NURSE EDUCATOR STRATEGIES FOSTERING CLINICAL DECISION-MAKING IN NURSING STUDENTS: A QUALITATIVE STUDY

by

Tareylyn Cripe

JOY KIEFFER, PhD, RN, CCTN, Faculty Mentor and Chair

DOROTHY PAXSON BARKER, PhD, MS, RN, Committee Member

JAMES ONDERDONK, PhD, Committee Member

J. Heather Welzant, PhD, Dean, School of Education

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Abstract

Correcting the nursing shortage will require nursing students capable of utilizing clinical decision-making (CDM) skills to pass the National Council Licensure Examination–Registered Nurse exam, enter into professional nursing practice, and demonstrate competence in an increasingly complex healthcare system. Clinical decision-making is the development of understanding about disease processes, past medical history, experience in clinical practice, and interpretation to arrive at a plan of action. Although clinical education is considered the best method to increase clinical decision-making skills, adequate numbers of clinical hours, sites, and faculty are lacking; therefore, a compiled list of strategies is needed to take full advantage of the time spent in the clinical setting. Discovering effective teaching strategies implemented by nurse educators is necessary for the successful education of nursing students overall. However, a gap exists in the qualitative literature regarding what nurse educators believe are the best methods for fostering these clinical decision-making skills. Semi-structured interviews asking open-ended questions with 10 experienced nurse educators currently teaching in the clinical setting explored how they define the successful development of clinical decision-making skills and the specific strategies they use to ensure the development of these skills. The data collected during the interviews exposed themes and categories utilizing a constant comparative analysis. The nurse educators reported the teaching strategies they use to develop clinical decision-making skills include a realistic simulation with a debriefing, Socratic questioning, case studies, video scenarios/games, dedicated education units, and concept mapping. They noted the lack of resources; resistance from faculty, students, and educational institutions; lack of training to utilize these strategies; or potentially increased faculty workload as barriers to implementing CDM teaching strategies. Understanding these strategies and barriers could assist nursing

program administrators and educators as they develop nursing policies and curricula that produce future nurses with strong clinical decision-making skills.

Dedication

This scholarly work is dedicated to my husband and best friend, whose tremendous support and encouragement has made my educational endeavors possible. I would like to recognize my children, who showed understanding when I had to sacrifice time and attention to complete this journey. To my sister, whose good examples have taught me to work hard for the things that I wish to achieve against all odds. Finally, to all the educators that instilled in me the value of an education and the desire to mirror their example to become the best educator possible.

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CHAPTER 1. INTRODUCTION

This original basic qualitative research explores the strategies that experienced nurse educators believe will improve clinical decision-making (CDM) skills in nursing students. The following consensus definition of critical thinking (CT) was presented as a direct result of a Delphi study conducted in 1990 by the American Philosophical Association using a panel of experts: "Purposeful, self-regulatory judgment, which results in interpretation, analysis, evaluation, and inference" (Rowles, Morgan, Burns, & Merchant, 2013, p. 22). CT, as precursor to CDM, is discussed by Potgieter (2012) and Robert and Petersen (2013), however, during the literature review for this study, the focus evolved to CDM, the product of CT. At the outset, many of the articles contained the CT concept (Dicle & Durmaz Edeer, 2013; Gerdeman et al., 2013; Jacobs et al., 2016; Kaddoura, 2013). CDM refers to the process of compiling knowledge about pathological conditions, a patient's medical history, experience in clinical practice, and reasoning to arrive at a plan of action (Dicle & Durmaz Edeer, 2013; Gerdeman, Lux, & Jacko, 2013; Jacobs, Wilkes, Taylor, & Dixon, 2016; Shelestak, Meyers, Jarzembak, & Bradley, 2015; Victor-Chmil, 2013). In particular, the CDM strategies of realistic simulation with a debriefing, Socratic questioning, case studies, video scenarios/games, dedicated education units, and concept mapping are approaches that could aid nurse educators in accelerating the development of these skills in nursing students.

Chapter 1 is comprised of seven sections: (a) an introduction describing the background of the study, (b) the statement of the need for the study, (c) the purpose and significance of the study, (d) the research design, (e) the research question, (f) the assumptions and limitations of the study, and (g) definitions of terms used in the study. This chapter concludes with a summary and a description of the organization and general content of the rest of the dissertation.

Background of the Study

Addressing the current nursing shortage will require strategies implemented by clinical educators that can increase the CDM skills of new nurses that are necessary to provide quality care and good patient outcomes (Romeo, 2013). CDM is the development of understanding disease processes, gathering of past medical history, gaining experience in clinical practice, and interpreting results to arrive at a plan of action (Dicle & Durmaz Edeer, 2013). According to Dicle and Durmaz Edeer (2013), the development of CDM skills is essential to providing competent nursing care that will achieve the best client outcomes. Although clinical nursing education is understood to be the best way to increase CDM, an adequate number of clinical hours and sites to give nursing students sufficient time to develop these skills is lacking (De et al., 2016). Therefore, a compiled list of effective strategies for teaching CDM skills that can optimize the time spent in the clinical setting is needed. This study sought to address this issue through the following research question: What are the best strategies for fostering CDM skills in nursing students?

The theoretical frameworks applied to this qualitative study are Kolb's experiential learning theory (Kolb, 1984; Kolb & Wolfe, 1981) and constructivism (Cook, 2016; Dennick, 2012; Jiménez Trujano & Morán Peña, 2015). These theoretical frameworks suggested that learning occurs when the nursing student's new knowledge and clinical experiences merge into a knowledge construct used for clinical reasoning (Kwan & Wong, 2015). According to Flood and Robinia (2014), didactic instruction without connecting that to clinical education will not prepare student nurses to make appropriate clinical decisions.

To address the current nursing shortage, an influx of competent nurses is necessary, which requires nurse educators to take full advantage of clinical nursing education with the best

strategies to foster the development of essential skills (AACN, 2019b; Nielsen, Noone, Voss, & Mathews, 2013). Researchers discussed how CT and CDM skills are necessary to improve pass rates of the National Council Licensure Examination–Registered Nurse (NCLEX–RN) exam, which would ultimately help reduce the nursing shortage (AACN, 2019b; Mathew & Aktan, 2018; Romeo, 2013). Known strategies include simulation, debriefing, concept mapping, think-aloud (TA) exercises, Socratic method, feedback, and reflective journaling (Eyikara & Baykara, 2017; Shelestak et al., 2015). This basic qualitative study was conducted to explore the best strategies to foster CDM skills for nursing students by interviewing experienced nurse educators who teach students at the associate- and baccalaureate-degree levels. To frame this study, a review of the literature was conducted to discover the gaps in research related to CDM and what nurse educators believe will help develop these skills.

The AACN (2019b) has stressed the importance of including CDM skills in nursing programs to teach nursing students the essential skills within clinical practice. The AACN Future Task Force (AACN, 2014a) asked employers about their satisfaction with the readiness of new graduate baccalaureate-prepared nurses, and their response indicated that the development of clinical judgment is deficient (Nielsen et al., 2013). Approximately 40 articles were identified, the majority being research-based, that discussed the nurse educators' role in effective teaching strategies and specific strategies related to CT and CDM (e.g., Babenko-Mould, Iwasiw, Andrusyszyn, Spence Laschinger, & Weston, 2012; Victor-Chmil, Turk, Adamson, & Larew, 2015). Additional articles related to CT, CDM, specific teaching strategies, clinical education, and the theories of constructivism and experiential learning were also reviewed. Notably, no qualitative research was discovered during the literature review that specifically explored the opinions of nurse educators concerning what strategies they feel are most effective to foster

CDM skills in nursing students. Consequently, this dissertation study was undertaken to help fill this deficit in the current literature.

Need for the Study

Experts have identified the need for a list of learning strategies that are effective for teaching nursing students the essential CDM skills to graduate and decrease the national nursing shortage (Dicle & Durmaz Edeer, 2013; Patterson & Klein, 2012). However, to use these strategies in the classroom, an adequate number of nursing faculty to teach these students is needed. Specifically, the AACN's (2019a) report on the current faculty shortage expressed the need for an increase in the number of educators to improve the nursing shortage. In other words, once the faculty shortage is reduced, then the nursing shortage can be addressed by ensuring that the curriculum of nursing programs incorporates strategies to increase CDM in clinical education, which will lead to a greater number of nurses receiving licensure. Unfortunately, the availability of clinical sites can hinder the opportunities for nursing students to develop their CDM skills. Therefore, there is a need not only to increase the number of clinical sites but also to optimize the time spent at these sites so that student nurses can obtain all of the skills they need. As such, creating a list of the most effective strategies to enhance the process of CDM development could assist the educator.

Romeo (2013) discussed variables related to passing the NCLEX–RN as well as how CT is an essential skill in achieving this goal. The NCLEX–RN is a computer-adaptive test aimed at assessing the competence of the graduate nurse during which they are expected to utilize CT skills to answer the complex questions. For this retrospective quantitative study, Romeo (2013) analyzed 182 overall assessment test scores, CT subscale scores, student GPA scores, and SAT scores using SPSS. Romeo (2013) noted the students' GPA and CT scores had the most

significant correlation ($p < .001$) with first-time pass rates on the NCLEX–RN. Romeo (2013) concluded that measuring the CT abilities of nursing students could positively predict their performance on the NCLEX–RN exam and identify students at risk of failing. Therefore, if students are unable to acquire CDM in clinical education, then they will be unable to pass the NCLEX–RN and contribute to decreasing the nursing shortage.

Thompson et al. (2013) purported that nursing decision-making has been studied since the 1960s but given the rapid advancements in technology and education theory, the best strategies for enhancing CDM remain unclear. To improve patient outcomes and prevent errors, it is important to understand the strategies that will improve the process of making decisions. Additionally, decisions must be based on knowledge and experience, which didactic and clinical education can provide with effective teaching methods (Thompson et al., 2013).

Graduate nurses can be anxious at the beginning of their first job in clinical practice (Bennett, Grimsley, Grimsley, & Rodd, 2017). The primary concern is ascertaining if these new nurses are properly prepared to make clinical decisions. Experience is necessary to deliver quality nursing care and good patient outcomes; however, due to faculty and clinical site shortages, it is necessary to implement techniques that provide realistic experiences that make efficient use of clinical education time. Bennett et al. (2017) performed a quantitative study of 37 new graduate nurses with 1 year or less of clinical practice to describe the challenges faced in their first year of nursing. Results showed that new nurses believed preparation by their nursing program was adequate, hospital administrators did not assist the transition from student to nurse, didactic and clinical educators need to collaborate to prepare students, and a preceptorship is critical to provide a suitable transition (Bennett et al., 2017).

The increasing age of the patient population in a complex healthcare system requires a competent nursing workforce to care for patients safely and achieve better outcomes (Niederhauser, Schoessler, Gubrud-Howe, Magnussen, & Codier, 2012). According to McNeal (2012), the nursing shortage has increased the stressors on the current workforce and has made the field of nursing less desirable to enter. Adding to these undesirable circumstances, nursing students sometimes have been unable to develop the CDM skills necessary to use these skills effectively in nursing practice, which perpetuates the nursing shortage, especially if novice nurses do not remain in clinical practice due to an incompatibility between their skills and practice demands (Tedesco-Schneck, 2013). The clinical components of nursing school provide an excellent foundation for the development of these skills, but limitations on clinical hours and sites make it necessary to explore the best practice strategies (Nielsen et al., 2013; Wyatt, 2013).

A literature review was conducted to discover the gaps in research related to CDM and skill development. Currently, a qualitative research study has not examined the nurse educator's perspective on effective strategies to teach CDM to nursing students. The research literature about CDM skills indicate that we have a working definition and an in-depth understanding of the necessity for developing skills to employ in clinical practice, but we do not have an extensive list of strategies to facilitate the development of CDM (Dicle & Durmaz Edeer, 2013). Patterson and Klein (2012) reported how educational institutions need to improve their exchange of information, which demonstrates the need for a comprehensive list of strategies to facilitate the development of CDM skills. An essential aspect of this original research study was to contribute to the knowledge base by compiling specific strategies from the qualitative interviews of nurse educators that will help maximize clinical nursing education by cultivating the development of CDM skills.

Purpose of the Study

The purpose of this original basic qualitative research was to investigate the strategies that experienced nurse educators believe will improve CDM skills in nursing students. The overall purpose was to build a comprehensive list of methods used by nurse educators to increase CDM skills and disseminate this information to assist nurse educators in fostering CDM in nursing students. The foundation of CDM is the process of compiling knowledge about pathological conditions, a patient's medical history, experience in clinical practice, and reasoning to arrive at a plan of action (Dicle & Durmaz Edeer, 2013; Gerdeman et al., 2013; Jacobs et al., 2016; Shelestak et al., 2015). The CDM strategies discovered during the interviews are approaches that could aid nurse educators in accelerating the development of these skills in nursing students.

Significance of the Study

Nursing students must learn the core knowledge acquired in the classroom and progress in their development of CDM skills within the clinical setting (Deegan, 2013; Gerdeman et al., 2013; Thompson, Aitken, Doran, & Dowding, 2013). Numerous researchers asserted that it is imperative for nursing students to develop CDM skills during clinical education, many of which discussed a single specific strategy, but it would be exceedingly helpful for nurse educators to have a comprehensive list of strategies to facilitate this process (Ashcraft et al., 2013; Dicle & Durmaz Edeer, 2013; Forneis et al., 2015; Gerdeman et al., 2013; Shelestak et al., 2015; Victor-Chmil et al., 2015). Additionally, to become a registered nurse (RN), nursing students must pass the NCLEX–RN, a high-stakes test for licensure (National Council of State Boards of Nursing [NCSBN], 2015). Nursing practice involves the application of knowledge, skills, and abilities; therefore, the exam questions on the NCLEX–RN require the nursing candidate to answer

higher-order questions that directly relate to difficult decisions that are made in the clinical setting (NCSBN, 2015). An in-depth understanding of the CDM skills that will assist nurse educators in fostering the development of these skills through a list of the best strategies will ultimately cultivate the nursing students' ability to answer the higher level of application questions on the NCLEX–RN (Mathew & Aktan, 2018; NCSBN, 2015). Researchers have suggested there is a lack of knowledge of strategies used by nurse educators to teach the concept of CDM (Kaddoura, 2013; Potgieter, 2012; Romeo, 2013; Rowles et al., 2013). Consequently, developing and identifying the strategies that best facilitate progress toward CDM in the nursing student will add to the knowledge base of nurse educators.

Research Question

This original qualitative study was designed to conduct interviews with experienced nurse educators using semi-structured, open-ended interview questions to explore the strategies they use to facilitate their nursing students' CDM skills. The study was guided by the following research question: What are the best strategies for fostering CDM skills for nursing students? The first question asked was to discover the nurse educator's definition of CDM prior to ascertaining which strategies were used to develop these skills.

Definition of Terms

Case studies. An active learning strategy that involves presenting a case to nursing students that contains a problem to solve (Potgieter, 2012).

Clinical decision-making (CDM). The process by which nurses gather assessment data, recognize significant features of the clinical condition, utilize previously learned knowledge, identify and prioritize interventions as well as alternative actions, and evaluate patient outcomes for the efficacy of treatments (Gerdeman et al., 2013).

Concept mapping. A visual representation of concepts and the relationships between the sub-concepts (Pinto Zipp, Maher, & D'Antoni, 2015; Potgieter, 2012).

Critical thinking (CT). A cognitive skill using interpretation, analysis, evaluation, inference, explanation, and self-regulation (Facione, 1990; Kaddoura, 2013; Romeo, 2013; Rowles et al., 2013).

Dedicated education units (DEUs). One unit of a hospital that has developed a partnership with a teaching institution that is devoted entirely to nursing students from a single nursing program and staffed by a consistent group of nurses who are provided professional development as educators (Dapremont & Lee, 2013).

National Council Licensure Examination–Registered Nurse (NCLEX–RN). A nationally administered exam that uses computer-adaptive testing to determine if an individual is minimally competent to practice as a registered nurse (Mathew & Aktan, 2018; NCSBN, 2015).

Problem-based learning (PBL). A teaching method that uses prompts created during scenarios in which students engage in self-directed learning then reassemble in a group to discuss and refine their acquired knowledge (Farid & Ali, 2012; Hamdan, Kwan, Khan, Ghafar, & Sihes, 2014).

Serious games. Simulated games that transfer knowledge through digital media (Alves dos Santos et al., 2017; Shelestak et al., 2015).

Simulation. A teaching technique that provides students with a realistic environment in three phases: introduction to the concept (prework), psychomotor activity, and debriefing (Forneis et al., 2015; Jensen, 2013; Sanko, 2017).

Socratic questioning. A method for the examination of ideas through asking and answering questions to promote CT (Adelung & Fitzsimons, 2015; Oyler & Romanelli, 2014; Tofade, Elsner, & Haines, 2013).

Research Design

Qualitative research is adaptable, as it allows for the evolution of the components of the research study as the analysis progresses (Cleary, Horsfall, & Hayter, 2014a; Malagon-Maldonado, 2014; Webb, 2015). The methodology of this study was focused on investigating opinions about the strategies nurse educators believe will develop CDM skills in nursing students through semi-structured interviews with open-ended questions (Dicle & Durmaz Edeer, 2013). Qualitative research is the best method to investigate the human experience, and therefore it is appropriate for exploring the experiences of educators regarding the teaching of CDM skills (Ingham-Broomfield, 2015). Complex experiences can be explored through qualitative research, and the results can aid in knowledge transfer and transform nursing programs through the creation of a list of CDM strategies to assist nurse educators (Farrelly, 2013; Thompson et al., 2013). Since experienced nurse educators are subject matter experts in educating nursing students, they are the ideal study subjects to impart their experience about what strategies will facilitate the acquisition of the CDM skills process (Crookes, Crookes, & Walsh, 2013; Harerimana & de Beer, 2013; Yardley, Brosnan, & Richardson, 2013).

Assumptions

Qualitative research is a synthesis of the participant's views on the phenomena and the researcher's interpretation of the data (Darawsheh, 2014; Merriam & Tisdell, 2016). However, given the researcher's interpretation, assumptions may limit the validity of a research study (Cope, 2014; Malagon-Maldonado, 2014; Merriam & Tisdell, 2016; Williams, 2015). An

underlying assumption in the study included an expected level of honesty and truthfulness from the participants regarding data provided during the semi-structured interviews. It was also an assumption that the data reported were accurate and recalled to the best of the participants' memory. Semi-structured interviews allowed for flexibility so that participants could answer questions fully; their answers could be expanded upon with additional probing questions. It was assumed that the participants would prefer a semi-structure interview format because they are less structured, which normally is an encouragement for participants to fully express their experiences (Cope, 2014; Malagon-Maldonado, 2014; Merriam & Tisdell, 2016; Williams, 2015).

Limitations

A limitation of any research study is determining whether the goals of the inquiry were met (Merriam & Tisdell, 2016; Quick & Hall, 2015a). Participants must be comfortable with the researcher to ensure that the data obtained is accurate and valuable, which means the researcher's communication skills must be exceptional (Quick & Hall, 2015c). This research study was conducted with 10 experienced nurse educators, at which time saturation was reached, thereby ensuring validity. Interviewing every individual that can inform the research is impractical, especially for a qualitative study, but it bears mentioning when discussing the limitations of a research study (Astin & Long, 2014; Merriam & Tisdell, 2016). Purposeful sampling was used for this study. Although purposeful sampling is used often in qualitative studies, "the available subjects might be atypical of the population; therefore, the price of convenience is the risk of bias" (Polit & Tanto-Beck, 2006, p. 262).

Another weakness of this study was the collection of interview data because it was self-reported data (Merriam & Tisdell, 2016; Rubin & Rubin, 2012). The participants could be

biased, which could interfere with the validity and reliability of the results. Researcher bias must also always be considered a limitation when conducting interviews; however, every attempt was made to uphold the validity and reliability of data collection by audio recording the interviews, which were transcribed verbatim to ensure accuracy (Merriam & Tisdell, 2016; Polit & Tanto-Beck, 2006; Rubin & Rubin, 2012).

Organization of the Remainder of the Study

This chapter outlined the terminology and provided a discussion of the background, the need for the study, the significance of the study, and the research design, which included the research question. Chapter 2 will present an examination of the methods employed to review the research, theoretical frameworks utilized for the study, and a synthesis of the findings discovered during the review. According to Merriam and Tisdell, a literature review is essential to developing a theoretical framework for a qualitative research study; in turn, the theoretical framework informs the researcher and the problems that need to be solved. Research questions are generated from the problem statement, which clarifies a resolution through the answers given by participants (Merriam & Tisdell, 2016).

Chapter 3 describes the detailed, systematic process used in this study to ensure future researchers have the tools to reproduce this study. The elements of Chapter 3 include the purpose of the study, research question and design, selection criteria of the sample, and procedures used to perform the study. The basic qualitative research design was chosen to answer the research question and will be discussed in-depth (Merriam & Tisdell, 2016) in Chapter 3. Furthermore, the data collection instruments and ethical considerations will be presented in Chapter 3.

The data for this study were analyzed using the constant comparative method (Astin & Long, 2014; Malagon-Maldonado, 2014; Merriam & Tisdell, 2016). Chapter 4 presents a

description of the data collected and an analysis of the results in relation to the research question. After detecting the codes from the interviews and recognizing the themes, a list of the most effective strategies with a description of each was compiled (Merriam & Tisdell, 2016; Quick & Hall, 2015b).

Chapter 5 presents an interpretation of the results and the importance of the results to the field of study. An examination of the results was performed to determine whether the research question was answered, and recommendations are presented for future studies. Implications for practice and recommendations for future research are offered. Following this study, the list of the most effective strategies to create CDM skills can be disseminated through professional journals to assist other nurse educators in cultivating these skills in nursing students.