2023

Experiences of New Graduate Nurses who Transitioned to Practice using Virtual Conferencing Software

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This is to certify that the doctoral dissertation by

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has been found to be complete and satisfactory in all respects,
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the review committee have been made.

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Walden University
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Abstract

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by

Sara E. Moran

MSN, College of Saint Elizabeth, 2014

BSN, Rutgers University, 2009

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Nursing Education

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Abstract

Orientation is a pivotal moment for new graduate nurses as they transition into the acute care setting. The COVID-19 pandemic changed in-person orientation to virtual orientation, but little is known about the experiences of new graduate nurses who attended the virtual orientation process. The purpose of this qualitative interpretive descriptive study, guided by Duchscher's theory and the technology adaptation model 2, was to understand the experiences of new graduate nurses who transitioned to practice utilizing video-based conference software for nursing orientation. Twelve new graduate nurses were interviewed using virtual conferencing software. Data were analyzed using interpretive description and then were uploaded into NVivo. The findings revealed five main themes: (a) transition to practice was difficult but manageable, (b) virtual orientation helped me learn, (c) strong connections were formed, (d) utilizing virtual conferencing software was challenging but helpful, and (e) virtual orientation was most helpful to learn theoretical knowledge, and in-person orientation was best to learn skills. Further research is needed to determine how virtual orientation can be modified to increase interactive learning experiences via virtual conferencing software, and how other healthcare facilities can utilize virtual orientation effectively. Understanding the experiences of new graduate nurses who used virtual conferencing software can facilitate positive social change by helping organizations improve their virtual orientation practices, improve orientation learning experiences for new graduate nurses, and decrease the theory-practice gap experienced by new graduate nurses.

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Dedication

I am honored to dedicate my research study to God, who gave me the strength and faith to keep going. I further dedicate my research study to "my boys," Jay, Connor, and Colton, who have been my pillars of strength and motivation. You three are the reason I wake up every morning and the reason I will always aim for the moon and stars. Connor and Colton-I hope someday you look back on this time and remember that when I couldn't play with you, I had so much more in mind for our future. I love the three of you more than words can express. I hope my journey shows you that you can accomplish anything you set your mind to when you believe in yourself and work for it. To my father- and mother-in-law, Debbie and Larry, thank you for always pitching in and staying extra to ensure that my deadlines were met and my boys were always taken care of when I could not give them my full attention. You are my village. Finally, I dedicate this study to my incredible parents, Mark and Dayle, who provided me with the foundation I needed to succeed in life and whose love for me knows no bounds. I am grateful for your constant love and support. I would not be who I am today without both of you. I am forever grateful to all of you for supporting me and allowing me to make my dreams come true.

Acknowledgments

I would like to take this moment to express my deepest gratitude to my family and friends who have inspired me, loved me, and supported me in so many ways.

Thank you to my committee chair Dr. Leslie Hussey who supported me throughout the journey. Your encouragement and guidance inspired me to keep going, and your knowledge and expertise guided me to elevate my work.

To Dr. Donna Bailey, I appreciate your patience throughout this journey. Your knowledge of qualitative research is profound, and so many elements of this study are attributed to your advice.

Also, thank you to Dr. Long for your additional support and guidance as the URR for my study,

Finally, I would like to take a moment to acknowledge my fellow student, colleague, and friend, Kristine Hilton. When I met you at our first residency, I had no idea how much you would become part of my journey. I am grateful that we have taken every class together and become friends even though we are many miles apart. You have been my sounding board throughout the entire process, and I could not have accomplished my doctorate without you.

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Chapter 1: Introduction to the Study

New graduate nurses experience a theory-practice gap as they transition from students to professional nurses working in the acute care setting. The theory practice gap can often be mitigated if the new graduate nurse has a proper nursing orientation (Laflamme & Hokra, 2020; Lee & Sim, 2020; Rush, et al., 2019; Trossman, 2017). A theory-practice gap is the inability to transfer theoretical knowledge learned in school into applicable practice in the workplace (Lee & Sim, 2020). The theory-practice gap that new graduate nurses experience when transitioning to their professional acute care role may be reduced with a meaningful nursing orientation that provides educational and clinical support.

Traditionally, new graduate nursing orientation for acute care roles have been conducted in person (Laflamme & Hokra, 2020; Rush et al., 2019; Trossman, 2017). In-person nursing orientation has helped new graduate nurses develop their skills by working with educators and preceptors through hands-on skill sessions and immediate competency verification (Chan & Burns, 2021; Lee & Sim, 2020; Monaghan, 2015). However, due to social distancing restrictions during the COVID-19 pandemic, new graduate nurses in the acute care setting could not meet in person to complete classroom nursing orientation. Many acute care facilities began using virtual conferencing software to conduct orientation virtually (Noza-Margallo et al., 2021; Oducado,2021; Weiss et al., 2021). New graduate nurses could no longer connect to complete skills and competency sessions in person. They could not connect with their educators and peers for in-person support and networking (Noza-Margallo et al., 2021; Oducado, 2021; Weiss et al., 2021).

The implications of changing orientation processes from in-person to virtual conferencing software are unknown. More information was needed to describe and understand the implications of virtual orientation on new graduate nurses and their transition to practice. Studying virtual orientation processes from the perspective of the new graduate nurse can improve orientation processes. The purpose of my study was to understand the experiences of new graduate nurses who transition to practice utilizing video-based conference software for nursing orientation. Understanding what new graduate nurses feel they need from virtual orientation may help reduce the theory-practice gap and successfully help the new graduate transition to practice.

Chapter 1 addresses the background of the current literature and gap in knowledge, the problem statement, the purpose of the study, the research question, the frameworks for the study, and the nature of the study. Key concepts, study assumptions, scope and delimitations, limitations, and the significance of the study are also discussed.

Background

New graduate nurses have traditionally transitioned from school to practice in the acute care setting by starting with a mandatory formalized orientation at the acute care facility in which they are employed (Laflamme & Hokra, 2020; Rush et al., 2019). It is well documented that new graduate nurses often have difficulty transitioning to practice from academia (Chan & Burns, 2021; Lee & Sim, 2020; Monaghan, 2015). Current literature shows that nursing orientation is a standard educational process in the acute care setting (Berkow et al., 2008; Brown et al., 2018; Maria et al., 2017; Trossman, 2017; Wildermuth et al., 2020). Nursing orientation is a process used to provide initial training

and information while assessing clinical staff competence relative to job responsibilities and the organization's mission and goals (The Joint Commission, 2022). Nursing orientation assists new graduate nurses as they transition to practice and helps them to enculturate into the expectations of professional nurses at their organization. The COVID-19 pandemic disrupted traditional in-person orientation due to social distancing measures mandated by the Centers for Disease Control and Prevention (CDC; 2020). Many hospitals began utilizing virtual conferencing software like Zoom or Microsoft Teams to conduct their orientation which changed the format and curriculum for nursing orientation in many organizations (Ocudado, 2021; Smith et al., 2022). Nursing orientation is a pivotal moment for new graduate nurses as they transition to practice (Chan & Burns, 2021; Lee & Sim, 2020; Monaghan, 2015). My study was needed to help understand and describe the new graduate nurse's experience using virtual conferencing software for virtual orientation. Understanding the needs of the new graduate nurse and what they need from virtual orientation may help reduce the theory-practice gap and successfully help the new graduate transition to practice.

Problem Statement

Despite the recent decrease in social distancing mandates, virtual orientation remains prevalent in acute care hospital facilities. There are very few peer-reviewed qualitative studies in the literature about the use of virtual conferencing software to present nursing orientation to new graduate nurses. New graduate nurses are a unique population that requires education and training to promote success as they begin working

in the acute care setting (Berkow et al., 2008; Brown et al., 2018; Maria et al., 2017; Wildermuth et al., 2020).

Current literature shows a theory-practice gap between academia and nursing practice at acute care facilities which requires nurses to get additional support in translating their knowledge into practice (Chan & Burns, 2021; Lee & Sim, 2020; Monaghan, 2015). Hands-on skill sessions and practical case studies have been beneficial to new graduate nurses as they transition to practice (Chan & Burns, 2021; Lee & Sim, 2020; Monaghan, 2015). Hands-on skill sessions allow new graduate nurses to practice and hone the clinical skills they need to succeed in practice (Chan & Burns, 2021; Lee & Sim, 2020; Monaghan, 2015). Mastering competencies are crucial to the success of new graduate nurses. It has been shown that the inability to master nursing competencies related to technical skills, critical thinking, communication, teamwork, role definition, and professionalism are some of the main reasons nurses leave their job within their first year of nursing (Song & McCreary, 2020). New graduate nurses must possess competency in cognitive, psychomotor, and affective domains to be successful in their role (Song & McCreary, 2020). However, new graduates who participate in virtual orientation using virtual conferencing software do not get the ability to practice in-person skills sessions. Therefore, it is unclear whether virtual orientation meets the specific needs of new graduate nurses, especially concerning the lack of hands-on practice when utilizing virtual conferencing software. More research needs to be done to understand and describe the experience of the new graduate nurse utilizing virtual orientation during their transition to acute care practice to see if virtual orientation meets their needs. Thus, the

research problem this study addressed was whether new graduate nurses believe that virtual orientations to the practice setting meets their needs to successfully transition to practice.

Purpose of the Study

The purpose of this interpretive descriptive qualitative study was to understand new graduate nurses' virtual orientation experiences as they transition to practice in acute care facilities. As such, I described the experiences of new graduate nurses participating in virtual orientation as they transition to practice in the acute care setting. The concept of interest was the new graduate nurse's perspective and the experiences surrounding using virtual technology for nursing orientation in the acute care setting.

Research Question

The research question of this interpretive descriptive qualitative study was:

What are the experiences of new graduate nurses transitioning to the acute care facility using virtual orientation?

Theoretical Framework

Duchscher's theory of transition to practice focuses on the transition to practice during the first year of nursing. Duchscher's theory fits my study and research question because they align the transition to the practice period with the learning needs of the new graduate in their first year of nursing practice. Duchscher's theory describes transition shock in relation to the new graduate nurse's roles, responsibilities, knowledge, and relationships (Duchscher, 2008). The theory explores how common feelings of transitional periods like confusion, doubt, loss, and disorientation can lead to transition

shock (Duchscher, 2008). The typical timeline of the new graduate's transition to practice was vital to my research. I considered the point in the year where I interviewed the new graduate nurse because it may have affected their responses to my interview questions. This framework also explores how new graduate nurses grow throughout their first year of nursing. As the new graduate nurse moves from "doing" to "being" to "knowing," they grow as a person and a nurse, which could enhance their experience during their transition to practice (Duchscher, 2008).

While Duchscher's framework helps understand the new graduate experience, the TAM 2 guided me in exploring how nurses perceive and utilize virtual conferencing software during orientation. The TAM 2 explains why a person may adopt or reject new technology based on perceived usefulness, perceived ease, and social and cognitive factors (Venkatesh & Davis, 2000). Applicability and outcomes are essential in nursing, so virtual orientation technology needs to be applicable and meet the skills and practice needs of the new graduate nurse (Ocudado, 2021, Smith et al., 2022). The TAM 2 model explains how technology, information systems, and the environment affect how users learn and apply knowledge. More detail on Duchscher's theory of transition to practice and the TAM 2 is presented in Chapter 2.

Nature of the Study

I explored the new graduate nurse's experiences participating in virtual orientation. Interpretive descriptive qualitative research is conducted to understand the experiences of research participants in a practical way (Doyle et al., 2020). Descriptive research focuses on the participants and their experience rather than the deeper theoretical

context (Doyle et al., 2020). Interpretative description then aims to take the deeper theoretical context and apply that knowledge to practice (Thompson-Burdine et al., 2021). The research paradigm of this interpretive descriptive qualitative study was based on constructivism, and the thought process that multiple realities related to a concept can exist. It was essential to understand that there may be both similar and varied perspectives of individuals participating in virtual orientation to the acute care setting. The perspectives of the new graduate nurse participating in virtual orientation can influence how virtual orientation is conducted and how well the new nurse transitions to practice.

The experiences and perspectives of participants in qualitative research can be used to understand concepts and apply that knowledge to practice. Qualitative research is commonly used in nursing and healthcare research for its applicability to practice (Doyle et al., 2020). A qualitative study was appropriate for this study since there is little research on the experiences of the new graduate nurse taking virtual orientation. Using qualitative methodology may help nurse leaders and educators understand the virtual orientation experience for new graduate nurses, which can help key stakeholders improve the orientation and transition to practice experience. Understanding the experiences of new graduate nurses who have used virtual conferencing software technology for virtual orientation can promote positive social change in the healthcare setting for new graduate nurses. The descriptive qualitative method using semistructured interviews was used to collect data from new graduate nurses. Nurses were recruited through purposeful sampling.

Definitions

New Graduate Nurse: A nurse who has graduated from a nursing school and has 12 months or less of nursing experience (ANCC, 2020).

Nursing Orientation: A process used to provide initial training and information while assessing the competence of clinical staff relative to job responsibilities and the organization's mission and goals (The Joint Commission, 2022).

Onboarding: The processes in which new hires are integrated into the organization. It includes activities that allow new employees to complete an initial new-hire orientation process, as well as learn about the organization and its structure, culture, vision, mission, and values. (Society for Human Resource Management, 2022).

Transition to Practice: A formal program of active learning implemented for newly licensed nurses (registered nurses and licensed practical/vocational nurses) designed to support their progression from education to practice (National Council of State Boards of Nursing, 2013).

Virtual Conferencing Software: Software that enables online communication for audio meetings, video meetings, and seminars, with built-in features such as chat, screen sharing, and recording. These applications are implemented to enable long-distance or international communication, enhance collaboration, and reduce travel costs (G2, 2022)

Virtual Orientation: A model of nursing orientation that provides initial training and information through online video conferencing software like Zoom (Ocudado, 2021)

Assumptions

Qualitative research is subjective, and there are varied lived experiences. I assumed that the participants provided me with honest answers to my questions and fully described their experience with virtual orientation. In qualitative research, it is assumed that the researcher's lived experience can influence the interpretation of the data obtained (Ravitch & Carl, 2019). While steps were taken to reduce bias, it is essential to state the assumption that the researcher is a part of qualitative research. (Ravitch & Carl, 2019).

Limitations

The findings of this study were collected from semistructured interviews. If the participants were not truthful or authentic with their experiences, the data are not accurate, which can be a limitation of the study.

As a previous orientation coordinator for the organization, my past job role may have been a limitation. Participants may not have felt comfortable fully disclosing their authentic experiences with me. Furthermore, new graduate nurses may have had varied experiences with virtual conferencing software, which may have affected their comfort level with using the virtual conferencing software for orientation purposes. Finally, new graduate nurses who were a part of the first cohorts of virtual orientation may not still be employed at the organization because two years have passed since the onset of the pandemic and the initial start of their virtual orientation.

Scope and Delimitations

I conducted an interpretive descriptive qualitative study to understand the experiences of new graduate nurses transitioning to acute care practice starting with

virtual orientation. I chose to conduct an interpretive descriptive qualitative study because it aligned with the research question, which aimed to describe the experience of the new graduate nurse utilizing virtual conferencing software for nursing orientation while also focusing applying knowledge to practice. I considered conducting a phenomenological study to focus on the phenomenon of virtual conferencing software utilization and new graduate nurses. However, I did not choose a phenomenological design because I wanted to focus on the description of the new graduate experience with virtual conferencing software rather than how virtual conferencing platforms affected the orientation process. Understanding and describing the experience of new graduate nurses using a new form of technology can help improve the process of utilizing the technology.

I also considered using Benner's novice to expert theory rather than Duchscher's theory of transition because both theories can describe how nurses transition from student nurse to professional nurse. However, Benner's theory focuses on the trajectory of the nurse's career and explores the transition in practice from novice to expert, while Duchscher's theory focuses specifically on the novice nurse's first year of practice. Since this study focused on nursing orientation in the early stages of transition to practice, Duchscher's theory was a better fit because the focus is simply on the first year of nursing rather than the transition from beginner to expert.

Another model I considered to help explain the impact and adoption of virtual technology software was the Heeks and Molla extended chain information (EIC) model. The EIC model explains how people adopt technology based on how information is presented, the current technology available, the demographics of people or end-users

utilizing the technology, and the environment and culture of the people utilizing the technology (Heeks & Molla, 2009). The EIC model emphasizes that technology and information sources must be available, affordable, accessible, and applicable for the end-users to utilize the technology to its fullest capacity (Heeks, 2005). While this model can be beneficial because of its emphasis on applicability to practice, it is not widely used in nursing. It has primarily been used to explain how technology is adopted in developing countries rather than industrialized countries.

The participants were purposefully selected to participate in the study so that the lived experience aligned with answering the research question. Participants worked in an acute care hospital, had less than 1 year of nursing experience, completed virtual orientation upon hire, and spoke English. I considered new graduate nurses from bachelor's and associate's programs.

In qualitative research, transferability means that the knowledge gained from participant data can be applied to other people or settings while ensuring that the participant data remains true to the individual’s experience (Ravich & Carl, 2016). My study utilized two theoretical frameworks to help give meaning to the data and ensure that participant data can be transferable. Participants for the study had to meet inclusion criteria to participate. My study used methods to ensure trustworthiness through the concepts of transferability, credibility, dependability, and confirmability.

Significance

The first year of nursing is challenging for many new graduate nurses (Berkow et al., 2008; Brown et al., 2018; Maria et al., 2017; Wildermuth et al., 2020). Some

challenges include reality shock, effective communication with colleagues, time management, prioritization, and building on the skills they learned in nursing school (Berkow et al., 2008; Brown et al., 2018; Maria et al., 2017; Wildermuth et al., 2020). New graduate nurses need support to overcome challenges in the first year of nursing (Berkow et al., 2008). Orientation lays the foundation of knowledge for new graduate nurses as they transition to practice and is critical to the success of new graduate nurses (Trossman, 2017). I explored the experiences of new graduate nurses as they transition to practice in an acute care facility, starting with virtual orientation.

My study was significant because many organizations continue to utilize virtual orientation due to COVID-19 guidelines (Noza-Margallo et al., 2021; Oducado, 2021; Weiss et al., 2021). More research is needed to understand how conducting virtual orientation through virtual conferencing software impacts new graduate nurses. On an individual level, my study findings may be used to improve knowledge, skills, and attitude that new graduate nurses learn during virtual orientation. Understanding how new graduates view virtual orientation can help professional development specialists revise the orientation curriculum to align with the knowledge and practice gaps that new graduates often experience. Reducing the theory-practice gap by creating an orientation curriculum that focuses on the new graduate nurse's needs is crucial to the success of the new graduate. It is unclear whether virtual orientation can offer new graduate nurses all of the components that traditionally have helped new graduate nurses transition to practice, like hands-on skills sessions. It is also unclear if new graduate nurses can successfully network and build connections with each other virtually. I used the feedback

and lived experiences of new graduate nurses to improve the virtual orientation experience of new graduate nurses.

In the future, improvements to virtual orientation through virtual conferencing software can create positive social change by creating new and meaningful ways to help new graduates transition to practice. The orientation curriculum can be modified to help organizations build a secure knowledge foundation for new graduates, assimilate them into the organization's culture, and help new graduates network for support.

Summary

New graduate nurses often experience challenges as they transition from their role as a student to their role as a nurse in an acute care setting. Nursing orientation is an influential factor in ensuring that new graduate nurses have a successful transition to the acute care setting. Traditionally, nursing orientation for new graduate nurses was conducted in person, but many hospitals chose to move their orientation to virtual conferencing platforms due to social distancing mandates during the pandemic. Virtual conferencing affected how new graduate nurses were presented with critical information to help them transition to their new acute-care nursing role. I explored the experience of new graduate nurses transitioning to practice utilizing virtual conferencing platforms for their orientation. Participants participated in semistructured interviews to obtain data and uncover themes related to their virtual orientation experience. Understanding the experiences of the new graduate nurses can effect social change by improving virtual orientations to meet the needs of new graduate nurses. The needs of new graduates include bridging the theory-practice gap, ensuring that they meet the needed skills and

competencies to provide quality patient care, developing a professional network, and helping the new graduate nurse successfully transition to practice in the new role as an acute care registered nurse.

In Chapter 2, I present a review of the current literature to understand the current orientation practices and discuss gaps in knowledge. Chapter 2 includes literature search strategies, the two theoretical frameworks used in the study, and related topics which include literature related to new graduate transition to practice, current trends in nursing orientation, time length of orientation, orientation curriculum, verifying competencies, impact of COVID-19 on nursing, virtual orientation curriculum, and utilizing virtual conferencing software for nursing orientation.

Chapter 2: Literature Review

The current literature is rich with information about virtual orientation in many disciplines outside of healthcare, including business and technology (Alexander, 2021; Bertagnoli, 2020). Virtual orientation can benefit employees due to its accessibility and ease of use (Carmody et al., 2020; Clearly, 2021). However, there is a gap in knowledge about utilizing virtual orientation in the acute care hospital setting for nurses. The current literature about virtual orientation for nurses comprises case studies that mainly occurred during the COVID-19 pandemic to meet social distancing guidelines (Dale-Tale & Thompson, 2021; Noza et al., 2021). The case studies described the implementation of virtual orientation but offered little information about the experience of virtual orientation from the perspective of newly hired registered nurses. There is also no focus specifically on the experience of the new graduate nurse.

There has not been substantial research on virtual nursing orientation in acute care hospitals during the COVID-19 pandemic. However, there have been studies about using virtual education platforms and virtual simulations in nursing schools (Chan et al., 2021; Lee & Sim, 2020). Many nursing schools offered hybrid and completely remote options for obtaining nursing degrees before the COVID-19 pandemic. Virtual education has been shown to be effective in both hybrid and remote nursing programs, specifically with virtual simulations and online case studies (Chan et al., 2021; Lee & Sim, 2020). In my research, I did not find any specific study that correlated the success of virtual education in academia to nursing orientation in a professional setting. However, studies in both academia and acute care show that the first step to creating a successful virtual

orientation program is ensuring that both educators and students understand how to utilize technology before taking an educational session. (Philips et.al., 2022; Yaser et al, 2022). Understanding technology platforms like Zoom should be foundational to any nursing education or orientation session (Philips et al., 2022; Yaser et al., 2022). Educators should create education sessions that appeal to auditory, visual, read/write, kinesthetic, and combination learners. Gamification, simulation, and engaging materials have proven to be beneficial in helping learners retain information because they engage emotionally and behaviorally (Rogers & Burke, 2021; Woolwine et al., 2019) When providing online learning, engaging learners is essential to help prevent "Zoom Fatigue," which is mental fatigue related to long virtual meetings (Ocudado, 2021). The use of gaming and simulation has been successful in keeping learners engaged in academia and acute care orientations for experienced nurses (Rogers & Burke, 2021; Woolwine et al., 2019).

The research paradigm of my descriptive qualitative study is based on constructivism, and the thought process that multiple realities related to a concept can exist. It is important to understand that there may be both similar and varied perspectives of individuals participating in virtual orientation to the acute care setting. The perspectives of the new graduate nurse participating in virtual orientation can influence how virtual orientation is conducted and how well the new nurse transitions to practice. The purpose of my study was to understand and describe the virtual orientation experiences of new graduate nurses as they transition to practice in acute care facilities. I described the experiences of new graduate nurses participating in virtual orientation as

they transition to practice in the acute care setting. The concept of interest was the experiences of the new graduate nurse and the experiences they have surrounding using virtual technology for nursing orientation in the acute care setting.

Literature Search Strategies

I searched Google Scholar and the Walden University library using the following keywords: *new graduate nurse experience, transition to practice, COVID-19 nursing, nursing orientation, new graduate nurse, virtual orientation, nursing orientation, nursing onboarding, theory-practice gap, zoom nursing, and new graduate nurse theory*. I limited the literature search to peer-reviewed journal articles from 2016-2022 to ensure that I included the studies on the most current trends about using virtual platforms to present nursing orientation to new graduate nurses in the acute care setting. Choosing current literature was crucial to the literature review of this study because of the recent developments in COVID-19. However, I included articles that were written before 2016 because they provided foundational information about theoretical knowledge. Additionally, I found peer-reviewed research by cross-referencing citations from the literature search articles. Cross-referencing the current peer-reviewed research citations led me to find articles from seminal research that were also relevant. These articles included concepts that discussed foundational concepts like the two theoretical frameworks utilized in this study. I also searched relevant journals from professional organizations like the Association of Nurse Professional Development Specialists (ANPD). The *Journal of Nurses in Professional Development*, published by ANPD, had

articles as recent as 2021 and 2022 regarding nursing orientation and virtual conferencing platforms.

Theoretical Framework

The technology acceptance model (TAM) was created in 1989 to describe the experience of people who utilize new forms of technology. The TAM has been widely utilized in many fields, including healthcare, business, technology, and nursing (Venketash & Davis, 2000). The technology acceptance model has been used in nursing informatics, nursing education, and clinical nursing to describe how nurses utilize technology and adapt to technological advances in nursing and healthcare (Venkatesh & Davis, 2000).

The TAM model focuses on two main components influencing user acceptance of technology. The two main components include perceived usefulness of technology and perceived ease of use. Perceived use of technology is defined as the degree to which a person believes using a particular system would enhance their job performance (Davis, 1989). Perceived usefulness can be measured by the degree to which technology helps a person work quickly, improves job performance, increases productivity and effectiveness, makes a job more manageable, and is beneficial (Davis, 1989). Perceived ease of use is defined as the degree to which a person believes a system would be free of effort, otherwise referred to as ease of use (Davis, 1989). Perceived ease of use is the extent to which technology is considered easy to learn, easy to use, clear and understandable, controllable, flexible, and easy to become a skill (Davis, 1989).

Both perceived use of technology and perceived ease of use are essential when adopting new technology because while a person may consider valuable technology to their job, they are less likely to use the technology if it is complicated to use (Davis, 1989). The TAM model shows a high correlation between perceived usefulness, perceived ease of technology, and a person's self-report of current and future technology use (Davis, 1989). In other words, when individuals report they frequently use technology and plan to use it in the future, they are more likely to report that the technology is perceived as useful and easy to use.

Perceived usefulness and perceived ease of technology directly affect the intention of the user to use the technology and the way users utilize technology. A person who perceives technology to be useful and easy to use affects their intentions to use that technology, also known as an intention, to use (Davis, 1989). It also affects the usage behavior of the individual. Ultimately, perceived usefulness, perceived ease of use, intention to use, and usage behavior affect the acceptance of new technology (Davis, 1989).

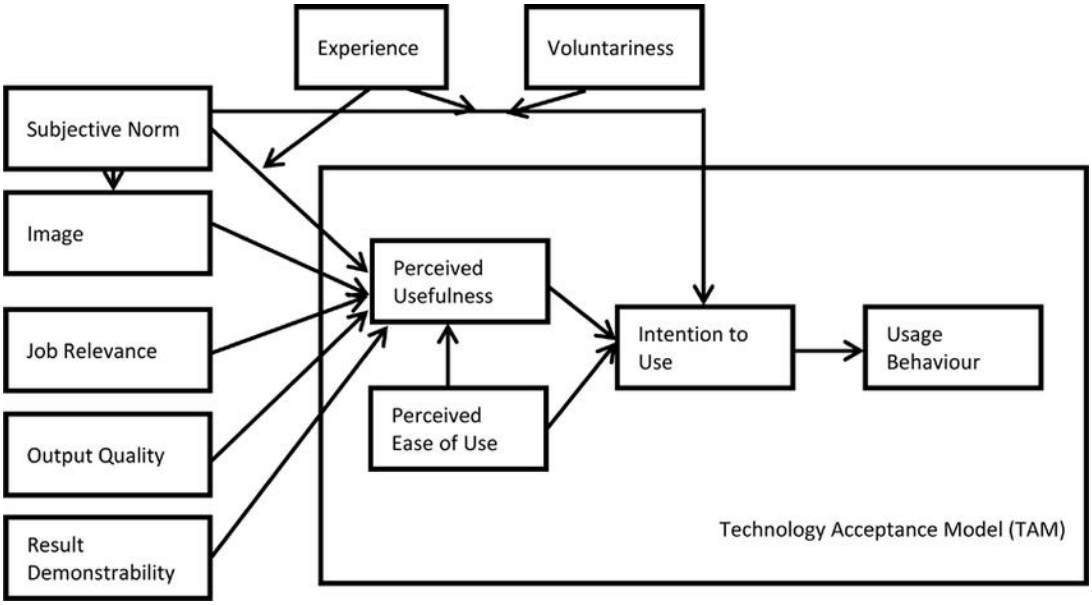
The TAM model was expanded to the TAM 2 model in 2000 (see Figure 1). The TAM 2 model builds upon the original TAM model. The original TAM model describes how perceived usefulness and perceived ease of use affect the intention to use the technology and the usage behavior (Venkatesh and Davis, 2000). The TAM 2 model further elaborates on perceived usefulness and perceived ease by describing additional concepts, which include social and cognitive influences. The TAM 2 model posits that external and social influences affect the perceived use of, and ease of technology as

opposed to TAM, which focuses solely on the perception of the individual and internal processes (Venkatesh & Davis, 2000). By incorporating social and cognitive factors, the TAM 2 Model explored determinants of perceived usefulness that were not explored in the original model and ultimately can be used to help explain why users choose to embrace or deny technology. (Venkatesh & Davis, 2000).

In the TAM 2 Model, social influences include subjective norms, voluntariness, image, and experience. Subjective norms are a person's perception that they should perform a behavior because someone they hold in high regard wants them to perform a specific behavior, even if they disagree with the behavior (Fishben, 1975; Venkatesh & Davis, 2019). Voluntariness or compliance is defined as whether the person believes the technology is mandatory (Venkatesh & Davis, 2000). Image is the degree to which the use of technology is believed to enhance one's social status (Venkatesh & Davis, 2000). The cognitive domain of the TAM 2 model focuses on job relevance, output quality, and result demonstrability. Job relevance is the degree to which the technology is relevant to the job; output quality refers to how well the technology allows the user to perform their job and results in demonstrability which is how tangible the user believes they will get results from using technology.

Figure 1

Technology Acceptance Model 2



Note. From "A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies," by V. Venkatesh, & F. D. Davis, 2000, *Management Science*, *46*(2), p. 186.

I used the TAM 2 model to help understand how new graduate nurses perceive virtual conferencing software for their acute care nursing orientation. The use of virtual conferencing software for nursing is relatively new and primarily began with the COVID-19 pandemic in 2020, which means that many nurses are still learning how to utilize virtual conferencing software for education and orientation. The TAM 2 model can help understand why some new graduate nurses perceive virtual orientation using virtual conferencing software as beneficial and embrace the technology. In contrast, other new graduate nurses may not perceive the technology as beneficial or useful, which may negatively impact their virtual orientation experience. Since the TAM 2 model builds

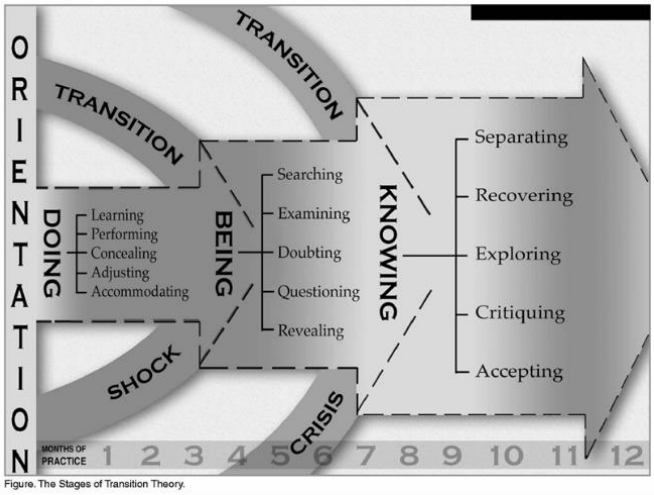
upon concepts from the original TAM Model, includes external factors that affect the adoption of technology, and provides a full explanation of technology usage, I used the TAM 2 Model instead of the original TAM Model. When adopting new technology, a framework like the TAM 2 Model can help identify and reduce barriers when implementing and applying new technology. The framework can also be used to guide end-users to ensure that the adopted technology applies to nursing practice. The TAM 2 framework guided how virtual conference software technology impacts new graduates' access to and utilize information during their orientation.

Duchscher's Transition to Practice Theory

Duchscher's theory of transition to practice and reality shock is a nursing framework that describes the transition to practice period for new graduate nurses. Duchscher's theory describes the first 12 months of the new graduate experience in three stages: doing, being, and knowing (Duchscher, 2008; Figure 2).

Figure 2

Duchscher's Theory of Transition to Practice



Note. From "A process of becoming: the stages of new nursing graduate professional role transition," by J. B. Duchscher, 2008, *Journal of Continuing Education in Nursing, 39*(10), 443. https://doi.org/10.3928/00220124-20081001-03

The first three months of the new graduate experience involve understanding and making sense of the theoretical aspects of nursing school, specifically concerning the practical and applicable aspects of the acute care facility. This phase is called the "doing" phase because nurses focus on compartmentalized tasks and balancing the multiple responsibilities of their new role. It involves five main concepts: learning, performing, concealing, adjusting, and accommodating. The learning curve is the sharpest during the doing phase because many new graduate nurses report a theory-practice gap defined as the disconnect between what they learned in school and what they must learn to function in the RN role (Duchscher, 2008). Their primary concerns are understanding what they need to learn, performing effectively, and doing tasks on time. Many nurses have a

mentor or preceptor to help them transition into their roles during this stage. Emotionally, new graduates feel overwhelmed during this phase and greatly desire to fit in with the team. In the learning stage, new graduate nurses often feel concerned about how coworkers perceive them based on their job performance. Many new graduates conceal how they felt at work to fit in and be a part of the team. Concealing emotions affects the nurse's psychological well-being, which can lead to stress, burnout, and difficulty transitioning to practice.

The new graduate nurse enters the "being" phase at five to seven months in practice. The five concepts of this stage focus on searching, examining, doubting, questioning, and revealing (Duchscher, 2008; Duchscher, 2018). The being phase is often described as intense, as the new graduate nurse moves from transition shock to transition crisis. New graduate nurses reported feeling powerless, perpetually incompetent, inadequate, exhausted, devalued, disappointed, and frustrated (Duchscher, 2008). New graduate nurses in the being stage report that the novelty of nursing begins to wear off, which leaves them searching for where they fit into the healthcare system and their role identity in nursing. Many new graduate nurses report feeling overwhelmed with their work responsibilities, so they distance themselves by turning down overtime and social functions with coworkers. However, while new graduate nurses report increased levels of stress and crisis during the being phase, they report feeling more competent in their skills and knowledge at work (Duchscher, 2008). With the help of preceptors, mentors, and leaders, new graduate nurses often emerge with a renewed passion for nursing and an increased confidence level in their skills after the being phase (Duchscher, 2008).The

knowing phase follows the being phase and continues until the new graduate nurse has 12 months of nursing experience. The knowing phase has five main concepts: separating, recovering, exploring, critiquing, and accepting (Duchscher, 2008). New graduates in this stage become increasingly confident in their knowledge and skills, which allows them to separate from their preceptors and mentors as they evolve into their own nursing identities (Duchscher, 2008). They also learn to manage conflicts like communication errors, patient prioritization, and organization during their transition crisis in the doing stage. The new graduate uses critical thinking skills to explore and critique nursing practice during this stage. Professional frustration focuses more on their workplace environment than their shortcomings (Duchscher, 2008). The shift from individual to organizational focus is primarily due to increased confidence in their work. The new graduates described that the knowledge they gained during their first year is gradual and almost unnoticeable until they compare it to newer nurses (Duchscher, 2008). Comparing their progress to other new graduate nurses solidifies their confidence and helps them accept and validate their role as a nurse (Duchscher, 2008).

Duchscher's theory has been used in a few specialty nursing areas like perioperative and critical care (Wakefield, 2018; Vanderspank-Wright et al., 2018). Vanderspank-Wright's (2018) mixed-methods longitudinal study on new graduate perioperative nurses revealed five themes: an emotional transition, a social transition, a transitioning mindset, transitioning through firsts, and transitioning with confidence . The results of transitioning to nursing in the perioperative area showed that new graduates often experienced transition shock within the first few months of orienting to

the perioperative area (Wakefield, 2018). The new graduates in the perioperative area required additional support and training to become confident and safe in their specialty area (Wakefield, 2018). Duchscher's theory has also described nurses' experiences transitioning into the nurse practitioner's role. Mounayar and Cox (2021) described nurse practitioners' transition to practice experience and found that nurse practitioners experienced many challenges transitioning to practice. Nurse residency programs helped nurse practitioners cope with the reality shock they experienced during their transition to practice (Mounayar & Cox, 2021). My study was relevant because it described the experience of nurse practitioners as they transition to their new roles. Nurse practitioners may share similar transition to practice experiences as recent graduates. I used Duchscher's theory of transition to practice which was used as the framework for this research study. Duchscher's theory of transition to practice is often seen as an extension of Benner's Novice to Expert. While Benner's Theory focuses on skill acquisition for nurses of all experience levels, Duchscher's Theory focuses on skill acquisition and transition to practice during the first year of nursing (Murray et al., 2019).

New Graduate Transition to Practice Experience

The experience of new graduate nurses transitioning to practice during their first year of nursing is well documented. The first year of nursing is challenging for many new graduate nurses (Berkow et al., 2008; Brown et al.,2018; Maria et al.,2017; Wildermuth et al., 2020). New graduates face many challenges, including time management and prioritization difficulties, feeling stressed and overwhelmed, lack of coping mechanisms, and lack of clinical knowledge, skills, and abilities. New graduate nurses need support to

overcome challenges in the first year of nursing (Berkow et al., 2008). Understanding the common issues related to the transition to practice can help nursing professional development specialists create a virtual orientation program that meets the needs of new graduate nurses.

Another common issue with the transition to practice is the gap between knowledge obtained in school and the knowledge, skills, and abilities needed for professional nursing practice (Ahmed, 2015). This gap is often referred to as the theory-practice gap. Monaghan (2015) conducted a meta-analysis of articles about the theory-practice gap in new nurses in the United Kingdom and found that nurses felt unprepared and lacked confidence when transitioning from student to nurse. Additional results showed that new graduate nurses felt they needed more hands-on experience with their skills and that being in an organized preceptor program improved their confidence in their skills (Monaghan, 2015). Lee and Sim (2020) found that new graduates in a neurology ward felt they did not learn enough about the nervous system in school. There was a difference between learning theory and practical application, referred to as the theory-practice gap. The nurses in this study felt they needed more practical learning through case studies. Chan et al. (2021) also described the theory-practice gap and found that less than one-third of new graduate nurses could not meet entry-level skill requirements as registered nurses.

Nurse residency and online simulation programs helped diminish the theory-practice gap (Chan et al., 2021). The theory-practice gap is defined as the knowledge and skill deficit that new graduate nurses experience as they transition out of their role in

academia as student nurses and into their professional role as registered nurses (Chan et al., 2021; Monaghan, 2015). A nurse residency program helps acclimate new graduate nurses to practice through education and peer support, specifically increasing the nurse's confidence with their increased responsibility and helping them with skill acquisition (Monaghan, 2015).

The studies on the theory-practice gap are relevant to my study because orientation can serve as the bridge between academic theory and practice in acute care facilities. Understanding the causes of the theory-practice gap can be beneficial to creating a curriculum for a virtual orientation program that meets the needs of new graduate nurses. There may be overlapping themes and concepts between the experience of new graduates experiencing a theory-practice gap and new graduates who experience the orientation from a virtual platform.

Nurse residency programs also diminish the theory-practice gap by providing different educational experiences like classes, modules, and simulations and partnering with a preceptor to assist with on-the-job training (Monaghan, 2015). Preceptors help provide on-the-job clinical learning experiences for new graduate nurses upon completion of classroom orientation. Many new graduate nurses feel that their preceptor was instrumental in progressing or hindering their orientation (Monaghan, 2015 & Spiva et al., 2013). The new graduate describes helpful preceptors as nurses who are invested in the new graduate nurse's success, can communicate, possess a kind and caring attitude, and provide meaningful and productive feedback (Spiva et al., 2013). New graduate nurses with engaged preceptors who demonstrated engagement reported that their

orientation experience was more favorable than new graduate nurses with disengaged preceptors (Spiva et al., 2013). All nurses in this study were assigned a preceptor as a standard of practice so there was no comparison with nurses who oriented without a preceptor.

Current Trends in Nursing Orientation

Nursing orientation is an introduction to an organization's culture, policies, and procedures (Laflamme & Hokra, 2020; Rush et al., 2019; Trossman, 2017). Nursing orientation is often a mandatory session that all new graduate nurses must attend. A well-planned nursing orientation helps the new graduate nurse assimilate to an organization's culture and understand the professional expectations of that organization. Creating an orientation curriculum that meets the organization's needs and the new graduate nurse is critical to the success of the new graduate nurse (Spiva, 2013).

Orientation lays the foundation of knowledge for new graduate nurses as they transition to practice and is critical to the success of new graduate nurses (Trossman, 2017). Trossman (2017) described general principles of in-person nursing orientation and orientation curriculum to support nurses hired into acute care. These principles include sharing an organization's mission, vision, and values, emphasizing a culture of safety, developing skill competencies, fostering teamwork, and focusing on evidence-based practice and quality outcomes (Trossman, 2017). Laflamme and Hyrka (2020) also described principles of nursing orientation while suggesting using Benner's theoretical framework and Quality and Safety Education for Nurses (QSEN) to outline the nursing curriculum. According to Laflamme and Hyrka (2020), orientation is a time-defined

period where new graduates meet the competencies needed to attain Benner's advanced beginner stages. Orientation usually involves five key components: setting the goals of orientation, incorporating a theoretical foundation, conducting initial and ongoing evaluation, completing competency evaluation, and utilizing tools for monitoring progression (LaFlamme & Hokra, 2020). The five key components should also align with the QSEN competencies, including patient-centered care, teamwork and collaboration, evidenced-based practice, quality improvement, safety, and informatics (QSEN Institute, 2020).

Further studies show that new graduate nurses desire a progressive or staged orientation that provides small amounts of information at a time (Song & McCreary, 2020). New graduates often feel that the orientation process is overwhelming due to the amount and complexity of information provided to them and could benefit from shorter periods of orientation time (Song & McCreary, 2020). However, the studies did not define how orientation should be staged, so more research should be conducted on how orientation programs are structured for new graduate nurses.

Time Length of Orientation

There is no standardized time length of nursing orientation. Hospital facilities set the time length of specific orientation for new graduates, ranging from weeks to months (LaFlamme & Hokra, 2020; Trossman, 2016). Rush et al. (2019) found that nursing orientations for new graduate nurses ranged from 6 and a half weeks to 6 months. While the study conducted by Rush identified that orientation lasted from 6 and a half weeks to 6 months, most studies show that the average medical surgical orientation for a new

graduate nurse is 12 weeks. . Specialty nursing areas have an average orientation length of 16 weeks (Rogers et al., 2021). New graduate nurses may need an extended orientation to ensure they are competent in their skills. The average length of extended orientation is variable based on how quickly the new graduate progresses with their skills. Most new graduates meet their competency standards within an additional three to four weeks of orientation (Rogers, 2021). It is important to note that the longer a new graduate nurse remains in orientation, the more likely they will remain with the organization (Rush et al., 2019). Improved retention from extended orientation may be attributed to new graduate nurses being given time to become comfortable with competencies and more confident in their skills with more practice and supervision (Rush et al., 2019). Also, studies have shown variations in how clinical experiences affect the time a new graduate will spend in orientation. New graduate nurses with experience as nurse externs or patient care technicians are less likely to need extended orientation (Rogers, 2021). Nurses who have a capstone semester with a preceptor during their last 12 weeks of nursing school have stated their transition to practice is less stressful than nurses who do not spend their last semester in school with a preceptor (Rush et al., 2019). Experience seems to correlate with orientation length and ease of transitioning to practice. The more experience new graduate nurses have, the more likely they will assimilate quickly to the clinical setting, reducing their need for extended orientation (Rush et al., 2019).

While experience may play a factor in the orientation length, the type of academic degree the new graduate holds does not seem to affect the orientation length (Rogers et al., 2021). Having an associate or bachelor's degree did not correlate with the orientation

length. (Rogers, 2021). Accelerated bachelor's prepared nurses reported that experience and having a well-rounded, connected preceptor affected the length of their orientation and how prepared they felt to finish orientation (Penprase, 2012). Variations in the literature and a lack of standardized, mandatory federal or state orientation guidelines have created discrepancies in the length of orientation. It is evident that orientation length varies by experience, the specialty of practice, and the quality of preceptors.

Orientation Curriculum

The orientation curriculum varies depending on the type of acute care facility the nurse hires (community hospital vs. trauma hospital) and the graduate nurse's specialty unit (LaFlamme & Hokra, 2020; Trossman, 2017). The orientation curriculum is usually defined by state and national standards from the ANA, Joint Commission, QSEN, and the Department of Health that set mandatory educational topics for nurses in orientation (Trossman, 2017). Professional nursing organizations for specialties may also suggest content or guidelines specific to the specialty area of practice (Trossman, 2017). For example, QSEN encourages organizations to educate new graduate nurses about patient-centered care, teamwork and collaboration, evidence-based practice, quality improvement, safety, and informatics, but organizations do not need to comply with these guidelines due to the lack of federal and state laws (QSEN Institute, 2020). Since there are no national or state standards or guidelines that define how mandatory content should be delivered, many organizations can tailor their nursing orientation program to meet their needs (LaFlamme & Hokra, 2020; Trossman, 2017).

The orientation curriculum usually begins in a classroom setting. Most curriculums begin with an overview of the organization's mission, vision, values, culture, and policies (LaFlamme & Hokra, 2020; Trossman, 2017). In addition to classroom orientation, new graduate nurses are required to complete skills sessions or exams to verify their competencies. Nurse educators or preceptors often verify skills and competencies (LaFlamme & Hokra, 2020; Trossman, 2017). Nurse preceptors are defined as experienced nurses who currently work on the new graduate's hired unit and are verified as competent to teach new graduate nurses on-the-job nursing skills and functions (Trossman, 2017). New graduates are paired with their preceptors for the length of their unit orientation. The preceptors then verify competence through utilization forms like skills checklists. The skills checklists are usually specialty-related and based on competencies set by the professional organization of that specialty.

Verifying Competencies

ANA and IOM have set national regulatory standards for orientation competencies. However, hospitals have primarily set specific competencies for new graduate nurses based on state regulations, hospital policy and procedure, and specific unit competencies about the nursing specialty. Assessing knowledge, skills, and abilities (KSA) is essential when verifying competencies (Ahmed, 2015). Knowledge, skills, and abilities encompass affective and cognitive learning domains and provide learners with a well-rounded learning experience. (Ahmed, 2015). Clinical competency is the knowledge, skills, and abilities nurses obtain over time through repetition and practice (Nabizadeh-Gharghozar et al., 2021). Primarily, hospital competencies are verified by a

nurse preceptor or educator using a competency checklist (LaFlamme & Hokra, 2020; Rush et al., 2019). Competencies can be verified through skills demonstration checklists, tests/exams, and progression checklists. Competency checklists help create individualized orientations for the new graduate nurse (LaFlamme & Hokra, 2020; Rush et al., 2019). The checklists also help the preceptors, educators, and team leaders understand the skill and knowledge progression of the new graduate nurse (LaFlamme & Hokra, 2020; Rush et al., 2019).

Competencies can evaluate and confirm specific skill or knowledge sets, but they can also evaluate how an orientee is progressing. Progression checklists ensure that new graduate nurses meet expected milestones during orientation. Skill and progression checklists help preceptors, educators, and leaders evaluate their new hires during orientation. It is suggested that initial and ongoing evaluation be done to ensure the new graduate nurses can successfully transition to practice (LaFlamme & Hyrka, 2020). Providing initial and ongoing evaluation helps the new graduate nurse understand how well they are progressing with their required work competencies (LaFlamme & Hyrka, 2020).

Impact of COVID-19 on Nursing Orientation

The transition from in-person to virtual orientation is a relatively new phenomenon in nursing. The transition to utilizing virtual orientation was a response by healthcare organizations to the social distancing mandates set by the CDC in 2020 to protect public health and reduce viral transmission (CDC, 2020). Social distancing mandates required maintaining a six-foot distance from other people, utilizing face

masks, and limiting contact with other people through quarantine. The CDC recommended minimizing contact with other people by allowing a maximum of ten people to a room while wearing masks and being six feet apart (CDC, 2020). Many companies, including acute care facilities, chose to utilize virtual orientation to adhere to social distancing guidelines while also providing their new hires with the information they need to start successfully at their new place of employment. While some organizations maintained a completely virtual orientation utilizing platforms like Zoom and Microsoft Teams, other organizations conducted hybrid orientations to ensure that new graduate nurses could perform hands-on skill competencies (Weiss et al., 2021). Organizations conducted hybrid orientation models in various ways (Weiss et al., 2021). Many organizations had virtual sessions with no participant limit, transitioned some of their content to modules, held small in-person sessions with less than 10 people, and increased the responsibility of orientation to the new graduate nurse's unit by utilizing preceptors and unit educators (Dale-Tam & Thompson, 2021; Smith et al., 2022; Weiss et al., 2021).

The research regarding the utilization of virtual conferencing software for virtual acute care nursing orientation is minimal but growing. Dale-Tam and Thompson (2021) and Noza et al. (2021) described case studies from professional development staff that transitioned to virtual nursing orientation during the pandemic. The case studies described the implementation of virtual orientation programs, including curriculum design and implementation, which are reviewed in the subsequent paragraph. Reviewing these studies can help understand common themes and concepts about the experience of

other nurses who experienced virtual orientation. These studies use case studies to understand virtual orientation, while this study will use an interpretive descriptive approach to explore the experience of virtual orientation.

Virtual Orientation Curriculum

During the pandemic, some organizations created virtual orientation programs using virtual conferencing software or a hybrid of virtual and in-person orientation (Noza et al., 2021). There is little information about what content should be included in a virtual orientation curriculum since the use of virtual conferencing software for orientation is relatively new, and most of the literature regarding virtual orientation are case studies and quality improvement projects (Dale-Tam & Thompson, 2021; Noza et al., 2021; Ocudado 2021).

In the case studies and project improvement studies, the curriculum for virtual orientation remains relatively the same. However, some organizations chose to turn live content into modules, and some chose a blended orientation format that combined virtual and small in-person groups that adhered to social distancing standards (Dale-Tam & Thompson, 2021; Noza et al., 2021; Ocudado 2021). Stakeholders that delivered virtual orientation content did not have time to obtain feedback from new graduates about their experience since the shift from in-person to virtual training occurred rapidly and CDC guidelines for social gatherings changed from day to day (Dale-Tam & Thompson, 2021; Noza et al., 2021; Ocudado 2021).

There is no research that I found to demonstrate whether in person orientation curriculum translates effectively to the virtual orientation setting. However, some studies

explore how content should be delivered in the virtual setting based on research from telehealth and virtual education from academic institutions (AACN, 2019; Bolster et al., 2022). One study showed commonalities between delivering telehealth medical care and virtual educational content (Bolster et al., 2022). The same study showed that education should appeal to the affective learning domain and focus on "care competencies" that rely on empathetic communication to connect with the learner (Bolster et al., 2022). Connecting with the learner creates a more personal experience and helps build a trusting learning community (Bolster et al., 2022). The study also emphasized that education should move from lecture-based to competency-based, which can be accomplished through direct observation via virtual conferencing software, virtual simulation, and synchronous and asynchronous learning (Bolster et al., 2022).

Furthermore, academic institutions can provide best practices for providing education online. The literature is rich in information about virtual education since many academic institutions offer students all virtual or hybrid education (AACN, 2019). Studies show many ways to offer students education, including synchronous and asynchronous education (Khodaei et al., 2022). Synchronous education is defined as education provided in "real time" with an instructor (Khodaei et al., 2022). Asynchronous education is education that does not involve live teaching with students and educators communicating at different times (Khodaei et al., 2022). Asynchronous education usually consists of modules, discussion boards, and written assignments. Some virtual classrooms use a combination of both synchronous and asynchronous learning, like flipped classrooms. Flipped classrooms involve asynchronous assignments where the student

completes independent work to learn content and then discusses what they learned with an instructor in a synchronous classroom (AACN, 2019; Khodaei et al., 2022). Many studies show that learners prefer online learning when educational content is presented in a manner that engages the learners and allows for critical thinking and reflection (Capiatelli, 2021; Bashir et al, 2022; Khodaei et al., 2022; Ocudado, 2021). However, there are some studies that show students prefer to have educational offerings in person so they can learn hands on technical skills and make in person connections with their teachers and other students (Capiatelli, 2021; Vandenberg & Magnusen, 2021).

When transitioning a course from in person to online, educators need to ensure that the curriculum engages the learner (Bashir et al., 2021; Khodai et al., 2022). First, educators should provide their students with education about utilizing virtual conferencing software, so they are prepared to function in the online environment (Columbia University, n.d). Next, educators can create engaging curriculum through synchronous and asynchronous learning, flipped classrooms, utilizing the chat function, and creating breakout group sessions in virtual conferencing software (Bashir et al., 2021; Khodai et al, 2022). Furthermore, to promote interaction among the students and teachers and create an engaging interactive environment, students should be encouraged to keep their cameras on (Bashir et al., 2021). Educators must also ensure that the course goals and objectives remain the same and that the content provided meets the intended objectives and outcomes (Columbia University, n.d.). When delivering content, chunking information into smaller modules or sessions can help cognitive processing and help the learner retain information (Columbia University, n.d.). Online assessments can include

virtual demonstrations, online discussions, small group and large group sessions, e-portfolios, journaling, quizzes and tests, peer-reviews, and self-assessments (Columbia University, n.d.). Therefore, when utilized properly, virtual conferencing software can be beneficial to learners, as shown in studies from academia, telehealth, and other professions that utilize virtual orientation practices.

Utilizing Virtual Conferencing Software for Nursing Orientation

The use of virtual conferencing software is an integral component of virtual orientation. These platforms have provided a means for nurse educators to continue orientation and other educational programs for nursing students and new graduate nurses (Ocudado, 2021; Smith et al., 2022). Nursing schools utilized virtual conferencing software to provide online education before the COVID-19 pandemic due to the increasing number of students, rising education costs, and the flexibility that online education offers students and faculty (AACN, 2019). Therefore, nursing schools have a deeper body of literature and knowledge related to virtual conferencing software compared to acute care hospitals. Since there is little research on utilizing virtual conferencing software in the acute care setting for orientation and educational programs, acute care facilities can use the literature from nursing schools as a guide to implementing virtual orientation education.

Vandenberg and Magnuson (2021) described a mixed-methods study where nursing students reported instructional barriers like lack of relational practice and skill development when utilizing virtual conferencing software. Providing education that fosters hands-on learning, builds relational practice, and develops knowledge, skills, and

abilities is crucial to the success of nursing students and new graduate nurses who are transitioning to practice (Lee et al., 2020; Maria et al., 2017; Vandenberg & Magnuson, 2021).

Oducado et al. (2021) discussed videoconferencing "Zoom fatigue" and found that more than half of nursing students surveyed experienced high fatigue levels in online nursing instruction. Professional development specialists that create a curriculum for virtual orientation should be mindful of “Zoom fatigue” by offering frequent breaks and creating engaging content to keep the interest of the learning. Knowing about “Zoom fatigue” can add context to this study if the participants describe a similar experience to “Zoom fatigue” or general fatigue during nursing orientation.

Carmody et al. (2020), Vandenberg and Magnuson (2021), and Oducado et al. (2021) described how virtual learning affected nursing students in academia. The Carmody study explored using a virtual environment tool that helped nursing students with their university onboarding. Vandenberg and Magnuson (2021) showed that students favored in-person learning compared to learning on Zoom. Oducado et al. (2021) explored the concept of Zoom fatigue and found that over half of nursing students who utilized Zoom experienced fatigue, especially during lengthy Zoom meetings.

However, virtual conferencing software's virtual orientation yielded many benefits, especially during the COVID-19 pandemic (Smith et al., 2022). Virtual orientation platforms ensured that nurses could be trained despite the social distancing guidelines without limiting the number of participants (Smith et al., 2022). New graduate nurses also had the flexibility to receive the mandated training from home without

traveling or commuting. Furthermore, virtual orientation alleviated the need for classroom space which can be challenging to obtain in the acute care hospital setting (Smith et al., 2022). Additionally, virtual learning allows acute care facilities to hold orientation more frequently without the constraint of booking classroom space or restricting the number of nurses who can attend orientation due to classroom size (Smith et al., 2022).

While studies describe the experience of nursing students utilizing virtual conferencing software offered during the COVID-19 pandemic, I found very few studies that describe the experience of new graduate nurses utilizing virtual conferencing software in the acute care setting. While the literature surrounding virtual conferencing software in academia can be used as a guide, it cannot be assumed that concepts that work in academia can be translated to acute care hospital settings, specifically for the new graduate nurse population.

Summary

The literature showed that the orientation experiences of new graduates vary. Many new graduates experience a theory-practice gap when they end their academic careers and begin their professional careers in nursing. The theory-practice gap may occur due to outdated curricula in academia and practice and a lack of consistency in academic and acute care orientation curricula (Carmody et al., 2020; Vandenberg & Magnuson, 2021). A lack of hands-on clinical experience further exacerbated the theory-practice gap experienced by many new graduate nurses during the COVID-19 pandemic (Dale-Tam & Thompson, 2021; Smith et al., 2021; Weiss et al., 2021). Regardless of how

nurses are oriented to the acute care setting, more attention needs to be given to the orientation curriculum, and the way new graduate nurses are introduced to acute care practice to help ease the theory-practice gap (Dale-Tam & Thompson, 2021; Smith et al., 2021; Weiss, et al., 2021). New graduate nurses prefer a curriculum that engages them in learning. Educators need to specifically pay attention to engaging learners in a virtual orientation to help prevent zoom fatigue and mental exhaustion from long periods sitting in front of the computer (Oducado et al., 2021). Techniques like small groups, simulation, gamification, and virtual networking can help reduce Zoom fatigue and facilitate learning in the virtual environment. (Rogers & Burke, 2021; Woolwine et al., 2019).

My study provided evidence to show how new graduates improve knowledge, skills, and attitude during virtual orientation. Understanding how new graduates view virtual orientation can help professional development specialists revise the orientation curriculum. Virtual orientation content should help decrease theory-practice gaps and transform orientation experiences to meet the needs of new graduate nurses. While the COVID-19 pandemic forced organizations to turn to virtual orientation, the practice of using virtual conferencing software for virtual orientation has become a relevant practice. Many organizations continue to conduct virtual orientation to onboard their new graduate nurses. Therefore, it was crucial to understand the lived experiences of new graduate nurses participating in virtual orientation to reduce the theory-practice gap and improve virtual orientation through descriptive qualitative research.

In Chapter 3, I present the methodology, and how it aligned with the purpose of the study and the research question. I also present the research design and rationale, the

role of the researcher, participant selection logic, instrumentation, procedures for recruitment, participation, and data collection, the data analysis plan, issues of trustworthiness including credibility, transferability, dependability, and confirmability, intra- and inter- coder reliability, and ethical procedures.

Chapter 3: Research Method

The purpose of this descriptive qualitative study was to explore the lived experiences of the new graduate nurse taking virtual orientation using virtual conferencing software. In Chapter 3, I present the design methodology and rationale of this study, the role of the researcher, instrumentation, recruitment strategies, data analysis, and trustworthiness of the study.

Research Design and Rationale

The research question of this descriptive qualitative study was:

What are the experiences of new graduate nurses transitioning to the acute care facility using virtual orientation?

The central concepts of this study are focused on the new graduate nurse transitioning to practice in the acute care setting through virtual orientation. The study focused on how utilizing virtual conferencing software for orientation affected the new graduate nurse as they transition to practice. The critical concepts include virtual orientation, virtual conferencing software, transition to practice, and theory-practice gaps.

I chose to conduct a descriptive qualitative study. Descriptive research is conducted to understand the experiences of research participants in practical ways (Doyle et al., 2020). Descriptive research focuses on the participant and their experience rather than the deeper theoretical context (Doyle et al., 2020). Qualitative research allowed me to describe the experience of new graduate nurses utilizing virtual conferencing software for orientation. Descriptive interpretive qualitative research helped provide a framework for applying the study findings to practice which is why this type of research is

commonly used in nursing and healthcare research (Doyle et al., 2020). A descriptive qualitative study was appropriate for my study since there was little research on the experiences of the new graduate nurse participating in a virtual orientation. Using a descriptive qualitative methodology facilitated understanding of how the new graduate perceives virtual orientation using virtual conferencing software. Descriptive research is used when there is not much information on a topic (Doyle et al., 2020; Thompson-Burdine, 2021).

Before the COVID-19 pandemic, new graduate nurses attended orientation to the acute care setting in person. There is little known about the experience of orienting new graduate nurses via virtual conferencing software, so participants must describe their experience to understand the process better. Understanding the perspective of the new graduate nurse can inspire social change in virtual orientation programs by providing nursing programs and acute care facilities a description of the knowledge and skills new graduates feel they need while in orientation. In turn, this can improve virtual orientation programming and help provide the knowledge, skills, and attitude new graduate nurses need to transition to practice.

The Role of the Researcher

As the primary investigator, I conducted semistructured interviews to obtain my data which means I actively participated in the research. Some of the participants I recruited may have had previous contact with me as the orientation coordinator for a chain of large acute care facilities. In my previous role as orientation coordinator, I created the orientation curriculum and conducted a 2-day system orientation.

Furthermore, some participants may have had extended contact with me for a 5-day orientation session because I oversaw site orientation at one of the campuses. As orientation coordinator, I served as an educator and professional development specialist. While I was considered a leader in the organization, I did not have any oversight into hiring or termination decisions, performance evaluations, or disciplines. I am currently in a new role at a different organization, so I no longer conduct orientation or have contact with the participants. Therefore, I held no power over participants, but there could have been reactivity from participants. Reactivity is when the researcher's presence affects or influences the participants' behaviors, which can affect the study's validity (Ravitch & Carl, 2016).

For various reasons, some participants may have been hesitant to disclose information due to my previous role. Participants who were/are employed at this organization may have formed opinions about me during the 2 to 5 days they were with me in orientation. They may have felt that due to my connections with colleagues at the organization, I could have affected their employment. Some participants may not have met me before this study and may not have any factors that would make them feel I have power or bias over them.

I journaled to reduce my own bias. Journaling helps researchers keep an honest time reflection of questions, ideas, observations, and intentions (Ravitch & Carl, 2016). I continuously critically reflected upon my own experiences as the research unfolded. I understood that I could not completely eradicate preconceptions and bias as a researcher,

so I journaled to self-reflect on the experience and ensure I explained the most authentic version of the participant's experience.

Methodology

Participant Selection Logic

The intended participants for this study were new graduate nurses in the acute care hospital setting that utilized virtual conferencing software for virtual orientation. The inclusion criteria for this study included:

- New graduate registered nurse with 12 months or less of experience
- Hired to the acute care hospital setting
- Participated in virtual orientation through virtual conferencing software
- Spoke English

Since the study required a specific participant group, I conducted purposeful sampling. Purposeful sampling involves the researcher choosing who will participate in the study (Ravitch & Carl, 2016). Participants were screened and chosen purposefully to meet the inclusion criteria. The inclusion criteria were listed in marketing material during the recruitment phase of the study.

I recruited participants by using flyers and e-mails sent to potential participants from the NJ Collaborating Center, which has a forum dedicated to new graduate nurse residency programs. The NJ Collaborating Center included acute care hospitals from all over New Jersey. Some hospitals are teaching facilities while others are not. Participants were recruited through the NJ Nurse Collaborating Center, which l extended the reach of participants to other hospital organizations in New Jersey. Lastly, I recruited participants

via the New Jersey Nurse's Association (NJSNA) by asking them to distribute flyers. My email and telephone number were included on the flyer so participants could reach out to me with questions about the study.

Participants continued to be recruited until saturation was reached. Saturation occurs when no new or relevant information can be extracted from the interview data (Samure & Given, 2008). When no new or relevant information is uncovered, data can be considered robust since no other gaps or new phenomena are identified (Samure & Given, 2008). There is no exact number quantifies how many participants are needed to reach saturation (Ravitch & Carl, 2016). A meta-analysis of 23 studies reviewing saturation in qualitative studies showed that approximately nine to seventeen participants were needed to reach saturation (Hennik & Kaiser, 2022). In my study, I reached saturation with 12 participants.

Instrumentation

I conducted one-on-one semistructured interviews in a neutral private setting to make participants comfortable. Interviews were conducted via virtual conferencing software. The semistructured interviews were intended to last 30-60 minutes to ensure that the participants fully communicated their experience without the interview being too lengthy. Interviews were audiotaped so that I could review the information later, provide confidentiality, and protect the participant's identity.

I asked predetermined interview questions (Appendix A) and follow-up questions created during the interview to clarify the participant's comments. Using predetermined and clarifying questions ensured that participants were asked questions relevant to the

research question but allow them to share their unique experiences (Ravitch & Carl, 2016). The questions asked in the semistructured interview were reviewed by experienced doctoral prepared qualitative researchers from the university. Rigorous peer review ensured that the interview questions aligned with the study research question and maintained the study's validity and reliability.

Procedures for Recruitment, Participation, and Data Collection Recruitment

Recruitment for participants began upon approval from the IRB. The study approval number was 11-01-22-0980705. Once approval was obtained, I sent a flyer via e-mail to The New Jersey Collaborating Center for Nurses (NJCCN). NJCCN is an organization that promotes leadership, education, research, and innovation for nurses in New Jersey and serves as the primary source of data for New Jersey's nursing workforce. NJCCN partners with the New Jersey Nurse Residency Collaborative. I sent a flyer to NJCCN and the New Jersey Nurse Residency Collaborative to recruit participants. The flyer informed potential participants about the purpose of the study, notified the participant of a $10 coffee gift card for participating in the study, and provided them with my contact information. I returned correspondence within twenty-four hours via e-mail to explain the study further. I spoke to interested participants about the time commitment and voluntary nature of the study and their rights as a research participant, including their right to confidentiality.

If individuals decided to participate, I asked them to sign an informed consent statement outlining the study's intent to minimize risk to the participant and ensure anonymity. Upon receiving consent, I asked participants to choose whether they wanted

to be interviewed in person at a public library or participate in the study using the virtual conferencing platform Microsoft Teams. All participants chose Microsoft Teams for their interview.

I intended to ask participants prescreening questions (Appendix B) during the e-mail consent process. However, the first participant did not answer my e-mail asking her the pre-screening questions and I did not have her phone number, so I asked her the pre-screening questions at the start of the interview. I changed my process for all participants and began asking them the pre-screening questions at the start of each interview just as I had done for participant 1. If a person did not meet the inclusion criteria for the study, I thanked them for their time and dismissed them from inclusion in the study. If they met inclusion criteria, the interview continued.

I conducted all the interviews and collected data via audio recordings. I did not have any partners for this study. I reminded the participants that they would not be video recorded to maintain confidentiality and protect their privacy. If any participant had chosen to interview in person, we would have agreed upon meeting in a public library conference room to ensure privacy and neutrality. The interviews would have been audio recorded only to maintain confidentiality.

Before the interview, the participants were reminded of the study's purpose and reassured that they have the right to leave the study at any point with no repercussion. I asked the participants if they were comfortable with proceeding before beginning the interview. If the participant agreed to proceed, the participants were asked the prescreening questions (Appendix B) and the demographic questions (Appendix C). The

interviews were semistructured with predetermined questions and included additional questions to clarify information. The prescreening questions and interviews were anticipated to be 30 to 60 minutes long. On average, the interviews lasted 23 minutes. After the interviews, all data was stored on my personal laptop which is password protected and to which only I have access. All raw data collected will remain in my possession and will be maintained for five years as required by the Walden IRB.

Data Analysis Plan

I transcribed the data from audio recordings and then systematically coded them using Excel and NVivo. In addition to the transcribed interviews, I created memo notes. Listening and observing are essential components of helping researchers to understand the lived experiences of others (Creswell & Creswell, 2018). The memo notes helped me to gain a deeper understanding of non-verbal communication like prolonged pauses, laughter, or background noise.

I analyzed the data using interpretive description, a widely used method to interpret descriptive qualitative research in nursing and medical science (Huby, 2009; Thompson-Burdine et al., 2021). Interpretative description is a unique process because this research seeks to take clinical knowledge and turn it into applied practice. (Thompson-Burdine et al., 2021). Due to the applicability of this type of research, it is often utilized in healthcare research to emphasize the importance of evidence-based research and practice. Researchers utilizing interpretive descriptive design need to be conscious of the individual's unique experience while identifying common or exceptional themes concerning the other study participants. (Thompson-Burdine et al., 2021).

Interpretive descriptive research aims to "lead their eventual reader toward a kind of knowing that was not possible before your study" (Thorne, 2016). Interpretive descriptive analysis aligned with my study because it helped me describe the experience of new graduate nurses who utilized virtual conferencing software for orientation.

The six steps in the interpretive description method were utilized to analyze data. These six steps included immersion in the data, development of an initial thematic template, organization of the data based on the template, condensing of data, reflecting upon data, comparing and contrasting data within similar participant categories, and comparing and contrasting data with different participant categories (Thompson-Burdine et al., 2021). I analyzed data by manually coding in Excel and Word then used NVivo software to clarify and compare themes uncovered from manual coding. NVivo is software that transcribes and organizes qualitative data (QSR International, 2022).

I considered all possible scenarios from my data analysis and embraced the information I uncovered even if it was a discrepant case. I did not discard any data and stayed true to the purpose of qualitative research and the participant's personal experience. Staying true to qualitative research means that all possibilities need to be considered, even when they do not conform to the standards or beliefs held by the researcher or other participants (Ravitch & Carl, 2016). Furthermore, the focus of interpretive descriptive qualitative research should remain on finding the authentic experience of the participant, and it is understood that outliers may exist (Thompson-Burdine et al., 2021). If themes or concepts were uncovered that did not conform to

preconceived beliefs I had, I critically reflected upon that data through journaling and writing memo notes during data analysis.

Issues of Trustworthiness

Credibility

Credibility refers to the researcher's ability to interpret results truthfully and ensure that the study measures what it intends to measure (Ravitch & Carl, 2016). Credibility is also internal validity (Ravitch & Carl, 2016). A study's credibility or internal validity is directly related to the study's design, which includes ensuring that the methodology aligns with the research question (Ravitch & Carl, 2016). The credibility of a study can also be reached when the data is interpreted to its true meaning (Ravitch & Carl, 2016). I preserved my study's credibility through triangulation. Triangulation ensures enough of the correct data to provide quality and depth of information to answer the research question correctly (Ravitch & Carl, 2016). I achieved triangulation by recruiting twelve participants to gain a variety of perspectives from various participants and reach saturation.

Transferability

Transferability is the degree to which the study findings can be generalized to other settings while maintaining their context-specific richness (Ravitch & Carl, 2016). Data should have detailed descriptions and explanations about the context in which the data was obtained; this process is called thick description and is essential in achieving transferability (Ravitch & Carl, 2016). In other words, thick description "gives meaning to the descriptions and interpretations given in the events that have been recorded"

(Denzin, 2001). I reached thick description by describing the context of the data by writing memos during the interview process. The memos included the context of the setting and environment during the interview, non-verbal communication, and any other notes that assisted with understanding what the participant was trying to convey. I reached triangulation by attempting to recruit participants who will offer different experiences related to virtual orientation using virtual conferencing software.

Dependability

Dependability is the stability of the data and the extent to which data is consistent over time (Ravitch & Carl, 2016). Dependability can be achieved by ensuring all study components are aligned and seeking to answer the research question. To ensure my study was dependable, I asked all participants the same research questions with minor variations based on individual experience. I also worked with my committee to ensure my study was aligned.

Confirmability

Confirmability ensures that the researcher remains objective in data analysis; it allows the participant to shape data rather than the researcher (Ravitch & Carl, 0216). Researchers should aim to remain neutral in their data evaluation and reduce personal bias (Ravitch & Carl, 2016). As the researcher, I journaled throughout the research process to reduce personal bias and improve the confirmability of the study. I created an audit trail which is a transparent, step-by-step description of the research process and findings (Ravitch & Carl, 2016). The audit trail guided the decisions regarding the study methodology, coding process, and data analysis (Ravitch & Carl, 2016).

Furthermore, I used journaling and created memo notes to maintain reflexivity. Reflexivity is achieved when the researcher understands and acknowledges their role in the research process (Ravitch & Carl, 2016). I acknowledged that my role as the researcher was to remain true to the participant's experience. I also provided rationales for the decisions I made during data analysis by writing in my memo notes and journaling. Providing a rationale for decisions allows researchers to think critically about the research process and remain as objective as possible (Ravitch & Carl, 2016).

Intra- and Inter-Coder Reliability

I was the solitary researcher in this study, so I was responsible for coding all data. I extensively coded data manually in Word and Excel. I began by writing notes in Word while I transcribed the interviews. Next, I used NVivo to help create code and themes. I utilized NVivo functions like word cloud, reference frequency, and word tree to compare the data I manually coded. Finally, I utilized Excel to organize codes and themes from my coding process in Word and NVivo. I critically analyzed my data across Word, Excel, and NVivo to ensure intra- and inter-coding reliability and remain true to the participant's experience. Upon the final draft analysis, I submitted my documents to my committee for review and feedback.

Ethical Procedures

I received Walden IRB approval on November 1, 2022, (approval number 11-01-22-0980705). Throughout the research study, I upheld ethical principles like beneficence to ensure that all research participants remained comfortable and safe during the research process. I remained transparent about my study's purpose, clarified the participant's rights

and responsibilities, and ensured that any concerns were addressed. Upon recruitment, all participants signed an informed consent form before the interview. Informed consent forms inform and protect the participants during the research process (Creswell & Creswell, 2018). According to Creswell and Creswell (2018), an informed consent form should:

- identify the researcher,
- identify the sponsoring institutions,
- identify the purpose of the study,
- explain the benefits of participation,
- explain the level and type of participant involvement,
- explain the risks of participation,
- guarantee of confidentiality,
- include a statement that the participant can withdraw at any time
- provide contact information of involved researchers.

Informed consent was provided through email. I encouraged participants to communicate any concerns about informed consent or the study actively. Participants were provided with my e-mail address and phone number. They were also given the contact information of the Walden IRB in the event they wanted to share concerns confidentially. Participants were reminded that they could leave the study at any point without repercussion during the consent process and at the start of the interview.

To thank the participants, I gave each participant a $10 Starbucks gift card upon completion of the study. The gift card incentive was advertised on the recruitment flyer

as an appreciation gift, and the process of obtaining the gift certificate was written in the informed consent paperwork. If participants felt uncomfortable answering a question, they were not required to answer it. However, participants had to complete the study to be awarded a gift card. I emailed the gift card to the participant upon completion of the interview.

Participant and data confidentiality are additional ethical principles to consider. As the researcher, I needed to know that my participants understood that all their information was intended to remain confidential. Participants were reassured that any information they provided would remain confidential and would not be held against them at their place of employment. As mentioned in the data recruitment section, some of the study participants may have had contact with me as an orientation coordinator. I do not believe I encountered any participants that I had contact with previously as a former orientation coordinator, but I disclosed my current employment status to all participants to further reassure them that there was no conflict of interest or potential bias. During the interview, I reminded participants again that data would be kept confidential and only shared with myself and the Walden University committee members involved in this study.

The interviews were conducted on Microsoft Teams. I maintained the confidentiality of participants by conducting interviews alone in my private study. Participants were able to interview from their chosen location to feel comfortable and secure in their surroundings. Having interviews in private settings helped maintain confidentiality during the study. The study participants were randomly assigned numbers

upon signing the informed consent. Their assigned number was used to identify them throughout the study. This document was the only document that identified the participant's name and number. The participant's assigned identification number referred to all other documents. I kept a password-protected record of the participant's names and numbers in a separate Excel file on my personal computer.

The interviews were audio recorded, and no identifying information was displayed. I stored the interview information, including audio files and transcripts, on my personal computer, which is password protected. As per Walden University guidelines, the raw data, final data, and data analysis process will be electronically available to the committee members involved in the interview process. The raw data was sent to the committee for review via Walden University e-mail. All information sent to the committee only included the participant's assigned number and did not identify the patient by name. The participants will be informed of data dissemination during the informed consent process.

Another ethical principle I was aware of was participant exploitation. Participant exploitation occurs when the researcher collects data from the participant and then does not follow up with the participant (Creswell & Creswell, 2018). I had planned to follow up with any participants who provided concerning answers during the interview. However, none of the participants expressed any concerning information, so I did not follow up with any participants. However, all participants received mental health resources in the informed consent form. At the conclusion of my study, I encouraged participants to follow up with me via e-mail or phone if they had any further concerns. I

also informed participants that I would give a written accolade to all study participants who participated in my study and share the study results with participants upon completion of the study.

I will keep the data locked and secured for five years as per Walden University protocol unless otherwise stated by the IRB. After five years, the data will be destroyed using a shredder and disposed of using a confidential paper disposal service.

Summary

The purpose of my study was to describe the experience of new graduate nurses utilizing virtual conferencing software for virtual orientation in the acute care hospital setting. The research question was: What are the experiences of new graduate nurses transitioning to the acute care facility using virtual orientation?

The design of this descriptive qualitative study aimed to align with the research question. The study participants were asked to participate in a semistructured interview to obtain data to answer the research question. I coded data to identify shared concepts and themes using Word, Excel, and NVivo Software to ensure consistency in the coding process. Strict attention was given to the study's trustworthiness, credibility, transferability, and dependability. IRB processes were strictly implemented and adhered to throughout the study.

Ethical principles were upheld throughout the research study to ensure the safety and well-being of all participants. Informed consent, participant confidentiality, data confidentiality, and participant exploitation were addressed to ensure the study methodology adhered to the highest level of ethics. Understanding and adhering to the

study's methodology helped produce data that described the authentic experience of study participants.

In Chapter 4, I will present the study setting, demographics, data collection, data analysis, evidence of trustworthiness, and results in detail.

Chapter 4: Results

The purpose of this interpretive descriptive qualitative was to understand new graduate nurses' virtual orientation experiences as they transition to practice in acute care facilities. The research question was: “What are the experiences of new graduate nurses transitioning to the acute care facility using virtual orientation?” In Chapter 4, I present the study setting, demographics, data collection, data analysis, evidence of trustworthiness, and results in detail.

Setting

I recruited participants between October 2022 and December 2022. After receiving Walden IRB approval, I distributed recruitment flyers through e-mail by the New Jersey Nurse Collaborating Center, which partners with the New Jersey Nurses Residency Collaborative. I specifically targeted the recruitment of new graduate nurses. I also posted social media recruitment to my personal Facebook, Instagram, and LinkedIn page. All recruitment material listed my email address and phone number so interested individuals could contact me for study participation.

Due to a lack of response, an addendum was put forth and approved by Walden’s IRB in November 2022 to allow the New Jersey Nurses Association and the Consortium of New Jersey Nurse Educators to distribute flyers via email. The study was also posted to the Walden University Participant Pool recruitment website.

I asked participants to sign consent via e-mail and to respond to the consent form via e-mail by replying, “I consent.” Once consent was received, study participants were given the option to participate using Microsft Teams virtual conferencing software or

complete the study in person at a library of their choosing. All 12 study participants chose to complete their interviews on Microsoft Teams virtual conferencing software. Interviews were recorded using only an audio recorder.

Eleven of the 12 participants could not utilize the video cameras on Microsoft Teams for various reasons like low wi-fi or inability to utilize the camera function. Since 11 of the participant's video cameras were not on, I could not take notes on their nonverbal communication. Making notes about nonverbal communication may have added additional richness to the data. No other conditions affected the data collection or analysis during this study.

Demographics

I interviewed 12 participants. All participants were new graduate nurses with 12 months or less of experience at the time of orientation, employed at an acute care hospital facility at the time of orientation, and utilized virtual conferencing software for orientation to an acute care hospital.

At the time of the interview, I assigned each participant a number to identify the participant. Participants were asked to disclose their gender, age, race, job title, level of education, length of employment, and location if desired. They were presented with the option to opt out of disclosing any demographic information if they were not comfortable. All participants answered the demographic questions and did not opt-out. All 12 participants were registered nurses who identified as Black/African American females with a college degree. Their primary residence was in New Jersey. Eleven participants were in the age range of 20 to 30, and one was in the age range of 31 to 40.

Eleven participants had been at their acute care hospital orientation for 7 to 12 months, with one participant employed at their acute care facility for 0 to 6 months.

Data Collection

Once IRB approval was obtained, flyers were distributed by the NJ Collaborating Center, the Consortium of New Jersey Nurse Educators, the New Jersey State Nurse's association, and social media. Flyers contained information for individuals to contact me via e-mail or phone. All 12 participants contacted me by e-mail to participate in the study. Since participants contacted me by e-mail, they were sent the study's consent form via e-mail and inclusion criteria. After the participants read the consent form, they were asked to reply to the e-mail with the words "I consent" if they agreed to participate in the study. All 12 participants replied, "I consent," and agreed to the terms of the study laid out in the consent form. Upon receipt of the participant's consent, I replied to the consent email asking the participant their availability for a 30 to 60 minutes interview.

Once the participant gave their availability, I sent the participant a Microsoft Teams virtual conferencing software link for the agreed-upon interview date and time. I began the interviews by inviting all participants to turn their cameras on to form a better connection with me during the interview and take notes about any nonverbal communication which may have been pertinent to the study findings. Eleven of the 12 participants could not utilize their cameras, so the interview was conducted using audio only. Participants who did not utilize their camera cited reasons like "poor wi-fi connection," "no camera availability," or " unable to turn on the camera due to technical difficulties" as their reason for being off camera. Only one participant turned on their

camera. After inviting participants to turn on their cameras, I introduced myself, reviewed the purpose of the study once more, and asked each participant if they had any additional questions or concerns after reading the consent form. I also reminded the participants that participation in the study was voluntary and that they could withdraw from the study at any time during the interview without repercussion. If the participant had additional questions or concerns, I asked the participant for permission to audio record. Once permission to record was obtained, I began recording using the audio recorder.

All participants met the inclusion criteria based on the prescreening questions and completed their interviews immediately after the prescreening and demographic questions. If participants did not meet the inclusion criteria, they were thanked for their time and excused from participation in the study. As I recruited participants, I assigned them a number to protect their identity further and maintain confidentiality. The first participant I recruited was assigned as participant one; the second was assigned as participant two, and so on. The participant's name and corresponding participant number were kept in a separate excel file on my password protected computer and stored in my home office.

Following the prescreening questions (Appendix B) and demographic questions (Appendix C), I collected data through semi structured interviews via Microsoft Teams. All participants were asked predetermined questions (Appendix A) for the continuity of data collection. Using predetermined and clarifying questions ensured that participants were asked questions relevant to the research question but allowed them to share their

unique experiences (Ravitch & Carl, 2016). Each interview was audio recorded using a recorder placed near the computer. None of the interviews were video recorded to ensure patient confidentiality. Interviews were intended to last between 30 to 60 minutes to ensure that participants were given time to share their experiences without feeling rushed. Each interview varied in time, but the average length was 23 minutes and 33 seconds.

Table 1

Interview Length by Participant

Participant #	Time
1	14:16
2	21:39
3	20:01
4	20:26
5	21:49
6	20:59
7	23:24
8	18:30
9	17:39
10	25:57
11	21:01
12	20:48

Before the interviews concluded, participants were asked if they had any additional information or insights they wanted to share. If participants said yes, the interview continued. If the participant said no, the interview concluded, and the audio recorder was turned off. When interviews concluded, participants were thanked for their time. Each participant was reminded that they could contact me if they had further questions or concerns. No participants seemed to be in mental distress during the interview, so I did not need to share any mental health resources with any participant. All

participants received a $ 10 dollar Starbucks gift card at the interview's conclusion ,which was e-mailed to their desired e-mail address.

Variation in Pre-Screening and Demographic Questions

Initially, I intended to ask the prescreening and demographic questions through e-mail. However, the first participant did not respond through e-mail, so I had to ask her during the interview. Asking the participant the prescreening and demographic questions during the interview went well, so I reevaluated the process and decided to ask the prescreening questions and demographic questions while on Microsoft Teams with the participant. This methodology was more successful because it reduced e-mail communication and ensured that everyone completed prescreening and demographic questions. Therefore all participants were asked the prescreening questions (Appendix B) and demographic questions (Appendix C) right before the interview began.

During the interview, I added a question to the demographics and asked participants about their location while taking virtual orientation. The question was added to help understand what region the participants were from to better understand their experiences based on geographic location.

Variations in Participant Recruitment

There may be a minor variation in how participants were recruited for this study. Initially, I intended to use purposeful sampling to obtain participants for my study since the inclusion criteria required a specific participant group to answer the research question. Purposeful sampling involves the researcher choosing who will participate in the study (Ravitch & Carl, 2016). I aimed to prescreen any participants who contacted me

with interest in the study and choose those participants based on inclusion criteria. During the study, I recruited participants with very similar demographics, which led me to believe that participants were recruited by snowball sampling from word of mouth from other participants in the study. However, I did not ask participants how they heard about my study, so I cannot confirm that snowball sampling was used. Furthermore, all participants were prescreened before the interview began and chosen for the interview based on prescreening criteria, so that process did not change even if participants potentially heard about the interviews by word of mouth rather than by the recruitment flyer.

Unusual Circumstances Encountered

One of the most unusual circumstances during the data collection phase occurred when one of my participants stopped responding for about five minutes of the interview. The interview took place on Microsoft Teams, and the participant remained off camera. The participant did not respond to a question during the middle of the interview. After rephrasing the question, I still did not receive a response. That was when I realized the participant was no longer there or had possibly encountered a technical issue. The person remained on Microsoft Teams with the camera off and unmuted for five minutes before responding to my inquiries to see if she was alright. When the participant returned, I asked if she was all right, and she responded she was, asked me what the question was, and proceeded forward with the interview. During the rest of the interview, she answered my questions but did seem distracted due to answer delays.

Data Analysis

I initiated the data analysis process by verbatim transcription of all interview recordings. I utilized interpretive description to guide my data analysis. Interpretive description is widely used in analyzing data in healthcare studies because the overall goal is to take the data and apply it to practice. Interpretive descriptions align well with my study because the aim is to understand the experience of new graduate nurses and apply that information to improve orientation practices. When conducting data analysis using the interpretive description method, I followed the six recommended steps based on constant comparative analysis. These six steps are immersion in the data, development of an initial thematic template, organization of the data based on the template, condensing of data, reflecting, comparing, and contrasting data within similar participant categories, and comparing and contrasting data with different participant categories (Thompson-Burdine et al., 2021).

Immersion in the Data

I began to immerse myself in the data during transcription. As I transcribed the audio tape and typed the interview in Microsoft Word, I better understood what the participant said during the interview. This process also allowed me to connect with the data through listening and writing. All participants had an accent and used very similar words, so I felt I got to know a bit more about them through their language and chosen wording. For instance, most participants used the word “conversant” to describe their experience learning virtual conferencing software. Since all participants had accents, I took additional time to replay and review the interviews to ensure I understood their

words and the message they were trying to convey. Once the data were transcribed by typing in a word document, I re-read the interviews twice and took notes as themes and codes were uncovered.

Development of an Initial Thematic Template

I began initial thematic templates by writing memos on the transcribed interviews. After I transcribed the interviews, I uploaded the interviews into NVivo, reread the interview transcripts, and created codes in NVivo. Seeing the codes in one place in NVivo helped me visualize connections between the various codes from the interviews and develop themes.

Organization of the Data Based on the Template

After I used NVivo to help me create codes and themes, I used the tools in NVivo to help me ascertain word and coding frequency. The word tree (Figure 3) and word cloud (Figure 4) helped show me what words populated most frequently in the participant interview transcripts. The word tree and the word cloud helped me critically reflect upon the overall meaning all participants were trying to convey through their interviews. However, they did not connect the words to create codes or themes, so the information the word cloud and word tree gave me was limited. I also used NVivo to help me see which participants had similar codes and themes and how frequently those codes appeared (Figure 5). The frequency table helped me visualize what themes appeared the most and helped me decide what concepts were the main themes and subthemes. The tables and figures I produced from NVivo helped me formulate codes in the early stages of data immersion.

Figure 3

Word Tree of Most Utilized Words

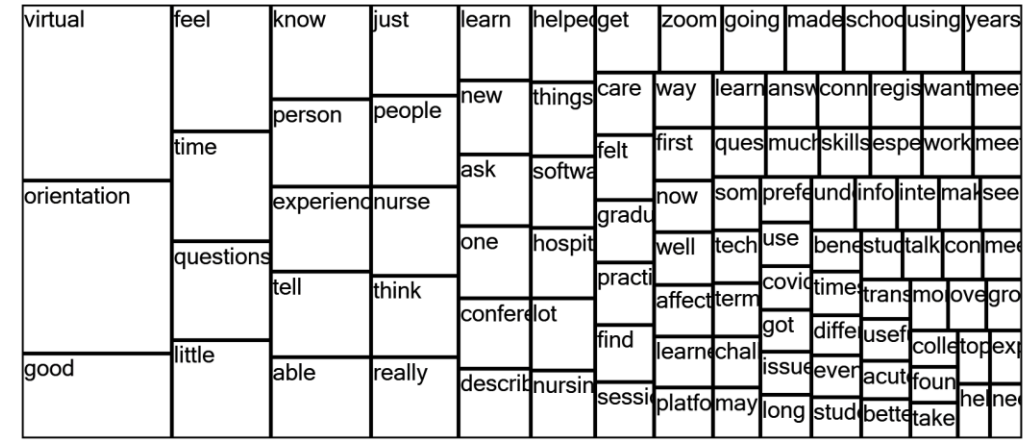


Figure 4

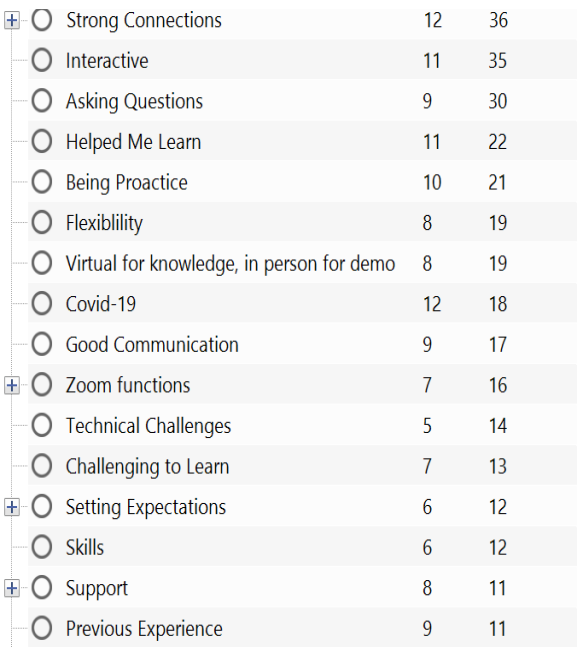
Word Cloud of Most Utilized Words

Condensing the Data

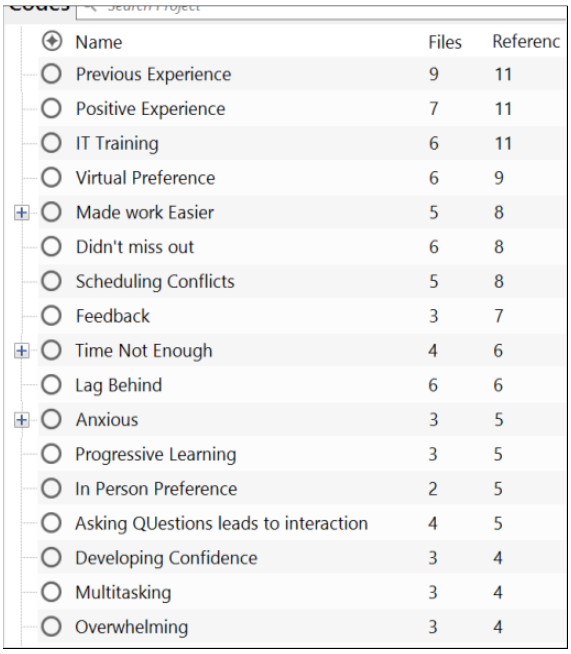
To further organize the data and continue critical analysis, I condensed information through both NVivo and Excel. In Excel, I took the codes I created in NVivo and began making connections between the codes. I used the commenting feature in Excel to comment on each data point. The comments I made were used to connect ideas. In NVivo, I used the reference frequency charts (Figure 5) to confirm what words or ideas were referenced the most and which participant spoke about the specific code. Using the reference frequency was helpful because it allowed me to compare and contrast data across all participant interviews. I began to formulate what codes and themes were the most prominent and began to organize them into main themes and subtopics.

Figure 5

Most Referenced Words Matrix



Strong Connections	12	36
Interactive	11	35
Asking Questions	9	30
Helped Me Learn	11	22
Being Proactice	10	21
Flexiblility	8	19
Virtual for knowledge, in person for demo	8	19
Covid-19	12	18
Good Communication	9	17
Zoom functions	7	16
Technical Challenges	5	14
Challenging to Learn	7	13
Setting Expectations	6	12
Skills	6	12
Support	8	11
Previous Experience	9	11



Name	Files	Referenc
Previous Experience	9	11
Positive Experience	7	11
IT Training	6	11
Virtual Preference	6	9
Made work Easier	5	8
Didn't miss out	6	8
Scheduling Conflicts	5	8
Feedback	3	7
Time Not Enough	4	6
Lag Behind	6	6
Anxious	3	5
Progressive Learning	3	5
In Person Preference	2	5
Asking QUestions leads to interaction	4	5
Developing Confidence	3	4
Multitasking	3	4
Overwhelming	3	4

Comparing and Contrasting Data Within Similar Participant Categories

To compare and contrast data within similar categories, I wrote comments and memos on handwritten transcripts, within Excel, and on NVivo to connect codes and themes. I also compared my analysis across all three documents and began to group codes and similar themes. I would write notes and memos for similar data. Next, I created a concept map to organize my concepts.

Comparing and Contrasting Data with Different Participant Categories

I used the same process to compare and contrast data with participant categories. I began by hand coding in NVivo and then utilizing Excel to code and sort data. If any data was an outlier, it was noted by commenting Excel. I then used a concept map to organize data into further categories.

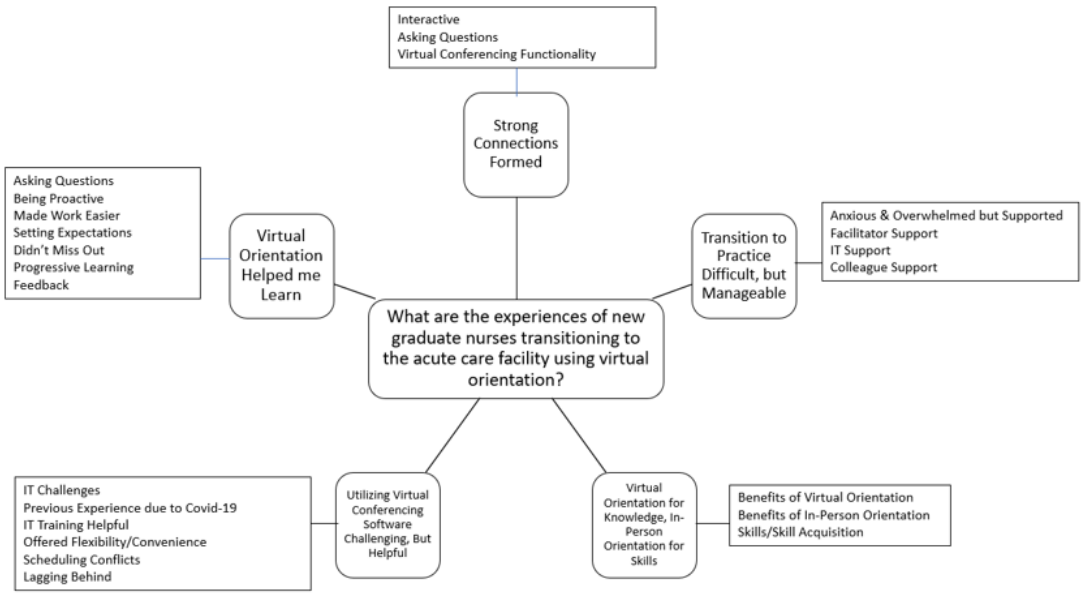
Emerging Themes

After the interview process and data analysis, I achieved thematic saturation. Five prominent themes emerged to answer the research question: What are the experiences of new graduate nurses transitioning to the acute care facility using nursing orientation? The five main themes were that during virtual orientation, new graduates felt that:

1. Strong connections were formed.
2. The transition to practice was difficult but manageable.
3. Virtual orientation helped me learn.
4. Utilizing virtual orientation was challenging but helpful.
5. Virtual orientation was used for knowledge acquisition, and in-person orientation was used for skills demonstration.

Figure 6

Concept Map of Themes and Subthemes



Each of the five categories had subcategories. The subcategories were codes that had come up during the interviews that supported the overall main topic of each of the five main categories. The subcategories were necessary to incorporate to ensure the accuracy of the information each participant was trying to convey. The subcategories ultimately were not mentioned enough to be listed as a main category or were chosen as subcategories because they supported the five main ideas that kept repeatedly emerging.

Discrepant Cases

Two discrepant cases were noted during the interview process. Generally, all participants stated that virtual orientation met their needs. However, Participants 5 and 11 felt strongly that in-person orientation was a better experience for them and that in-person orientation fostered better connections with their colleagues than virtual orientation. Participant 5 stated, " I would prefer in-person. Ya know, when you are interacting in person that has a physical connection, yea. That misses in the virtual orientation". Participant 11 stated, " In person, I would get to see emotions, get to see personality. I feel like also in person is necessary so you get to know and understand another person better because through virtual they are not very keen and at times they would not be on camera, and you are just hearing a voice".

I factored these into the analysis because they were essential to the participants' overall experience. It became evident that while most participants felt that virtual orientation met their needs, there was still a population of nurses who felt that in-person orientation best met their needs as they transitioned to practice.

Evidence of Trustworthiness

In qualitative studies, the study's credibility is based on the degree of trustworthiness. The degree of trustworthiness is measured by four concepts: credibility, transferability, dependability, and conformability.

Credibility

Credibility, or internal validity, refers to the researcher's ability to interpret results truthfully and ensure that the study measures what it intends to measure (Ravitch & Carl, 2016). A study's credibility or internal validity is directly related to the study's design, which includes ensuring that the methodology aligns with the research question (Ravitch & Carl, 2016). I used an interpretive descriptive qualitative design to answer the research question. The research methodology aligned with the research question. I intended to discover the experience of new graduate nurses using virtual orientation, supported by the interpretive descriptive qualitative design and utilization of semistructured interviews.

Another way I ensured the credibility of my study was by triangulation. I sought as many data sources as possible for my study by recruiting through multiple organizations and social media. While I did not get a culturally diverse population, I ensured enough participants were interviewed to reach saturation. I intended to recruit 9 to 17 participants to reach saturation and ultimately reach saturation at 12 participants. The 12 participants provided rich data, which helped ensure triangulation in my study.

The credibility of a study can also be reached when the data is interpreted to its true meaning (Ravitch & Carl, 2016). I used the six-step interpretive description design

method to analyze the data and ensure the accuracy of coding so that the true meaning of the participant's experience was uncovered. (Thompson-Burdine, 2021).

Transferability

Transferability is the degree to which the study findings can be generalized to other settings while maintaining their context-specific richness (Ravitch & Carl, 2016). To ensure transferability, I provided contextual information using thick descriptions. When analyzing data, I made memos about connections and discrepant data I found among the data. The memos were intended to give deeper meaning to the data obtained. For example, all interviews were done on virtual conferencing software, and all participants did not utilize the video camera function during the interview. I noted in my memos that technical challenges were a common theme among participants and that technical challenges also led participants to be off camera during the interview. Ultimately, this affected my ability to analyze nonverbal communication techniques during data collection. However, I made notes on other nonverbal communication like background noise, long pauses in answering the question, and audio cues like laughter to understand what the participant was trying to convey. I noted that using interpretive descriptive analysis and memos helped me stay authentic to each participant's individual experiences and the group's collective experiences.

Furthermore, I connected with my research committee weekly to ensure that my study yielded data that was rich in context. During the early phases of my data collection, I noticed that I was recruiting participants from a particular culture and demographic area and was concerned about transferability. I contacted my committee, who sent me research

articles about transferability and data saturation. They also advised me to contact the IRB to approve additional recruitment avenues to broaden the scope of participant recruitment. While I could not recruit a culturally diverse participant group, I felt that data saturation was reached and that the study results could be generalized to other contexts and groups.

Dependability

Dependability is the stability of the data and the extent to which data is consistent over time (Ravitch & Carl, 2016). I ensured dependability by asking all participants the same research questions with minor variations based on individual experience. I stayed true to the original research questions I created (Appendix A), providing standardization and consistency during the interview process.

I also ensured the study's dependability by remaining true to my intended methodology and data analysis. I provided a detailed description of the study's research design, implementation process, and data analysis so that the study could be replicated in the future and yield a high probability of achieving similar results.

Confirmability

Confirmability occurs when the researcher remains objective in data analysis and allows the participant to shape data rather than the researcher (Ravitch & Carl, 0216). Researchers should aim to remain neutral in their data evaluation and reduce personal bias (Ravitch & Carl, 2016). As the researcher, I practiced reflexivity by writing memos and notes throughout the research process to reduce personal bias. For example, I wrote

memos during and after each interview and throughout the analysis process in Excel, NVivo, and hand-written transcripts.

I created an audit trail which is a transparent, step by step description of the research process and findings, outlined in detail in the methodology section of this dissertation (Ravitch & Carl, 2016). In my data analysis section, I provided the rationale for decisions like what questions I asked during the interview, which allowed me to remain as objective as possible and refrain from forming biased opinions that would skew data and detract from the authentic experience of the participant.

Study Results

I used the six-step interpretive description method to analyze data from twelve interviews which relies on the researcher's ability to immerse themselves in the data and accurately code data manually (Thompson-Burdine, 2021). All data were analyzed and compared for similarities and discrepancies. Findings were coded into categories and themes to answer the research question. The research question was formulated based on a knowledge gap discovered in the literature review and upon Duschner's transition to practice theory and the TAM 2 model.

The study aimed to answer a single research question: What are the experiences of new graduate nurses transitioning to the acute care facility using virtual orientation?

Theme 1: Making Strong Connections

In the first three interviews I conducted, I noticed that participants talked about making connections with others even though I initially did not intend to ask a question about making connections. I recognized this as a potential recurrent theme, so I began to

include asking all participants about their experience with formulating connections through virtual orientation to gain a better understanding of this topic. Making strong connections was one of the most prominent themes referenced in all 12 participant interviews.

Overall, participants stated they could build strong connections on virtual conferencing platforms. Participant 2 stated, “The connections I made was that I also made friends. Not only colleagues, I made friends.” Participant 3 felt that virtual orientation allowed her to make connections and explained, “I think that it made work easier for me, especially because I would have an opportunity to interact one on one with people who I have not interacted like in person with a lot. So, it kinda feels like you already know them, they are familiar, and you can ask them questions. So, that I found very important and very like more interactive.” Participant 12 also felt they could make friends in virtual orientation and said, “Around interaction, I feel like I met good people who became friends and were also good with the facilitator, so we developed a good relationship.”

However, two participants stated that while virtual orientation provided time for building connections, the in-person orientation would have allowed them to make deeper connections. For example, Participant 4 shared that “Yea, I felt that there was a connection with others, but the point of experiencing yourself more, I felt like the physical, or the in-person would do better, but yea there was some bit of connection.”

Under the theme of making connections, three subthemes emerged, which included interaction in virtual orientation, asking questions, and virtual conferencing

functionality for building connections. Each participant was asked about their experience building connections during virtual orientation. Participants stated connections were built by asking questions and increased interaction through available virtual conferencing software functions. In general, all participants felt that they were able to make strong connections with their colleagues despite not having face to face interaction, though two participants still felt that deeper connections are made in in person orientation.

Subtheme 1: Interaction

Participants generally felt that the more interactive sessions were, the more they could build connections. Participants felt that interactions helped foster relationship building and that virtual conferencing software allowed for the desired amount of interaction. Participant 8 said, “Yea, as we went on, there were more opportunities for interaction, especially in virtual.” Participant 9 shared similar sentiments when she said, “I think it was that it was a platform that encouraged interaction. I really enjoyed it. I really enjoyed it. I think when we were in a group setup, I got to, to know many things because people would ask different questions, and they would be answered, and they were things I didn’t know. So, I kinda feel like the more you ask, the more experience you get, the more lively it is, the more interaction you get. So, I feel like it was more interactive.” Interaction fueled feelings of connections between participants and virtual orientation conferencing software allowed for opportunities to interact with other colleagues and team members.

Subtheme 2: Asking Questions

Participants felt that asking questions allowed them to interact, which helped them build strong connections. Participant 12 quoted, “The fact that I could um ask questions, and that you are interacting…like it was like more of a conversation, not more of a lecture.” While participant 11 felt that asking questions helped her reduce feelings of being overwhelmed because “I think having to call in and ask questions and get clarification and getting support from the people I was on orientation with helped me.”

Subtheme 3: Virtual Conferencing Functionality

Virtual conferencing software provided tools to improve the functionality of interacting, asking questions, and building relationships with others. Some of the most discussed tools to help increase building connections were the use of the chat function, the use of a video camera, and the use of small group breakout sessions. Participant 3 stated, "You were able to get to know each other’s faces, so you were not going to meet strangers in person. You are not going to meet someone you know and just pass them.”

Participant 6 described additional functions when she said, “The ability to connect with each other in that I was able to have contact in chat, and there was the option of chatting a member, you can also talk through phone, so I feel like it was enough interaction.”. Lastly, Participant 7 stated that “The group work was very helpful because that is when you are getting to know who you are dealing with and the kind of people because you are in a smaller group of around three to five people. You get to interact more, yea.”. Therefore, virtual conferencing software allowed participants to connect with each other by creating interactive learning experiences, leveraging virtual

conferencing software functions to promote interaction, and by encouraging interaction through asking questions. The more interaction there was, the more participants felt they connected to each other.

Theme 2: Transition to Practice Difficult but Manageable

The transition to practice period for new graduate nurses was difficult but manageable. Most new graduate nurses described feeling nervous, excited, and anxious as they started their new job in the acute care facility. The participants described the transition to practice period as difficult because they had to learn many things in a short period of time. Some participants also described challenges with work-life balance, specifically around missing orientation components due to moving or being sick. However, the new graduates' support from orientation facilitators, IT support, and their colleagues made the process manageable.

Subtheme 1: Anxious and Overwhelmed but Supported

Some participants of this study described feeling overwhelmed, anxious, and nervous as they transitioned to practice and began nursing orientation in the acute care setting. Participant 3 stated: “Going from school to the hospital setting was something I was so excited about. I was very anxious, and at the same time, I was looking forward to it.” One participant was moving while also starting her new role, and another was sick for the first week of her orientation and hospitalized. Both participants described that moving and being ill added to their anxiety. Participant 4 described this experience when she said: “My transition to practice was a lot, and I feel like that is based on getting a job and having to move and having to meet these new people you don’t know and then

orientation. It's a lot, but it's an overwhelming experience but a very exciting experience because with school, it's the end of it all. So, it's been sort of a challenging one, but I am up to the task, yea." However, all participants described receiving support from their orientation facilitator, IT technician, or fellow new graduate nurse colleagues, which helped them transition to practice during virtual orientation.

Subtheme 2: Facilitator Support

Orientation facilitator support was essential to the participants. Participants felt their facilitators were very supportive and flexible to their needs. The orientation facilitators were described as helpful, warm, and welcoming. Participants appreciated it when the orientation facilitators were flexible and willing to go above and beyond by holding one-to-one orientation sessions when the participants had to miss a session. Participant 11 stated, "I feel like when you reach out to them, especially when you have been away and then you ask them for whatever help that you need exactly, it seems that they are very ready to help. Like they take to think that accommodation and to know that you are ok. They want you to be at your best, and it means a lot, so it felt like they were very much approachable and very efficient." Facilitator support also helped the participants feel comfortable to ask questions and make connections with others; "I think the facilitators were very advising. It felt like the kind of people that you are dealing with that you really feel you really know them; you are ready to ask them things, and not really guilty to ask something that you know maybe others would consider obvious, yea. (Participant 7)."

Subtheme 3: Information Technology (IT) Support

IT support was crucial in helping the new participants. Many participants called IT support when they had technical issues like needing a software program upgrade or inability to connect to the session. Participant 10 recalled, “The experience was good because we had a trained person there who was mainly the facilitator there who was mainly in charge of the technical things in terms of helping people learn about Zoom and other meetings after.” Availability of IT support was essential to the participants because some said they had difficulty connecting to IT support if many people were calling simultaneously. For example, Participant 12 said, “Ya know, you cannot, you cannot like keep calling the technical support because then they are busy at that time.”

Subtheme 4: Colleague Support

Many participants reported making close connections with their other new graduate nurse colleagues. They described that their colleagues helped them when they missed orientation information, needed support from someone to talk to, and that their colleagues became their friends. Regarding missing a meeting, Participant 7 recounted: “Like someone called. And you barely know these people. You met like twice in person and the others in virtual. So ya know, like someone calling, that shows a lot of like people really care, yea.” In addition, some participants set up meetings with their colleagues to connect further with each other. Participant 5 said, “Ya know, we could meet as many nurses virtually; ok, we could organize a Zoom meeting or Google meeting or several meetings so you could not be alone. So that you can see that other nurses have the same,

well, someone has the same conclusion as you," which showed participants took the initiative to get to know each other better even on a virtual platform.

Overall, participants found that the transition to practice period was difficult, but manageable. Four subthemes emerged in this section. The first subtheme was the common experience that new graduates felt anxious and overwhelmed but supported. Support came from orientation facilitators, information technology (IT) technician support, and colleague support. Feeling supported helped them cope with feelings of anxiety that surrounded the virtual orientation process.

Theme 3: Virtual Orientation Helped Me Learn

Subtheme 1: Asking Questions

The participants in the study overwhelmingly stated that the best way to learn the information was by asking questions. Asking questions helped them clarify and understand information and receive feedback from their orientation facilitators to improve their knowledge and skills. However, participants felt that questions should be asked in an organized manner. Participant 4 quoted, "At times, there would be, or people would have so many questions, at times the questions would run over or overrun each other, or people would talk some more time, especially when your meeting is done, and questions would go unanswered."

Subtheme 2: Being Proactive

Participants felt that they needed to be proactive in learning with virtual orientation. The participants spoke about the importance of asking questions and seeking out knowledge in books and online through platforms like Google.

Participant 4 stated, “At times, I know the orientation phase, I know the time varies, and sometimes you are short on time, so you have to be very proactive, Yea. It made me very proactive in asking questions and developing interaction capabilities and relationships. And also it helped me hmmm know a lot. Like I got a lot of knowledge because of wanting to ask and because of wanting to listen, and that itself attracts your capability to get information”. Both Participants 2 and 10 recounted being proactive in seeking knowledge outside of the orientation sessions. Participant 2 said, “if a certain question was important or sounding like it was going to be important or a topic I really need to research more about, I would look at a book.” In contrast, Participant 10 said, “I would make sure that I cover up for the time I had lost (due to technical issues) because there were actually recordings.”

Subtheme 3: Made Work Easier

Virtual orientation made work easier for the participants because they enjoyed the flexibility to learn from any location. Participant 1 felt that “It made it very easy. You can be anywhere, even at home.” Likewise, Participant 2 had a similar experience and felt that “It made me feel good. It made work easier. Like it was only enhancing like communication and the fact that you could just uh talk to someone in a different location and have a meeting and have topics to talk about. It was very organized, observing things. I think it made work very easy.”

Virtual orientation also made work easier by allowing participants to interact with each other. Participant 3 shared that “I think that it made work easier for me, especially because I would have an opportunity to interact one on one with people who I have not

interacted like in person with a lot. So it kinda feels like you already know them, they are familiar, and you can ask them questions. So, that I found very important and very like more interactive."

In addition, one participant recalled that virtual orientation helped them learn the orientation information and assisted with her critical thinking skills. Participant 2 stated, "It (virtual conferencing software) made work easier. It has made me to memorize things quicker and to also to want to interact with people virtually, even aside from orientation. It has also made me more of a critical thinker, especially when questions are asked."

Subtheme 4: Setting Expectations

Setting expectations became a subtheme because participants felt they learned better when they knew what was expected. They expected the orientation facilitator to tell them when to meet and what they were expected to learn that day.

Participant 4 recalled, "The first day I remember it was the introduction, the facilitator then asked us to introduce ourselves. And then after that, we were asked if we had any expectations and what are the things we can encounter, what are the possible solutions, and then setting up umm regarding time, regarding, when, how to respond, yea".

Subtheme 5: Didn't Miss Out

Most participants stated they did not miss learning opportunities while using virtual orientation. Participants felt they learned by asking questions and being proactive during virtual conferencing orientation. Participant 10 recalled that "Yes, the reason I am saying I was because even in the next meetings, there was an opportunity to ask questions

from the previous meeting you had not attended, so I never felt like I had missed out." If technical issues arose, participants still felt like they didn't miss out on any information because they could call a colleague or watch a recorded session. Participant 12 described this by saying, "They (technical challenges) didn't affect the learning experience because either way, I got whatever I had to learn in those sessions, and I got what I missed.".

When it came to learning hands-on skills, most participants stated they did not miss out on learning even though they were virtual. Participant 2 recalled using platforms like Google and YouTube to review skills sessions. She said, "I feel like everything was just that, in doing things with demonstrations, like especially on YouTube, especially maybe in tutorials that was something that interests me, so when you go to that platform, and that demonstration is being done, for me to see, I didn't feel like I missed out."

Subtheme 6: Progressive Learning

The participants described progressive learning while using virtual conferencing software. As Participant 4 described, "We got deeper as time progressed, and basically, it was more of how to maneuver with ease and also in case you had questions. I think there was room for questions at the end of every session."

Participant 2 recognized that virtual orientation laid a foundation. It made her realize she had more to learn: "I used the virtual platform to mainly get to know what to use in terms of caring for patients uh or what different types of medications or to give, to learn more about conditions, to learn more about care that is and is necessary for certain patients. To learn more about care that is necessary for certain patients. It also made me realize that, um, you cannot be knowing everything honestly."

Subtheme 7: Feedback

Participants said they wanted immediate and individualized feedback and that virtual orientation provided opportunities for them to receive that feedback.

Participant 1 stated, “You could also be traveling, and also you can have opportunities to ask questions without feeling bad and get feedback immediately.” While Participant 3 also had a similar experience and recounted, “It was possible to ask questions anytime something wasn’t familiar, which is very good to get immediate feedback. That is something I really liked.”

In this study, virtual orientation helped new graduate nurses learn information they needed to know to successfully transition to practice in their new role. The new graduate participants felt that virtual orientation made work easier for them because they learned the information they needed with the flexibility of learning from home. They found that asking questions, being proactive, and obtaining personalized feedback helped facilitate their learning experience. The virtual orientation experience laid the foundation for progressive learning and allowed new graduates to build a foundation of knowledge and skills to help them in their practice. Generally, new graduate nurses that participated in this study did not feel like they missed any learning experiences due to participating in orientation on virtual conferencing software.

Theme 4: Virtual Conference Software Challenging, But Helpful

Overall, participants found virtual conferencing software had some technological challenges that created barriers, but overall was a valuable and helpful experience for

them. Previous experience with virtual conferencing software and IT training and support helped facilitate the virtual orientation process.

Subtheme 1: IT Challenges

Technical challenges were a common theme among participants. Technical challenges mainly related to wi-fi issues, inability to log into the meeting, or being dropped from the meeting due to poor connection. For instance, Participant 12 stated, “Oh, what I didn’t find very useful is the technical difficulties. At times they could lag you behind.” Some participants, like Participant 4, had challenges with the internet and wi-fi. Participant 4 explained, "At times when you are trying to log in, it was not going through. Or at times when you are low on internet outage, or you are not really prepared.”

Other participants had issues with utilizing the tools within virtual conferencing software, like Participant 2, who felt that “One thing I had to learn very fast was all about the virtual conferencing tools. I was not so very good about the meeting tools like Zoom, this thing and that, and Webex”.

Some participants reported technical challenges because they were unsure how to utilize virtual conferencing software or had issues with their virtual conferencing software. As Participant 12 said, “One time there was one day that my Zoom needed upgrading, and which I didn’t know it needed upgrading, and I had to call in and ask the process.

Subtheme 2: Previous Experiences Due to COVID-19

Participants felt that COVID-19 helped prepare them to become familiar with virtual conferencing software and communicating with others in the virtual setting.

Participant 3 stated, “I think COVID 19 helped me navigate because I had to do the virtual learning in school, so at least I was now more conversant with the Zoom and the online virtual platforms for meetings. So, it wasn’t difficult, and it made things easier.” Participant 11 described that virtual conferencing software was in place for quite some time before she had to use it for virtual orientation. This participant said, “By that time, people were using the virtual media and social media so often, so I kind of feel like I was already set, and I didn’t find it really hard to platforms like Zoom, Teams, Google, Webex, I didn’t have challenges with that.”

Two participants also mentioned that COVID-19 helped them develop an interest in information technology because they began to learn more about virtual conferencing software because of social distancing requirements in their undergraduate education. Participant 4 felt that “COVID 19 helped me to develop more interest in the IT, because it’s how people were really interacting by then, and it’s how the management chose to do the orientation.” Participant 6 felt that COVID-19 helped her become familiar with using virtual conferencing software and also helped her develop an interest in IT, which she expressed, saying, “ COVID-19 helped me with the Zoom. Before that, I was not good at doing Zoom meetings, so I had to completely learn about doing Zoom meetings and Teams and all those platforms. And it helped me develop a lot of interest in the internet.”

Subtheme 3: IT Training Helpful

While participants stated that virtual orientation created some technological/IT challenges, they felt that IT training helped prepare them to navigate virtual orientation

platforms. All participants said their hospitals offered IT training to prepare them for virtual training.

Subtheme 4: Offered Flexibility/Convenience

Virtual orientation was described as making work easier. Making work easier is related to the flexibility and convenience of virtual orientation. Overall, participants felt that virtual orientation offered flexibility and that flexibility was desired and positively received. Participant 1 stated, “I would say the flexibility part of it was very beneficial.” The concept of flexibility was further explored when Participant 4 stated, “it is very easy to use the virtual platform, and convenient because you can be on in whatever place you want, yea. And it was convenient”, and Participant 10 felt that “Because you could connect from where you are and remember there were colleagues of mine who were traveling by that time and were moving, in like, they were moving into a new town so they would still be able to connect through Zoom.”

Subtheme 5: Scheduling Conflicts

Scheduling conflicts were experienced by most of the participants. Participants wanted flexible schedules and would have liked choices about what time and day to have their orientation. Participants wanted clear communication about their schedules and the time they were expected to be present. They wanted meetings to run on time. For example, Participant 2 said, “If the meeting was scheduled was from 8 -10, then let it be there. Like within that time.”

Participants did not want meetings to overlap or conflict with other meetings. As Participant 7 expressed, “Ya know, people were making meetings that were not

necessarily for orientation, so when they overlapped, they were conflicting with each other, which really affects, but that really only happened twice, on two occasions." Furthermore, participants felt that some scheduling conflicts related to a lack of staffing and that there should have been more facilitators so that more sessions could be offered at different times throughout the day. As Participant 4 stated, "In terms of scheduling, there is need for more nurse staff to conduct orientation. Because this scheduling conflict could have been caused by shortage of staff or making staff getting something urgent to do so, they are unavailable at a certain time when they had scheduled it prior. It was very inconvenient." Finally, some participants felt that scheduling conflicts could be avoided by making all meetings shorter but more frequent. As Participant 6 felt, "The first days of orientation, we had problems with the scheduling of meetings, and the problem with that was that it necessitated them being virtual, but I feel like it was a blessing in disguise because it took care of the problem of having meetings all day and it wasn't really not favorable."

Subtheme 6: Lagging Behind

Overwhelmingly, participants talked about not wanting to miss out on anything in virtual orientation. Participants said they were anxious about technology issues preventing them from logging in on time and causing them to miss portions of sessions. Participant 12 felt that "What I didn't find very useful is the technical difficulties. At times they could lag you behind." Participant 6 agreed with this sentiment: "When I would get those issues, like technical issues, I would have to ask so many questions, I would have to text some of my colleagues, was this and this right and what are you guys

talking about? But you see, at that time, I could be doing something more constructive like research, but now I am waiting on asking about what they learned. At times it could be seeming like ignorance, especially when you are always late."

Though the participants felt that virtual orientation was beneficial because of the flexibility it offered, there were some challenges that participants experienced. Many of the challenges were related to IT issues like poor wi-fi and learning how to utilize virtual conferencing software. While participants reported that they had some experience with virtual conferencing software while in school during the COVID-19 pandemic, they reported that IT training and support was still helpful.

Theme 5: Virtual Orientation is Best for Knowledge Acquisition, In Person is Best for Skill Acquisition

Most participants preferred virtual orientation, though they realized the importance of in-person orientation for skills.

Subtheme 1: Benefits of Virtual Orientation

Virtual orientation provided a way for nurses to learn what they needed to know to transition to nursing practice while offering the flexibility and convenience of working from home. As Participant 10 stated, "Obviously, I liked virtual. Because it saved a lot of time, no, um, there was good interactions, and we got an opportunity to inquire about things we didn't know. We also got to interact with colleagues that we would work with". Participants seemed to like virtual orientation so much, that Participant 7 strongly felt that "this is the way to go for most, most platforms maybe at school, maybe at work, and other opportunities should be created in this setting." Participant 7 also felt that in-person

orientation was more challenging due to “the lack of time and the availability of the facilitators.”

Subtheme 2: Benefits of In-Person Orientation

Two participants would have preferred orientation to be fully in person because they felt it would have helped them have time to learn skills and create stronger connections. Participant 3 explained, “Well, because during the classroom setup, we were able to like in person, you were able to see the whole process going on, and you would ask questions, and clarification would be given, and then, you will take note of the important things that needed to be taken note of.”

Subtheme 3: Skill Acquisition

All participants recognized the importance of skill acquisition as a new graduate nurse transiting to practice in the acute care setting. Skill acquisition helped the new graduate nurses apply the theoretical knowledge they learned. Participant 3 felt, “What really has been my experience is that I have learned a lot, and I feel like most of the things that you learn in class you get to apply them now in clinical, I mean the work setting.” Participant 10 had similar sentiments and said, “I think the demonstrations and being able to actually do it helped me apply my knowledge.”

All the participants were required by their organizations to attend their skill sessions in person. Participant 4 recalled, “Yea, there were sessions that were prepared in advance regarding that skill like IV insertion and everything, so anything that needed some type of demonstration, we were told prior what to expect.”

Many participants felt that in-person learning and acquiring skills were beneficial and challenging to learn skills on virtual conferencing software. Participant 6 stated, “in terms of the demonstrations and in terms of other issues, it was really challenging to like understand the whole concept when you are doing it Zoom-wise, so we had to request in-person meetings.” Participant 3 also recognized that having a skill session in person helped her the most, saying, “I think it would have been different because actually when you are doing it, in person is when you get to know when you are making mistakes and what to do in case of anything happening. Because once you are reading online, you are not seeing the demos, it is really hard.”

However, one participant felt skills could have been acquired by reviewing information on YouTube or Google. Participant 2 stated “Doing things with demonstrations, like especially on YouTube, especially maybe in tutorials, that was something that interests me, so when you go to that platform, and that demonstration is being done, for me to see, I didn’t feel like I missed out.”

Participants in this study mostly preferred virtual orientation using virtual conferencing software but recognized that learning skills in person was the best way to learn skills. Many participants noted that they supplemented in person skills acquisition by seeking information and watching videos on the internet.

Summary

I aimed to understand the experiences of new graduate nurses who transitioned to practice using virtual conferencing software for nursing orientation. In this chapter, I presented data analysis and issues of trustworthiness. The research question guiding my

study was “What are the experiences of new graduate nurses transitioning to the acute care facility using virtual orientation?” After conducting semistructured interviews with 12 participants, most participants stated that using virtual conferencing software for virtual orientation met their needs. Five major themes emerged which helped answer the research question. The first theme was “strong connections formed,” which uncovered three subthemes: interaction, asking questions, and zoom functions for forming a connection. The second theme was that the “transition to practice was difficult but manageable,” which uncovered the four subthemes of feeling anxious and overwhelmed but supported, IT support, orientation facilitator support, and colleague support.

Theme three was “virtual orientation helped me learn,” which had seven subthemes: asking questions, being proactive, setting expectations, making work easier, not missing out, progressive learning, and feedback. The fourth theme was utilizing virtual conferencing software was challenging but helpful. This theme included six subthemes: IT challenges, previous experience due to COVID-19, IT training was helpful, offering flexibility and convenience, scheduling conflicts, and lagging. The fifth theme was “Virtual orientation was best for knowledge, while in-person was best for skill acquisition.”Theme five has three subthemes which were: the benefits of virtual orientation, the benefits of in-person orientation, and skill acquisition.

In Chapter 5, I will present the interpretation of the study findings, study limitations, implications, and recommendations.

Chapter 5: Discussion, Conclusions, and Recommendations

New graduate nurses have traditionally transitioned from school to practice starting with a mandatory formalized orientation at the acute care facility where they are employed (Laflamme & Hokra, 2020; Rush et al., 2019). During the COVID-19 pandemic, many acute care hospital facilities began utilizing virtual conferencing software to maintain social distancing guidelines while providing orientation for new employees (CDC, 2021; Ocudado, 2021; Smith et al., 2022). The purpose of this interpretive descriptive qualitative was to understand new graduate nurses' virtual orientation experiences as they transition to practice in acute care facilities.

The research question was designed to align with the interpretive descriptive qualitative design of the study. I recruited 12 participants for this study. I collected data over a period of eight weeks through interviews on Microsoft Teams virtual conferencing software. The interviews were audio recorded and transcribed for analysis purposes.

I used a six-step interpretive descriptive analysis which helped guide me in analyzing data through a rigorous process. The six-step interpretive descriptive analysis helped me uncover themes and codes that described the authentic experience of the participants. I discovered five main themes with multiple subthemes. The themes demonstrated that new graduates had a positive experience with virtual orientation and that virtual orientation allowed them to learn what they needed to successfully transition to practice while also building strong connections with their colleagues.

Interpretation of Findings

New Graduate Transition to Practice

New graduates face many challenges during their transition to practice period. Common challenges include time management and prioritization difficulties, feeling stressed and overwhelmed, lack of coping mechanisms, and lack of clinical knowledge and skills. New graduate nurses need support to overcome challenges in the first year of nursing (Berkow et al., 2008). To help overcome challenges to the transition to practice periods, the participants in this study reiterated the importance of having a support system. They found support through their orientation facilitators, nurse educators, colleagues, and IT support. The literature additionally mentions that new graduate nurses often rely on support from preceptors and nurse residency programs to help them transition to practice (Monaghan, 2015; Mouyanar & Cox, 2021). While the participants in my study discussed the importance of support systems, none of the participants discussed nurse preceptors or nurse residency program support during the interviews. Additional information can be obtained in future studies to ascertain the best support systems for new graduate nurses.

My findings showed that new graduate nurses felt overwhelmed, anxious, and nervous but also excited about their transition to practice. Experiencing a myriad of emotions is common among new graduate nurses (Berkow et al., 2008; Duchscher et al., 2008). Therefore, the findings of this study confirm the new graduate experiences described in other studies like Berkow (2008) and Duchschner (2008). Feeling overwhelmed and nervous can be attributed to the theory-practice gap experienced by

many new graduate nurses when the knowledge they learned in school does not translate to practice (Ahmed, 2015; Monaghan, 2015). The participants in this study felt like they could learn information they did not know by asking questions, reviewing skills with educators in person, and watching skills demonstration videos online. The literature confirms these findings and supports the need for interactive learning to bridge the theory-practice gap for new graduate nurses (Bashir et al., 2021; Bolster et al., 2022, Rogers & Burke, 2021; Woolwine et al., 2019). The literature also supports that new graduate nurses who have a longer orientation period often have higher retention rates (Rush et al., 2019). However, there was no literature I could find that differentiated initial didactic virtual orientation from in person orientation on the unit. More studies should be done to explore how long initial didactic virtual orientation using virtual conferencing software should be to gain a better understanding if new graduates would benefit from more time to learn and review content, watch demonstrations, and practice skills.

Current Trends in Nursing Orientation

Current trends in nursing orientation involve keeping learners engaged through interactive processes, appealing to all types of learners, and managing flexibility and work-life balance during orientation. Sessions should appeal to auditory, kinesthetic, visual, and read-write learners using interactive gaming or simulation sessions (Rogers & Burke, 2021; Woolwine et al., 2019). Participants did not discuss using gaming or simulation during virtual orientation sessions to increase interaction.

The literature shows that functions like utilizing video camera, chat, and breakout rooms foster interaction and appeal to many types of learners. (Woolwine et al., 2019;

Ocudado, 2021, Rogers & Burke, 2021) Participants in the study said they stayed engaged by communicating with each other, asking questions, and utilizing technology functions like the video camera, the chat feature, and small breakout rooms. Another recommendation for orientation is to assimilate new graduates into the culture of the organization and help them foster relationships with colleagues (QSEN Institute, 2021). In this study, the participants felt that virtual orientation allowed them to build strong connections and learn what they needed to successfully transition to practice. The participants described that orientation curriculum typically included lectures about the culture of the organization and relevant nursing care topics which align with QSEN recommendation. Therefore, the data from this study showed that the orientation processes described in the literature were generally aligned with the experiences of the participants. Participants made it clear that they valued interactive learning and connecting with other colleagues. The participants also felt the orientation topics discussed were relevant to their practice and helped enculturate them into the organization. Further consideration should be given to finding additional ways to foster interaction and create interactive learning experiences in virtual orientation. More studies should be completed to understand how to increase interaction and facilitate learning by exploring how trends like gaming and simulation can be incorporated into virtual orientation sessions.

Time Length of Nursing Orientation

Hospital facilities set the time length of specific orientation for new graduates, ranging from weeks to months (Trossman, 2016; LaFlamme & Hokra, 2020). The

participants did not discuss what a sufficient time length of orientation would be, but they did discuss the benefits of having shorter sessions instead of full day sessions. Orientation is often overwhelming because of the large amount of information that is shared within a short period of time (LaFlamme & Hokra, 2020; Song & McCreary, 2020). The literature supports the statements from the participants about having shorter orientation sessions where information is "chunked" or presented in shorter time frames to reduce information overload. (Bashir et al., 2021; Bolster et al., 2022; Song & McCreary, 2020) Chunking information, or breaking it into smaller segments, helps learners retain information, which should be considered when planning an orientation curriculum (Song & McCreary, 2020).

I could not find any literature that suggested how long orientation sessions should optimally be, but the participants in this study said they enjoyed shorter sessions that lasted two to four hours in length. More research should be conducted to understand the best time length for orientation through virtual conferencing software and how to format the structure of orientation to best fit the needs of new graduate nurses.

Orientation Curriculum

QSEN encourages organizations to educate new graduate nurses about patient-centered care, teamwork and collaboration, evidence-based practice, quality improvement, safety, and informatics (QSEN, 2020). The orientation curriculum described by participants was consistent with QSEN recommendations and included an overview of hospital culture and systems and information about clinical nursing services at their facility. Participants reported that information was primarily presented in lecture

format with question-and-answer discussion sessions. The literature shows that education should move from lecture- to competency-based education (Bolster et al., 2021). However, participants described that competency-based education mainly occurred in person during skill sessions with a nurse educator who provided feedback. Therefore, it cannot be determined if virtual orientation alone provided new graduate nurses with adequate competency-based education through virtual conferencing software. Orientation curriculum should be reviewed to be consistent with current trends and recommendations from the literature, like increasing competency-based education.

Verifying Competencies

Nursing orientation provides initial training and assesses employee competence (The Joint Commission, 2021). Nurse educators should give feedback that is timely and specific when assessing the competence of new graduate nurses. Some studies showed that nurse educators could not provide feedback to new nurses on virtual software due to time constraints and a lack of in-person interaction (Dale-Tam & Thompson, 2021; Noza et al., 2021; Ocudado, 2021). However, participants in my study stated they could receive individualized and immediate feedback while using virtual conferencing software for nursing orientation. Participants stated they had open communication with nurse educators and orientation facilitators and could get feedback and set goals with their educators.

Setting goals and verifying competencies are important during orientation because they help assess the nurse's knowledge, skills, and abilities (LaFlamme & Hokra, 2021). Knowledge, skills, and abilities encompass affective and cognitive learning domains and

provide learners with a well-rounded learning experience. (Ahmed, 2015). When assessing knowledge, learners prefer online learning when educational content engages learners (Capitelli, 2021; Bashir et al., 2022; Khodai et al., 2022; and Ocudado, 2021). My findings showed that ten of the 12 participants preferred online learning, while two preferred in-person learning. Most participants stated that virtual learning allowed them to obtain the necessary information and knowledge to succeed.

Successful skill acquisition is also integral to a successful transition to practice. Most studies show that students prefer to learn technical skills in person (Capitelli, 2021, Vandenberg & Magnussen, 2021). All the participants in my study reported having in-person skills sessions to learn hands-on skills, and they all stated they learned the skills they needed. Some participants stated that the in-person skill sessions were too short and needed more time to practice and ask questions. A few participants stated they could learn skills by watching demonstrations on YouTube. The participants did not clearly define or identify best practice for learning skills. Capitelli, (2021) and Vandenberg-Magnusen, (2021) showed that in-person orientation was the best method for skill acquisition, that conclusion cannot be reached from the information obtained in this study.

The last component of verifying competencies is assessing a person's ability and attitude (Ahmed, 2015; Nabizadeh-Gharghozer et al., 2021). Emotional well-being is vital to new graduate nurses who experience a range of emotions in the first year of nursing, including excitement, anxiety, frustration, and being overwhelmed. (Duchscher, 2008). These emotions affect how new graduates transition to practice (Duchscher,

2008). The participants in my study recognized the importance of being positive and proactive during orientation to gain the best experience. It is challenging to say whether or not virtual orientation fostered the importance of being positive. However, many participants felt that virtual orientation did encourage them to be proactive learners because they felt they had to stay engaged in order to learn information and stay connected to each other.

Finally, competencies should be completed in a stepwise manner that builds upon previous knowledge. New graduates prefer when orientation is staged or progressive because it helps them learn and retain information (Song & McCreary, 2020). Educators should work with new graduate nurses to gradually attain competencies during the time-defined orientation period (Song & McCreary, 2020; Rodgers et al., 2021; Rush et al. 2019). In this study, the participants also expressed that they preferred orientation sessions that were shorter because it helped them retain information and improved work-life balance.

Impact of COVID-19 on Nursing Orientation

COVID-19 required many acute care facilities to convert in-person orientation to virtual orientation to meet social distancing guidelines set by the CDC. The participants in my study were in nursing school at the time of the pandemic. Participants recounted that their experiences using virtual conferencing software in school helped them learn how to use virtual conferencing software technology.

Many hospitals did not have guidance on implementing virtual conferencing software for nursing orientation. Early research about virtual orientation included case

studies describing how acute care facilities implemented virtual orientation. The case studies described using virtual orientation for most orientation content with little time for learning skills in the classroom setting (Dale-Tam & Thompson, 2021; Noza et al., 2021). The case studies showed that skills were primarily learned in small groups or the unit with a preceptor. My findings revealed a similar setup as participants described that 80-90% of orientation was conducted on virtual conferencing software, and 10-20% involved hands-on skill sessions. This information shows that the hospitals the participants work at continue to use a hybrid format of orientation that is primarily virtual with hands on sessions for skills. The hybrid format of orientation became popular during the COVID-19 pandemic due to social distancing guidelines (Nova-Margallo et al., 2021; Ocudado, 2021; Weiss et al.,2021). Weiss et al. suggested that hybrid orientation is the best practice for orientation when social distancing guidelines are mandated because learning hands on skills sessions in-person is the best practice for skill acquisition (2021). The participants in this study all described using a hybrid method of orientation which mostly consisted of virtual sessions despite the reduction in social distancing mandates. Therefore, using the hybrid model if orientation may be the best evidence-based practice for nursing orientation post COVID-19.

Utilizing Virtual Conferencing Software for Nursing Orientation

Virtual conferencing software has been effectively used in nursing academia (AACN, 2019; Khodaei, 2022; Ocudado, 2021, Smith et al., 2022) My findings revealed that virtual conferencing software can be effectively utilized in a hybrid model where nurses learn foundational knowledge of virtual conferencing software and skills in

person. Participants reported that they appreciated the flexibility of virtual conferencing software and that sessions were sometimes two to four hours, which was convenient. Due to the flexibility of virtual conferencing software for orientation, participants did not report "Zoom Fatigue" or feeling mentally tired due to long virtual sessions, which is a common theme in other studies about virtual conferencing software (Ocudado, 2021).

Theoretical Implications

The TAM 2 Model can be used to describe how technology is adopted into practice. The TAM 2 model is relevant to this study because it describes how nurses utilize virtual conferencing software to learn nursing knowledge and skills. The TAM model shows a high correlation between perceived usefulness, perceived ease of use of technology, and a person's self-report of current and future technology use (Venkatesh & Davis, 2000). The participants in my study stated that virtual conferencing software was useful because it offered flexibility and allowed them to gain the knowledge they needed to transition to practice.

Many participants stated that virtual conferencing software was relevant to current practices in conducting meetings and learning information. Some participants had used virtual conferencing software in their undergraduate nursing programs, and that virtual conferencing software would remain the standard of practice for nursing orientation. There were different opinions about how easy virtual conferencing software was to use. Most participants found virtual conferencing software challenging and required practice and training to understand how to use it. Some participants found that training was necessary and that they needed to be taught to use virtual conferencing software. Other

participants stated that virtual conferencing software was easy to use, and they were well-versed in utilizing it for personal and professional use.

The TAM 2 model includes social and cognitive domains that affect whether a person is likely to adopt technology use (Venkatesh & Davis, 2000). Based on the social domain of the TAM 2 model, participants are more likely to adopt technology if their colleagues adopt it (Venkatesh & Davis, 2000). The participants in this study relied greatly on the support of their colleagues and others to help them with the technical aspects of virtual technology. Some participants said they would utilize IT support or call their colleagues for assistance, especially those who were conversant in using this technology. Using virtual conferencing software seemed to be socially acceptable to participants in this study which helped new graduates embrace this technology. Many participants also stated they could make strong connections with others while utilizing virtual conferencing software.

The cognitive domain of the TAM 2 model focuses on job relevance, output quality, and result demonstrability (Venkatesh & Davis, 2000). Job relevance is the degree to which the technology is relevant to the job. In this study, nurses utilizing virtual conferencing software felt like they could learn knowledge, theory, and general code of conduct from participating in virtual conferencing software. Therefore, virtual conferencing software technology was relevant to learning new information to help them perform adequately in their job. Participants did note that skills were learned better in person. Therefore, output quality, or how well the technology allows the user to perform their job, was lacking. While one or two participants stated they learned skills just by

using virtual conferencing software and YouTube videos, most participants recognized they needed to demonstrate skills in person to learn the skill. Therefore, based on the experiences of these participants, it is unclear if virtual conferencing software provides the desired output of ensuring that new graduate nurses are well-versed in hands-on skills from virtual orientation alone.

It is also important to consider demonstrability or how tangible the user believes they will get results from using technology. Most participants stated that they learned from virtual orientation and that it met their needs. Therefore, the participant's experience reflects that virtual conferencing software allows new graduates to learn new information tangibly but that skills demonstrations may need to be learned in person. The overall findings of this study support the theoretical framework of the TAM 2 Model. Participants discussed social and cognitive factors that influenced how they accepted the practice of utilizing virtual conferencing software for orientation. The participants felt that virtual conferencing software applied to their practice and was beneficial for orientation if slight modifications were made, like having in-person skills sessions.

Eleven participants in my study stated they were in practice for seven to 12 months, while one participant had approximately six months of practice as a nurse. Therefore, most of the nurses participating in this study were in the "Knowing Phase" of Duchscher's transition to practice theory. The nurses accurately reflected the characteristics of the Knowing Phase. During the "Knowing Phase" of Duchscher's transition to practice theory, new graduate nurses becoming increasingly confident in their knowledge and skills (Duchscher, 2008). They resolve conflict they may have felt

during transition shock and begin to evolve their own nursing style (Duchscher, 2008). Many participants reflected positively on their virtual orientation experience regardless of whether they preferred in-person or virtual. While the participants in this study had a generally positive outlook, they did recall that that transition to practice was "difficult, but manageable" and that virtual conferencing software was "challenging, but helpful" which is synonymous with overcoming transition shock (Duchscher, 2008). Their positive and negative reflections on virtual orientation could potentially mean that they remembered negative feelings and conflict from transition shock and crisis but resolved those feelings to create a positive outlook about orientation. Interestingly, one participant in her sixth month of practice (Participant 7) positively reflected on her virtual orientation experience during the sixth month, when new graduates typically experience a transition crisis. It is possible that her experience may be an outlier or that she was at the later stage of "being," where she resolved any feelings of conflict from transition shock and crisis. Overall, the principles of Duchscher's theory of transition to practice were accurately described by the participants in this study in the knowing phase.

Limitations of the Study

One limitation of this study was the homogenous participant sample. All twelve participants identified as Black Americans and were in the age ranges of 20 to 40 years old. The findings of this study reflect the experience of these 12 individuals with similar demographics, so it is unclear if the findings of this study reflect the experiences of other new graduate nurses from different cultures, ages, gender, or ethnic backgrounds. Furthermore, all participants spoke English, but English was not their first language

which may have caused a language barrier between the researcher and the participants. To mitigate the language barrier, I ensured I spoke slowly and clearly and that I repeated back and confirmed information for clarification. I also played the audio recordings numerous times to ensure the data was transcribed and interpreted correctly.

Another limitation of the study was the timing of the study. Three years have passed since the COVID-19 pandemic began, and social distancing guidelines have been reduced in the acute care setting. Therefore, many acute care facilities can bring nurses in-person for orientation sessions. All participants in this study experienced a hybrid orientation where foundational knowledge and hospital policies were discussed on virtual conferencing software while skills were practiced in person. Therefore, this study may not be applicable to the experiences of new graduate nurses who only used virtual conferencing software without in person sessions.

The timing of my study also affected the amount of experience that participants had with virtual conferencing software. All participants had previous experience using virtual conferencing software before their orientation experience. Prior experiences with virtual conferencing software may have affected their overall experience and perception of utilizing it for orientation.

I also thought my previous role as an orientation coordinator for a large acute care hospital facility would be a study limitation. However, I do not believe that I encountered any nurses I previously worked with, so my prior position did not seem to affect the participants' authenticity in their responses.

Finally, eleven participants could not utilize the video camera during the study, so I could not obtain nonverbal communication which may have added depth to the study's analysis.

Recommendations

Further research is needed to determine how virtual conferencing software can be used in other healthcare settings like long-term care and ambulatory care. More research should also be conducted to understand the best time length for orientation through virtual conferencing software and how to format the structure of orientation to best fit the needs of new graduate nurses.

Recommendations for Clinical Practice

My findings can help new graduate nurses prepare for virtual orientation session by helping them understand the functionality of virtual conferencing software and by helping them understand what acute care hospitals expect them to learn during orientation. Participants in my study stated they had the best experience when they had the proper equipment and setup for virtual orientation and knew how to use the software and equipment for orientation. Nurses can prepare for virtual orientation by becoming familiar with equipment like computers, laptops, wi-fi, and video cameras and understanding how they can utilize technology to facilitate learning (Philips et al., 2022; Yaser et al., 2022). They can also prepare by understanding how to use functions in virtual conferencing software like chat, breakout sessions, muting/unmuting, and video cameras (Philips et al., 2022; Yaser et al., 2022).

Participants in this study stated that it was helpful when organizations provided new graduate nurses with training sessions on utilizing virtual conferencing software. Acute care facilities should ensure that the new graduate nurses have the equipment they need for virtual orientation and the knowledge to use it (Philips et al., 2022; Yaser et al., 2022). Accommodation should be made for new hires who do not have the necessary equipment or training to utilize virtual conferencing software. Organizations can improve the orientation experience for nurses by providing IT training and support for nurses utilizing virtual conferencing software.

Organizations should also consider the format they present in virtual orientation and the curriculum they present during orientation. Virtual orientation has proven to be beneficial (Weiss et al., 2021). However, sessions that are too long or present too much information at once can cause "Zoom fatigue" and overwhelm participants (Ocudado, 2021). The participants in this study did not describe zoom fatigue, but they stated that they appreciated shorter, interactive sessions. The shorter sessions also offered more flexibility for participants. The participants enjoyed the flexibility that online virtual orientation offered because it did not require them to be online all day. Acute care facilities can take these factors into consideration to improve the overall learning experience for nurses in virtual orientation.

Nursing leaders and educators should examine their policies and practices related to virtual orientation to improve the experience of nurses who complete their orientation virtually. Policies should be written to guide the organization in conducting orientation virtually in a manner that best supports new graduate nurses. Attention should be given to

ensure that participants can form connections with each other through opportunities like asking questions, team building, and increasing interaction throughout the orientation process. The QSEN competencies recognize the importance of building connections with peers and colleagues and therefore include teamwork and collaboration in the competencies for new graduate nurses (QSEN Institute, 2020).

Furthermore, interaction and team building are encouraged in many nurse residency programs to improve peer support and help the new graduate successfully transition to practice (Monaghan, 2015). The participants in this study felt that peer support and interaction were important to them. Some participants stated that their peers helped them understand information, checked-in with them to offer support, and some even described their peers as friends. The most common ways they interacted was by asking questions during orientation, using the chat function, and talking with each other outside of virtual orientation sessions. Therefore, acute care facilities should provide opportunities for interaction and team building during virtual orientation.

The orientation curriculum should also engage new graduate nurses and provide them with interactive ways to learn information that appeals to their cognitive and affective domains (Chan et al., 2021; Rogers-Burke, 2021; Woolwine et al., 2019). The literature shows that a common issue during transition to practice is the lack of knowledge, skills, and abilities that new nurses have, and that one-third of new graduate nurses can't meet the entry level knowledge and skills that is expected of them (Chan et al., 2021). To improve the gap in knowledge, skills, and abilities that new graduates experience, orientation sessions should be engaging and focused on bridging the theory-

practice gap during transition to practice. Organizations can also consider using virtual simulation and case studies to engage learners during orientation rather than defaulting to traditional PowerPoint lecture sessions (Rogers-Burke et al., 2021; Woolwine, et al., 2019). The participants in this study reported that interaction can be fostered through breakout sessions, chat functions, utilizing camera functions, and encouraging interaction through asking questions and engaging with each other.

From an organizational standpoint, virtual orientation may offer solutions for rapid and flexible onboarding for nurses which can improve staffing deficiencies quickly without compromising the quality of orientation. Furthermore, virtual orientation can be conducted from anywhere and may help reduce the need for additional resources like staff, equipment, and space to conduct orientation. Rapid and flexible onboarding may have a positive financial impact on organizations and therefore additional studies can be completed to review the financial implications of virtual orientation.

Implications

Walden University defines positive social change as "a deliberate process of creating and applying ideas, strategies, and actions to promote the worth, dignity, and development of individuals, communities, organizations, institutions, cultures, and societies." (2023). Virtual orientation has become commonplace since the COVID-19 pandemic in acute care settings and many other workplace environments (Nova-Margallo et al., 2021, Ocudado, 2021; Weiss, 2021). Using virtual conferencing software for virtual orientation was an innovative idea that occurred rapidly due to unprecedent events. Now that time has passed and the COVID-19 pandemic is no longer an emergent

event, evidence-based research needs to be conducted to ensure that nursing individuals and acute care hospital organizations create an orientation culture based on best practices.

On an individual level, studying virtual orientation can help improve conditions for new graduate nurses as they transition to practice and ensure that new graduates have the knowledge and skills, they need to become successful nurses. Virtual orientation may also be the solution for new graduate nurses who want work-life balance and scheduling flexibility. On an organizational level, virtual orientation can provide organizations with flexible, real-time solutions to support new graduates as they transition to practice, meet staffing needs, and help provide a knowledge foundation for new graduate nurses to practice safe patient care. Utilizing virtual conferencing software can create flexibility in the workplace and connect people and teams from all over the world.

Methodological, Theoretical, and Empirical Implications

To improve the methodology of future qualitative research pertaining to virtual orientation, researchers should recruit a more diverse demographic range of participants. Recruiting a more diverse group of participants can help to ascertain whether the findings in this research study is transferrable to other populations including other demographically diverse acute care facilities, ambulatory care, long term care, and other healthcare facilities. Furthermore, other methods of participant collection like snowball sampling could be considered to help recruit nurses from other demographic backgrounds.

The theoretical frameworks utilized in this study added to and supported the findings in this study. The TAM 2 model has been used in many healthcare and nursing

studies but has not been widely used to examine the phenomena of virtual conferencing software. The findings in this study supported the components of the TAM 2 model and showed that virtual conferencing software technology can be applied to help new graduate nurses transition to practice in acute care.

Furthermore, Duchscher's theory of transition to practice worked well to describe the experience that many participants had in this study as they transitioned to practice using virtual conferencing software. Most participants in this study were in the "knowing phase" of their transition to practice period. Therefore, future studies can be done to explore the experiences of nurses who are in the "doing" or "being" phase of Duchscher's transition to practice theory to see if their experiences are similar to nurses in the "knowing phase". Additional studies can also be completed to understand if experienced nurses have similar perceptions of virtual orientation.

The empirical findings of this study showed that virtual orientation is a viable option for acute care facilities to help new graduate nurses transition to practice. New graduates in this study stated that they felt virtual orientation coupled with in person demonstration and skills sessions provided the knowledge, skills, and attitude they needed to be successful in practice. Future studies can be done to see if new graduate nurses feel that virtual orientation without in person components is a viable option for helping new graduate nurses transition to practice in acute care facilities.

Conclusion

Orientation is a pivotal role in the transition to the practice period of new graduate nurses in the acute care setting. Orientation provides foundational organizational and

clinical knowledge that new graduates need to be successful in their new roles as registered nurses. While orientation has traditionally been in person, social distancing guidelines from the COVID-19 pandemic changed how many acute care facilities delivered orientation. Since the COVID-19 pandemic, many acute care facilities transitioned their orientation to virtual conferencing software. Virtual conferencing software can transform orientation practices in the acute care setting and improve the transition to practice period for new graduate nurses. As one participant in the study stated, “Virtual orientation should be the way of the future.” This study can help transform the new graduate nurses' orientation experience and create new practices for utilizing virtual conferencing software for orientation in the future.

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Appendix A: Interview Questions

The interview questions will be as follows:

1. Can you describe your experience transitioning to practice as a new graduate nurse?
2. How do you feel COVID-19 influenced your transition to practice?
3. Can you describe your experience using virtual conferencing software for your orientation?
4. Can you describe what was useful or beneficial about using virtual conferencing software for orientation?
5. Can you describe what was not useful or beneficial about virtual conferencing software for orientation?
6. What can be improved about using virtual conferencing software for nursing orientation?
7. Do you have any other additional thoughts or comments?

Appendix B: Prescreening Questions

The pre-screening survey questions include:

(1) Are you able to speak and understand English?
(2) Are you or were you a new graduate nurse with 12 months or less of nursing experience when you began orientation in an acute care facility?
(3) Have you ever participated in virtual orientation using virtual conferencing software for your orientation?
(4) Would you be willing to participate in a 30–60-minute interview session in person or on Zoom?
(5) Would you be willing to participate in a potential 15–30-minute interview if needed to follow up or clarify information?

Appendix C: Demographic Questions

1. What gender do you identify with?
    a. Female
    b. Male
    c. Prefer not to answer
2. What age are you?
    a. 20-30
    b. 31-40
    c. 41-50
    d. 51-60
    e. 61+
    f. Prefer not to answer
3. What is your race/ethnicity?
    a. Caucasian
    b. Black/African American
    c. Asian American
    d. Hispanic/Latino
    e. Indian American
    f. Native American
    g. Other (please specify)
    h. Prefer not to answer
4. What is your current job title?
    a. Registered Nurse
    b. Nurse Manager
    c. Nurse Educator
    d. Other (please specify)
    e. Prefer not to answer
5. How long have you been in your role at the organization?
    a. 0-6 months
    b. 7-12 months
    c. 1-2 years
    d. 2-3 years
    e. 3-4 years
    f. 4-5 years
    g. 5+ years
    h. Prefer not to answer

6. What is your highest level of education?
    a. High school
    b. Some College
    c. College degree
    d. Graduate school
    e. Other
    f. Prefer not to answer

7. Where did you reside during orientation?