended. Studies by Letizia and Jennrich (1998) and Megel et al. (2013) found nursing faculty and students reported teacher support as the most important component of the clinical post-conference learning environment. Participants in this study strongly agreed in Round 2 that during clinical post-conferences, faculty should be non-judgmental, open, supportive, and maintain a non-threatening environment.

Recommended Process

Recommended processes for the clinical post-conference included recommended responsibilities of faculty and students, teaching strategies, and topics. Transitions theory fit with what participants in this study acknowledged as the responsibilities of faculty and students during the clinical post-conference as well as the main identified teaching strategy of debriefing through discussion. Participants identified the process of the clinical post-conference to include student engagement and participation and faculty feedback and support. In transitions theory, engagement, seeking and receiving support, and acquiring confidence are processes indicating positive signs someone experiences while going through a transition (Meleis, 2015).

Participants strongly agreed in Round 2 that faculty should engage students during clinical post-conferences as well as expect students to be engaged and want to learn. Participants strongly agreed in Round 2 at 80% that faculty should provide support and strongly agreed at 76% that faculty should give constructive feedback during clinical post-conferences. Interventions associated with transitions theory to facilitate a transition included providing support, clarifying meanings, and debriefing (Meleis, 2015). In Round 2, 80% of participants strongly agreed that faculty should be supportive during clinical post-conferences. Participants strongly agreed in Round 2 at 71% that clarifying clinical concepts is an objective of the clinical post-conference, and strongly agreed and agreed at 100% in Round 3 that the responsibility of faculty is to answer student questions. Furthermore, debriefing through discussion was identified as a main teaching strategy for the clinical post-conference.

Discussion

Faculty strongly agreed in Round 2 at 70% that group discussion should be used as a teaching strategy for clinical post-conferences. In Round 3, faculty strongly agreed and agreed at 98% that student-led discussion and at 95% that using a student's patient as a case study discussion should be used as a teaching strategy. Furthermore, in Round 3 100% of faculty strongly agreed and agreed that open-ended questioning should be used as a teaching strategy for the clinical post-conference. The recommendation of using discussion for clinical post-conferences aligned with previous assessments of clinical post-conference teaching strategies (Hsu, 2007; Rossignol, 1997, 2000). In this study, participants recommended additional discussion type teaching strategies for clinical post-conferences such as Socratic questioning, guided reflection, and debriefing techniques from simulation.

Although participants recommended discussion as a teaching strategy, participants agreed and strongly agreed in Round 3 at 79% that clinical post-conferences should have a specific task or exercise that is not just a recitation of the day's events. In Round 3, 95% of participants strongly agreed and agreed that post-conferences should have some structure. During clinical post-conference discussions, faculty in the past have asked low-level questions of students, consequently not promoting deeper level thinking (Hsu, 2007; Rossignol, 2000; Wink, 1993). Participant recommendations to provide structure to clinical post-conference discussions aligned with the research and development of specific debriefing techniques for simulation. The International Association for Clinical Simulation and Learning Standards Committee (2016) recommended using a framework for simulation debriefing that is structured in a purposeful way. Dreifuerst (2012) compared customary debriefing methods with a systematic process for debriefing, called Debriefing for Meaningful Learning, with 238 baccalaureate nursing students. Dreifuerst found students receiving debriefing with the Debriefing for Meaningful Learning method scored significantly higher on a critical thinking post-test than the comparison group. More recently, Oh et al. (2021) compared a framework for debriefing based on Mezirow's transformative learning theory to a traditional type of debriefing with 56 junior nursing students in South Korea. Participants receiving debriefing using Mezirow's transformative learning theory had significantly higher scores in problem-solving, critical thinking, disposition, and clinical judgment of reflection (Oh et al., 2021). In this study, participants strongly agreed and agreed at 82% in Round 3 that faculty should prepare activities for clinical post-conference before clinical. With a consensus of 83% in Round 3, participants recommended faculty provide a tool with questions or goals that students needed to investigate as part of their learning during the clinical day to be discussed in post-conference. Participants

also strongly agreed and agreed in Round 3 at 90% that debriefing techniques from simulation should be used for clinical post-conferences. Despite faculty recommendations for planned activities, the statement "purposeful, planned learning activities during the clinical post-conference are crucial to promote students' development as future professional nurses" did not meet consensus in this study. The statement might have not reached consensus because participants also identified clinical post-conference topics and activities to be dependent on a number of factors such as what occurred during the clinical day. Besides discussion, other teaching strategies recommended for the clinical post-conference included concept mapping, unfolding case studies, critical thinking activities, prioritization activities, group activities, role playing exercises, and having students give reports on their assigned clients to their peers and instructor.

Student-Led Clinical Post-Conferences

Participants agreed faculty should facilitate learning rather than lecturing and the instructor's role was to keep the discussion on track. The use of student-led discussion met consensus in Round 3 with 98% of participants strongly agreeing or agreeing. Participants also strongly agreed and agreed at 84% that students should be allowed to lead the post-conference and strongly agreed and agreed at 85% that faculty should "talk less" during clinical post-conferences. Although student-led post conferences were recommended, participants also identified facilitation as a faculty responsibility during clinical post-conferences. When comparing debriefing methods for simulation with 95 undergraduate students, students receiving instructor facilitated debriefing with discussion had significantly higher simulation scores than students receiving a self-reflective written debriefing or an instructor lecture debriefing with no discussion (Gantt et al., 2018). Rueda-Medina et al. (2021) examined student

satisfaction with instructor-led debriefing, student-led debriefing, and combined instructor and student-led debriefing following simulation with 177 nursing students. Perceived assessment and satisfaction of the debriefing method were significantly higher for the combined debriefing method compared with instructor-led or peer-debriefing alone (Rueda-Medina et al., 2021). Allowing students to lead clinical post-conferences while also facilitating a structured process and keeping students on task was considered important for clinical post-conferences. In addition, participants recommended faculty treat students as adult learners, actively listen, and encourage student collaboration.

Outcomes of the Clinical Post-Conference

In Round 2, participants strongly agreed on the following objectives for the clinical post conference: fostering students' critical thinking about their patient care; enhancing clinical reasoning, judgment, and thinking; identifying priorities for patient care; identifying safety issues; encouraging student reflection and self-evaluation; putting together the big picture; and clarifying clinical concepts. Participant statements related to the objectives of the clinical post-conference as well as what indicated a successful clinical-post conference were analyzed to determine recommended clinical post-conference outcomes. The main perceived outcomes of the clinical post-conference were the development of clinical reasoning, student reflection, and connecting theoretical content with clinical practice.

Clinical Reasoning and Reflection

In Round 2, participants met consensus for the statement "clinical post-conference is critical for developing clinical reasoning and self-reflection" with 70% of participants strongly agreeing and the remaining 30% of participants agreeing. Participants identified a successful clinical post-conference was one where activities led to critical thinking and where active

participation led to rich reflection. Additionally, critical thinking activities, guided reflection, and reflecting on the clinical day were all recommended teaching strategies in this study. Previous studies identified advancement in critical thinking and reflecting on practice as objectives for the clinical post-conference. Rossignol (1997) examined discourse strategies and levels of critical thinking during clinical post-conferences while Lutter et al. (2018) implemented art-based activities to promote reflection. When choosing teaching strategies for the clinical post-conference, faculty should choose those that aimed at fostering clinical reasoning and reflective practice.

Bridge Didactic and Clinical Learning

More uniquely identified in this study was the emphasis on using clinical post-conferences to clarify concepts and bridge gaps between didactic and clinical learning. Using clinical conferencing to bridge didactic and clinical learning was not addressed well in the literature. Heid's (2015) study examining online clinical post-conferences was the only research study related to clinical post-conferences that addressed connecting didactic and clinical learning in the clinical post-conference. Narratives were vaguely mentioned but not previously confirmed bridging theory and clinical as a goal of the clinical post-conference. In Heid's study, 10 student participants strongly agreed or agreed that "the online clinical post-conference experience helped me correlate theory with practice." Participant consensus in this study confirmed the idea that the clinical post-conference has a unique position to connect didactic and clinical learning. Participants strongly agreed in Round 2 at 72% that a successful clinical post-conference was when students verbalized the post-conference helped them put the pieces together. In Round 3, 100% of participants strongly agreed and agreed a successful clinical post-conference was when students made connections to what was learned in the classroom. Furthermore, participants

strongly agreed and agreed in Round 3 at 84% that the biggest role the clinical post-conference played in nursing education was being able to tie classroom material to patient care. Faculty interventions during clinical post-conference could assist students with connecting didactic learning into actual nursing practice.

Clinical faculty play a significant role in bridging clinical practice to what is taught in the classroom (Akram et al., 2018). Participants identified a successful clinical post-conference as one where conversations from that clinical post-conference continued on the way out the door and were brought up in lecture, the skills laboratory, and simulation by both faculty and students. The use of clinical post-conferences to bridge didactic knowledge and practice fit with Kolb's (2015) experiential learning theory in the development of clinical competency. Students have concrete experiences in clinical and then are able to review and reflect on the experience in post-clinical conference to solidify theoretical concepts that could then be applied to the next clinical experience. In Round 3, 100% of participants strongly agreed and agreed a successful clinical post-conference was indicated when in the future the student applied what had been learned to improve client outcomes.

Overall, faculty participants identified the clinical post-conference as a crucial component of nursing education. The recommended structure for the clinical post-conference included using 45- to 60-minute conferences immediately following all clinical experiences. The main features of the recommended setting included a quiet and private environment. Participants made several recommendations for clinical post-conference teaching strategies. The most noteworthy included using discussion and debriefing along with other activities in a structured way to promote the outcomes of clinical reasoning, reflection, and tying didactic knowledge to clinical experiences.

Limitations

The purpose of this study was to develop recommendations for the clinical post-conference and to identify outcomes of the clinical post-conference by using consensus methods. There were inherent limitations with the use of consensus methods. Limitations of the Delphi method for this study included the determination of the level of consensus and the makeup of the expert panel of participants. To maintain the quality of the Delphi, consensus level was established before data were collected; however, there was no specific recommendation for the level of consensus for the Delphi method (Keeney et al., 2011). The number of statements reaching consensus was limited by the consensus level set prior to data collection. A higher consensus level would have decreased the number of statements reaching consensus while a lower consensus level would have increased the number of statements reaching consensus. When considering consensus, consistency of statements from round to round was also taken into account (Keeney et al., 2011). In this study, faculty agreement was consistent from Round 2 to Round 3 with faculty generally agreeing or disagreeing with the same statements in each round.

The reliability of the Delphi is only as good as the panel of experts (Keeney et al., 2011). In this study, faculty with experience conducting clinical post-conferences made up the expert panel of participants. Full-time faculty with experience using clinical post-conferences were assumed to have the knowledge necessary to suggest recommendations for the clinical post-conference; however, experience with clinical post-conferences did not guarantee expert knowledge about clinical post-conferences. Purposeful and convenience sampling were used for this study to locate faculty to make up the panel of experts. Nursing administrators from programs accredited by the ACEN (2020) were asked to forward the study information to faculty at their institutions that may be interested in the study. The ACEN listserv was chosen because

the ACEN accredits all levels of nursing programs; however, the ACEN accredits more undergraduate associate degree nursing programs than baccalaureate programs. Consequently, the panel of experts mainly consisted of those teaching in associate degree programs. Limitations existed related to restrictions in recruitment of eligible faculty teaching in other accredited undergraduate programs, especially baccalaureate programs, to participate as part of the expert panel.

The final limitation of this study was related to the analysis of data and creation of the Round 2 questionnaire. The large amount of qualitative data collected in Round 1 made it necessary to condense, shorten, and combine statements as much as possible to control the length of the Round 2 questionnaire and deter attrition. It was possible some participant statements were interpreted to mean the same thing when in actuality participants were expressing different sentiments. To decrease attrition of participants in a Delphi study, it is important to minimize the time between sending out each round of questionnaires (Keeney et al., 2011). Thus, the qualitative data in Round 1 were analyzed quickly over a one-week period to develop the Round 2 questionnaire. The quick analysis and creation of the Round 2 questionnaire might have led to error in interpretation of participant statements and led to an inadvertent omission. Student presentations as a teaching strategy was mentioned by participants in Round 1 but was inadvertently not included on the Round 2 questionnaire. Therefore, consensus about whether student presentations should be used as a teaching strategy for clinical post-conference is unknown.

Recommendations for Future Study

Nursing faculty have identified the clinical post-conference as an important component of nursing education; yet, the clinical post-conference has been relatively ignored by nursing

researchers. This study reported on the perceptions of nursing faculty regarding student outcomes of the clinical post-conference as being clinical reasoning, reflection, and tying didactic knowledge to clinical practice; however, perceived outcomes do not guarantee actual outcomes. Determination of actual outcomes of the clinical post-conference needs further exploration. Outcomes of simulation debriefing include clinical reasoning and self-efficacy (Lee et al., 2020) and clinical post-conferences might share similar actual outcomes as well. Clinical post-conferences should be investigated to determine if the perceived outcomes of reflection, clinical reasoning, and tying didactic knowledge to clinical experiences are true outcomes of the clinical post-conference or if there are potentially other outcomes. Research examining specific teaching strategies for the clinical-post conference and their related outcomes is recommended. Faculty agreed clinical post-conferences should be more than a simple recitation of the day's events. Teaching strategies such as using simulation debriefing techniques and examining student-led debriefing with self-regulated learning for the clinical post-conference should be further explored.

Whether the clinical post-conference could effectively link didactic knowledge and clinical experiences is important in relation to the development of clinical competency. Special attention should be paid to part-time nursing faculty teaching in the clinical setting who might not be familiar with what students are learning in the didactic setting to effectively tie together classroom knowledge and clinical experiences during clinical post-conferences. Faculty in McPherson and Candela's (2019) Delphi study identified clinical faculty preparation needs to teach in the clinical setting. The most important identified needs of clinical faculty included clear expectations of their role, consistent and frequent communication with course coordinators, and more training in their role as clinical faculty (McPherson & Candela, 2019). Part-time clinical

faculty should be trained on how to properly hold clinical post-conferences to benefit students. Research exploring training of faculty to effectively conduct clinical post-conference should be further explored. Additionally, identifying if there is a difference between full-time nursing faculty and part-time faculty ability to conduct clinical post-conferences is another area that could be studied to ensure part-time faculty are providing a beneficial learning experience for students.

Conclusion

The clinical post-conference is a well-established component of nursing education; yet, there is little guidance for nursing faculty to conduct clinical post-conferences. This study sought to develop guidelines for nursing faculty conducting clinical post-conferences. Consensus methods were used to determine faculty recommendations for the clinical post-conference. Faculty with experience conducting clinical post-conferences were included as part of the expert panel for the study. In their responses, faculty recognized the clinical post-conference as a crucial component of nursing education. Faculty could use the clinical post-conference to assist with clarification and solidification of concepts after clinical experiences to promote the development of clinical competency. Discussion and debriefing were the main teaching strategies identified for clinical post-conference; however, many purposeful activities might be used. Faculty could effectively facilitate clinical post-conferences by maintaining an engaging and supportive learning environment while allowing students to lead the clinical post-conference. The clinical post-conference should occur immediately after clinical experiences to promote clinical reasoning, reflection, and linking didactic content to clinical experiences. The clinical post-conference is uniquely positioned to assist students with connecting theoretical knowledge and clinical practice to safely and effectively care for patients. Further research could more clearly

delineate the actual benefits of clinical post-conference in the development of clinical competency.

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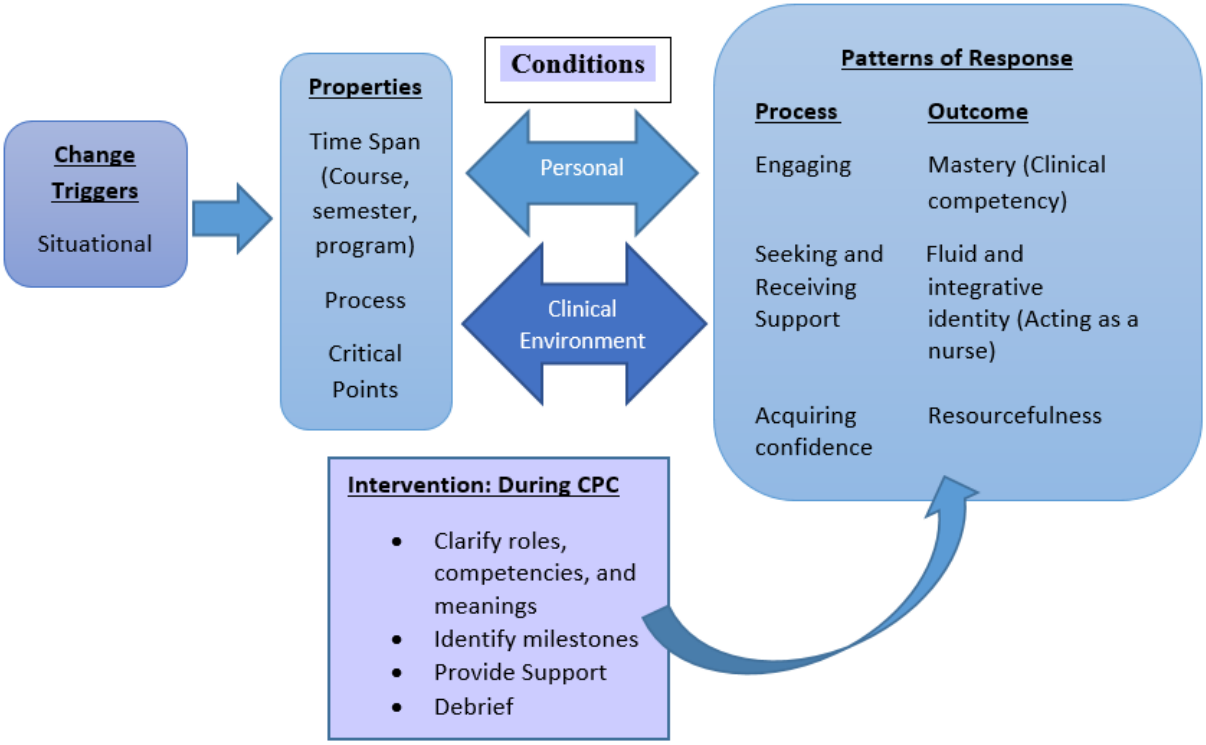
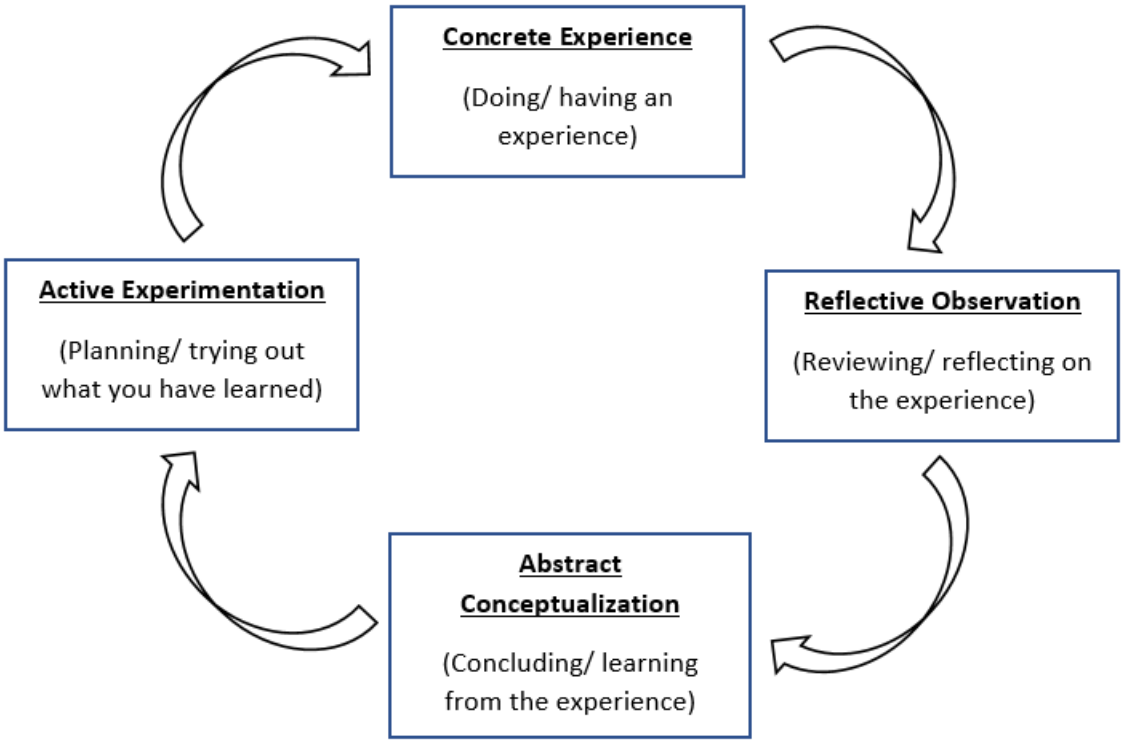
APPENDIX A

ADAPTED MODEL OF TRANSITIONS THEORY


Change Triggers
Situational
Properties
Time Span (Course, semester, program)
Process
Critical Points
Conditions
Personal
Clinical Environment
Patterns of Response
Process
Outcome
Engaging
Mastery (Clinical competency)
Seeking and Receiving Support
Fluid and integrative identity (Acting as a nurse)
Acquiring confidence
Resourcefulness
Intervention: During CPC
Clarify roles, competencies, and meanings
Identify milestones
Provide Support
Debrief

APPENDIX B

EXPERIENTIAL LEARNING THEORY


Concrete Experience
(Doing/ having an experience)
Reflective Observation
(Reviewing/ reflecting on the experience)
Abstract Conceptualization
(Concluding/ learning from the experience)
Active Experimentation
(Planning/ trying out what you have learned)

APPENDIX C

CLINICAL POST-CONFERENCE RESEARCH STUDIES

Table 3

Clinical Post-Conference Research Studies

Author(s) and year	Sample	Sample Size	Design	Data Collection Method	Analysis Technique	Key findings or results
Cooper et al. (2004)	Senior baccalaureate nursing students enrolled at a university in the Midwest	68	Quasi-experimental	Scores from instructor created quiz; Evaluation questionnaire	Independent *t*-tests; content analysis	Students were satisfied with the online clinical post-conference format. Students participating in the online clinical post-conferences rated the following statements significantly higher on the evaluation questionnaire than students completing face-to-face clinical post-conferences: "Clinical conferences facilitated participation by all students;" "Clinical conferences provided an opportunity to examine ethical issues related to patient care;" "The timing of clinical conferences was convenient for me;" and "Descriptions of other students' experiences helped me learn." There were no significant differences in quiz scores between the two groups. Students perceived the clinical post-conference to have the following purposes: to reflect and discuss clinical experiences, to learn from each other's clinical experiences, to ask and answer questions, to learn content presented in case studies, and to use critical thinking skills to analyze clinical experiences.
Crowley (1995) Doctoral research	Faculty members, a preceptor, and their clinical groups of nursing students within one Northeast baccalaureate nursing program	3 faculty 2 preceptors 23 students	Interpretive interactionism	Participant observation of clinical conferences; interviews; transcripts; field notes	Bracketing; Coding	There is a community of support between faculty and students. Duration of clinical post-conferences were 20 to 90 minutes. Clinical post-conferences were held in the middle of the clinical day or at the end of the clinical day in a room at the clinical facility. Limited structure to the clinical post-conference. Clinical activities consisted of "housekeeping" activities and clinical discussion. During clinical post-conferences students share feelings and reflect on patient care during the clinical day.
Ebersole-Berkstresser (2013) Doctoral research	Students enrolled in an associate nursing program at a mid-Atlantic state community college	44	Quasi-experimental	California Critical Thinking Test (Pre-test and post-test)	Paired and independent *t*-tests	No significant difference in critical thinking between students engaged in face-to-face versus online clinical post-conferences.

Table 3 continued

Author(s) and year	Sample	Sample Size	Design	Data Collection Method	Analysis Technique	Key findings or results
Gheidanzadeh et al. (2017)	Baccalaureate nursing students enrolled at a university in Iran	134	Descriptive	Researcher made questionnaire	Paired and independent *t*-tests; Pearson correlation	Planning, execution, and satisfaction with clinical conferences were rated as mediocre to poor by 98.5% of students. There was a significant difference between student scoring of the clinical conference versus the clinical round, with the clinical round scoring higher than the clinical conference in planning ($p < 0.001$), and execution and satisfaction ($p = 0.006$). There was a significant relationship between planning and execution related ($p < 0.001$), planning and satisfaction ($p < 0.001$), and method and satisfaction ($p < 0.001$).
Hamera (2004)	Doctoral nursing students enrolled in a psychiatric nursing practicum course at a Midwestern university	10	Qualitative	Online clinical post-conference transcripts	Content analysis	Online clinical post-conferences met the course outcomes. Multiple topics were discussed. Students increasingly used more emotional statements when discussing clinical experiences as clinical conferences progressed through the semester.
Hannans (2013) Doctoral research	Baccalaureate nursing students enrolled in an acute care clinical course at a Southern California nursing program	47	Quasi-experimental	Online clinical post-conference transcripts with rater scoring	Rater scoring, t-tests	No significant differences in the level of reflection between the intervention (receiving reflection education) and comparison group were identified. Reflection occurred in both groups during online clinical post-conferences.
Heid (2015)	Associate nursing students enrolled in their final term of their program	10	Descriptive	Questionnaire	Descriptive summary	Students agreed that they preferred asynchronous online clinical post-conferences to traditional face-to-face conferences. Students agreed or strongly agreed with the statements: "The online clinical post-conference experience helped me correlate theory with practice," "The online clinical post-conference experience helped me learn collaboratively," and "the online clinical post-conference helped me review course concepts."
Hsu (2007)	Nurse educators with masters degrees teaching in a two-year nursing program in Taiwan	10	Qualitative	Participant observation and questionnaire with open-ended questions.	Content analysis	Discussion is the main teaching strategy used in clinical post-conferences. Questioning used as a form of evaluation. More than 90% of questions asked by faculty were low-level questions (knowledge and comprehension levels of Bloom's taxonomy). Of Letizia & Jennrich's (1998) six components of clinical post-conference environments, task orientation was observed most frequently and teacher support was observed least frequently.

Table 3 continued

Author(s) and year	Sample	Sample Size	Design	Data Collection Method	Analysis Technique	Key findings or results
Letizia (1998)	Undergraduate faculty from three baccalaureate nursing programs in the Midwest	50	Descriptive	Survey with 5-point Likert scale asking the frequently of used activities.	Descriptive statistics	Discussion is the primary teaching strategy used in clinical post-conferences followed by case studies, coverage of theoretical content, nursing ethics, student presentations, guest speakers, and nursing research.
Letizia & Jennrich (1998)	Undergraduate nursing students and faculty from three baccalaureate nursing programs in the Midwest	457	Tool Development	CPLES - 54 item survey 7-point Likert Scale measuring actual and importance ratings on 6 subscales: Involvement, Cohesion, Teacher Support, Task Orientation, Order and Organization, and Innovation	Pearson product correlation Chronbach's alpha	Teacher support was perceived to occur most frequently and have the greatest importance by faculty and students. Innovation was perceived to occur least frequently and be the least important by faculty and students. There were significant differences in the means of the actual and importance subscales, with importance being ranked higher than actual use. Faculty desire to optimally perform may have led to higher faculty scores for teacher support, task orientation, and innovation. CPLES alpha = 0.97 to 0.99 for actual subscales, and 0.87 to 0.98 for importance subscales.
Lutter et al. (2018)	Junior and senior nursing students enrolled at private Midwestern college	29	Qualitative	Written student reflective papers about art-based learning activities.	Thematic analysis	Four themes resulted: developing new perspectives, appreciating the patient experience, reflecting on feelings and growth, and recognizing the value of art-based learning activities.
Megel et al. (2013)	Baccalaureate nursing students enrolled at and nursing faculty working at a four-campus Midwestern university	136 students 42 faculty	Descriptive	CPLES	Paired and independent t-tests to test actual and importance scores within and between groups (faculty and students)	Importance of the components rated higher than the actual use by both faculty and students. Teacher support ranked highest in actual use and importance. Organization was perceived to be higher in importance than actual use. Innovation was rated least important and occurred least frequently.
Neumeier & Small (2014)	Baccalaureate nursing students enrolled in a second year clinical at a nursing program in Canada	20	Descriptive	Online Post-Conference Questionnaire	Descriptive statistics; Content analysis	The majority of students were satisfied with asynchronous online clinical post-conferences and perceived them to be effective for their learning. Two themes emerged from the open-ended questions: Being able to participate when convenient, and having time to reflect.
Rossignol (1997) & Rossignol (2000)	Faculty teaching clinical in a National League of Nursing accredited baccalaureate program in the Northeast and their clinical groups of nursing students	57 students 10 faculty	Correlational	Audio recordings analyzed using Bellack's Linguistic Analysis system; Watson-Glaser Critical Thinking Appraisal	Log-linear models; Chi-square; Descriptive statistics	Students actively participated in clinical post-conferences. Low cognitive levels of discourse were the most prominent. High cognitive levels of discourse was significantly associated with student critical-thinking; however, the direction of the relationship was not consistent. No conclusive results regarding discourse strategies and student critical thinking.

Table 3 continued

Author(s) and year	Sample	Sample Size	Design	Data Collection Method	Analysis Technique	Key findings or results
Stroup (2019) Doctoral research	Baccalaureate nursing students enrolled in a junior medical-surgical clinical rotation or a senior pediatric clinical rotation at a private Midwestern university	46	Quasi-experimental; Qualitative	Case study pre-test and post-test with clinical reasoning scored rubric; Reflective journals	Paired and independent t-tests; content analysis	Clinical reasoning scores for the intervention group (clinical round) increased from pre-test to post-test, and clinical reasoning scores for the comparison group (traditional clinical post-conference classroom discussion) decreased from pretest to posttest; though, the results were non-significant. Qualitative themes identified in the reflective journal for both the traditional clinical post-conference and clinical rounding groups included: instructor as a facilitator, and satisfaction with post conferences. Identified themes for the traditional clinical post-conference group were: discussion of the clinical day and increase in knowledge. Identified themes for the clinical rounding group were: peer collaboration, identification of patient priorities, and risk anticipation.
Twibell et al. (2005)	Clinical nursing instructors teaching at a Midwestern public school of nursing minimum of five years of clinical nursing experience and one year clinical teaching experience in a baccalaureate nursing program	6	Case Study	Interviews	Content analysis	Clinical conferences were identified by faculty as a teaching strategy to promote critical thinking. All participants conducted clinical conferences to promote student critical thinking. Most clinical conferences were held face to face and some were held online.
Wink (1993)	Nursing faculty involved in clinical instruction and the undergraduate nursing students in their clinical groups from four Southeastern National League for Nursing accredited nursing programs	14 faculty	Quasi-experimental	Pre and post intervention audiotapes of clinical post-conferences, analyzed using the Teacher Pupil Questioning Inventory.	Descriptive statistics; Mann-Whitney U	There was a significant difference in the level of questions asked by faculty after the intervention in the intervention group compared to the comparison group ($p = 0.012$)

Table 3 continued

Author(s) and year	Sample	Sample Size	Design	Data Collection Method	Analysis Technique	Key findings or results
Zapko (2014) Doctoral Research	Nursing students at a public Ohio university enrolled in two successive senior-level clinical courses	8	Qualitative	Interviews; Observation; Online clinical post-conference transcripts	Coding of data for levels of reflection and inquiry	Participants developed in their ability to utilize reflection and inquiry at higher stages over time by engaging in online clinical post-conferences.

APPENDIX D

INSTITUTIONAL REVIEW BOARD APPROVAL

UNIVERSITY OF
NORTHERN COLORADO

Institutional Review Board

Date:	06/03/2020
Principal Investigator:	Staci Warnert
Committee Action:	**IRB EXEMPT DETERMINATION – New Protocol**
Action Date:	06/03/2020
Protocol Number:	2004000984
Protocol Title:	PhD Dissertation IRB Application: Establishing Guidelines for the Clinical Post-Conference: A Delphi Study
Expiration Date:	

2004000984

The University of Northern Colorado Institutional Review Board has reviewed your protocol and determined your project to be exempt under 45 CFR 46.104(d)(702) for research involving

Category 2 (2018): EDUCATIONAL TESTS, SURVEYS, INTERVIEWS, OR OBSERVATIONS OF PUBLIC BEHAVIOR. Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met: (i) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects; (ii) Any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation; or (iii) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by 45 CFR 46.111(a)(7).

You may begin conducting your research as outlined in your protocol. Your study does not require further review from the IRB, unless changes need to be made to your approved protocol.

As the Principal Investigator (PI), you are still responsible for contacting the UNC IRB office if and when:

UNIVERSITY OF
NORTHERN COLORADO

Institutional Review Board

- You wish to deviate from the described protocol and would like to formally submit a modification request. Prior IRB approval must be obtained before any changes can be implemented (except to eliminate an immediate hazard to research participants).
- You make changes to the research personnel working on this study (add or drop research staff on this protocol).
- At the end of the study or before you leave The University of Northern Colorado and are no longer a student or employee, to request your protocol be closed. *You cannot continue to reference UNC on any documents (including the informed consent form) or conduct the study under the auspices of UNC if you are no longer a student/employee of this university.
- You have received or have been made aware of any complaints, problems, or adverse events that are related or possibly related to participation in the research.

If you have any questions, please contact the Research Compliance Manager, Nicole Morse, at 970-351-1910 or via e-mail at nicole.morse@unco.edu. Additional information concerning the requirements for the protection of human subjects may be found at the Office of Human Research Protection website - http://hhs.gov/ohrp/ and https://www.unco.edu/research/research-integrity-and-compliance/institutional-review-board/.

Sincerely,

Nicole Morse
Research Compliance Manager

University of Northern Colorado: FWA00000784

2004000784

APPENDIX E

LETTER OF INVITATION

My name is Staci Warnert and I am a doctoral student at the University of Northern Colorado. I am conducting a three round Delphi study to determine guidelines for teaching and learning in the clinical post-conference. As you may know, finding participants to assist with research can be a challenge. That is why I am seeking you as a program director to forward this email to any of your nursing faculty that facilitate clinical post-conferences and may be interested in this topic.

As a nursing faculty member working with students in the clinical setting, I, like many faculty members, use clinical post-conferences as part of my pedagogy. However, there is little research to date about the clinical post-conference. Understanding strategies for the clinical post-conference will assist nursing faculty with clinical post-conference implementation.

This study has the following inclusion criteria: Nursing faculty working full-time at an institution of higher education and teaching in a baccalaureate or associate accredited program of nursing; have been a RN for at least six years; and have held clinical post-conference sessions with at least five clinical groups of nursing students over the past five years.

If you meet the inclusion criteria and would be willing to participate in the study, then I would be very grateful if you would click the link below to view the consent for the study and provide your email contact information. For the study, you will be participating as a panelist providing your insight and expertise about the clinical post-conference.

https://unco.co1.qualtrics.com/jfe/form/SV_1BWCI93vYrIn0UJ

The research will be carried out using the Delphi method, consisting of three separate questionnaires (known as rounds) with the aim of achieving consensus among participants. With your permission the questionnaires will be emailed to you with simple and specific instructions for completion. After receipt of the consent form and your contact information, you will be emailed a link to the first questionnaire along with a demographic survey.

The amount of time necessary to complete each questionnaire (or round) will vary, but should range from approximately 15-30 minutes for Round one, 10-20 minutes for Round two, and 15-30 minutes for Round three. This study is seeking your expert opinion about the clinical post-conference; therefore, there are no right or wrong answers to the questions. If you complete all three rounds of questionnaires you will be entered into a raffle for a $100 Walmart gift card. The target sample size for this study is 30 participants.

The clinical post-conference is a recognized component in nursing education, and your expert opinions about the clinical post-conference will assist faculty to improve future teaching and learning during the clinical post-conference.

APPENDIX F

CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH

UNIVERSITY OF NORTHERN COLORADO

CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH

My name is Staci Warnert and I am a nursing doctoral student at the University of Northern Colorado. I would like to invite you to participate in a research study in partial fulfillment of my doctoral program.

TITLE OF STUDY: ESTABLISHING GUIDELINES FOR THE CLINICAL POST-CONFERENCE: A DELPHI STUDY

INVESTIGATOR: University of Northern Colorado School of Nursing, PhD in Nursing Education Program: Staci Warnert, MSN, RN, CNE Warn7360@bears.unco.edu

DISSERTATION CHAIR: Katrina Einhellig, PhD, RN, CNE katrina.einhellig@unco.edu
970-351-2269

Purpose of the Study: You are invited to participate in a research study. The purpose of this study is (1) develop guidelines for nursing faculty to facilitate clinical post-conferences and (2) determine the outcomes of the clinical post-conference.

Participants: You are being asked to participate as an expert panelist in the study if you meet the following inclusion criteria: to be included in the sample for the research study, you must be a nursing faculty member working full-time at an institution of higher education and teaching in a baccalaureate or associate accredited program of nursing; have been a RN for at least six years; and have held clinical post-conference sessions with at least five clinical groups of nursing students over the past five years.

Procedures: If you volunteer to participate in this study, you will be asked to provide your email address so you can be sent three rounds of questionnaires and a demographic survey. The Round one questionnaire will contain open-ended questions for you to provide your opinions about the clinical post-conference. Round one example questions: 1. How long should clinical post-conferences last? 2. What teaching strategies would you recommend for clinical post-conferences? Responses will be analyzed and used to inform the Round two questionnaire. Feedback about Round one will be provided to you in the form of the Round two questionnaire. The Round two questionnaire will ask you to rate items about the clinical post-conference on a scale. Feedback about the Round two questionnaire will be provided, including your responses and the group median responses. In Round three you will be asked to evaluate your responses from Round two and keep your original item ratings or change your ratings on a Round three questionnaire. Final feedback about the conclusions of the group will be provided at the end of the study.

Benefits of Participation: Your expert opinions about the clinical post-conference will assist faculty to improve future teaching and learning during the clinical post-conference.

Risks of Participation: There are risks involved in all research studies, but this study may include only minimal risk in that you may feel uncomfortable answering some of the questions found on the questionnaires.

Cost /Compensation: The amount of time necessary to complete each questionnaire (or round) will vary, but should range from approximately 15-30 minutes for Round one, 10-20 minutes for Round two, and 15-30 minutes for Round three. This study is seeking your expert opinion about the clinical post-conference; therefore, there are no right or wrong answers to the questions. If you complete all three rounds of questionnaires you will be entered into a raffle for a $100 Walmart gift card.

Voluntary Participation: Your participation in this study is voluntary. You may refuse to participate in this study by not providing an email address and not filling out the questionnaires for each round or demographic survey. You also have the ability to skip answers and/or submit incomplete questionnaires. You are encouraged to ask questions about this study at the beginning or any time during the research study.

Confidentiality: All information gathered in this study will be kept confidential. The researcher will be able to link you to your responses on the questionnaires; however, codes will be used to keep your information confidential and you will remain anonymous to the other participants in the study. No reference will be made in written or oral materials that could link you to this study.

Participant Consent: If you have any questions or concerns about the study, you may contact Katrina Einhellig at katrina.einhellig@unco.edu or 970-351-2269, Faculty Dissertation Chair.

Participation is voluntary. You may decide not to participate in this study and if you begin participation you may still decide to stop and withdraw at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. Please take your time to read and thoroughly review this document and decide whether you would like to participate in this research study. If you decide to participate, your completion of the research procedures indicates your consent. Please keep or print this form for your records. If you have any concerns about your selection or treatment as a research participant, please contact Nicole Morse, Office of Research & Sponsored Programs, Carter Hall, University of Northern Colorado Greeley, CO 80639; 970-351-1910.

APPENDIX G

ROUND 1 COVER LETTER

Round 1 Cover Letter

Thank you for providing your email contact information, indicating your interest in being part of this Delphi study. Providing your email address indicated that you meet the inclusion criteria for the study and are willing to participate.

The aim of this study is to develop guidelines for nursing faculty to facilitate clinical post-conferences and determine outcomes for the clinical post-conference.

Please read the instructions carefully and complete the Delphi questionnaire as fully as you can. The questions on the first round questionnaire are open-ended, asking for a written response. After you complete the questionnaire you will be asked to provide some demographic information. When beginning the questionnaire please use this identification code: XXXX. Return of the completed Delphi Round one questionnaire and demographic survey implies consent to participate.

The Round one questionnaire and demographic survey will take approximately 15 to 30 minutes to complete. Please complete the questionnaire within two weeks, or by 08/10/2020. Thank you for agreeing to participate in this study and providing your expertise and insight about the clinical post-conference.

https://unco.co1.qualtrics.com/jfe/form/SV_eYanO1TdBHNZlcx

Sincerely,

Staci Warnert, MSN, RN, CNE
PhD Candidate
University of Northern Colorado
Warn7360@bears.unco.edu

APPENDIX H

ROUND 1 QUESTIONNAIRE

Round 1 Questionnaire

Directions: For each of the following, please provide the response that best reflects your experiences and views.

1. For what types of clinical experiences are clinical post-conferences recommended?
2. What are the objectives of the clinical post-conference?
3. When should clinical post-conferences be held? (e.g., frequency, timing during and/or following a clinical experience)
4. How long should clinical post-conferences last?
5. What would you describe as the ideal setting clinical post-conferences?
6. For what levels of students are clinical post-conferences recommended?
7. Describe any differences in expectations that you may have for students during clinical post-conference (depending on the level of the student).
8. Describe the ideal setting where clinical post-conferences should be held.
9. Describe an effective learning environment for the clinical post-conference.
10. What is the most effective way to engage students during clinical post-conferences?
11. What topics should be addressed during clinical post-conferences?
12. What teaching strategies would you recommend for the clinical post-conference?
13. Describe the roles and responsibilities of students and faculty during the clinical post-conference.
14. Describe any factors that may affect teaching and/or learning during the clinical post-conference.
15. What is the most effective way faculty can provide support to students during clinical post-conferences?
16. Describe the role the clinical post-conference plays in nursing education.
17. What indicates a successful clinical post-conference?

Research Questions and Round 1 Questionnaire

Q1 What is the recommended structure for the clinical post-conference?

- For what types of clinical experiences are clinical post-conferences recommended?
- When should clinical post-conferences be held? (e.g. how often, timing during and/or after a clinical experience)
- How long should clinical post-conferences last?
- For what levels of students are clinical post-conferences recommended?

Q2 What is the recommended setting for the clinical post-conference?

- Describe the ideal setting where clinical post-conferences should be held.
- Describe an effective learning environment for the clinical post-conference.

Q3 What are the recommended processes detailed by nurse experts regarding an effective clinical post-conference?

- What teaching strategies would you recommend for the clinical post-conference?
- What is the most effective way to engage students during clinical post-conferences?
- What is the most effective way faculty can provide support to students during clinical post-conferences?
- Describe the roles and responsibilities of students and faculty during the clinical post-conference.
- Describe any factors that may affect teaching and/or learning during the clinical post-conference.

Q4 What do nursing educators describe as the outcomes of the clinical post-conference?

- What are the objectives of the clinical post-conference?
- What topics should be addressed during clinical post-conferences?
- Describe the role the clinical post-conference plays in nursing education.
- What indicates a successful clinical post-conference?
- Describe the difference in expectations that you may have for students during clinical post-conference (depending on the level of the student)

Round one reminder email

Thank you for providing your email contact information, indicating your interest in being part of this Delphi study as a panel member. The aim of this study is to develop guidelines for nursing faculty to facilitate clinical post-conferences and determine outcomes for the clinical post-conference. Providing your email address indicated that you meet the inclusion criteria for the study and are willing to participate.

Recently you were sent a link for the Round one questionnaire. If you would still like to participate, please read the instructions carefully and complete the Delphi questionnaire as fully as you can. The questions on the first round questionnaire are open-ended, asking for a written response. After you complete the questionnaire you will be asked to provide some demographic information. When beginning the questionnaire please use this identification code: XXXX. Return of the completed Delphi Round one questionnaire and demographic survey implies consent to participate.

The Round one questionnaire and demographic survey will take approximately 15 to 30 minutes to complete. Please complete the questionnaire within the next week, or by 08/10/2020. Thank you for agreeing to participate in this study and providing your expertise and insight about the clinical post-conference.

https://unco.co1.qualtrics.com/jfe/form/SV_eYanO1TdBHNZlcx

Sincerely,

Staci Warnert, MSN, RN, CNE
PhD Candidate
University of Northern Colorado
Warn7360@bears.unco.edu

APPENDIX I

DEMOGRAPHIC SURVEY

Demographic Survey

How many years have you been a Registered Nurse?

Are you a full-time nursing faculty member?
Yes/No

How many years have you been a nursing faculty member?

Do you teach in an accredited undergraduate nursing program?
Yes/No

What type of program do you teach in (using clinical post-conferences)?
Baccalaureate, Associate, RN-BSN, Other

In what region of the United States is the program you teach in located?
West, Midwest, Northeast, South

How many years have you been holding clinical post-conferences?

How many clinical groups of students have you held clinical post-conferences within the last year?

How many clinical groups of students have you held clinical post-conferences within in the last 5 years?

How old are you?
20-29, 30-39, 40-49, 50-59, 60-69, >69

Please indicate your gender:
Male, Female

APPENDIX J

ROUND 2 COVER LETTER

Round 2 Cover Letter

Thank you for completing the first round Delphi questionnaire. You will find the link for the second round Delphi questionnaire below, which includes the responses from nursing faculty participating as part of the panel for this study.

The second round Delphi questionnaire is completed differently than the first round. Once you click on the link, you will find instructions for completion that will guide you through the process. Please read the instructions carefully and complete the Delphi questionnaire as fully as you can. When beginning the questionnaire please use your identification code: XXXX. Completion of the Delphi Round two questionnaire implies consent to participate. The Round two questionnaire will take approximately 15 to 25 minutes to complete. Please complete the questionnaire within two weeks, or by 09/02/2020.

Thank you for your continued participation in this study.

https://unco.co1.qualtrics.com/jfe/form/SV_3CQxS7X6Daydzdb

Sincerely,

Staci Warnert, MSN, RN, CNE
University of Northern Colorado
Warn7360@bears.unco.edu

APPENDIX K

ROUND 2 QUESTIONNAIRE

Round 2 Questionnaire

The second round of this Delphi study lists the responses from panel members in Round one. These responses have been analyzed through a content analysis and similar responses condensed and grouped together to ensure that the questionnaire is not repetitive and more easily completed. The meaning of the responses has not been changed.

You will see a 5-point scale beside each statement about the clinical post-conference. Please choose the response that indicates your level of agreement with the statement. The response choices are as listed below:

1 - Strongly Disagree, 2 - Disagree, 3 - Undecided, 4 - Agree, 5 - Strongly agree

Before you begin, please enter your assigned 5-digit code (found in your email):

Clinical post-conferences should be held for the following clinical experiences:

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Hospital-based clinical experiences	○	○	○	○	○
Clinical experiences in the acute-care setting	○	○	○	○	○
Clinical experiences in the long-term care setting	○	○	○	○	○
Community health clinical experiences	○	○	○	○	○
All clinical experiences in any clinical facility where students interact with patients and other professionals	○	○	○	○	○

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Instructor led clinical experiences					
Clinical rotations where students are assigned a nurse or preceptor where they do not have an instructor at their side 100% of the time					
Observational clinical experiences					
Direct patient care clinical activities					
Face to face clinical experiences					
Simulation experiences					
Lab/skills experiences					
Virtual clinical experiences					
For individual clinical experiences, arrange for students in a similar setting (ER/ICU vs Community) to meet for clinical post-conference					

Clinical Post-Conferences should last:

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
15 minutes	○	○	○	○	○
20 minutes	○	○	○	○	○
30 minutes	○	○	○	○	○
45 minutes	○	○	○	○	○
1 hour	○	○	○	○	○
1.5 hours	○	○	○	○	○
1.75 hours	○	○	○	○	○
2 hours	○	○	○	○	○
2.5 hours	○	○	○	○	○
3 hours	○	○	○	○	○

The recommended time for a clinical post-conference depends on:

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
The number of students (longer for more students)	○	○	○	○	○
The length of the clinical day	○	○	○	○	○
The type of clinical experience	○	○	○	○	○
The level of students	○	○	○	○	○

The recommended setting for the clinical post-conference includes:

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
A conference room or classroom					
A whiteboard					
Access to the internet					
Access to a medical library					
Adequate lighting					
Computer access with a projector or screen					
Access to the hospital EHR					
Tables for students to write or take out materials					
Seating in a circle where everyone can see each other					
Enough space for students to be comfortable					
A quiet environment free of distractions					
A private environment					
The ability to eat and drink					
A relaxed atmosphere					
An environment where students can safely share their knowledge,					

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
thoughts, mistakes, and feelings					
A physical presence in a small group					
There is no ideal (recommended) setting					

Clinical post-conferences should occur:

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
In an area away from the unit, staff, and patients					
At the clinical facility					
In the clinical setting					
At home on an online discussion board					
Video conferencing during the COVID-19 pandemic					
Video conferencing after the COVID-19 pandemic					
Immediately following the clinical experience					
When students have had time to think about their clinical experiences					
Within 24 hours of the clinical experience					
In the middle of the clinical day					

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
At the end of the clinical day					
No more than once a week					
Intermittently (not every week)					

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Holding post-conference after an 8-hour and especially after a 12-hour clinical shift is an unrealistic expectation for students and instructors					

I would recommend the following teaching strategies for the clinical post-conference:

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Group discussion					
Mini lectures					
Guest speakers					
Concept mapping					
Student-led discussion					
Guided reflection					
Socratic questioning					
Open-ended questioning					

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Structured questioning (specific questions prepared)					
Video clips to reinforce material					
Debriefing techniques from simulation					
Assignment review					
Practice questions (NCLEX-style)					
EHR tutor exercises					
Dosage calculations					
Games					
5-minute essays					
Utilize one of the student's patients as a "case study" discussion					
Unfolding case studies					
Critical thinking activities					
Prioritization activities					
Group activities					
Role-playing exercises such as SBAR reporting, calling a physician, patient					

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
teaching, team communication etc.					
Answer student questions					
Tie in theory lecture (classroom content) with clinical experiences					
Correct misconceptions and provide supporting information					
Provide a tool with questions or goals that students need to investigate as part of their learning during the clinical day to be discussed in post-conference					
Have students give report on their assigned client to their peers and instructor					
Have a specific task/exercise which is not just a recitation of the day's events					
Hands on/ skill practice					
Storytelling/ Faculty sharing experiences					
Review topics from lecture					
A variety of teaching strategies should be used so that all learners can be					

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
reached (auditory, visual, kinesthetic)					

When it comes to clinical post-conferences faculty should:

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Give students a break between clinical and post-conference to recharge					
Prepare activities for clinical post-conference before clinical					
Encourage active participation					
Require student participation					
Provide positive feedback					
Give constructive feedback					
Show excitement					
Maintain a non-threatening environment					
Be non-judgmental					
Be open					
Be mindful of faculty and student time					
Let students know their feelings and emotions are normal					

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Show interest in what students are saying					
Give students an opportunity to provide feedback to faculty					
Guide, but do not give all answers					
Be supportive					
Be innovative					
Be flexible					
Facilitate learning rather than lecturing					
Engage students by having students be responsible to teach their peers					
Facilitate critical thinking					
Treat students as adult learners					
Have some structure					
Keep the discussion on track					
Check in with student stress and coping					
Ask students about who they see as role models and how the staff is working together					

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Make sure the post conference has a goal					
Be forthright (if unsure of answers - admit it and research and return responses to students)					
Call on students by name					
Allow students to express their feelings if they so choose					
Get permission from the student involved before sharing an incident that occurred during the clinical day					
Make clinical post-conference part of the grade					
Be present and engaged					
Celebrate student accomplishments					
Model therapeutic communication					
Provide clear expectations					
Actively listen					
Encourage student collaboration					
Allow students to lead the post-conference					

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Talk less					
Observe opportunities during the clinical day for post-conference discussion					

When it comes to clinical post-conferences students should:

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Respect others					
Be on time					
Take it seriously					
Actively participate					
Be able to discuss their assigned patient and patient care					
Reflect on their own performance					
Be prepared					
Be accountable					
Be aware of their own knowledge base and recognize gaps					
Be engaged and want to learn					

Factors that affect teaching and learning during the clinical post-conference include:

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Cell phones/ electronic devices	○	○	○	○	○
Interruptions	○	○	○	○	○
Emotional experiences occurring during the clinical day	○	○	○	○	○
Fatigue	○	○	○	○	○
Group cohesion	○	○	○	○	○
Hunger	○	○	○	○	○
Aggressive personalities	○	○	○	○	○
Individual personal issues (student or faculty)	○	○	○	○	○
Anxiety	○	○	○	○	○
Distracted by requirements/ assignments/ tests coming up	○	○	○	○	○
Distracted by other responsibilities such as work and childcare	○	○	○	○	○
Lack of resources	○	○	○	○	○
Time constraints	○	○	○	○	○
Too much noise	○	○	○	○	○
Lack of privacy	○	○	○	○	○

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Lack of space/ room availability	○	○	○	○	○
Temperature of the room	○	○	○	○	○
Unsupportive clinical staff	○	○	○	○	○
Student/instructor attitudes	○	○	○	○	○
Faculty being judgmental or non-trusting	○	○	○	○	○
Instructor inexperience	○	○	○	○	○
Lack of instructor preparation	○	○	○	○	○
Lack of participation	○	○	○	○	○
Positive or negative clinical experiences	○	○	○	○	○
Length of the clinical day	○	○	○	○	○
Slow clinical day	○	○	○	○	○
Student/Instructor culture/background	○	○	○	○	○
Students arriving late	○	○	○	○	○

Objectives for the clinical post-conference should include:

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Debriefing the clinical day	○	○	○	○	○
Connecting theory/ classroom to clinical experiences	○	○	○	○	○
Collaboration	○	○	○	○	○
Promoting student presentation skills	○	○	○	○	○
Enhancing leadership skills	○	○	○	○	○
Fostering students' critical thinking about their patient care	○	○	○	○	○
Putting together the big picture	○	○	○	○	○
Clarifying clinical concepts	○	○	○	○	○
Enhancing clinical reasoning, judgment and thinking	○	○	○	○	○
Identifying safety issues	○	○	○	○	○
Reinforcing evidence-based practices	○	○	○	○	○
Discussing assignments	○	○	○	○	○
Reflecting on the clinical day	○	○	○	○	○
Encouraging student reflection and self-evaluation	○	○	○	○	○

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Identifying emotions related to the events of the clinical day	○	○	○	○	○
Summarizing the clinical day	○	○	○	○	○
Discussing the role of the RN when providing patient care	○	○	○	○	○
Identifying priorities for patient care	○	○	○	○	○
Sharing of learning between students	○	○	○	○	○
No formal objectives written for clinical post-conference	○	○	○	○	○

Topics that should be addressed in the clinical post-conference include:

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Any nursing related topic	○	○	○	○	○
Topics that come up during the clinical day	○	○	○	○	○
Current health issues in the news and the impact on local practice	○	○	○	○	○
Ethics	○	○	○	○	○
Pharmacology	○	○	○	○	○
Lab values	○	○	○	○	○
Diagnostic tests	○	○	○	○	○

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Discharge planning	○	○	○	○	○
Communication	○	○	○	○	○
EKG review	○	○	○	○	○
NLN competencies	○	○	○	○	○
QSEN competencies	○	○	○	○	○
Emotional experiences/ concerns	○	○	○	○	○
Priority of care	○	○	○	○	○
Collaboration	○	○	○	○	○
Specific concepts such as pain, mobility, oxygenation, circulation etc.	○	○	○	○	○
Individual strengths and weaknesses	○	○	○	○	○
Positives or negatives of the day	○	○	○	○	○
Staff interactions	○	○	○	○	○
Infection Control	○	○	○	○	○
Handoff report (SBAR)	○	○	○	○	○
Patient related outcomes	○	○	○	○	○
Patient teaching	○	○	○	○	○

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Nursing interventions	○	○	○	○	○
Skills	○	○	○	○	○
HIPPA concerns	○	○	○	○	○
Evidence-based practice	○	○	○	○	○
Management issues	○	○	○	○	○
Nursing process	○	○	○	○	○
Analyzing patient cues	○	○	○	○	○
Clinical decision making	○	○	○	○	○
National patient safety goals (NPSGs)	○	○	○	○	○
Unique experiences and examples	○	○	○	○	○
Pathophysiology	○	○	○	○	○
Civility	○	○	○	○	○
Leadership	○	○	○	○	○
Documentation	○	○	○	○	○
Dosage calculation	○	○	○	○	○
Delegation	○	○	○	○	○
Failure to rescue	○	○	○	○	○

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
CMS guidelines					
Professionalism					
Role of the RN/ Scope of practice					
Social media					
Healthy nurse					
Culture					
Holistic care					
Plans of care for patients					
Time management					
End-of-life-issues					
Protocols and policies					

Objectives and/or topics for the clinical post-conference depend on:

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
The learning objectives for the course					
The level of students					
The clinical day					
Concept or content for the week					

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Patient population					
Clinical site					

The following indicates a successful clinical post-conference:

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Continuing conversations on the way out, bringing it up in lecture, bringing up in skills lab and sim (brought up by both faculty and students)					
Clinical post-conference activities lead to critical thinking and questions (spirit of inquiry) from students					
Excitement from students					
Students are eager to come back and learn something more					
Engagement of all students and faculty					
Active student participation, with rich and pertinent reflection and self-evaluation					
All students participate					
Faculty remain a facilitator					
All student questions are answered					

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
In the future when the student applies what has been learned to improve client outcomes					
Progressive improvement in weekly paperwork, as well as passing theory grades					
When students have learned something new					
Student verbalization that post-conference helped “put it all together”					
Faculty see increased student confidence					
Students having that light bulb (“ah-ha”) moment					
Students meeting the objectives					
When patients can feel like they are contributing to the learning process of the newest generation of nurses					
When the students share their successes of the day					
When students make connections to what is learned in the classroom					
When faculty see a cohesive team develop					

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Students have reflected on their experiences					
A successful clinical post-conference is one where the students and instructor walk away feeling fulfilled and accomplished.					
Having students write a post-clinical reflection can show success					

Please indicate your level of agreement with the following statements about the clinical post-conference:

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
The biggest role clinical post-conference plays is being able to tie together the classroom material to patient care.					
The clinical post-conference enhances the use of the nursing process.					
The clinical post-conference is critical for developing clinical reasoning and self-reflection.					
Clinical post-conference is a time for the student to become familiar and more comfortable in the setting where most will be working upon graduation.					

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Clinical post-conference helps socialize the student into the role of the nurse.					
Clinical post-conference provides a time after patient care to reflect and debrief on the day.					
Post-conference allows faculty and students to discuss what did and what did not happen during the clinical day.					
The clinical post-conference is the place where the best student/faculty relationships are developed					
The clinical post-conference is a way for me as the faculty member to evaluate learning and identify gaps in knowledge.					
The clinical post-conference allows the instructor to see if the clinical setting is helping meet the student learning needs.					
Purposeful, planned learning activities during the clinical post-conference are crucial to promote students' development as future professional nurses.					

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Post conference is an essential part of nursing education.					

Please indicate your agreement with the following statements related to levels of students and clinical post-conferences.

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Entry level students will need more hands-on guidance and encouragement.					
Upper level students need to be putting the pieces together, taking charge and functioning with minimal supervision.					
First semester is a simple knowledge base and how they performed. Final semester is about application and rationalizing why we do what we do.					
The level of knowledge or information increases or changes according to semester and progression through the program (higher level critical thinking activities) which allow students to build upon previous knowledge					
I have the same expectation for all students during clinical post-conference. The level of knowledge might be different, but the					

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
participation and sharing of information should be the same.					
Beginner students need a longer post-conference time in comparison to last/upper level students					

Thank you for completing the Round two questionnaire. You will be sent the Round three questionnaire to your provided email address after the Round two questionnaire data is compiled.

Round 2 reminder email

Recently you were sent the link for the second round Delphi questionnaire. Your continued participation as part of the panel for this study will assist with establishing guidelines for the clinical post-conference. You will find the link for the second round Delphi questionnaire below. Please complete the questionnaire within one week, or by xx/xx/2020.

The second round Delphi questionnaire includes responses from nursing faculty participating as part of the panel for this study, and is completed differently than then first round. Once you click on the link, you will find instructions for completion that will guide you through the process. Please read the instructions carefully and complete the Delphi questionnaire as fully as you can. When beginning the questionnaire please use your identification code: XXXX. Completion of the Delphi Round two questionnaire implies consent to participate. The Round two questionnaire will take approximately 10 to 20 minutes to complete.

Thank you for your continued participation in this study.

Sincerely,

Staci Warnert, MSN, RN, CNE
University of Northern Colorado
Warn7360@bears.unco.edu

APPENDIX L

ROUND 3 COVER LETTER

Round 3 Cover Letter

Thank you for completing the second round Delphi questionnaire. You will find the link for the third round Delphi questionnaire below. The third round Delphi includes details about the clinical post-conference, which you have been identifying. Statements reaching consensus as well as those not reaching consensus are included for your review. You will be asked to reconsider your responses for those statements not reaching consensus.

As before, the third round Delphi questionnaire is completed differently than the first and second rounds. Once you click on the link, you will find instructions for completion that will guide you through the process. Please read the instructions carefully and complete the Delphi questionnaire as fully as you can. When beginning the questionnaire please use your identification code: XXXX. Return of the completed Delphi Round three questionnaire implies consent to participate. Please complete the questionnaire within two weeks, or by xx/xx/2020.

Thank you for your continued participation in this study.

Sincerely,

Staci Warnert, MSN, RN, CNE
University of Northern Colorado
Warn7360@bears.unco.edu

APPENDIX M

ROUND 3 QUESTIONNAIRE

Round 3 Questionnaire Directions and Format

*Questionnaire statements will be derived from responses to the Round one questionnaire
The following statements have reached consensus:

The third round of this Delphi includes the responses from the Round two questionnaire. You will see two columns beside each statement. Column one shows your response to the statement, and column two shows the median group response to the statement. Both correspond to the same scale used in Round two and listed below:

1 – Strongly disagree
2 – Disagree
3 – Undecided
5 – Agree
6 – Strongly agree

Column three is blank and is provided as an opportunity for you to reconsider your level of agreement since Round two. Please look at your response and the group median response and reconsider your level of agreement in the context of the group response. If you wish to change your response to a statement, please do so by marking your new response rating. Please note that you do not have to change your original response if you do not wish to.

	Your Response	Median Group Response	New Response				
Statement			1	2	3	4	5
Statement			1	2	3	4	5
Statement			1	2	3	4	5

*The number of statements included is dependent on the data collected in Round one and Round two.

Round 3 reminder email

Recently you were sent the link for the third round Delphi questionnaire. Your continued participation as part of the panel for this study will assist with establishing guidelines for the clinical post-conference. You will find the link for the third round Delphi questionnaire below. Please complete the questionnaire within one week, or by xx/xx/2020.

The third round Delphi includes details about the clinical post-conference, which you have been identifying. Statements reaching consensus as well as those not reaching consensus are included for your review. You will be asked to reconsider your responses for those statements not reaching consensus.

As before, the third round Delphi questionnaire is completed differently than the first and second rounds. Once you click on the link, you will find instructions for completion that will guide you through the process. Please read the instructions carefully and complete the Delphi questionnaire as fully as you can. When beginning the questionnaire please use your identification code: XXXX. Return of the completed Delphi Round three questionnaire implies consent to participate.

Thank you for your continued participation in this study.

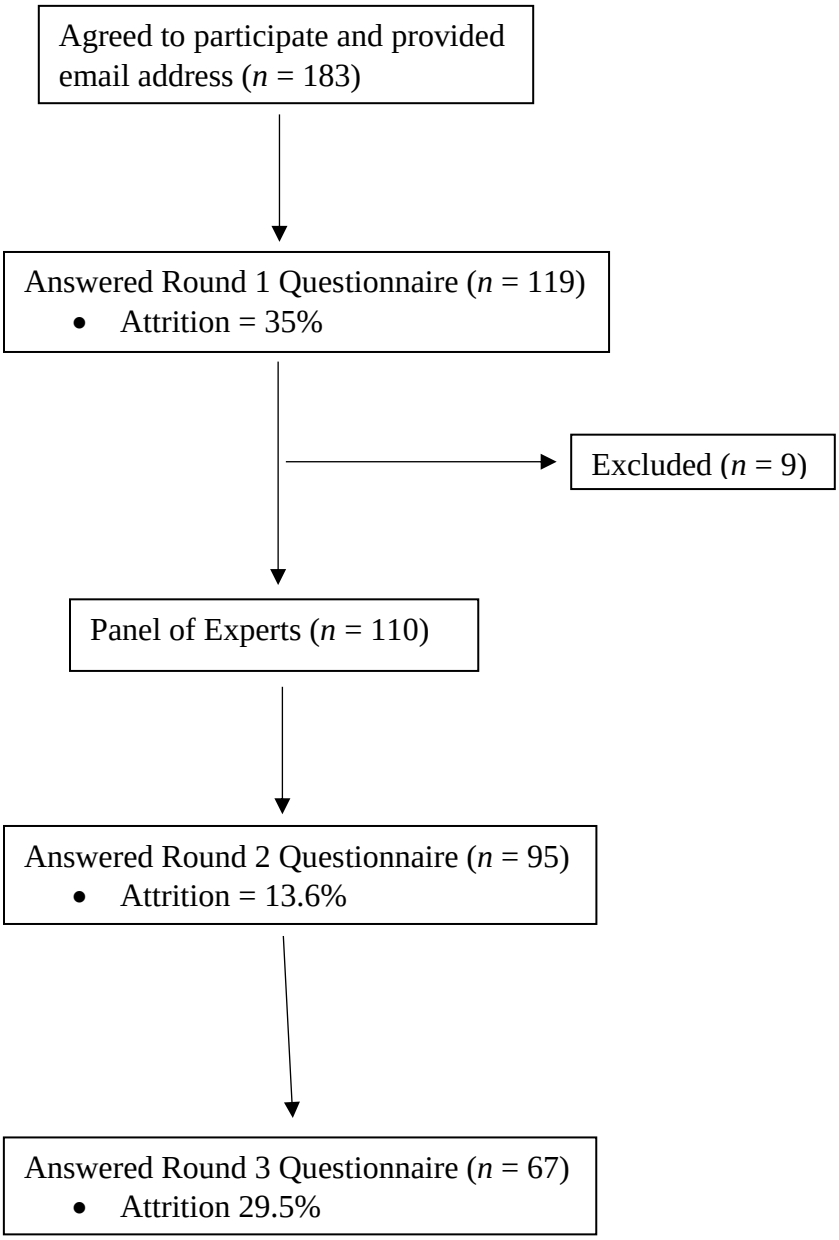
Sincerely,

Staci Warnert, MSN, RN, CNE
University of Northern Colorado
Warn7360@bears.unco.edu

APPENDIX N

FLOWCHART OF IDENTIFIED PARTICIPANT PARTICIPATION

Flowchart of Identified Participant Participation



APPENDIX O

ROUND 1 FINAL STATEMENTS AND EXAMPLES OF CONDENSED QUOTES—RECOMMENDED STRUCTURE

Final Quotes/Statements	Examples of Quotes that were Condensed
Clinical post-conferences should be held for the following clinical experiences:	
"All clinical experiences in any clinical facility where students interact with patients and other professionals."	"All clinical experiences should include post conference for students to discuss what went well, what would be improved, and for their instructor to provide additional information."
	"I recommend post-conference for all experiences."
	"All clinicals should have a post-conference to review any important details of the day."
	"All clinical experiences should include some type of post-conference in which students can reflect on their learning activities."
	"All types!"
	"Post-conference should occur after every clinical experience."
	"Simulated and direct patient care clinical activities are recommended for clinical-post conferences."
	"Any type of experience that requires patient care from the student, simulation could count. Although usually termed debriefing for simulation."
Simulation Experiences	"All clinical/hands on experiences, as well as simulation experiences."
Face-to-face clinical experiences	"For face-to-face clinicals with students in any clinical agency; also a debriefing with simulation clinicals."
	"Clinicals for a hospital setting and after a simulation."
	"I use post-conference for all face-to-face clinical experiences."
Hospital-based clinical experiences	Clinicals for a hospital setting and after a simulation
	Clinical experiences in the hospital (traditional) as well as clinical simulation.
Observation experiences	"Post-conference should be done for all clinical experiences even if the student is in the observational role."
	"On site after clinical rotations. After observational rotations. After virtual learning. After simulation clinical experiences."
The recommended time for a clinical post-conference depends on:	

The type of clinical experience	"It depends on the clinical but at least 20 minutes." "The length of the post-conference would vary depending on the type of experience."
The level of students	"It is dependent on the number of students, level of students, and what portion of the semester. For example, in an ICU setting with seniors, it takes 1.5 hours. Freshmen on their first day can also take 1.5 hours." This depends on the number of students and the students' levels, but anywhere between 30-45 minutes.
Clinical post-conferences should occur:	
Immediately following the clinical experience	"Immediately after the clinical experience, preferably, while memories are fresh."
"No more than once a week"	" I don't think more than once a week is necessary (we have two day clinicals)."

APPENDIX P

ROUND 1 FINAL STATEMENTS AND EXAMPLES OF CONDENSED QUOTES—RECOMMENDED SETTING

Final Quotes/Statements	Examples of Quotes that were Condensed
The recommended setting for the clinical post-conference includes:	
A conference room or classroom A private environment	"Conference Room or informal meeting room without interruptions." "In a classroom away from the floor to avoid distractions. Needs to be private, so students can discuss the patients without causing any HIPPA violations." "In a conference room around a table, quiet, secure for HIPAA purposes." "A private conference room with adequate seating and internet access is ideal." "Private room, seating arranged so students can face one another."
"Seating in a circle where everyone can see each other."	"Conference room with chairs facing, doors closed and white board." "Quiet room with tables that students and instructor can sit around facing each other."
The ability to eat and drink	"Tables are helpful, and space for food and drink can help provide a supportive atmosphere." "I have also found that allowing the students to eat and drink helps with their concentration."
In the clinical facility	"Ideally it should be held in a quiet area within the clinical facility." "A conference room at the clinical site."
"An environment where students can safely share their knowledge, thoughts, mistakes, and feelings."	"An open environment in which the instructor supports free discussion." "Each student feels safe and welcome to share any piece of their day that was relevant. They feel listed to and their feelings are acknowledged by both the instructor and their classmates."
Videoconferencing during the COVID-19 pandemic	"At the hospital in a conference room after clinical. However, since went online after they did there virtual clinical then has post conference on WebEx." "Quiet, private conference room or on Zoom during Covid."

APPENDIX Q

ROUND 1 FINAL STATEMENTS AND EXAMPLES OF CONDENSED QUOTES—RECOMMENDED PROCESS

Examples of Questionnaire Statements	Examples of Quotes that were Condensed
I would recommend the following teaching strategies for the clinical post-conference:	
Group discussion	"Discussion, avoid lecture. Have students be learning from each other."
	"Discussion about patient care which is guided by the instructor."
	"Student led, discuss a certain concept that is being taught."
"Guided Reflection"	"A debriefing style of open-ended questions so the student can reflect on the experience."
	"First I let them decompress about their experience, then we talk about things that went well and things that could have gone better."
	"Encourage their reflection and comments."
	"Ask students for self and peer critique, encourage active reflection, ask why something went well/ why it didn't go well, what to do differently next time and clarification of incorrect data or missing points from faculty."
Guest Speakers	"Guest speakers Such as specialists on unit patient population, Clergy/Spiritual leaders such as Jehovah Witness (we had a patient who refused blood transfusion, actively bleeding. This was traumatic for the students, so the brother of the Kingdom Hall came to speak to students...it was excellent)."
	"Sometimes presentations from the facility's clinical staff and non-faculty professionals are helpful and add valuable information to their learning repertoire."
	"We also may use a guest speaker from the hospital."
"Prioritization Activities"	"Clinical reasoning activities, prioritization and critical thinking activities, practice report and SBAR, verbal short answer questions over need to know items."
	"Individual reporting, prioritizing in groups of two, writing notes in groups of two, asking other student's what questions they have from each other."
	"Individual presentation of client."

"Have students give report on their assigned client to their peers and instructor."	"Ask students to present their most interesting patient. Discuss pertinent labs, medications, plan of care. Lead students through problem-solving to assist them in critically thinking through the best way to provide care for each patient presented."
	"I have them provide an SBAR for each client & the other students are able to ask questions."
	"Students give an SBAR report to the group and the group asks questions."
When it comes to clinical post-conferences faculty should:	
"Talk less"	"Faculty need to learn to keep quiet and listen and let students speak."
	"Students should do most of the talking / reflecting - faculty should listen, affirm, redirect, or correct when needed."
	"By NOT doing all the talking. I struggle with this."
Be flexible	Allow for flexibility dependent on the needs of the students.
	Faculty should always be prepared for things to change quickly and adapt to whatever happens in the post-conference environment.
"Provide clear expectations"	"Stating expectations of post-conference at the beginning of the semester."
	"I always tell new faculty that if the "ground rules" are set on the first day of clinicals as to student behavior and participation in post-conference, students will know what is expected of them."
	"Provide expectations to students in preconference for post conference discussion on their assigned client."
When it comes to clinical post-conferences students should:	
Respect others	"Students should be respectful of others speaking and participate willingly."
	"Engage, respect one another."
	"Students should 'be present' without distractions"
Be "engaged and want to learn."	"Students need to be engaged and come with an open mind and participate."
	"Students to always be open to learning."

Factors that affect teaching and learning during the clinical post-conference include:	
"Time Constraints"	"Insufficient time to analyze and discuss can have an effect on learning."
	"If our day happens to go past time to leave the floor students are just ready to leave and don't want to stay long for post conference."
"Unsupportive clinical staff"	"The most important factor is the cooperation of the staff with students."
	"Lack of a welcoming environment from the clinical facility, this includes staff (nurses aides). Bullying of the students and the faculty (by staff) in less learning friendly environments."

APPENDIX R

ROUND 1 FINAL STATEMENTS AND EXAMPLES OF CONDENSED QUOTES—OUTCOMES

Examples of Questionnaire Statements	Examples of Quotes that were Condensed
Objectives for the clinical post-conference should include:	
"Connecting theory/ classroom to clinical experiences"	"Connect the dots. Identify what has been discussed in the classroom and how it is present in the clinical setting. Using real-life experiences to apply the theories and content learned in the classroom."
	"To help students create a connection between theory and practice. Help them see how their patients that day related back to what they are learning in school."
"Reflecting on the clinical day"	"To debrief from the clinical day and to discuss application of theory into practice."
	Clinical post conference helps students learn from clinicals and reflect on their behavior, making plans to correct any problems moving forward.
	"I think that there should always be a debriefing of the day so that students can reflect."
	"To reflect on the clinical day and discuss patient care."
"Encouraging student reflection and self-evaluation"	"Promote group and individual reflection on performance."
	"Reinforce the learning experience with the students and allowing them to self-reflect on the experience."
"Summarizing the clinical day"	Have each student provide a brief patient overview of the day. Including any additional meds, test results, etc. What the role the nurse did during the day. Any other observations with health care team input, family support, etc.
	"Students will discuss patient care given during the clinical day."
	"To discuss the clinical day by sharing about patient experiences, collaboration within the unit and other team members, faculty answer all questions by students, review any additional pertinent information and sign end of day documentation."

The following indicates a successful clinical post-conference:	
	"Students actively participating, engagement and asking pertinent questions or contributing what they have learn from their readings and experiences."
All students participate	"For me, a post-conference is successful when students and faculty participate. Not just one student or the faculty talking the whole time. But sharing things learned and reviewing activities of the day through the eyes of the nurse."

APPENDIX S

ROUND 2 CONSENSUS

Statements	Consensus	Level of Agreement
Clinical post-conferences should be held for the following clinical experiences:		
Hospital-based clinical experiences	Strongly Agree	90%
Clinical experiences in the acute-care setting	Strongly Agree	89%
Clinical experiences in the long-term care setting	Strongly Agree	84%
Community health clinical experiences	Strongly Agree	74%
All clinical experiences in any clinical facility where students interact with patients and other professionals	Strongly Agree	83%
Direct patient care clinical activities	Strongly Agree	76%
Face to face clinical experiences	Strongly Agree	82%
Simulation experiences	Strongly Agree	82%
The recommended setting for the clinical post-conference includes:		
A quiet environment free of distractions	Strongly Agree	70%
A private environment	Strongly Agree	80%
An environment where students can safely share their knowledge, thoughts, mistakes, and feelings	Strongly Agree	88%
Clinical post-conferences should occur: In an area away from the unit, staff, and patients	Strongly Agree	73%
I would recommend the following teaching strategies for the clinical post-conference: Group discussion	Strongly Agree	70%
When it comes to clinical post-conferences faculty should:		
Encourage active participation	Strongly Agree	80%
Provide positive feedback	Strongly Agree	78%
Give constructive feedback	Strongly Agree	76%
Show excitement	Strongly Agree	74%

Maintain a non-threatening environment	Strongly Agree	82%
Be non-judgmental	Strongly Agree	82%
Be open	Strongly Agree	83%
Be mindful of faculty and student time	Strongly Agree	78%
Let students know their feelings and emotions are normal	Strongly Agree	78%
Show interest in what students are saying	Strongly Agree	84%
Give students an opportunity to provide feedback to faculty	Strongly Agree	75%
Be supportive	Strongly Agree	80%
Be innovative	Strongly Agree	72%
Be flexible	Strongly Agree	77%
Facilitate learning rather than lecturing	Strongly Agree	83%
Facilitate critical thinking	Strongly Agree	83%
Treat students as adult learners	Strongly Agree	83%
Be forthright (if unsure of answers -admit it and research and return responses to students)	Strongly Agree	73%
Be present and engaged	Strongly Agree	83%
Celebrate student accomplishments	Strongly Agree	83%
Model therapeutic communication	Strongly Agree	82%
Provide clear expectations	Strongly Agree	79%
Actively listen	Strongly Agree	84%
Encourage student collaboration	Strongly Agree	79%
Observe opportunities during the clinical day for post-conference discussion	Strongly Agree	74%
When it comes to clinical post-conferences students should:		

Respect others	Strongly Agree	92%
Be on time	Strongly Agree	79%
Take it seriously	Strongly Agree	89%
Actively participate	Strongly Agree	89%
Be able to discuss their assigned patient and patient care	Strongly Agree	79%
Reflect on their own performance	Strongly Agree	75%
Be prepared	Strongly Agree	84%
Be accountable	Strongly Agree	84%
Be aware of their own knowledge base and recognize gaps	Strongly Agree	73%
Be engaged and want to learn	Strongly Agree	85%
Objectives for the clinical post-conference should include:		
Fostering students' critical thinking about their patient care	Strongly Agree	80%
Putting together the big picture	Strongly Agree	86%
Clarifying clinical concepts	Strongly Agree	71%
Enhancing clinical reasoning, judgment and thinking	Strongly Agree	83%
Identifying safety issues	Strongly Agree	74%
Encouraging student reflection and self-evaluation	Strongly Agree	72%
Identifying priorities for patient care	Strongly Agree	72%
Topics that should be addressed in the clinical post-conference include: Priority of care	Strongly Agree	74%
The following indicates a successful clinical post-conference:		
Clinical post-conference activities lead to critical thinking and questions (spirit of inquiry) from students	Strongly Agree	73%
Active student participation, with rich and pertinent reflection and self-evaluation	Strongly Agree	75%

Student verbalization that post-conference helped "put it all together"	Strongly Agree	72%
Students having that light bulb ("ah-ha") moment	Strongly Agree	72%
The clinical post-conference is critical for developing clinical reasoning and self-reflection.	Strongly Agree	70%

APPENDIX T

ROUND 3 CONSENSUS

Statement	Consensus	Level of Agreement
Clinical post-conferences should be held for the following clinical experiences:		
Instructor led clinical experiences	Strongly Agree and Agree	95%
Clinical rotations where students are assigned a nurse or preceptor where they do not have an instructor at their side 100% of the time	Strongly Agree and Agree	79%
Observational clinical experiences	Strongly Agree and Agree	74%
Lab/skills experiences	Strongly Agree and Agree	76%
Virtual clinical experiences	Strongly Agree and Agree	94%
For individual clinical experiences, arrange for students in a similar setting (ER/ICU vs Community) to meet for clinical post-conference	Strongly Agree and Agree	89%
Clinical Post-Conferences should last:		
15 minutes	Strongly Disagree and Disagree	81%
20 minutes	Strongly Disagree and Disagree	76%
30 minutes	Consensus Not Reached	No
45 minutes	Strongly Agree and Agree	76%
1 hour	Strongly Agree and Agree	85%
1.5 hours	Consensus Not Reached	No
1.75 hours	Strongly Disagree and Disagree	81%
2 hours	Strongly Disagree and Disagree	86%
2.5 hours	Strongly Disagree and Disagree	95%
3 hours	Strongly Disagree and Disagree	95%
The recommended time for a clinical post-conference depends on:		
The number of students (longer for more students)	Strongly Agree and Agree	75%

The length of the clinical day	Strongly Agree and Agree	70%
The type of clinical experience	Strongly Agree and Agree	77%
The level of students	Strongly Agree and Agree	70%
A conference room or classroom	Strongly Agree and Agree	98%
A whiteboard	Consensus Not Reached	No
Access to the internet	Consensus Not Reached	No
Access to a medical library	Consensus Not Reached	No
Adequate lighting	Strongly Agree and Agree	95%
Computer access with a projector or screen	Consensus Not Reached	No
Access to the hospital EHR	Consensus Not Reached	No
Tables for students to write or take out materials	Strongly Agree and Agree	92%
Seating in a circle where everyone can see each other	Strongly Agree and Agree	88%
Enough space for students to be comfortable	Strongly Agree and Agree	98%
The ability to eat and drink	Consensus Not Reached	No
A relaxed atmosphere	Strongly Agree and Agree	97%
A physical presence in a small group	Strongly Agree and Agree	87%
There is no ideal (recommended) setting	Consensus Not Reached	No
Clinical post-conferences should occur:		
At the clinical facility	Strongly Agree and Agree	87%
In the clinical setting	Consensus Not Reached	No
At home on an online discussion board	Consensus Not Reached	No
Video conferencing during the COVID-19 pandemic	Strongly Agree and Agree	73%

Video conferencing after the COVID-19 pandemic	Consensus Not Reached	No
Immediately following the clinical experience	Strongly Agree and Agree	98%
When students have had time to think about their clinical experiences	Consensus Not Reached	No
Within 24 hours of the clinical experience	Consensus Not Reached	No
In the middle of the clinical day	Consensus Not Reached	No
At the end of the clinical day	Strongly Agree and Agree	95%
No more than once a week	Consensus Not Reached	No
Intermittently (not every week)	Strongly Disagree and Disagree	76%
Holding post-conference after an 8-hour and especially after a 12-hour clinical shift is an unrealistic expectation for students and instructors	Strongly Disagree and Disagree	73%
I would recommend the following teaching strategies for the clinical post-conference:		
Mini lectures	Consensus Not Reached	No
Guest speakers	Consensus Not Reached	No
Concept mapping	Strongly Agree and Agree	79%
Student-led discussion	Strongly Agree and Agree	98%
Guided reflection	Strongly Agree and Agree	88%
Socratic questioning	Strongly Agree and Agree	77%
Open-ended questioning	Strongly Agree and Agree	100%
Structured questioning (specific questions prepared)	Consensus Not Reached	No
Video clips to reinforce material	Consensus Not Reached	No
Debriefing techniques from simulation	Strongly Agree and Agree	90%
Assignment review	Consensus Not Reached	No
Practice questions (NCLEX-style)	Consensus Not Reached	No

EHR tutor exercises	Consensus Not Reached	No
Dosage calculations	Consensus Not Reached	No
Games	Consensus Not Reached	No
5-minute essays	Consensus Not Reached	No
Utilize one of the student's patients as a "case study" discussion	Strongly Agree and Agree	95%
Unfolding case studies	Strongly Agree and Agree	72%
Critical thinking activities	Strongly Agree and Agree	90%
Prioritization activities	Strongly Agree and Agree	90%
Group activities	Strongly Agree and Agree	77%
Role-playing exercises such as SBAR reporting, calling a physician, patient teaching, team communication etc.	Strongly Agree and Agree	89%
Answer student questions	Strongly Agree and Agree	100%
Tie in theory lecture (classroom content) with clinical experiences	Strongly Agree and Agree	98%
Correct misconceptions and provide supporting information	Strongly Agree and Agree	98%
Provide a tool with questions or goals that students need to investigate as part of their learning during the clinical day to be discussed in post-conference	Strongly Agree and Agree	83%
Have students give report on their assigned client to their peers and instructor	Strongly Agree and Agree	92%
Have a specific task/exercise which is not just a recitation of the day's events	Strongly Agree and Agree	79%
Hands on/ skill practice	Consensus Not Reached	No
Storytelling/ Faculty sharing experiences	Consensus Not Reached	No
Review topics from lecture	Consensus Not Reached	No
A variety of teaching strategies should be used so that all learners can be reached (auditory, visual, kinesthetic)	Strongly Agree and Agree	88%
When it comes to clinical post-conferences faculty should:		

Give students a break between clinical and post-conference to recharge	Strongly Agree and Agree	74%
Prepare activities for clinical post-conference before clinical	Strongly Agree and Agree	82%
Require student participation	Strongly Agree and Agree	93%
Guide, but do not give all answers	Strongly Agree and Agree	98%
Engage students by having students be responsible to teach their peers	Strongly Agree and Agree	81%
Have some structure	Strongly Agree and Agree	95%
Keep the discussion on track	Strongly Agree and Agree	95%
Check in with student stress and coping	Strongly Agree and Agree	97%
Ask students about who they see as role models and how the staff is working together	Strongly Agree and Agree	79%
Make sure the post conference has a goal	Strongly Agree and Agree	85%
Call on students by name	Strongly Agree and Agree	92%
Allow students to express their feelings if they so choose	Strongly Agree and Agree	97%
Get permission from the student involved before sharing an incident that occurred during the clinical day	Strongly Agree and Agree	94%
Make clinical post-conference part of the grade	Consensus Not Reached	No
Allow students to lead the post-conference	Strongly Agree and Agree	84%
Talk less	Strongly Agree and Agree	85%
Factors that affect teaching and learning during the clinical post-conference include:		
Cell phones/ electronic devices	Strongly Agree and Agree	95%
Interruptions	Strongly Agree and Agree	95%
Emotional experiences occurring during the clinical day	Strongly Agree and Agree	82%
Fatigue	Strongly Agree and Agree	98%
Group cohesion	Strongly Agree and Agree	92%

Hunger	Strongly Agree and Agree	93%
Aggressive personalities	Strongly Agree and Agree	90%
Individual personal issues (student or faculty)	Strongly Agree and Agree	92%
Anxiety	Strongly Agree and Agree	97%
Distracted by requirements/ assignments/ tests coming up	Strongly Agree and Agree	94%
Distracted by other responsibilities such as work and childcare	Strongly Agree and Agree	93%
Lack of resources	Consensus Not Reached	No
Time constraints	Strongly Agree and Agree	84%
Too much noise	Strongly Agree and Agree	87%
Lack of privacy	Strongly Agree and Agree	97%
Lack of space/ room availability	Strongly Agree and Agree	97%
Temperature of the room	Strongly Agree and Agree	80%
Unsupportive clinical staff	Strongly Agree and Agree	76%
Student/instructor attitudes	Strongly Agree and Agree	93%
Faculty being judgmental or non-trusting	Strongly Agree and Agree	90%
Instructor inexperience	Strongly Agree and Agree	95%
Lack of instructor preparation	Strongly Agree and Agree	87%
Lack of participation	Strongly Agree and Agree	98%
Positive or negative clinical experiences	Strongly Agree and Agree	82%
Length of the clinical day	Strongly Agree and Agree	83%
Slow clinical day	Strongly Agree and Agree	70%
Student/Instructor culture/background	Consensus Not Reached	No

Students arriving late	Strongly Agree and Agree	90%
Objectives for the clinical post-conference should include:		
Debriefing the clinical day	Strongly Agree and Agree	100%
Connecting theory/ classroom to clinical experiences	Strongly Agree and Agree	98%
Collaboration	Strongly Agree and Agree	98%
Promoting student presentation skills	Consensus Not Reached	No
Enhancing leadership skills	Strongly Agree and Agree	75%
Reinforcing evidence-based practices	Strongly Agree and Agree	97%
Discussing assignments	Consensus Not Reached	No
Reflecting on the clinical day	Strongly Agree and Agree	98%
Identifying emotions related to the events of the clinical day	Strongly Agree and Agree	98%
Summarizing the clinical day	Strongly Agree and Agree	86%
Discussing the role of the RN when providing patient care	Strongly Agree and Agree	97%
Sharing of learning between students	Strongly Agree and Agree	100%
No formal objectives written for clinical post-conference	Consensus Not Reached	No
Topics that should be addressed in the clinical post-conference include:		
Any nursing related topic	Strongly Agree and Agree	72%
Topics that come up during the clinical day	Strongly Agree and Agree	100%
Current health issues in the news and the impact on local practice	Strongly Agree and Agree	87%
Ethics	Strongly Agree and Agree	97%
Pharmacology	Strongly Agree and Agree	95%
Lab values	Strongly Agree and Agree	93%

Diagnostic tests	Strongly Agree and Agree	95%
Discharge planning	Strongly Agree and Agree	90%
Communication	Strongly Agree and Agree	100%
EKG review	Consensus Not Reached	No
NLN competencies	Consensus Not Reached	No
QSEN competencies	Strongly Agree and Agree	70%
Emotional experiences/ concerns	Strongly Agree and Agree	98%
Collaboration	Strongly Agree and Agree	98%
Specific concepts such as pain, mobility, oxygenation, circulation etc.	Strongly Agree and Agree	92%
Individual strengths and weaknesses	Consensus Not Reached	No
Positives or negatives of the day	Strongly Agree and Agree	93%
Staff interactions	Strongly Agree and Agree	90%
Infection Control	Strongly Agree and Agree	95%
Handoff report (SBAR)	Strongly Agree and Agree	98%
Patient related outcomes	Strongly Agree and Agree	98%
Patient teaching	Strongly Agree and Agree	97%
Nursing interventions	Strongly Agree and Agree	97%
Skills	Strongly Agree and Agree	70%
HIPPA concerns	Strongly Agree and Agree	92%
Evidence-based practice	Strongly Agree and Agree	98%
Management issues	Strongly Agree and Agree	72%
Nursing process	Agree	72%

Analyzing patient cues	Agree	72%
Clinical decision making	Strongly Agree and Agree	100%
National patient safety goals (NPSGs)	Strongly Agree and Agree	88%
Unique experiences and examples	Strongly Agree and Agree	100%
Pathophysiology	Strongly Agree and Agree	87%
Civility	Strongly Agree and Agree	100%
Leadership	Agree	71%
Documentation	Strongly Agree and Agree	87%
Dosage calculation	Strongly Agree and Agree	70%
Delegation	Agree	70%
Failure to rescue	Strongly Agree and Agree	85%
CMS guidelines	Consensus Not Reached	No
Professionalism	Strongly Agree and Agree	98%
Role of the RN/ Scope of practice	Strongly Agree and Agree	100%
Social media	Consensus Not Reached	No
Healthy nurse	Strongly Agree and Agree	80%
Culture	Agree	70%
Holistic care	Agree	70%
Plans of care for patients	Strongly Agree and Agree	94%
Time management	Strongly Agree and Agree	98%
End-of-life-issues	Strongly Agree and Agree	97%
Protocols and policies	Strongly Agree and Agree	85%

Objectives and/or topics for the clinical post-conference depend on:		
The learning objectives for the course	Strongly Agree and Agree	92%
The level of students	Strongly Agree and Agree	97%
The clinical day	Strongly Agree and Agree	92%
Concept or content for the week	Strongly Agree and Agree	82%
Patient population	Strongly Agree and Agree	85%
Clinical site	Strongly Agree and Agree	82%
The following indicates a successful clinical post-conference:		
Continuing conversations on the way out, bringing it up in lecture, bringing up in skills lab and sim (brought up by both faculty and students)	Strongly Agree and Agree	90%
Excitement from students	Strongly Agree and Agree	95%
Students are eager to come back and learn something more	Strongly Agree and Agree	100%
Engagement of all students and faculty	Strongly Agree and Agree	97%
All students participate	Strongly Agree and Agree	92%
Faculty remain a facilitator	Strongly Agree and Agree	87%
All student questions are answered	Strongly Agree and Agree	77%
In the future when the student applies what has been learned to improve client outcomes	Strongly Agree and Agree	100%
Progressive improvement in weekly paperwork, as well as passing theory grades	Strongly Agree and Agree	89%
When students have learned something new	Strongly Agree and Agree	95%
Faculty see increased student confidence	Strongly Agree and Agree	98%
Students meeting the objectives	Strongly Agree and Agree	95%
When patients can feel like they are contributing to the learning process of the newest generation of nurses	Strongly Agree and Agree	71%

When the students share their successes of the day	Strongly Agree and Agree	93%
When students make connections to what is learned in the classroom	Strongly Agree and Agree	100%
When faculty see a cohesive team develop	Strongly Agree and Agree	90%
Students have reflected on their experiences	Strongly Agree and Agree	95%
A successful clinical post-conference is one where the students and instructor walk away feeling fulfilled and accomplished.	Strongly Agree and Agree	92%
Having students write a post-clinical reflection can show success	Consensus Not Reached	No
The biggest role the clinical post-conference plays are being able to tie together classroom material to patient care.	Strongly Agree and Agree	84%
The clinical post-conference enhances the use of the nursing process.	Strongly Agree and Agree	93%
Clinical post-conference is a time for the student to become familiar and more comfortable in the setting where most will be working upon graduation.	Consensus Not Reached	No
Clinical post-conference helps socialize the student into the role of the nurse.	Strongly Agree and Agree	79%
Clinical post-conference provides a time after patient care to reflect and debrief on the day.	Strongly Agree and Agree	98%
Post-conference allows faculty and students to discuss what did and what did not happen during the clinical day.	Strongly Agree and Agree	92%
The clinical post-conference is the place where the best student/faculty relationships are developed	Consensus Not Reached	No
The clinical post-conference is a way for me as the faculty member to evaluate learning and identify gaps in knowledge.	Strongly Agree and Agree	88%
The clinical post-conference allows the instructor to see if the clinical setting is helping meet the student learning needs.	Strongly Agree and Agree	83%
Purposeful, planned learning activities during the clinical post-conference are crucial to promote students' development as future professional nurses.	Consensus Not Reached	No
Post conference is an essential part of nursing education.	Strongly Agree and Agree	98%

Entry level students will need more hands-on guidance and encouragement.	Strongly Agree	70%
Upper level students need to be putting the pieces together, taking charge and functioning with minimal supervision.	Strongly Agree and Agree	98%
First semester is a simple knowledge base and how they performed. Final semester is about application and rationalizing why we do what we do.	Strongly Agree and Agree	75%
The level of knowledge or information increases or changes according to semester and progression through the program (higher level critical thinking activities) which allow students to build upon previous knowledge	Strongly Agree and Agree	98%
I have the same expectation for all students during clinical post-conference. The level of knowledge might be different, but the participation and sharing of information should be the same.	Strongly Agree and Agree	79%
Beginner students need a longer post-conference time in comparison to last/upper level students	Consensus Not Reached	No