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Lived Experiences of Nurse Faculty Teaching Patient Safety Risks From Smartphone Distractions

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This is to certify that the doctoral dissertation by

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Walden University
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Abstract

Lived Experiences of Nurse Faculty Teaching Patient Safety Risks

From Smartphone Distractions

by

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MSN, Walden University, 2012

BSN, Florida Hospital College of Health Sciences, 2008

AAS, Adirondack Community College, 1999

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Smartphone distractions frequently occur in healthcare, disrupting nurses' provision of patient care and threatening patient safety. To ensure safe care for patients, nurse faculty must prepare prelicensure nursing students with the knowledge, skills, and behaviors that they need to mitigate patient safety risks. A lack of research regarding how nurse faculty teach nursing students about patient safety risks from smartphone distractions was the concern for this study. The purpose of this qualitative, descriptive phenomenology study was to identify and report the lived experiences of undergraduate nurse faculty regarding teaching about patient safety risks from smartphone distractions in prelicensure nursing programs in New York State. Husserl's transcendental phenomenology, Kolb's experiential learning theory, and the patient-centered safety model informed this study. Semistructured telephone interviews were conducted with seven undergraduate nurse faculty who had taught prelicensure nursing students about patient safety risks from smartphone distractions in the last 2 years. Data were manually coded and categorized into themes using the phenomenological analysis method of epoché and reduction. Four themes emerged: teaching to practice safely, meeting learner needs, insights from teaching, and professional development. Key findings indicate that faculty teach about the appropriate and inappropriate use of smartphones with various pedagogical methods. Recommendations based on this research include the provision of nurse faculty professional development related to smartphones. The findings may advance positive social change by promoting faculty orientation and education for teaching with and about smartphones so faculty have strong supports to teach nursing students to practice safely.

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Dedication

This dissertation is dedicated to all undergraduate prelicensure nurse faculty. May you continue to educate, inspire, and support the next generation of registered nurses to improve patient safety.

Acknowledgments

When I first began my career as a new graduate nurse, I never dreamed I would one day be teaching nursing students, or earning a PhD. The completion of this work would not have been possible without the help of family, friends, colleagues, and mentors who have contributed to my love of lifelong learning and the nursing profession.

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Chapter 1: Introduction to the Study

Introduction

Nurse faculty who teach in prelicensure nursing programs are responsible for preparing nursing students for safe nursing practice. Providing the next generation of registered nurses (RNs) with the knowledge, skills, and attitudes to practice safely in dynamic healthcare settings is an essential function of the nurse faculty role (Cronenwett et al., 2007). Incorporating pedagogical practices with current, emerging technology is a strategy for nurse faculty to provide prelicensure nursing students with preparation for their new professional role. Individual use of smartphones has increased in healthcare settings (Buchholz et al., 2016; Flynn et al., 2018; Pinar et al., 2016). Smartphones provide the user access to almost limitless information, but safety concerns arise when nurses' attention is diverted by smartphones in clinical settings, resulting in distractions from and disruptions to patient care (Cho & Lee, 2015; McNally et al., 2017). Therefore, prelicensure nursing students require preparation and safety learning experiences to gain competency with patient safety and informatics before embarking into the clinical environment. Nurse faculty must incorporate teaching with technology and also teach about how technology impacts patient care (National League for Nursing, 2015); this teaching can mitigate risk and prevent distracted care in the clinical setting.

The World Health Organization (WHO) identified patient safety as an area requiring an urgent transformation in nursing curricula to prepare students to safely work in healthcare settings (WHO, 2011). However, despite available teaching tools and frameworks such as the WHO Patient Safety Curriculum Guide and Quality and Safety

Education for Nurses (QSEN), patient safety education is fragmented and indirect in nursing curricula (de Siqueira et al., 2019; Kirwan et al., 2019). With the increase of smartphone usage in the clinical setting and the lack of standardization of patient safety education in nursing curricula, there is a need to identify how nurse faculty are teaching students about risks to patient safety from smartphone use in the clinical setting (Greer et al., 2019; O'Connor & Andrews, 2018). Distractions from a smartphone can impede nurses' decision making when caring for clients (Flynn et al., 2018; Greer et al., 2019). There is a gap in the literature regarding how undergraduate nurse faculty are teaching nursing students about patient safety risks from smartphone distractions. Improved understanding of lived experiences involving how undergraduate nurse faculty are teaching nursing students to limit patient safety risks from smartphone distractions will help nurse faculty to develop new educational strategies for prelicensure nursing students to ensure safe, quality care for patients. The results of this study may also raise awareness of best practices for undergraduate nurse faculty teaching about patient safety risks from smartphone distractions in prelicensure nursing programs, which may lead to students becoming aware of how to prevent distractions from technology and may subsequently lead to better patient safety in the healthcare environment.

In Chapter 1, I address background literature related to the phenomenon and present the study's problem statement, purpose, and research question. The theoretical and conceptual framework for the study, the nature of the study, definitions, and assumptions are also presented in this chapter. The scope and delimitations, limitations, significance of the research, and a summary of the main points conclude Chapter 1.

Background

This study focused on the lived experiences of undergraduate nurse faculty teaching prelicensure nursing students about patient safety risks from smartphone distractions. As smartphone usage in patient care areas grows, undergraduate nurse faculty are presented with a challenge for teaching nursing students to practice safely in the clinical environment. However, the concept of patient safety is not explicitly taught in prelicensure nursing education, and few higher education institutions are using the curriculum guidelines from the WHO when teaching patient safety (Kirwan et al., 2019). With a lack of consistency in teaching patient safety to prelicensure nursing students, undergraduate nurse faculty must create strategies for teaching patient safety and eliminating smartphone distractions.

Distractions in the clinical environment limit the ability of nurses to focus on patient care. For nurses, diverting attention to a smartphone for even a few moments is a problem. Checking emails and using the internet during work shift nurses' attention away from patients and increase the risk of medical errors resulting from distraction (Di Muzio et al., 2019). Additionally, undesirable and unprofessional behavior resulting from distractions associated with smartphones can be witnessed by nursing students in clinical settings and be interpreted as acceptable behavior.

Prelicensure nursing students learn from observations and experiences in the clinical setting. Nursing students routinely see nurses being distracted by smartphones during work hours, and nursing students admit to not following policies restricting smartphone use in the clinical setting (Cho & Lee, 2016). Nursing students may become

distracted by watching a peer student use a smartphone during clinical time (Aguilera-Manrique et al., 2018). Nursing students' perceptions are that their personal levels of distraction from smartphone use are lower than their peers' level of distraction from smartphone use in the clinical setting (Zarandona et al., 2019). Because nursing students perceive peers' smartphone use to be more distracting than their own in relation to patient care (Zarandona et al., 2019), educators need to implement teaching strategies to prevent patient safety risks arising from smartphone distractions in clinical settings.

Despite the distractions that smartphones can cause in the clinical setting, there is a lack of literature on how to best educate nursing students about patient safety risks from smartphone distractions. This study addressed a gap in knowledge by providing information about how undergraduate nurse faculty are teaching students about patient safety risks from smartphone distractions in the clinical setting. Understanding how undergraduate nurse faculty teach prelicensure nursing students about the patient safety risks associated with smartphone distractions may positively impact nursing education by identifying best practices while decreasing danger to patient safety in clinical settings.

Problem Statement

Smartphone use is pervasive in healthcare (Di Muzio et al., 2019; Pinar et al., 2016; Valle et al., 2017; Vearrier et al., 2018). Smartphones are used in clinical settings for reference, for locating evidence-based practices (Buchholz et al., 2016; George et al., 2017; Greer et al., 2019), and for communicating with members of the healthcare team (Ellanti et al., 2017; Goldschmidt, 2019; Greer et al., 2019). However, issues associated with use of smartphones in the clinical setting include negative patient perceptions about

smartphone users (Kerry et al., 2017; Vearrier et al., 2018), patient privacy risks (Bhuyan et al., 2017; Vearrier et al., 2018), smartphones as vectors for infection (Pal et al., 2015), perceptions of a lack of professional behaviors (McNally et al., 2017), and distractions from patient care (Flynn et al., 2018; Pucciarelli et al., 2019; Vearrier et al., 2018). Nurses have reported distractions from smartphones occurring often or always during their work time (Di Muzio et al., 2019). Almost 25% of nursing students have reported being distracted by a smartphone in the clinical setting (Cho & Lee, 2016). Smartphone distractions cause disruptions to patient care and threaten patient safety (Cho & Lee, 2015, 2016; Di Muzio et al., 2019; McNally et al., 2017; Zarandona et al., 2019).

Nursing students learn about patient safety (de Siqueira et al., 2019), professional behaviors, values, and attitudes from the nurse faculty who prepare them for professional practice (Sparacino, 2016). However, there is a lack of understanding about the lived experiences of undergraduate nurse faculty and how they teach patient safety risks from smartphone distractions to prelicensure nursing students. Nurse faculty must equip prelicensure nursing students to mitigate risk and prevent distracted nursing care in the clinical setting. Research is needed to help faculty and stakeholders in nursing education understand how nursing students learn from undergraduate nurse faculty about preventing distractions from a smartphone while caring for patients.

Purpose of the Study

The purpose of this qualitative, descriptive phenomenology study was to identify and report the lived experiences of undergraduate nurse faculty regarding teaching patient safety risks from smartphone distractions in prelicensure nursing programs in New York

State. I conducted interviews with undergraduate nurse faculty members who had experienced the phenomenon of teaching nursing students about risks to patient safety from smartphone distractions in the clinical setting. Nursing students must be educated about careful use of smartphones in the clinical setting (Cho & Lee, 2015), and research needs to be conducted to understand how faculty teach responsible use of smartphones (East et al., 2016; Lall et al., 2019; Raman, 2015). A rich understanding of the lived experiences of undergraduate nurse faculty in teaching students how to limit patient safety risks due to distractions from smartphones may assist nurse educators with strategies to ensure safe, quality care for patients.

Research Question

The research question guiding this qualitative, descriptive phenomenology study was the following: What are the lived experiences of undergraduate nurse faculty regarding teaching patient safety risks from smartphone distractions in prelicensure nursing programs in New York State?

Theoretical and Conceptual Framework for the Study

The theoretical and conceptual framework that supported this study included Kolb's experiential learning theory, the patient-centered safety model (PCSM), and Edmund Husserl's transcendental phenomenology. I chose three frameworks to frame the study in a way that was meaningful to the research problem. I selected these three supports because they were relevant, they aligned with the study, and they aided in understanding what occurred with the phenomena in the study.

Kolb's Experiential Learning Theory

Kolb's experiential learning theory supports that knowledge occurs through a person's transformational experience (Kolb & Kolb, 2011). According to the theory, learning is the experience of relearning by challenging a student's beliefs about a topic to integrate new ideas while resolving conflicts or differences (Kolb & Kolb, 2011). Further, students learn with various styles, including reflective observation and active experimentation (Kolb et al., 2001). Thus, effective teaching practices are integral to student learning.

Patient-Centered Safety Model

A vital element of this study was patient safety, and undergraduate nurse faculty have an essential role in teaching prelicensure nursing students about patient safety. The PCSM includes the concept of patient safety (St. Onge & Parnell, 2015). Based on the model, nursing insights gained from caring for patients improve patient safety, and nurse educators have the opportunity to integrate patient-centered safety activities throughout the curriculum (St. Onge & Parnell, 2015). Providing an opportunity for students to formulate personal meaning from thoughtful insights is a strategy that nurse faculty can employ to help nursing students develop safety practices (St. Onge & Parnell, 2015). Following student actions that threaten patient safety, nurse faculty can use reflective practices to assist students in learning more about how their actions exposed patients to harm.

Transcendental Phenomenology

Understanding the lived experiences of undergraduate nurse faculty teaching nursing students about patient safety risks from smartphone distractions was central to this study. With transcendental phenomenology, lived experience has meaning without interpretation (Husserl, 1907/2008). Further, the researcher can coexist with interviewees to understand the essence of their lived experience by letting go of personal views (Fink & Husserl, 1995). Through the lens of transcendental phenomenology, the pure essence of the phenomenon of teaching students about patient safety risks arising from smartphone distractions can be understood.

The three frameworks supported the study by providing structure, informing the creation of the interview questions, and providing a lens for data analysis. Additionally, the research framework I chose provides boundaries and scope for the study. A more detailed explanation of the elements of the theoretical and conceptual framework for this research study is presented in Chapter 2.

Nature of the Study

The nature of this study was qualitative with a descriptive phenomenology approach. A phenomenon is an event that takes place with people in their world (Husserl, 1931/2013). I selected a descriptive phenomenology approach because it is appropriate for understanding shared experiences of a phenomenon (Patton, 2015) and helps in describing an experience so that others can understand it without consideration to context (Matua & van der Wal, 2015). Qualitative research can aid in understanding how undergraduate nurse faculty experience teaching patient safety risks from smartphone

distractions in prelicensure nursing programs. The study focused on the concepts of patient safety, reflection, and transcendence from Husserl's theory (1931/2013) to understand the meaning of faculty members' experiences.

This qualitative, descriptive phenomenology study included undergraduate nurse faculty who taught prelicensure nursing students in New York State. I selected in-depth, open-ended interviews for data collection to provide an opportunity for the undergraduate nurse faculty to fully share their unique experiences without fear of intimidation from others. Purposive sampling ensures that participants with current, rich experiences are included within a sample (Schreier, 2018). Undergraduate nurse faculty who met the following criteria were included in the study:

- experience teaching prelicensure nursing students about patient safety risks from smartphone distractions
- experience teaching prelicensure nursing students in a face-to-face New York State classroom or clinical setting in the last 2 years

The inclusion criteria for the sample were selected to ensure that participant experiences were current enough that participants could recall their experiences.

Data from the one-on-one participant interviews were analyzed using a transcendental phenomenology lens. Suspending researcher preconceptions to enter the reality of the participants' experiences is a central component of descriptive phenomenology (Husserl, 1931/2013). The participants' experiences were examined to produce findings and themes that represent the shared data.

Definitions

The definitions of key concepts and constructs related to this study are provided in this section. Clarifying the terms used throughout this study aids in reader comprehension.

Patient safety risks: *Hazards within healthcare systems that jeopardize the wellbeing of persons under the care of a healthcare provider (Given, 2019; Simsekler et al., 2019).*

Prelicensure nursing*:* Education programs, recognized by the state, that prepare nursing students for the National Council Licensure Examination (NCLEX-RN; Flanders & Baker, 2019). These educational programs teach nursing students at the associate degree and baccalaureate degree levels who are not yet eligible for the NCLEX-RN (Peltzer et al., 2017).

Smartphone distraction: Interruption of a healthcare provider's main task by the initiation of using a smartphone (McBride, 2015). Also known as *interruption, break, diversion*, or *inattention*.

Undergraduate nurse faculty*:* Teachers of undergraduate nursing students enrolled in private and public colleges and universities (Roney et al., 2017b). Such faculty provide nursing students with education at the associate degree or baccalaureate degree level (Sabio & Petges, 2020). Also known as *nurse educators*, *nurse instructors*, or *nurse professors.*

Assumptions

A primary assumption for the study was that research participants were honest and open during the interview process. Another assumption was that study participants

were able to recall their experiences to provide rich data for the study. My last assumption was that the descriptive phenomenology approach was the most appropriate method to obtain an understanding of the lived experiences of undergraduate nurse faculty teaching students about patient safety risks from smartphone distractions in prelicensure nursing programs in New York State.

Scope and Delimitations

Smartphone distractions in the clinical setting affect licensed RNs (Di Muzio et al., 2019). This study focused on how undergraduate nurse faculty teach nursing students about the patient safety risks associated with smartphone distractions. Undergraduate nurse faculty who prepare nursing students for initial RN licensure were the research participants for this study. Additionally, there was no research to support that any particular school or faculty group is teaching patient safety risks from smartphone distractions better or worse than another.

A case study approach was not appropriate for this research due to the lack of identification of a case with unusual distinction. A descriptive phenomenology approach was selected for the study because it allowed for the breadth and depth of the phenomenon to be studied, without the focus of context and interpretation of the meaning that an interpretive phenomenological study would entail (Matua & van der Wal, 2015).

The boundaries for this study encompassed undergraduate nurse faculty who taught in a physical, face-to-face classroom or clinical setting. I excluded faculty who taught in online classrooms because the virtual instructional method allows for limited to no observation of nursing student smartphone distractions. Additionally, the inclusion

criteria of undergraduate nurse faculty teaching associate degree and baccalaureate degree levels were selected to assist in ensuring feasible data for the study.

Collecting thick descriptions from the participants during the interviews and including purposeful sampling ensured research transferability (Merriam & Tisdell, 2016). To address potential transferability, I created interview questions to generate a robust and lengthy narrative from the participants. The use of interview question probes, when necessary, helped me obtain more specific, in-depth information from the participants in the study.

Limitations

As an undergraduate nurse faculty member teaching prelicensure nursing students, my personal bias had the potential to affect the interviews. Over the last 8 years, I have taught in prelicensure nursing classrooms and clinical settings. The curriculum I currently teach is delivered in an online format, so my coworkers were excluded from participating in the study. I eliminated bias in the study by journaling and using memos throughout the research process. Examining an entire experience to understand what the participant has lived, refraining from judgment, and suspending personal notions permit transcendence (Husserl, 1931/2013). Writing down my thoughts, perspectives, and decisions helped me recognize and set aside the lens through which I see the world so that I could transcend with others' lived experiences. Additionally, using only the interview questions that had been prepared before commencing the research study aided in dependability. Taking notes and detailing my plans during the execution of the study also demonstrated dependability in this study.

Significance

With the increased availability and portability of smartphones, distractions from text messages, social media notifications, and personal phone calls can impair decision making and delay care by nurses, presenting risks to patient safety (Aguilera-Manrique et al. 2018; Zarandona et al., 2019). Despite policies in the clinical setting that restrict the use of smartphones in patient care areas, 27.9% of nursing students report being distracted by their smartphones, and 42.9% have witnessed peers distracted by their smartphones in the clinical setting (Cho & Lee, 2016). With a known lack of nursing student adherence to policies in the clinical setting restricting smartphone use, it is essential to understand how undergraduate nurse faculty are teaching prelicensure nursing students about patient safety risks from smartphone distractions. The results of this study may provide new knowledge for the nursing profession and contribute to the nursing literature on best practices in nursing education regarding smartphone use to limit distractions and therefore ensure patient safety.

Walden University's mission is to enhance positive social change in the world by educating people about how they can make a positive impact (Walden University, 2017). This research may create positive social change by improving how undergraduate nurse faculty educate nursing students about patient safety risks from smartphone distractions. My research may effect positive social change because it is a unique, scholarly contribution to the nursing profession. My research has the potential to impact patient safety by bringing awareness of the pedagogy required to ensure that prelicensure nursing students understand how to limit distractions from smartphones. Because my research

addressed a real problem that is substantiated in the literature and involved systemic thinking regarding the complexity of the issue (Laureate Education, 2015), it may serve to promote positive social change. This research may also serve as the foundation for training and education for undergraduate nurse faculty to teach prelicensure nursing students about patient safety risks from smartphone distractions.

Summary

In this chapter, I provided an introduction to this qualitative, descriptive phenomenology study on teaching prelicensure nursing students regarding patient safety risks from smartphone distractions. Despite organizational policies that restrict smartphone use in the clinical setting and negative patient perceptions of smartphone users, nursing students continue to be distracted by smartphones in the clinical setting, which jeopardizes patient safety. Nursing students learn strategies for the management of patient care from the nurse faculty who teach them, but there is a gap in understanding how prelicensure nursing students are taught about limiting the patient safety risks associated with smartphone distractions. In this study, I sought to understand the lived experiences of undergraduate nurse faculty related to teaching about patient safety risks from smartphone distractions in prelicensure nursing programs through the lens of experiential learning, reflective practices, and transcendence. In the next chapter, I provide a review of the literature that supported the problem statement and further substantiated the need for this study.

Chapter 2: Literature Review

Introduction

Smartphone use in the clinical setting is pervasive and contributes to both improved access to information and potential patient safety issues. Smartphones in the clinical setting provide a means for communicating with the healthcare team (Ellanti et al., 2017; Goldschmidt, 2019; Greer et al., 2019) and for reviewing current evidence-based practice information (Buchholz et al., 2016; George et al., 2017; Greer et al., 2019). Conversely, smartphone use in the clinical setting can distract healthcare providers from patient care (Flynn et al., 2018; McBride et al., 2015; Pucciarelli et al., 2019; Vearrier et al., 2018) and threaten patient safety (Cho & Lee, 2015, 2016; Di Muzio et al., 2019; McNally et al., 2017; Zarandona et al., 2019).

The purpose of this qualitative, descriptive phenomenology study was to synthesize the nursing literature regarding smartphone distractions and interview nurse faculty to understand the phenomenology of how undergraduate nurse faculty teach prelicensure nursing students about the responsible use of smartphones in the clinical setting. I conducted semistructured interviews with undergraduate nurse faculty who had experienced the phenomenon of teaching nursing students about patient safety risks from smartphone distractions.

The next section contains information about the search strategies that I employed when reviewing the literature. Theoretical and conceptual frameworks related to this study are detailed in the literature review. Current literature about the concepts and

phenomenon of interest in this study are provided to assist the reader in understanding the context of the study and the gap that this research study fills in the nursing literature.

Literature Search Strategy

An extensive review of the literature was performed to locate articles related to nurses, patient safety, and smartphones. The databases searched included CINAHL Plus with Full Text, Computer Science Database, ERIC, MEDLINE PubMed, Computers and Applied Science Complete, and SAGE Journals; additionally, I performed a Thoreau multidatabase search. I also used the Google Scholar and Google search engines, as well as ProQuest Dissertations to locate information outside of the above databases.

The key search terms included *smartphones*, *mobile technology*, *nurses*, *faculty*, *instructor, teacher*, *patient safety*, *distractions,* and *research.* Citation chaining was used to locate additional articles in the reference sections of journal articles and dissertations. I reviewed the additional sources to identify concepts related to this study. Through the review, I determined that the term *mobile technology* was often used to describe smartphones in the literature.

To ensure germane scholarship, I discussed my research topic with nurse peers and nurse faculty members, as well as with non-nurse faculty members at conferences, residencies, and symposiums. Through dialogue and recommendations, my search was extended with the inclusion of the search terms *mobile phone* and *cell phone*. Nurse peers suggested that use of the term *cell phone* would allow the literature search to include additional articles related to distractions.

Theoretical Foundation

Theoretical frameworks provide researchers with blueprints for preparing, conducting, and evaluating research (Kivunja, 2018). The purpose of this research study was to identify and report the lived experiences of undergraduate nurse faculty regarding teaching about patient safety risks from smartphone distractions in prelicensure nursing programs in New York State. I selected three frameworks to support this study. First, I applied Kolb's experiential learning theory (Kolb & Kolb, 2005) to this research study to understand how undergraduate nurse faculty transform the learning experience, using active experimentation and reflective observation when teaching nursing students about patient safety risks from smartphone distractions. My decision to include experiential learning theory in the research study was based on the principle that learning occurs through involvement and thinking about an experience, with the individual gaining knowledge through transformative processes (Kolb, 1984).

Next, the PCSM focuses on including the patient at the center of all nursing care, with safety as an integral concept in patient-centered care (St. Onge & Parnell, 2015). Student insights gained from experiences with patients contribute to improvements in patient safety (St. Onge & Parnell, 2015). I included the PCSM because the model is appropriate for the nursing discipline and provided a framework with which nurse faculty embed safety education into the nursing student learning experience (St. Onge et al., 2013).

Lastly, personal experiences, combinations of objects and reflections, are a fundamental form of reality (Husserl, 1931/2013). Through personal descriptions of

situations, emotions, and actions with phenomena, the purest meaning is exposed (Christensen et al., 2017). I included transcendental phenomenology as a framework to understand the realities of undergraduate nurse faculty in this study.

Kolb's Experiential Learning Theory

The first component of the theoretical foundation for this study was Kolb's experiential learning theory. Kolb's experiential learning theory originated as a model for how people learn (Kolb, 1976). Developed in the 1970s, Kolb's model built on the foundational experiential works of Kurt Lewin, John Dewey, and Jean Piaget, incorporating how learning styles impact the ways in which people learn (Kolb et al., 2001). The model was used in various research studies related to education, management, and psychology, and it was recognized as a theory in 1983 (Kolb, 2015). Kolb's experiential learning theory contributes to knowledge of how nursing students use experiences to transform their nursing practice while also reconstructing the teaching experiences of undergraduate nurse faculty.

Learning is a continuous process. Four stages of the experiential learning cycle transform how individuals experience learning (Kolb, 1984). *Concrete experience* or having involvement with a phenomenon begins the experiential learning cycle (Kolb, 1984). *Reflective observation* follows when the individual thinks back to their experience and reviews the transaction (Kolb, 1984). Next, the learner enters the *abstract conceptualization* stage, using the reflection from the step before, to make modifications to personal behavior or skills (Kolb, 1984). Lastly, the learner moves into the active experimentation stage, applying the identified modifications to personal behavior or skills

to transform the new experience with the phenomenon (Kolb, 1984). While the experiential learning cycle helps faculty know how continuous learning occurs, it is essential that undergraduate nurse faculty understand the impact that learning styles have on nursing student learning.

Many factors influence an individual's preferred learning style. Social, environmental, and cognition factors contribute to a person's preferred learning style (Kolb, 2015; Kolb et al., 2001). Individuals with *diverging* and *assimilating* learning styles prefer watching rather than doing when learning and are on the reflective observation continuum (Kolb, 1984). Persons with *accommodating* and *converging* learning styles favor doing over watching when learning and are classified as preferring active experimentation (Kolb, 1984). Undergraduate nursing students represent all of the four learning styles (Madu et al., 2019; Vizeshfar & Torabizadeh, 2018). Therefore, pedagogical practices in nursing education must apply to a broad range of learning styles and allow learners to progress through the experiential learning cycle.

Application for Teaching Undergraduate Nursing Students

Kolb's experiential learning theory has been applied to several studies in nursing education. Relevant research studies have addressed teaching undergraduate nursing students about interprofessional communication (Sowko et al., 2019), speaking up about medication errors (Kuo et al., 2020), managing interruptions during medication administration (Hayes et al., 2017), recognizing and managing a patient's deteriorating condition (Cooper et al., 2012; Stayt et al., 2015), and managing and preventing workplace violence (Martinez, 2017).

High-risk patient safety situations are challenging to re-create in a classroom setting. By using videos portraying emotionally charged situations that are unresolved, nurse faculty can prompt nursing students to engage in problem solving regarding effective communication strategies (Sowko et al., 2019). Simulations and the use of problem-based scenarios for patient safety are useful teaching strategies to provide students with experiences relevant to issues such as speaking up about medication errors (Kuo et al., 2020). Role-play simulations help nursing students work through managing interruptions (Hayes et al., 2017) and liaising with nursing team members to limit interruptions during medication administration (Hayes et al., 2019). Providing nursing simulations with a standardized patient demonstrating escalating behaviors challenges undergraduate nursing students to assess, intervene, and reflect on actions that promote safety (Martinez, 2017). Practicing appropriate responses to difficult conversations and situations allows students to progress through the stages of the experiential learning cycle. Information about how nurse faculty use Kolb's experiential learning theory in teaching undergraduate nursing students about various aspects of patient safety helped to inform the creation of interview questions for the participants in this study.

While Kolb's experiential learning theory is useful in identifying how people learn, detractors argue that little is known about the measurable outcomes of using experiential learning in undergraduate professional curricula (Waddell et al., 2018). In a scoping review of the literature on undergraduate professional programs such as nursing, midwifery, and social work, Waddell et al. (2018) discovered that experiential learning theory is focused mainly on implementation techniques, rather than on outcomes of the

experiential learning cycle. Additionally, simulation-based learning in undergraduate nursing education improves a student's ability to recognize and respond to a deteriorating patient condition, yet it is unknown whether such learning transfers to the clinical setting to improve patient outcomes (Stayt et al., 2015). Stayt et al. (2015) called on professional program faculty to measure outcomes as an indicator of the efficacy of experiential learning methods. My research study was focused on the lived experiences of undergraduate nurse faculty teaching patient safety risks from smartphone distractions, yet ensuring that my interview questions inquired about outcomes of the learning cycle helped in understanding the impact of the instruction.

Patient-Centered Safety Model

The PCSM was another component of the research framework for this study. Published in 2015, with the elements of the QSEN competencies, patient-centered care, and safety culture, the model was created from a meta-analysis of the literature on patient safety and the culture of safety (St. Onge & Parnell, 2015). The model aids nurse faculty with a framework to teach safety content (St. Onge & Parnell, 2015). The major assertion of the PCSM is that patient safety improves when patients are involved in their care, providing information and personal insights about their experiences with care (St. Onge & Parnell, 2015). Using teaching strategies to interweave safety and patient perspectives into students' learning experiences is helpful in keeping the content for patient safety integrated within nursing curricula (St. Onge & Parnell, 2015).

Application for Teaching Patient Safety

The PCSM is a novel model. There were no results when I searched the literature for research that applied the PCSM. This lack of results was consistent with time lags in practice for health research lasting from 8.5 to 15 years (Hanney et al., 2019) and publication delays as long as 2 years in nursing (Saver, 2017). Despite the shortage of published research studies supporting the use of the PCSM, I included the model in this research study because it aligned with the research question. The PCSM provides a framework for nurse faculty to improve patient safety by incorporating teaching strategies that include the connections and perspectives of patients, placing the patient experience as the central focus for student learning (St. Onge & Parnell, 2015). By applying the PCSM to this qualitative study, I sought to advance knowledge of how the inclusion of the patient experience is an integral component of undergraduate nurse faculty's efforts to teach patient safety risks arising from smartphone distractions.

Husserl's Transcendental Phenomenology

The last framework supporting this research study was Husserl's transcendental phenomenology. Husserl, influenced by the French philosopher René Descartes, is credited as the creator and pioneer of transcendental phenomenology (Christensen et al., 2017; Moustakas, 1994). In 1900, Husserl published his first work on phenomenology; he continued to refine transcendental phenomenology until his last work was published in 1939 (Giorgi et al., 2017).

Reality is truth and varies among people (Husserl, 1931/2013). Transcendental phenomenology uses reflection on an individual's experiences to discover information

about what exists as reality for the person (Husserl, 1931/2013). Husserl posited that through subjective experience, individuals think and reflect on phenomena to understand the true essence of the experience. Transcendental consciousness requires the suspension of bias, judgment, and perspective to discover the essence of the described phenomena (Husserl, 1931/2013). Analyzing the descriptions provided by participants allows the researcher to understand the reality of the experience without judgment, bias, or personal perspective (Husserl, 1907/2008). To transcend with another individual's experience, the researcher must be aware of the influence of attitude on understanding the phenomena.

Researcher Attitude for Transcendence

To best understand an individual's experience, Husserl contended that a researcher must suspend their natural attitude to move above interpretation, seeing the phenomena as it appears in transcendental consciousness, from the first-person viewpoint (Fink & Husserl, 1995). The true essence of individual experience is revealed when research onlookers remove interpretation, history, and personal accounts from their consciousness. Disconnecting from the egocentric view, transcendental phenomenology aids the researcher in understanding the reality of a lived experience. Through the use of *epoché*, withholding judgment, and interpretation, the researcher begins preparation for understanding the phenomena of teaching patient safety risks from smartphone distractions (Fink & Husserl, 1995). The act of epoché, also known as *phenomenological reduction,* allows the researcher to discover the natural experience for what it is, without interjecting what it is not; without presupposition. Husserl (1931/2013) ascertained that

intentionality is employed when the researcher makes a conscious effort to explore a phenomenon.

Transcendental Phenomenology in Teaching Students

An extensive review of the literature revealed no results using Husserl's transcendental phenomenology as a framework for undergraduate nurse faculty teaching nursing students. However, the transcendental phenomenology framework has been used by faculty teaching in other professional areas.

In a qualitative phenomenology study of elementary school teachers, Hall et al. (2016) explored how teachers described their experiences with nutrition instruction in the classroom. The researchers utilized Moustakas's (1994) transcendental phenomenology framework to transcend with the teachers' experiences. Clark Moustakas followed Husserl's transcendental phenomenology framework yet adapted it to include researcher meanings within his heuristic inquiry phenomenological approach to qualitative research (Patton, 2015). When inquiring about their experiences teaching nutrition in the classroom setting, the researchers asked participants to describe their current role, feelings about teaching students about nutrition, motivations, teaching strategies, and experiences with formalized nutrition curriculum (Hall et al., 2016). This research study provided information relevant to my research because it focused on how teachers described their experiences of teaching nutrition to reduce the risk of childhood obesity in children. Similar to patient safety education in nursing curricula, the nutrition curriculum was adapted within the education plans to personalize the learning for the students within the classroom.

Transcendental Phenomenology in Nursing

Delaney and Bark's (2019) descriptive phenomenological qualitative research study explored the lived experiences of adults who received holistic nurse coaching to help self-manage their chronic health conditions. Transcendence was demonstrated through the authors' recognition that the lived experience of the participants was real, and researcher opinions, biases, and assumptions were exposed and then set aside to move into the world of the participant. This study was helpful because it provided information about how *epoché* can be enacted to transcend with another's experiences, uncovering the lived experience from the first-person perspective.

I included Husserl's transcendental phenomenology as part of the research framework for this study because the subjective lived experience is discovered when the researcher transcends, intentionally declaring assumptions and annulling the ego. Consciously engaging in epoché throughout the study served me in exploring the lived experiences of undergraduate nurse faculty regarding teaching patient safety risks from smartphone distractions in prelicensure nursing programs in New York State.

Literature Review Related to Key Variables and/or Concepts

Undergraduate nurse faculty in prelicensure nursing programs are challenged with ensuring that nursing students graduate with the knowledge, skills, and behaviors to provide safe patient care. As smartphone use becomes ubiquitous in the healthcare setting (Di Muzio et al., 2019; Pinar et al., 2016; Valle et al., 2017; Vearrier et al., 2018), teaching about smartphone distractions and risks to patient safety is timely and essential for undergraduate nurse faculty. Key variables and concepts related to this study included

smartphone use in healthcare, smartphone distractions, and patient safety in nursing education.

Smartphone Use in Healthcare

Smartphone use in healthcare settings is pervasive. Healthcare providers' use of smartphones while providing patient care has associated benefits and risks to patients. To better understand the key concepts related to the phenomena of teaching patient safety risks from smartphone distractions in prelicensure nursing programs, I performed an exhaustive review of the literature to gain more information about the phenomena and related constructs.

Benefits of Smartphone Use in Healthcare

Smartphones have changed how healthcare providers access information. Physicians, nurses, and students in health professions utilize smartphones to assist in patient care and retrieving data. The convenience of a mobile device to extract clinical information at the fingertips (Buchholz et al., 2016; Flynn et al., 2018; Valle et al., 2017) and enhanced communication features such as text, email, and speech to text (Ellanti et al., 2017; Flynn et al., 2018; Valle et al., 2017) make smartphones vital to patient care. Buchholz et al.'s (2016) quantitative study of medical doctors and medical students discovered 94% of respondents report having a smartphone, and 82% of participants use the smartphone in a clinical setting for fast information retrieval and more straightforward medication calculations. Recommendations from their study included a need to integrate mobile technology training and education with medical students in the

first year to best prepare them for application in the clinical setting (Buchholz et al., 2016).

Similar to the results in the Buchholz et al.'s (2016) study, nurses also carry and use smartphones in the healthcare setting. In a quantitative cross-sectional survey study of six acute care facilities, Flynn et al. (2018) provided information that over 84% of nurse respondents used their smartphones in the work settings, citing the benefits of improved communication. Participants in the study also benefited from access to information and communication functions to verify the security of family members who were home while the nurse was working. The study raised awareness to the prevalence of smartphone use in clinical settings and highlights the need to minimize smartphone distractions in patient care areas (Flynn et al., 2018).

Issues With Smartphone Use in Healthcare

Despite the benefits of smartphone use in the healthcare setting, problems arise from the practice. Privacy and security of health data are a substantial risk when using mobile technology (Bhuyan et al., 2017), and healthcare providers are cautioned against using a smartphone to take photos of clients (Vearrier et al., 2018). Placing patient orders via text message creates privacy problems if the healthcare provider does not use a secure platform to transmit orders (The Joint Commission, 2016). The Joint Commission advised that health organization policies should include a process to transmit patient care orders through computerized physician order entry programs to prevent the risks to patient privacy (The Joint Commission, 2016).

Smartphones can harbor bacteria and are a vector for pathogen transmission. The most common organism isolated on mobile devices is coagulase-negative Staphylococcus (Graveto et al., 2018). In a quantitative study of hospital healthcare providers, medical students, and college faculty, Pal et al. (2015) discovered 81.8% of mobile devices contained bacteria, with a 100% bacterial containment on the devices of hospital healthcare providers. The researchers cited the heat generated from hands and the frequent handling of mobile devices as the source for breeding bacteria. Wentz and Bowles (2018) discovered in their study of hospital staff that using a 70% isopropyl alcohol wipe with at least 15 seconds of friction on mobile devices was an effective, economical method for cleaning mobile devices and decreased the spread of bacteria to patients. Educating healthcare providers about the risks and prevention of infection is necessary for patient safety.

Healthcare providers' use of smartphones in the healthcare setting elicits negative perceptions from patients. In a quantitative study of bariatric patients, subjects agreed that smartphone use by doctors was unprofessional and demonstrated a lack of interest in the patient (Kerry et al., 2017). Patient perceptions about wait times and time allotted with the healthcare provider were negatively impacted when healthcare providers used smartphones where patients can see them used (Vearrier et al., 2018). If information is not provided to the patient about how the smartphone is used in the patient's presence, healthcare providers continue to risk a positive patient and provider relationship and perpetuate negative patient perceptions.

An issue not easily recognized in healthcare settings is nomophobia. Nomophobia is a digital addiction to or digital dependence on a mobile phone (Davie & Hilber, 2017). Nomophobia has been studied in students in healthcare professions. Cain and Malcolm's (2019) cross-sectional survey of student pharmacists discovered all participants contained some level of nomophobia, with prevalence in the moderate range for addiction. In a quantitative cross-sectional study of nursing students, Aguilera-Manrique et al. (2018) discovered a correlation between smartphone use and nomophobia, and no significant difference was found in the relationship between the age of the student and nomophobia. Ayar et al.'s (2018) descriptive study of undergraduate nursing students provided information that students with high levels of dependency on social media had higher levels of nomophobia. The research studies provide context for the need to include smartphone dependency in university curricula. Faculty can offer teaching strategies to help students recognize and address nomophobia and the impact it has on patient safety.

Smartphone Distractions

Distractions from smartphones are a significant issue in healthcare settings. Addressing non-work-related phone calls, text messages, and notifications from smartphone apps diverts healthcare providers' attention away from patient care, and affects the providers' cognitive load (ECRI Institute, 2020; Vearrier et al., 2018). McBride (2015) performed a concept analysis to define smartphone distractions in clinicians as "interruption of a hospital clinician's primary task by the internally or externally initiated use of their smartphone" (p. 2021). Smartphone distractions include messaging, gaming, reading and writing emails, looking up information on the internet,

making phone calls, and managing social media (Cho & Lee, 2016; Pinar et al., 2016; Zarandona et al., 2019). Information about how smartphone distractions have been researched in the RN and nursing student populations aids in understanding what is known and what remains to be studied.

Smartphone Distractions in the RN Population

RNs experience smartphone distractions in clinical practice. Di Muzio et al. (2019) study of 193 nurses discovered that over 30% use their smartphones at work for personal reasons, and many identified the devices as distracting while engaged at work. RNs are interrupted by smartphone distractions, on average, 5.6 times per hour and these interruptions increase the risk of healthcare errors (Pucciarelli et al., 2019). RNs are not fully aware of the risks to patient safety from smartphone distractions. Flynn et al.'s (2018) cross-sectional survey of nurses across six in-patient facilities discovered 30% of respondents had no understanding that smartphone distractions could increase risks to patient safety. Smartphone distractions are present among RNs in healthcare settings, diverting RN attention from patient care. There is a need to educate and prepare RNs to manage smartphone distractions to reduce the risk of patient harm.

Smartphone Distractions in the Nursing Student Population

Smartphone distractions have been studied in the nursing student population. Zarandona et al.'s (2019) descriptive cross-sectional study of nursing students provided information that over 23% of students use their smartphones for personal reasons while in the clinical setting. Additionally, nursing students in Zarandona et al.'s study were distracted by the smartphone use of other students more than their own use. The findings

are similar to Aguilera-Manrique et al.'s (2018) quantitative cross-sectional study discovery, which found half of the nursing student participants visualized peers being distracted by smartphones in the clinical setting. Observing practicing nurses is a method in which nursing students learn. More than half of nursing students reported seeing nurses distracted by smartphones during their work time (Cho & Lee, 2016). Cho and Lee's (2015) quantitative study of undergraduate nursing students discovered students with higher nomophobia levels were more apt to be distracted by their smartphones. The researchers recommend policies and guidelines for responsible smartphone use in healthcare settings. McNally et al.'s (2017) qualitative descriptive study of student nurses and nurse managers discovered nurse managers were not in favor of smartphone use in the clinical setting because of the risk to patient safety, and cited a need to police student nurses' usage. The nurse managers in the study recognized the losing battle for reprimanding nursing students for using smartphones in the clinical setting as smartphone usage increases.

Nursing students must learn how to mitigate the risks to patient safety from smartphone distractions. As policies, supervision, and observation of other nurses have not been effective in limiting smartphone use, faculty should accept that nursing students will be using smartphones. As such, best practices should be established for teaching nursing students how to limit patient safety risks from smartphone distractions. Most of the studies related to smartphone distractions in RNs and nursing students have been quantitative. My research study takes a qualitative approach to the lived experiences of undergraduate nurse faculty who taught patient safety risks from smartphone distractions.

The qualitative methodology was needed to understand the experiences of the undergraduate nurse faculty and approaches to the problem of teaching patient safety risks from smartphone distractions.

Patient Safety in Nursing Education

Teaching Patient Safety

Undergraduate nurse faculty are charged with educating prelicensure nursing students to practice responsibly and carefully in clinical settings. Reviewing the literature on the phenomena of teaching patient safety was essential for my understanding of how the phenomena have been studied.

The *WHO Patient Safety Curriculum Guide* is a multiprofessional tool that assists faculty in communicating and managing risks to enhance patient safety (WHO, 2011). The WHO recommends building patient safety into the existing curriculum rather than separating it from other topics. Additionally, the concept of patient safety should be integrated throughout a student's progression through the curriculum. Implementing patient safety education through lectures, discussions, simulation exercises, and case scenarios were recommended strategies for healthcare educators (WHO, 2011). Mansour et al.'s (2015) pretest, posttest, non-experimental design study of nursing students used educational interventions based on the *WHO Patient Safety Curriculum Guide*. Nursing students in the study received lectures, participated in faculty facilitated discussions, and engaged in group work with peers. Conversely, there was no impact on the student's knowledge and attitudes related to patient safety topics after the education intervention (Mansour et al., 2015). While the *WHO Patient Safety Curriculum Guide* did not have

evidence to support an impact in Mansour et al.'s (2015) study, further exploration of nurse faculty teaching experiences would provide an additional perspective on teaching patient safety to nursing students.

To improve quality care and patient safety, the American Association of Colleges of Nursing identified six nursing competencies as a foundation for preparing nursing students to work in dynamic healthcare environments (Ross & Bruderle, 2016). The competencies are known as the QSEN competencies. The QSEN competencies encompass nursing work in patient-centered care, teamwork and collaboration, evidence-based practice, quality improvement, safety, and informatics (Cronenwett et al., 2007). In a descriptive cross-sectional design of undergraduate nursing students, Peterson-Graziose and Bryer (2017) discovered students perceived patient-centered care as the QSEN competency most frequently present in their curricula. Students in the study reported information related to the QSEN competencies was delivered by faculty most often in the classroom and least often in the college laboratory.

Hayes et al.'s (2017) qualitative study with undergraduate student nurses found students had an increased understanding of the dangers of interruptions and how to manage them while performing medication administration. The participants in the study reflected on their experiences managing interruptions in a simulation-based role-play scenario of a clinical situation. Faculty facilitated debriefing sessions followed the simulation, and student nurses submitted a written reflection two weeks later, furthering their contemplation of the role-play experience. The researchers gained an understanding that students found the simulation helpful to manage time and aided in prioritization, and

students increased their knowledge and confidence in managing interruptions during medication administration. Simulation provides experiential learning for nursing students, yet often lacks evaluation of the desired goals to improve patient safety (Bryant et al., 2020). While Hayes et al.'s (2017) study emphasized the importance of realistic simulation scenarios to aid students in learning, the faculty perspective was not the focus of the research and remains unknown. Undergraduate nurse faculty should exercise caution if using simulation as the sole method for teaching patient safety as the lack of research related to its impact on patient safety is not represented in the nursing literature.

Gleason et al.'s (2019) mixed-methods study of selected prelicensure nursing students who worked in a mentoring experience added insight that students' knowledge of recognizing, managing, and responding to patient safety risks improved because of the mentoring program. Participants in the study learned about patient safety in didactic classes, clinical immersion with a quality improvement team, and an interprofessional course. However, the mentoring experience contained only selected students in prelicensure nursing programs and required additional human resources. Thus, the program is not an equitable solution for teaching prelicensure nursing students about patient safety.

Marchi and Dolansky's (2017) mixed-methods study of baccalaureate nursing students provided information about active learning strategies for advancing patient safety education in nursing curricula. Teaching approaches to improve patient safety knowledge, skills, and behaviors included providing safety modules, group work to create and present safety posters, and requiring students to participate in patient safety

conferences (Marchi & Dolansky, 2017). Because there are many pedagogical approaches to teaching patient safety, faculty must prioritize which knowledge, skills, and behaviors are essential to integrate into the nursing curricula.

TeamSTEPPS 2.0 is a program developed by the Agency for Healthcare Research and Quality (AHRQ) and the U.S. Department of Defense to improve patient safety by strengthening communication and collaboration of healthcare team members (AHRQ, 2019). The evidence-based program contains videos, scenarios, and teaching materials for the core skills related to patient safety, which include communication, leadership, mutual support, and situation monitoring. Robinson et al.'s (2018) study found improvements in baccalaureate nursing students' teamwork attitudes from the first semester when measured again in the fourth semester. The faculty teaching the nursing students were trained with a TeamSTEPPS® Master Training course and the Lean Six Sigma process before the study began (Robinson et al., 2018). I found this study unique because it included specialized and consistent patient safety training for faculty as a strategy to assist in teaching patient safety to nursing students.

Through inquiry and challenging students to use systems thinking, faculty are teaching patient safety in the clinical settings as well. Roney et al.'s (2017a) non-experimental, descriptive mixed-methods study of clinical faculty in a baccalaureate nursing program discovered the faculty had a heightened awareness of patient safety in the clinical setting after receiving a 45-minute education offering about high-reliability organization concepts related to patient safety. After receiving the specialized education, faculty focused on finding systematic solutions when nursing students uncovered a

patient safety issue in the hospital setting. This study provided information that a brief faculty training session had the ability to impact pedagogical practices for teaching patient safety.

Lack of Standardization of Patient Safety Education in Nursing Curricula

Notwithstanding the plethora of methods and tools to teach patient safety in prelicensure nursing education, there is a lack of standardization among nursing curricula. The absence of uniformity in teaching patient safety is a global issue in nursing education. de Siqueira et al.'s (2019) descriptive and exploratory research with a qualitative approach of higher education institutions in Brazil discovered that patient safety education was not specific to a course offering and was fragmented through the nursing curricula. The researchers advocated for specialized training for nurse faculty related to patient safety education before they engage in teaching the concepts to nursing students. Nursing students in Britain and Finland perceived patient safety education as fragmented throughout their curricula (Langari et al., 2017). Through the use of a Patient Safety in Nursing Education Questionnaire, the researchers discovered less than half the students in the study were satisfied with their patient safety competency and students did not cite patient safety as a theme from their nursing education. This study highlights the gap between pedagogical efforts to teach patient safety and the lack of learning with nursing students.

Kirwan et al.'s (2019) cross-sectional survey of RANCARE COST Action project participants from 27 countries discovered that only 14 countries had a national nursing syllabus, and some participants acknowledged that patient safety recommendations for

the curriculum were missing altogether. The RANCARE COST Action project aimed to strategize the rationing of nursing care based on comparative approaches across different European nations, actualized through collaboration and networking among different disciplines (RANCARE, 2016). Kirwan et al.'s (2019) study provided information that the core topics from the WHO Patient Safety Curriculum Guide were hidden through the nursing curricula in areas such as fundamentals of nursing, specialized nursing modules, and ethics, and lacked explicit teaching from nurse faculty.

Other countries have varied approaches to teaching patient safety. Usher et al.'s (2018) cross-sectional study of nursing course coordinators from 18 Australian universities with preregistered nursing programs found that patient safety was often taught in the laboratory setting with topics related to individual safe practices with medication safety and infection prevention. The researchers identified variations in time spent teaching patient safety, settings for patient safety education, skills, attitudes, and topics taught. The study highlighted the need to incorporate systems thinking for patient safety in Australian nursing curricula (Usher et al., 2018).

In the United States, Altmiller and Armstrong (2017) reported that the majority of survey respondents in prelicensure nursing programs identified teaching patient-centered care, safety, and evidence-based practice. Informatics and quality improvement were the least taught QSEN competencies among nurse faculty. Over three-quarters of respondents identified a need for faculty development and education to assist in the successful integration of QSEN competencies into the nursing curricula. Altmiller and Armstrong (2017) discovered that 20% of respondents did not know or were not evaluating student

achievement of QSEN competencies within the nursing program. Levett-Jones et al.'s (2020) cross-sectional study of nursing students in their final year of preregistration programs in Australia and New Zealand found less than half of students in the study demonstrated the minimal passing threshold on a 45 multiple-choice item patient safety quiz. Both studies indicate faculty training and education are required for undergraduate nurse faculty to successfully integrate patient safety teaching with prelicensure nursing students and evaluate student achievement of the intended outcomes.

Summary and Conclusions

The literature review presented in Chapter 2 provides insight into the problems related to smartphone distractions and their impact on patient safety in healthcare settings. Smartphone distractions in undergraduate nursing education and clinical nursing practice are pervasive and jeopardize patient safety. Despite available tools for teaching patient safety, there remains a global lack of standardization for teaching patient safety in nursing education. Almost all of the articles described in this chapter were quantitative studies and failed to provide the undergraduate nurse faculty perspective for teaching patient safety. Additionally, none of the works provided information on the phenomenon, how undergraduate nurse faculty teach prelicensure nursing students about patient safety risks from smartphone distractions.

Because patient safety is not explicitly taught in prelicensure nursing education, this study will contribute to the nursing discipline regarding the experiences of undergraduate nurse faculty teaching prelicensure nursing students about the patient safety risks from smartphone distractions. Prelicensure nursing students are poised to

become the newest frontline RNs in healthcare settings, and they require the appropriate knowledge, skills, and behaviors to be safe practitioners. Through the literature review, a gap appeared, identifying the need to explore the undergraduate nurse faculty experience and understand how they are teaching patient safety risks from smartphone distractions.

Chapter 3 contains the research methodology for this study. Information is provided about the research design, data collection process, trustworthiness, and ethical procedures in Chapter 3.

Chapter 3: Research Method

Introduction

The purpose of this qualitative, descriptive phenomenology research study was to identify and report the lived experiences of undergraduate nurse faculty regarding teaching patient safety risks from smartphone distractions in prelicensure nursing programs in New York State. Exploring these lived experiences may bring awareness of the teaching practices that help prelicensure nursing students understand how to limit distractions from smartphones. In this chapter, I address the research design and rationale, my role as the researcher, methodology, and issues of trustworthiness.

Research Design and Rationale

The research question that I used to guide the study was the following: What are the lived experiences of undergraduate nurse faculty regarding teaching patient safety risks from smartphone distractions in prelicensure nursing programs in New York State? The phenomenon of teaching patient safety risks from smartphone distractions is best explored using a qualitative phenomenology research approach. Patton (2015) argued that phenomenological inquiry into human lived experiences provides descriptions, meaning, and essence about a phenomenon.

I considered the studies identified in Chapter 2 when selecting the qualitative approach for this study. The majority of studies related to teaching patient safety in nursing used a quantitative approach. Few qualitative studies had explored the phenomenon of teaching patient safety risks, and no studies had focused on teaching patient safety risks from smartphone distractions. A descriptive, phenomenological,

qualitative research approach allows the researcher to understand lived experiences and meanings of the experiences for a group of people (Patton, 2015). A phenomenological approach aids the researcher in understanding emotions and influencing feelings from powerful lived experiences (Merriam & Tisdell, 2016). This approach was the best option for this research because I aimed to understand the lived experiences of undergraduate nurse faculty teaching patient safety risks from smartphone distractions.

I considered other qualitative approaches for this study and deemed them unsuitable to answer the research question. Grounded theory was not selected because the research purpose was not to develop a theory or model to describe the phenomenon (Patton, 2015). Narrative inquiry requires the identification of a unique experience, which I could not find. Additionally, because of challenges related to maintaining participant confidentiality with an unusual case, narrative inquiry was not chosen. The phenomenological approach was the most appropriate choice for understanding how undergraduate nurse faculty are teaching patient safety risks from smartphone distractions in prelicensure nursing programs. Understanding these lived experiences may assist in identifying best practices for how undergraduate nurse faculty educate nursing students about patient safety risks from smartphone distractions.

Role of the Researcher

I acted as the primary researcher and data collector for this research study. I work as a managing, full-time nurse faculty in a prelicensure undergraduate nursing school in New York State. In this role, I have many of the same duties as a department chair. The curriculum I teach is delivered in an online format, and thus my workplace, subordinates,

and coworkers were excluded from participating in the study. Additionally, any person whom I had supervised in a faculty role was excluded from the study. I understood that I might be acquainted with participants in the study from professional networks. Ensuring that inclusion and exclusion criteria were adhered to assisted me in achieving alignment with the research question.

I eliminated bias in the study by journaling and using memos throughout the research process. Beholding the entire experience to understand what the participant has lived, refraining from judgment, and suspending personal notions permit transcendence (Husserl, 2013). Writing down my thoughts, perspectives, and judgments helped me recognize and set aside the lens through which I see the world so that I could transcend with others' lived experiences.

Methodology

To understand the lived experiences of undergraduate nurse faculty teaching about patient safety risks from smartphone distractions, it is best to go to the source to obtain information. The phenomenological method of inquiry allows for the conscious awareness of a lived experience to be described by the participants who experienced it (van Manen, 2017). A deliberate intent to explore a phenomena's *noema* and *noesis* assists the researcher in discovering the meaning of the lived experience (Fink & Husserl, 1995). Husserl reasoned that aspects of the phenomenon, the noema, an objective view, and the noesis, a subjective view, are discovered through conscious reflection on the lived experience (Fink & Husserl, 1995).

Participant Selection Logic

The population for this study was undergraduate nurse faculty who taught in prelicensure nursing programs in New York State. I ensured that appropriate participants engaged in the study through purposeful sampling. Including study participants who experienced the phenomena is essential to actualize the purpose of a study by obtaining information-rich descriptions (Patton, 2015). I created a set of inclusion and exclusion criteria to set boundaries on the participants who were selected for this study. The inclusion criteria indicated that participants needed to be undergraduate nursing faculty with experience teaching prelicensure nursing students about patient safety risks from smartphone distractions in a face-to-face New York State classroom or clinical setting in the last 2 years. Additionally, the participants needed to agree to be audio recorded in order for their data to be included in the study. The exclusion criteria applied to faculty who taught exclusively online, faculty who had retired in the last 2 years, faculty who taught in states other than New York, and faculty who taught students who were already licensed to practice as RNs.

I used recruitment flyers to locate participants for the study. The inclusion criteria for participation were clearly defined in the flyer. I recruited participants using a recruitment email, and I posted the recruitment email and flyer to nurse professional organizations in New York State. When a potential participant contacted me using the information provided within the recruitment email or flyer, I set up a time and date for a telephone interview with the participant.

There is no absolute number of interviews required for a qualitative study. The number of interviews depends on the type of research study, and when rich and thick data saturation occurs (Ness & Fusch, 2015). Data saturation is not actualized with a predetermined number of interviews but occurs when no new information is shared by research participants (Guest et al., 2006; Walker, 2012). However, establishing a guideline for determining a potential number of interviews helps the researcher plan time and workload for research implementation (Mason, 2010). Mason's (2010) analysis of qualitative research studies demonstrated that a majority of phenomenological studies contain five to 25 participants. Therefore, a sample size of at least five participants with a maximum of 25 participants was a guideline for planning this qualitative, descriptive phenomenology study.

Instrumentation

The data collection instruments for this study were the researcher and researcher-created interview questions. During participant interviews, I used semistructured, open-ended interview questions that aligned with the literature reviewed for this study and that helped in answering the research question. I used telephone interviews to collect data from participants in the study. The researcher's use of appropriate interview questions, directed at obtaining rich descriptions from participants who have lived experience with the phenomenon, aids in qualitative research validity (Leung, 2015). I created an interview guide to assist in aligning the research study.

Researcher-Developed Instruments

An interview guide is used to synthesize the literature, theories, and personal experiences to develop interview questions for a qualitative research study (Kallio et al., 2016; Patton, 2015). The interview guide consists of literature on the phenomenon of interest, including patterns and unique findings (Patton, 2015). Concepts such as experiential learning, patient-centered safety, and smartphone distractions formed the basis for the interview questions. I also reviewed the theoretical frameworks for fundamental assumptions to support the interview questions. Reflection, patient safety, and transcendence were concepts that I integrated into the interview questions.

Consistent with a qualitative, descriptive phenomenology approach, the interview guide contained questions for one-on-one interviews. A phenomenon is an event that takes place with people in their world (Husserl, 1931/2013). A descriptive phenomenology approach is appropriate for understanding shared experiences of a phenomenon among participants (Merriam & Tisdell, 2016; Patton, 2015) and aids researchers in describing an experience so that others can understand it without consideration for context (Matua & van der Wal, 2015). I sought to ensure that my interview questions did not seek context about the lived experience, so that the focus of the interview remained consistent with a descriptive phenomenology approach. Arranging questions that focused on the beginning, middle, and end of the interview aided in establishing flow and understanding the participants' reality (Patton, 2015; Rubin & Rubin, 2012). As part of the interview, participants were asked to provide

demographic information such as years of experience teaching prelicensure nursing students and teaching settings. The Appendix contains the interview guide.

Procedures for Recruitment, Participation, and Data Collection

After Institutional Review Board (IRB) approval was granted, I collected data from semistructured one-on-one interviews with participants. I recruited participants for the study by posting the recruitment flyer on nurse professional organization sites in New York State. Additionally, I sent the participant recruitment email to professional nurse contacts via email. I used a snowball sampling strategy. Only participants who met the eligibility criteria and gave informed consent were permitted to participate in this study. Participants were permitted to participate only if they read the consent form and returned to me a written statement indicating consent. If recruitment had resulted in too few participants, I planned to extend recruiting efforts to include contacting gatekeepers at professional nurse organizations. Gatekeepers are persons trusted by the target population who support recruitment efforts (Namageyo-Funa et al., 2014). Gatekeepers for this study included deans of prelicensure nursing programs and nurse faculty support staff.

Once informed consent was provided by a participant, I set up a mutually agreed upon time and date for the interview. Telephone interviews provide a method for interviewees to speak freely from the comfort of their location (Novick, 2008) and have more privacy than video conferencing (Farooq & de Villiers, 2017). To allow for privacy and the inclusion of nurse faculty with varying levels of technology experience, I used telephone interviews via FreeConferenceCall.com. When a participant provided informed consent, I emailed the participant a phone number and participant code to access the call.

One telephone interview was conducted with each research participant and lasted for approximately 45-60 minutes. Data were recorded with the audio recording feature available through FreeConferenceCall.com.

At the end of each interview, I thanked the participant. I reminded participants that their information was confidential, and that documents and recordings would be concealed in a password-protected computer. I also advised participants of the member checking process. During data analysis, I emailed a document with a detailed description of themes that emerged from the information obtained during the interviews. Participants were asked to read the document and validate the interpretations of data.

Data Analysis Plan

The first step in phenomenology data analysis requires the researcher to recognize their perspective and set it aside to understand someone else's experience through their viewpoint (Patton, 2015). Using bracketing, the researcher suspends the epoché at the first step in the research process and analyzes the lived experiences for meaning and recurring features of the phenomenon (Husserl, 1931/2013). Through analysis of the lived experience, the researcher defines the phenomenon as part of the end of the review (Patton, 2015). While bracketing, I explored the interview transcripts for content and themes.

Content and thematic analysis allow for the participant descriptions to be analyzed by the researcher (Vaismoradi et al., 2013). Themes provide the connection between the content codes (Rubin & Rubin, 2012), and the qualitative research approach directs the analysis of data (Patton, 2015). Staying true to the descriptive phenomenology

approach, I suspended interpretation of the data and sought to understand the descriptions of the lived experiences of the participants. I used the qualitative research question as my guide for beginning the coding process, referring back to the research question to focus on the content codes and thematic codes. I hand-coded the data using Microsoft Excel to organize data for this study. Microsoft Excel software is low cost, allows for color coding data, and holds large amounts of data (Bree & Gallagher, 2016; Meyer & Avery, 2009).

Discrepant cases were analyzed and are shared in the data analysis section. Differing cases need to be analyzed so that researchers find what information can be gleaned from the data (Maxwell, 2009; Toma, 2011). Rather than rejecting discrepant cases for their inability to conform with other cases, I included them in my analysis to honor the lived experience and remain aligned with the descriptive phenomenology approach.

Issues of Trustworthiness

Qualitative research studies must reflect standards of quality to ensure rigor and validation of research findings (Creswell & Creswell, 2018). To safeguard trustworthiness in this study, I used strategies to address Lincoln and Guba's (1986) constructs of credibility, transferability, dependability, and confirmability when conducting the study.

Credibility in qualitative research is actualized when the research findings measure what was intended by the researcher (Shenton, 2004). I established credibility by using triangulation, saturation, member checking, and reflexivity throughout this study. Triangulation occurs through the use of various informants and the adoption of research

methods that are congruent with the design approach, with enough participants to reach saturation (Shenton, 2004). In this qualitative, descriptive phenomenology study, I included participants from different prelicensure nursing programs to gain variety in data sources. Additionally, I continued interviews until data saturation occurred. Member checking ensures the quality of data collection and analysis and adds credibility to a qualitative research study (Lincoln & Guba, 1986; Ravitch & Carl, 2016). Researcher solicitation of participant feedback and authentication of the themes that emerge during data analysis also aid in establishing qualitative research credibility (Merriam & Tisdell, 2016; Ravitch & Carl, 2016). During the data analysis process, I asked participants to review a detailed description of themes that emerged from the information obtained during the interviews. Lastly, I engaged in reflexivity. Incorporating a method for monitoring researcher thoughts and reasoning associated with changes to the study assists in researcher reflexivity (Burkholder et al., 2016). I maintained a research log to document any modifications to the data collection and analysis methods. The research log also contained a reflective journal of my emotions and thoughts, as well as patterns noted during the research study.

Including thick descriptive data in qualitative research study results provides transferability (Shenton, 2004). To aid in transferability, I provided interview questions that yielded a robust and lengthy narrative from the participants. I included detailed descriptions and context for the participants' lived experience so that readers can make judgments about the findings and apply the results to future research, if desired (Lincoln & Guba, 1986).

Dependability is demonstrated in qualitative research by detailed plans and notes during the execution of the study (Shenton, 2004). An audit trail provides descriptions of how a research study progressed from beginning to end (Lincoln & Guba, 1986). The findings in this report contained descriptions that support the research design, data gathering, and reflections on the process effectiveness. Throughout this research study, the research log also served as the audit trail. In the research log, I provided a detailed account of the steps taken throughout the research study.

Qualitative researchers must be aware of the possibility of inflicting bias and predispositions into the research study (Shenton, 2004). Confirmability is supported in qualitative research through the use of reflexivity processes, which establish ways to explore researcher bias and assumptions (Ravitch & Carl, 2016). Practices such as bracketing and setting aside researcher presuppositions aid the researcher in eliminating bias in the study (Patton, 2015). As the primary research instrument in this qualitative study, I recorded my thoughts, decisions, and feelings throughout the research study. Using the research log to document research progression assisted me in sharing results information. I also worked with my dissertation committee to challenge my thinking and substantiate the research findings.

Ethical Procedures

Researchers have a professional duty to perform research ethically. I obtained permission from the Walden University IRB to conduct this qualitative research study. No research was performed until IRB approval was received. I obtained informed consent from the participants before the interviews began. Before the interviews, participants

were reminded that they could opt-out at any time during the study. Any participant who withdrew or refused to participate were thanked for their time.

Research participants have a right to confidentiality throughout the research process, and research efforts must include maintaining participant anonymity in qualitative research (Ravitch & Carl, 2016). I used numbers to identify participants in my notes and coding to support anonymity. Additionally, I limited the collection of participant demographic details to aid in confidentiality. Data will be stored on a password-protected computer and password-protected OneDrive account, for 5 years after the completion of the study. Data was viewed only by myself, the dissertation committee members, and the participant during their member check, and the transcription company. After 5 years, the data will be destroyed by deleting it from the computer and OneDrive account.

Because I worked in a supervisory faculty role, my workplace, subordinates, and coworkers were excluded from participating in the study. Any person who I supervised in a faculty role was excluded from this study. I adhered to ethical practices while conducting the study.

Summary

This qualitative, descriptive phenomenology study explored the lived experiences of undergraduate nurse faculty regarding teaching patient safety risks from smartphone distractions in prelicensure nursing programs in New York State. The research design, rationale, role of the researcher, and methodology were provided above. Issues of trustworthiness and ethical considerations for this study were addressed in this chapter.

The next chapter will contain information about the data analysis, evidence of trustworthiness, and results.

Chapter 4: Results

Introduction

The purpose of this qualitative, descriptive phenomenology study was to identify and report the lived experiences of undergraduate nurse faculty regarding teaching about patient safety risks from smartphone distractions in prelicensure nursing programs in New York State. The research question was the following: What are the lived experiences of undergraduate nurse faculty regarding teaching patient safety risks from smartphone distractions in prelicensure nursing programs in New York State? This study addressed a gap in the literature and helped in identifying themes related to how undergraduate nurse faculty teach nursing students about patient safety risks from smartphone distractions. In this chapter, I present the qualitative, descriptive phenomenology study results, and I include information about the setting, demographics, data collection, data analysis, evidence of trustworthiness, and results of the study.

Setting

Recruitment for this study occurred in August and September 2020. During that period, the world was experiencing a global pandemic. As students returned to school and college campuses, coronavirus disease 2019 (COVID-19) cases resurged in the United States, which had the world's highest number of cases (WHO, 2020). To remain in compliance with reopening guideline plans, nurse faculty in New York State experienced significant changes to teaching processes during participant recruitment (New York State Department of Health, 2020). Such changes may have impacted participant responses and experiences at the time of the study.

Additionally, the pandemic posed a challenge to participant recruitment. I sent participant recruitment emails to professional nurse contacts in New York State. I also posted the recruitment flyer on a members-only portion of the New York State chapter of a professional nursing organization. Nine potential participants contacted me to set up an interview date and time. One potential participant declined consent because they did not cover the nursing curricular content in their nursing program, and another potential participant declined because of inexperience teaching patient safety risks from smartphone distractions. Seven participants consented to take part in one-on-one telephone interviews.

Demographics

Seven participants were interviewed for this qualitative, descriptive phenomenology study. All participants in the study had experience teaching prelicensure nursing students about patient safety risks from smartphone distractions in a New York State face-to-face classroom or clinical setting within 2 years of the interview date. All participants taught in more than one educational setting. Settings in which participants had taught in the last 2 years included clinical settings, face-to-face classroom, online classroom, skills lab, and simulation lab. The participants' years of experience teaching prelicensure nursing students ranged from 5.5 to 20 years (see Table 1).

Table 1

Summary of Participant Demographics

Demographic information	Number of participants (n = 7)
Years of teaching prelicensure nursing students	
< 5	0
5-10	2
10-15	3
15-20	1
20+	1
Settings taught in the last 2 years (may have multiple)	
Clinical	6
Face-to-face classroom	6
Online classroom	2
Simulation lab	3
Skills lab	4

Data Collection

Participants

I interviewed seven participants for this study. All seven participants met the inclusion criteria with experience teaching prelicensure nursing students about patient safety risks from smartphone distractions in a New York State face-to-face classroom or clinical setting in the last 2 years. All participants agreed to be audio recorded during the telephone interview. Additionally, all participants agreed to participate in the member checking process by reviewing information in an emailed document for accuracy of themes that emerged during the interview.

Data Collection Location, Frequency, and Duration

I obtained Walden University's IRB approval for this study on August 7, 2020, approval number 08-07-2020-0183363. After IRB approval, I sent a participant recruitment email and a participant recruitment flyer to professional nursing contacts in New York State. Additionally, I posted the recruitment flyer to a members-only portion of a website for a New York State chapter of a professional nursing organization. The initial response to recruitment efforts yielded two participants. Due to the low number of initial responses from potential participants, I resent the participant recruitment email to professional nursing contacts in New York State. As a result of this effort, five additional participants were recruited and consented to participate in the study. During recruitment for the study, two professional nursing contacts responded that they were not eligible for the study because they did not teach the relevant content in their nursing curricula.

When a potential participant emailed me to express interest in taking part in the study, I provided the informed consent via email. The participants replied to the informed consent email by writing, "I consent." I set up a date and time for the one-on-one telephone interviews. In an email, I included the call-in information, date, and time of the interview. To ensure privacy during the telephone interviews, participants were instructed to participate from a private, quiet location and to allow for no interruptions. Additionally, the day before the interview, I sent each participant a reminder email about the upcoming interview.

Seven interviews were conducted between August 17, 2020, and September 2, 2020. To ensure participants' confidentiality, each participant was assigned a unique

participant number during data collection. Consistent with the proposed plan for the research study, I used FreeConferenceCall.com for the telephone interviews. I utilized the recording feature on FreeConferenceCall.com to audio record the participant interviews. Participants were informed of the audio recording via the written informed consent. I also verbally communicated at the beginning of each interview that it was being audio recorded. During the participant interviews, I used an interview guide (see Appendix) to provide consistency for the beginning, middle, and end of the interviews. Each participant was provided with the same information at the beginning and end of each interview. The interview guide also contained the 10 interview questions. During the interviews, I asked participants open-ended questions to allow participants to share their experiences. I inquired about how students used smartphones in the nursing classroom and clinical setting. I asked how the participants included the patient perspective when teaching students about safety risks from smartphone use. I also asked about the lessons learned and resources utilized when teaching students about safety risks from smartphone use. Finally, I inquired about the training and education that the participants experienced that helped them teach smartphone safety to nursing students.

During the interviews, I used field notes to note the information provided in the participant responses that required a follow-up question for clarification purposes. I posed follow-up questions when participants responded to an interview question that needed additional information to understand their response. The telephone interviews lasted between 14 and 38 minutes. After each interview, the participant was emailed a $10 Amazon gift card as a thank you for their time.

The audio recording for each interview was downloaded from my FreeConferenceCall.com password-protected account and saved to my password-protected OneDrive account. I used Temi.com for interview transcription. After receiving a nondisclosure agreement from Temi.com, I uploaded the audio recordings to my password-protected Temi.com account for transcription. Completed transcripts were retrieved from the password-protected Temi.com account and uploaded to the password-protected OneDrive account. I listened to each audio recording and edited the transcripts when it was necessary to ensure verbatim transcription.

Unusual Events in Data Collection

During data collection, I experienced an unusual circumstance with two participant interviews. Two participants were late to their scheduled telephone interviews. After 5 minutes had elapsed from the interview's start time, I remained on the conference call line while I simultaneously emailed the participant to let them know I was awaiting them on the conference call line. I emailed and asked if they would like to proceed or reschedule the interview. Both participants responded within 10 minutes to the email, apologized for their lateness, and expressed a desire to move forward with the interview at that time. The interviews began late for those two participants, and those interviews were the shortest in duration.

Data Analysis

Coding Process

Data analysis for this qualitative, descriptive phenomenology study began with hand-coding each interview transcript. I coded the data while considering the research

question about undergraduate nurse faculty experiences regarding teaching patient safety risks from smartphone distractions at the forefront of my mind. During the initial data analysis process, I created an Excel spreadsheet for each interview question and provided each participant's response below the interview question. I coded each interview for descriptive codes within the Excel spreadsheet. I then created a new spreadsheet and began a trial of creating categories. Unfortunately, the Excel coding method I was using, creating a different spreadsheet for each interview question, did not allow for a holistic review of each interview. In turn, I abandoned Excel and began a new method of coding.

With my second attempt at data analysis, I hand-coded data using Word. I used in vivo coding to remain consistent with the descriptive phenomenology research design. In vivo coding consists of the researcher's use of the participant's language to generate codes, based on the participant's words and phrases (Saldaña, 2016). Each interview was coded, and categories were developed based on the codes. In phenomenology studies, researchers review the data to understand the meaning of a life event (van Manen, 2017). During data analysis, I used a phenomenological analysis method that consisted of epoché and reduction to analyze the participants' experiences related to the phenomenon of teaching patient safety risks from smartphone distractions in prelicensure nursing programs. Consistent with Husserl's central component of descriptive phenomenology, I suspended personal views of the world so that I could transcend with others' lived experiences and understand the realities of the participants in the study (Husserl, 1931/2013).

Member Checking Process

After the hand-coding and analysis of each interview, I created a member check document for each participant. The member check contained an email inviting the participants to participate in the member checking stage of data analysis voluntarily. The participants were also emailed a document with participant statements, codes, and themes that emerged from the information obtained in their interview. Participants were asked to review the member check document and respond to three questions as part of the member check:

- Does my understanding match what you described in the interview?
- Do the descriptions represent your experiences of teaching nursing students about patient safety risks from smartphone distractions?
- Did I accurately understand your experiences teaching nursing students about patient safety risks from smartphone distractions?

All of the research participants voluntarily participated and replied to the member check with a "yes" response to the three questions.

Themes Generated

After creating codes in Word, I synthesized the codes into categories and subcategories. I checked the codes against my research question concerning undergraduate nurse faculty's experiences regarding teaching about patient safety risks from smartphone distractions. Discrepant cases are instances of data that may not easily fit within categories that the researcher has created (Ravitch & Carl, 2016). Staying true to the descriptive phenomenology design, I included discrepant cases in this study.

During data analysis, I revisited the data multiple times for data that did not conform to emerging categories. I journaled alternative interpretations of categories for conflicting cases, considered the research question, and developed themes that would encompass the conflicting case. For example, the category of assessed learner needs contains a code for an observed incident with a student wanting to wear an Apple Watch in a clinical setting. The research study was about teaching patient safety risks from smartphone distractions; however, many aspects of teaching patient safety apply to smartwatches. Thus, the code was included within the category.

Lastly, I generated four themes from the data by reviewing connections among the categories and subcategories (see Tables 2-5). The four themes that emerged were as follows:

- teaching to practice safely
- meeting learner needs
- insights from teaching
- professional development

Table 2

Teaching to Practice Safely

Category	Code
Teaching about appropriate smartphone use	Directed learning activities in clinical (4) Directed learning activities in classroom (10) Teaching to excuse self from patient care area to use smartphone (3) Teaching to use smartphone on breaks (2) Teaching to excuse self to use phone (2) Looking up information in the classroom Teaching about no photography in clinical Teaching to include the patient when using smartphone at the bedside (2) Teaching about using zone phones in clinical Teaching to take phone call off the clinical unit Teaching about using reliable information sources (2) Accessing learning management system with smartphone Pharmacology and lab reference in clinical Teaching to ask permission to use phone in clinical (2) Teaching about appropriate use in clinical Pharmacology reference in clinical Looking up information in clinical Directed learning activities outside the classroom
Methods of teaching about allowing smartphones	Encourage smartphone use in classroom Encourage smartphone use in clinical and classroom Teaching with school policies
Evidence of student learning	No observation of inappropriate smartphone uses in clinical (5) Observed appropriate smartphone use in clinical (4) Student validation of appropriate smartphone use (3) Not a problem in clinical setting Witnessed student using laptop in clinical break room to look up information about patient Observed student using alternative information sources No untoward outcome related to smartphone use in clinical No situations requiring need to include patient perspective Asked faculty permission to use smartphone No students taking pictures in clinical No observation of students taking pictures of patient charts

Note. Table 2 displays categories and codes that supported the theme “teaching to practice safely.” The number of times that a response was given is represented by the number in parentheses; if no number appears, the response was given once.

Table 3

Meeting Learner Needs

Category	Code
Assessed learner needs	Observed inappropriate smartphone use in classroom (2)
	Understanding students have multiple roles (5)
	Observed inappropriate smartphone use in clinical setting
	Observed nurses watching videos at the nurses' station
	Observed student late for medication follow-up due to smartphone distraction
	Sees student need for orientation to smartphone use
	Observed student texting another student in clinical setting
	Observed incident with student wanting to wear Apple watch in clinical setting
	Observed students not wanting to go to mental health unit because no smartphones allowed
Teaching about inappropriate smartphone use	Teaching about coworkers' misconduct on Facebook
	Discussion examples of violating HIPAA
	Teaching about Facebook privacy
	Teaching about Facebook safety
	Teaching about former student misconduct
	Teaching about being distracted from the patient
	Teaching about delays to patient care
	Observed incident with students taking pictures of assignment sheet (2)
	Teaching about student's misconduct on Facebook
Methods of teaching about prohibited smartphone use	Taught no smartphone in classroom
	Teaching student behavior expectations
	Teaching with clinical policies (2)
	Teaching about consequences of inappropriate smartphone use
	Told to shut off and put phone away
	Teaching to consider the patient's observation (5)
	Teaching in clinical and classroom orientation
	Teaching about alternative information sources in classroom (6)
	Teaching in clinical orientation (2)
	Discussion with a student about repeated use in the clinical setting
	Asked to put phone away
	Told to put phone away in clinical
	Teaching to use alternative information sources (3)
	Discourage use if see student on phone

(table continues)

Category	Code
	Sees faculty variation in enforcing smartphone prohibition
	Teaching about consequences of inappropriate smartphone use in clinical (2)
	Teaching about disciplinary actions for inappropriate smartphone use
	Taught no smartphones in clinical setting
	Taught no smartphones in mental health unit (2)
Teaching about patient safety risks	Risk of wasting time
	Risk of distraction from patient care (3)
	Risk vector for germs
	Risk for distraction (7)
	Risk of distraction from patient (3)
	Risk of using unreliable information sources (2)
	Teaching about risk of distraction
	Risk of breaking therapeutic relationship with patient
	Risk of missing patient interactions
	Risk to patient safety
	Risk of improper photography (4)
	Risk for patient harm related to distraction
	Risk of not being present
	Teaching about risks of social media (2)
	Risk of interruptions in patient care
	Risk of privacy issues
	Risk of breaching confidentiality (4)
	Sees Apple watch as risk for improper photography

Note. Table 3 displays categories and codes that supported the theme "meeting learner needs." The number of times that a response was given is represented by the number in parentheses; if no number appears, the response was given once.

Table 4

Insights From Teaching

Category	Code
Faculty smartphone uses	Texting benefits (2)
	Supporting students via smartphone
Conflicted regarding smartphone use	Sees values and issues with smartphone use (6)
	Smartphone use is a personal right
	Sees faculty resistance to using smartphones in nursing education
Use of teacher belief system	Trusting students to use smartphone appropriately
	Cultural understanding about inappropriate smartphone use
	Belief of student nomophobia (3)
	Teaching about respect
	Sees no issue with appropriate use on the unit
	Sees smartphones as technological tool for education (2)
	Beliefs about when to use smartphone in clinical setting
	Sees generation where distraction is matter of no concern
	Students should be present for patients
	Sees faculty fear regarding smartphones

Note. Table 4 displays categories and codes that supported the theme "insights from teaching." The number of times that a response was given is represented by the number in parentheses; if no number appears, the response was given once.

Table 5

Professional Development

Category	Code
Preparing to teach about smartphones	MSN in Nursing Education (3)
	Trained with Certified Nurse Educator study materials
	Used school policy as a teaching resource (2)
	Used Novice to Expert model as a resource
	Used hospital policy as a teaching resource
	Legal expert spoke at faculty development day
	Teaching emerged with technology
	Use of common sense
	Used nursing experience before smartphones
	Used publications as a teaching resource (2)
	Used updates from hospital occurrences as a teaching resource
	Used guest speakers to teach about smartphone safety
	Used nursing research as a teaching resource (3)
	Used hospital websites as a teaching resource
Lack of available resources	Lack of faculty resources for teaching about smartphones (2)
	Lack of faculty orientation to smartphone use (2)
	Lack of teaching resources (3)
	Lack of written resources (2)
	Lack of faculty orientation to hospital policies
	Lack of faculty orientation to smartphone use in clinical setting
	Sees need for faculty orientation to smartphone use
	Sees a faculty need for smartphone privacy
	Lack of faculty training for teaching about smartphone safety
	Lack of faculty training
	Sees need for faculty training (2)
	Sees future of nursing education using smartphones

Note. Table 5 displays categories and codes that supported the theme "professional development." The number of times that a response was given is represented by the number in parentheses; if no number appears, the response was given once.

Evidence of Trustworthiness

To ensure rigor and validation of research findings in this study, I used Lincoln and Guba's (1986) strategies for trustworthiness with the constructs of credibility, transferability, dependability, and confirmability.

Credibility

Consistent with the proposed strategies outlined in Chapter 3, I maintained credibility by using methods such as triangulation, saturation, member checking, and reflexivity throughout this study. Triangulation occurs through different sources of information and investigators (Lincoln & Guba, 1986). Participants with varying years of experience and teaching settings were included in the study. Triangulation also occurred through the use of my dissertation chairperson, who acted as a peer reviewer during data analysis. Throughout data analysis, I debriefed with the chairperson to ensure my investigation was aligned with the research question and demonstrated epoché. Data collection continued until saturation was achieved in the study. Negative case analysis is the exploration of discrepant cases (Lincoln & Guba, 1986). During data analysis, I adjusted the codes' categories to ensure discrepant cases were included in the data analysis. I included a member checking process in this study to certify the quality of data collection and analysis. Each participant reviewed their statements, categories, and themes that emerged from the interview and provided validation of my understanding of their experiences teaching nursing students about patient safety risks from smartphone distractions. Furthermore, I engaged in reflexivity throughout the research process by

maintaining a research log. In the log, I documented my thoughts, emotions, and notes to ensure modifications and decisions were accounted for in the study.

Transferability

The use of thick descriptive data aids readers to see the context in which the data findings relate to one another (Lincoln & Guba, 1986). I used open-ended interview questions, so participants were able to provide rich narratives related to the phenomenon. I used question probes when it was necessary to gather supplementary information about a participant's experience. Since it was not feasible to include quotations of narrative to demonstrate all of the participants' experiences, I used thick, descriptive data in my codes to help the reader understand the context of the participants' lived experiences.

Dependability

Lincoln and Guba (1986) advocate for research dependability by using an audit trail when conducting qualitative research. During the interviews, I kept field notes to note evidence provided in the participant responses that required a follow-up question probe. I hand-coded each participant's interview and engaged in journaling after each interview was conducted. The reflective journal was included in the research log. Throughout the research study, I documented steps taken and included descriptions that supported the research design, data collection, and data analysis in the research log.

Confirmability

Since the researcher is the primary instrument in qualitative research, it is essential for confirmability that the researcher puts forth efforts to reduce bias (Shenton, 2004). Confirmability was addressed in this study through the deliberate act of

bracketing and setting aside my presuppositions about the phenomenon. I recorded my decisions, thoughts, and feelings throughout the research process. I worked with my dissertation committee during data analysis to challenge my thinking and substantiate my research findings. I made a conscious effort to listen to the participants' experiences and did not include my experiences or thoughts during the interviews.

Results

The research question addressed in this study was: "What are the lived experiences of undergraduate nurse faculty regarding teaching patient safety risks from smartphone distractions in prelicensure nursing programs in New York State?" The participant interviews yielded rich data to answer the research question. Four themes emerged from the data: teaching to practice safely, meeting learner needs, insights from teaching, and professional development.

Theme 1: Teaching to Practice Safely

The theme, teaching to practice safely, addressed participants' experiences of incorporating smartphone use when teaching in the classrooms and clinical settings. Participants described teaching appropriate smartphone use, teaching methods about allowing smartphones, and evidence of student learning. Participants described using smartphones for directed learning activities in clinical and classroom settings. For example, Participant 1 shared an experience from teaching in the clinical setting, "I actually encourage the use of smartphones, like in post-conference when we're talking about medications. I had my clinical group download the Micromedex app." Participant 2 shared another experience, "I encourage, I don't discourage them in the classroom. I

know they're going to have them out. So sometimes I'll use it to my benefit and say, why doesn't somebody look this up?"

Participants described experiences teaching professional behaviors to nursing students regarding smartphones. Experiences focused on teaching students how to use smartphones appropriately in the clinical setting. Participant 2 described teaching with the school policies, "if the nursing program has a policy on cell phone usage and it's there, I'll read it, and I'll reiterate it to my students." Participant 4 stated,

> My students know if they, if they need to go, if they're pulling out their phone from their pocket, it's gotta be an emergency, and they need to step out of the room. They need to politely excuse themselves from the patient. Say, I'll be right back; I have to take this. And they need to step off of the unit and fix whatever it is.

Participant 5 shared teaching students about appropriate smartphone use and stated, "if you have to make, you know, private phone calls or personal phone calls that you do so in designated staff areas. You know, on break or dinnertime, whatever that case may be." Participant 6 described including the patient when using the smartphone at the bedside and stated,

> I explained to them that it is always, you know, a good practice to, kind of like anticipatory guidance, and say, would you mind if I did use my phone? I do have a Davis drug app on my phone to look up some medication. That's what I'm using my phone for. So that the patient is in on it. The patient understands why that

> phone is out there. I think if you make the patient a part of this whole process, there's less fear.

Participants also described their experiences of knowing when students had learned appropriate smartphone use. The experiences provided validation for the participants' teaching methods. Participant 1 described an experience in the clinical setting with students,

> I had students tell me; I need to go in the break room and use my phone for a minute. So, the students have come to me to explain that they will be off the unit for a few minutes so that they can use their phone in the break room so that I'm not looking for them, which is I think is an appropriate response.

Participant 5 shared experiences with students in the clinical setting using smartphones, "if they do it, you know, they go over, sit at the desk, do what they need to do, and then they finish up. So, it's kind of nice to see that." Evaluation of student learning validated those teaching methods were appropriate and relevant to teaching students to safely practice using smartphones.

Theme 2: Meeting Learner Needs

Another theme that emerged from the data was meeting learner needs. Participants described experiences of nursing students inappropriately using smartphones, requiring a need for teaching. Participant 7 explained, "there was an incident where a student pulled out their cell phone, and I saw her texting, and she was texting another student, like in the other, you know, area wherever." Participant 3 stated, "happened

twice where somebody had their cell phone out during when they were supposed to be working."

Most of the participants described experiences teaching in classrooms and clinical settings where smartphones are not permitted. Participants shared their strategies for teaching about prohibited smartphone use. Methods included teaching about policies prohibiting smartphone use, teaching about the consequences of inappropriate smartphone use, and teaching to consider the patient's observation of the student using the smartphone. Participant 4 stated,

> when it comes to like first offense, second offense, you know, I usually will give my students a verbal warning. And then the second offense is a written warning and the written warning with the expectation of, if this happens again, we're going to meet with the department chair, and it can be brought to peer, which would be possible dismissal from the program.

Participant 1 stated, "it's part of the student conduct at the school, not to have their cell phones in use, in class, in the skills lab, or in the clinical setting." Participant 6 taught students,

> if you were the patient and you saw a phone coming out while they're in the patient's room, and the patients have heard, you know, many stories about their confidential information getting out. Imagine what it would be like to be in a vulnerable position and see a student come in with a phone, and this patient has no idea about what you're doing.

Participants described the patient safety risks associated with nursing students' use of smartphones. In the interviews, participants most often described teaching students about the risks of distractions from using smartphones in nursing practice. Additional risks described by participants included the risk for germs, the risk of inappropriate photography, the risk of breaking the therapeutic relationship with patients, and the risk of using unreliable information sources from the smartphone. Participant 1 stated, "it's a vector for germs. So, you know, the students need to know to like wipe their phones down at the end of the clinical day." Participant 4 stated, "safety is like, you know, that's the overall indicators, the overall key. And that's one of the reasons why we try to eliminate the use of smartphones is because it can be a distraction." "Distraction is the biggest, biggest fear though, you know, where they're not paying attention to their patients because they're looking at their phones" (Participant 2). Participant 5 stated, "there's a massive safety risk with cell phone use and us being tied to those cell phones and being so available."

Participants commonly shared lived experiences of situations where they witnessed inappropriate smartphone use. The participants used these experiences as teaching examples with students. Participant 1 shared, "I worked with some nurses who used their phones inappropriately at the bedside taking pictures of patients and then posted them. And those nurses were brought up on professional misconduct charges and terminated from the hospital." Participant 2 stated,

> Nurses that have already graduated that maybe graduated from the school that I was teaching. And then I see them in practice, and they do something horrific

> with their cell phones in the clinical setting. And then using those as examples to say, this is what this nurse did.

Theme 3: Insights From Teaching

Participants provided information from their teaching experiences that revealed insights gained as a result of their experiences. Insights from teaching nursing students about patient safety risks from smartphone distractions varied among the participants. Some participants described using smartphones to communicate with students and the inner conflict that arose from use. Participant 2 described experiences in the clinical setting,

> to some extent, we tell them not to take their phones out in front of patients and really just use their phones for break time, but then I'm trying to access them via phone. So, I don't know if that's really fair either.

Participant 4 shared, “we want perfect patient safety. We want perfection, so what's good? What's bad? What’s okay? What's not? What's acceptable? How much, you know, device attention you give? What policies do you put in place?”

All but one of the participants described teaching experiences with smartphones that shaped their belief system. The experiences influenced participant beliefs about student conduct and opportunities to use smartphones more in nursing education. Two participants described experiences with student nomophobia. Participant 2 stated,

> I think the biggest fear is, you know, students feel like they're never away from their phone. So, all of a sudden, they got to pop their phone in their locker for

> their clinical day. And that doesn't seem normal to them. They can't function because their phone's not on them.

Similarly, Participant 4 stated,

> When we tell the students they can't have their cell phones in the mental health unit, and we tell them to leave it in their cars, you should see the looks on their faces. Like I'm ripping a kidney from them.

Two participants described the value of smartphones as a technological tool for nursing education. Participant 3 shared,

> I've always been on the side of, we have these wonderful, you know, tools of technology and wonder why we don't incorporate that into education for use. You know, we tell students that you can't use them in clinical, you know because it's a distraction.

Participant 7 shared a similar insight about using smartphones in nursing education, “I think we should find out, use it more, and I don't know why we don't. I think there's a fear factor personally, with nursing faculty.”

Participants shared teaching experiences where the risk for distraction was not realized by the students and created concern on behalf of the faculty. Participant 5 stated,

> sometimes I feel that because we have such a generation that knows nothing else, they don't think it's that big of a deal. Like it's not that big of a distractor. It's not that it doesn't, you know, pull them away from anything. When in reality, it really does. They just don't know how to see it yet.

Participant 2 shared,

> from a patient perspective, it's really important that the patient knows that they are the center of attention and that they really only get a short period of time with the nurse. And so, if the nurse is on her phone, that's just, it's not going to look like they're respecting the time that you have with your patient.

Theme 4: Professional Development

Based on the teaching experiences the participants shared, it was interesting to hear the participants' responses when asked, "what training or education have you experienced that assisted you in teaching smartphone safety to nursing students?" Some participants felt prepared to teach about smartphone safety and described educational preparation, nursing experiences, and nursing research and publications as positive supports for teaching. Participant 6 experienced professional development, "on a faculty development day, there was a legal expert that came in to talk to us about the violations related to smartphones." Additionally, Participant 1 described preparing for the Certified Nursing Educator (CNE) exam from the National League for Nursing (NLN), "I obtained my CNE certification through NLN, and there was some information in the NLN educational book that I was reading to prep for that test, about you know, smartphone use among nurses and facilities."

While some participants felt prepared to teach nursing students about smartphone safety, other study participants described a lack of teaching resources and faculty training. Participant 2 described a lack of orientation, "the newest job that I have does not give a very good orientation. And I don't even know if they have a cell phone policy, and I'm not aware of it if they did." Participant 5 described a similar experience, "even at our

orientation for, you know, whatever facility you're going to work for, you know, they don't really talk about it, kind of in that formal way at orientation." Some participants shared a need for faculty development related to smartphone use. Participant 5 stated, "I still think these types of, as our technology continues to just advance and advance and advance, I think these are topics of conversation that really need to be incorporated in orientation." Participant 7 stated, "I never honestly had anything formal…would be to their benefit… because I know the smartphones can do a lot more than we're using them for, quite honestly."

Summary

In this chapter, I provided the data analysis for this qualitative, descriptive phenomenology study. The research question addressed in this study was, "What are the lived experiences of undergraduate nurse faculty regarding teaching patient safety risks from smartphone distractions in prelicensure nursing programs in New York State?" I used an interview guide to ensure the same questions were asked of all participants. The results from telephone interviews with seven participants revealed four themes. The theme of teaching to practice safely emerged from the participants' descriptions of teaching experiences, teaching professional behaviors to nursing students when using smartphones, and knowing when students had learned appropriate smartphone use. The theme of meeting learner needs emerged from participant experiences teaching in settings where smartphones were prohibited, including the patient's observation in teaching methods. The participants commonly taught about the risk for distraction as patient safety risks associated with nursing students' use of smartphones, drawing upon their

experiences of situations when smartphones were not used appropriately by nurses or students. The insights from teaching theme emerged from participant descriptions of examples when their belief system was influenced by student conduct, creating a concern for patient safety. Lastly, while some participants in the study described feeling prepared to teach about smartphone safety, others described a lack of available resources; this led to the theme of professional development. Chapter 5 will include an interpretation of findings, study limitations, recommendations, and implications for future research.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

My purpose in conducting this qualitative, descriptive phenomenology study was to identify and report undergraduate nurse faculty lived experiences regarding teaching patient safety risks from smartphone distractions in prelicensure nursing programs in New York State. Nurses' smartphone distractions disrupt patient care and threaten patient safety (Cho & Lee, 2015). The information obtained from this study can assist nurse educators with strategies for teaching responsible smartphone use to prelicensure nursing students. My research findings may lead to positive social change by raising awareness of the pedagogy required to ensure that prelicensure nursing students understand how to limit smartphone distractions.

I conducted telephone interviews with seven undergraduate nurse faculty who taught in prelicensure nursing programs in New York State to explore their experiences teaching patient safety risks from smartphone distractions. My study's salient findings contain four themes that described the lived experiences of undergraduate nurse faculty regarding teaching patient safety risks from smartphone distractions. The themes were teaching to practice safely, meeting learner needs, insights from teaching, and professional development. In this chapter, I present the interpretation of findings, limitations, recommendations, and implications of the study.

Interpretation of the Findings

In this study, I used the theoretical lens of Husserl's transcendental phenomenology (1913/2013) to understand the pure essence of the phenomena of

teaching students about patient safety risks from smartphone distractions. Throughout this study, I suspended my personal views, so that the participants' lived experiences represented reality and did not contain my interpretations of the participants' experiences (Fink & Husserl, 1995). Through the act of epoché and the use of open-ended interview questions, the participants' descriptions of their experiences allowed me to transcend and understand the phenomena.

Teaching to Practice Safely

My study's findings aligned with the peer-reviewed literature related to smartphones, smartphone distractions, and teaching patient safety in nursing. Flynn et al.'s 2018 study of nurses revealed that smartphones were perceived as beneficial for accessing information in the clinical setting. The theme "teaching to practice safely" consisted of participants' descriptions of providing directed learning activities to nursing students. The participants described experiences that required students to access information on their smartphones. In other peer-reviewed literature, Vearrier et al. (2018) recommended sharing information with patients about how the smartphone is used when in the patient's presence. Participants in the study described teaching students to ask the patient for permission to use the smartphone in the patient's company. Teaching students to ask patients permission to use the smartphone is an example of teaching a patient-centered, integrated patient safety activity. This strategy aligns with the theoretical framework for this study, the PCSM, which combines safety and the patient's perspective in student learning experiences (St. Onge & Parnell, 2015). Participants in my study also

described observing nursing students appropriately use smartphones in the clinical setting and thus validated participants' teaching methods.

Meeting Learner Needs

In the literature, text messages and non-work-related phone calls (Vearrier et al., 2018), as well as looking up information on the internet (Cho & Lee, 2015) are significant smartphone distractions for nurses in healthcare settings. Nursing students use smartphones for personal reasons in the clinical setting (Zarandona et al., 2019). Participants in this study described similar experiences with students inappropriately using smartphones in the clinical setting, requiring a need for teaching. Many participants in the study described teaching strategies about prohibited smartphone use in the classroom and clinical settings. A finding not previously present in the literature involved methods of teaching about prohibited smartphone use. Participants in this study described strategies, including teaching about policies prohibiting smartphone use, teaching about the consequences of inappropriate smartphone use, and teaching to consider the patient's observation of the student using the smartphone.

The peer-reviewed literature addresses issues related to smartphone use in the clinical setting. Topics presented in Chapter 2 related to patient safety include risks for pathogen transmission, risks of inappropriate photography, risks of negative patient perceptions, and risk of distractions. Consistent with the literature, all of the participants in this study described experiences teaching nursing students about patient safety risks of distraction from smartphone use. Also aligned with the literature, the participants

identified experiences teaching students about the risks for germs, risks of inappropriate photography, and risks of negative patient perceptions.

A new finding not present in the literature involves participants using situations in which they witnessed inappropriate smartphone use as teaching examples. This commonly shared lived experience differs from the literature, in which teaching patient safety occurred in simulation settings (Hayes et al., 2017) or via safety modules and group work (Marchi & Dolansky, 2017). Participants in this study used real examples of inappropriate smartphone use from their teaching experiences to help students understand what not to do with smartphones in the clinical setting.

Insights From Teaching

Participants in this study shared information from their teaching experiences that generated insights. Some participants provided information that inner conflict arose from using smartphones to communicate with students. Almost all of the participants described teaching experiences with smartphones that shaped their belief system. Participants identified experiences in which their teaching experiences influenced their personal beliefs about student conduct, student nomophobia, and student awareness of distractions. The insights from teaching theme aligns with Kolb's experiential learning theory. In Chapter 2, I discussed how Kolb's experiential learning theory supports learning in the experience of relearning, challenging the learner's beliefs about a topic to integrate new ideas while resolving conflicts or differences (Kolb & Kolb, 2011). In this study, the experiential learners were the participants. Participants in this study described gaining insights from their teaching experiences. Experiential learning consists of a cycle wherein

the learner is transformed by having an experience, reflecting on the experience, modifying behaviors, and applying the changed behaviors (Kolb, 1984). The process of experiential learning was described in a statement by Participant 2:

> to some extent, we tell them not to take their phones out in front of patients and really just use their phones for break time, but then I'm trying to access them via phone. So, I don't know if that's really fair either.

The experiential learning theoretical framework supports insights from teaching. The participants gained wisdom from their experiences that transformed their pedagogical practices of teaching patient safety risks from smartphone distractions.

Professional Development

In Chapter 2, I presented professional tools for teaching patient safety in nursing education. The tools included the WHO Patient Safety Curriculum Guide (WHO, 2011), QSEN competencies (Cronenwett et al., 2007), and TeamSTEPPS 2.0 (AHRQ, 2019). None of the participants in this study cited the tools as part of the training or education that helped them teach smartphone safety to nursing students. Nonetheless, some participants described feeling prepared to teach about smartphone safety and cited their educational preparation, nursing experiences, and nursing research as positive teaching supports.

A new finding not previously seen in the literature is a lack of teaching resources and faculty training to teach nursing students about smartphone safety. Despite some participants who felt prepared, other participants in this study described a lack of teaching resources and faculty training. Additionally, participants described a lack of orientation

and a need for faculty development related to smartphone use. Roney et al. (2017a) found that faculty had a heightened awareness of patient safety after receiving a 45-minute educational offering related to patient safety concepts. Robinson et al. (2018) determined that students improved teamwork attitudes after faculty were trained with a TeamSTEPPS® Master Training course and the Lean Six Sigma process. My study concluded that specialized orientation and professional development for teaching patient safety related to smartphones were considered as a professional development need and rarely occurred. The demand for professional development provides an opportunity for faculty training using professional tools for teaching patient safety in nursing education.

Limitations of the Study

There were several limitations to my study. First, my study included undergraduate nurse faculty with various years of teaching experience and experiences teaching in different settings. Their experiences may not represent the experiences of all undergraduate nurse faculty. This study involved a qualitative approach, and thus, information from this study is not generalizable. As an undergraduate nurse faculty member, my personal experiences potentially created bias during the interviews and data analysis. To address this potential bias, I used journaling throughout the study to catalog my thoughts, perspectives, and decisions. Additionally, I used the interview questions to ensure that I asked the same questions of each participant.

Another limitation of my study was my supervisory faculty role and role as vice president of a professional nursing organization. Research participants may have been

familiar with my name or position. Knowledge of these roles may have influenced participant responses.

Furthermore, data collection occurred during the COVID-19 global pandemic. During this time, the chaos of rapidly changing work processes and navigating online teaching required nurse faculty to be more flexible and understanding of student challenges (White & Ruth-Sahd, 2020). These circumstances may have influenced the participants' perspectives regarding past experiences.

Recommendations

A lack of literature related to teaching patient safety risks from smartphone distractions led to this study. I conducted a qualitative study to identify and report the undergraduate nurse faculty's lived experiences regarding teaching patient safety risks from smartphone distractions in prelicensure nursing programs in New York State. Future studies with a quantitative approach involving a larger population are recommended to extend knowledge about teaching patient safety risks from smartphone distractions.

Faculty resources available to support teaching patient safety to nursing students include the QSEN competencies (Ross & Bruderle, 2016), the *WHO Patient Safety Curriculum Guide* (Mansour et al., 2015), and TeamSTEPPS 2.0 (Robinson et al., 2018). Informatics is the least taught QSEN competency (Altmiller & Armstrong, 2017). Less than half of nursing students in their final year of study achieved the minimal passing threshold for patient safety (Levett-Jones et al., 2020). After faculty were trained with a TeamSTEPPS® Master Training course and the Lean Six Sigma process, nursing students' teamwork attitudes, an integral component of patient safety, improved

(Robinson et al., 2018). Previous research conducted and documented in the literature about teaching patient safety was not specific to patient safety risks from smartphones and lacked the faculty perspective. This study's results contribute to knowledge of how undergraduate nurse faculty teach students how to limit patient safety risks due to distractions from a smartphone.

Another recommendation for further research involves education and training related to smartphones for undergraduate nurse faculty. Despite the resources available in the literature for teaching patient safety, participants in this study identified a need for professional development, orientation, and resources for teaching with and about smartphones. Research is needed to identify effective ways to support undergraduate nurse faculty's professional development needs related to smartphones and patient safety.

The final recommendation for additional research is to explore the use of real teaching examples involving situations in which faculty witnessed inappropriate smartphone use with students. In this study, participants described using instances of improper photography and other professional misconduct to teach students what not to do with smartphones in the clinical setting. Conducting interviews with faculty to explore this phenomenon further may contribute knowledge about additional pedagogical methods related to teaching about patient safety risks from smartphone distractions.

Implications

Smartphone distractions threaten patient safety and disrupt patient care (Cho & Lee, 2015, 2016; Di Muzio et al., 2019; McNally et al., 2017; Zarandona et al., 2019). Nursing students learn how to prepare for professional practice from the faculty who

teach them (Sparacino, 2016). This study addressed a gap in the literature and provided new knowledge for understanding undergraduate nurse faculty's lived experiences and how they teach prelicensure nursing students about patient safety risks from smartphone distractions. Information from this study identified how nurse faculty teach students to mitigate risks to patient safety, prevent distracted nursing care, and practice safely in the clinical setting.

This research study addressed a real problem, substantiated in the literature, and may promote positive social change. This study revealed what exists as realism (Husserl, 1931/2013) through the use of transcendental phenomenology. Using reflection and narrative, participants in the study described the true essence of the phenomena of teaching patient safety risks from smartphone distractions. Participants also described components of experiential learning in this study. Challenging beliefs, gained insights, and modification of behaviors (Kolb, 1984) were revealed in the participants' experiences.

My research study has the potential to impact positive social change by serving as a potential foundation for training, education, and orientation for undergraduate nurse faculty teaching prelicensure nursing students about patient safety risks from smartphone distractions. This study also brings awareness of the pedagogy required to ensure that prelicensure nursing students understand how to limit distractions from smartphones. Providing prelicensure nursing students with professional behaviors and skills necessary to prevent smartphone distractions can impact patient safety.

As smartphones become more integrated with nursing education and clinical care, nurse faculty will require professional development to continue learning to teach with and about smartphones. Additionally, as more patients use smartphone applications to manage their health, nursing students' need for education about smartphones and patient safety will continue to grow. Because of these demands, nurse education administrators can recognize the importance of providing resources and support to faculty so that they can teach nursing students to assist patients with appropriately using their smartphones to manage their health.

Conclusion

My study identified and reported the lived experiences of undergraduate nurse faculty teaching patient safety risks from smartphone distractions. Using a variety of pedagogical methods, faculty teach students about both appropriate and inappropriate use of smartphones. Findings from my study illuminate the need to support nurse faculty professional development to teach with and about smartphones so they can, in turn, teach nursing students to practice safely with smartphones. Positive social change may be fostered by creating training, education, and orientation programs for undergraduate nurse faculty related to teaching prelicensure nursing students about patient safety risks from smartphone distractions.

Smartphones are prevalent in clinical settings, and their use in nursing education is growing. As future frontline nurses responsible for keeping patients safe, prelicensure nursing students must be adequately prepared to manage patient safety risks from smartphone distractions. Explicit education and continuing professional development

opportunities that support nurse faculty to teach with and about the smartphone are integral to efforts to ensure that prelicensure nursing students practice safely when caring for patients.

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Appendix: Interview Guide

Introduction

Thank you for taking the time to participate in this interview today.

This interview is being audio recorded. As a reminder, at any time, you may stop the interview or decline to answer a question. Participating in this interview would not pose any risks beyond those of typical daily life. There is no benefit to you; however, your experiences may potentially promote positive social change by bringing awareness to the pedagogy required to ensure prelicensure nursing students understand how to limit distractions from smartphones. Transcripts with identifiers redacted will only be shared with three faculty members at Walden University. Interview data will be kept for at least five years, and then will be destroyed.

Opening Statement

The purpose of the study is to identify and report the lived experiences of undergraduate nurse faculty regarding teaching patient safety risks from smartphone distractions in prelicensure nursing programs in New York State. As an undergraduate nurse faculty, you provide a unique perspective and experiences to aid in exploring how nurse faculty are teaching patient safety risks from smartphone distractions. Let us begin the interview.

Interview Questions

- How long have you been teaching pre-licensure nursing students?
- Describe the settings you have taught pre-licensure nursing students in the last 2 years.

- On a typical day, how are students using smartphones in your nursing classroom?
- On a typical day, how are students using smartphones in the clinical setting?
- What are the greatest risks for nursing students using smartphones in the clinical setting?
- What have you found to be helpful in teaching students about safety risks from smartphone use?
- How have you included the patient perspective when teaching students about safety risks from smartphone use?
- What have been the greatest lessons learned from teaching students about safety risks from smartphone use?
- What resources have you used to inform your teaching practices about smartphone safety?
- What training or education have you experienced that assisted you in teaching smartphone safety to nursing students?
- Is there anything else you would like to share that I did not cover in this interview?

Closing Statement

That question concludes the interview. Thank you for taking the time to participate in this interview and sharing your experiences with me.