

EXPLORING THE EXPERIENCES AND PERCEPTIONS OF STUDENT NURSES WHO
PARTICIPATED IN AN INTERPROFESSIONAL DEDICATED EDUCATION UNIT

(IPDEU): A QUALITATIVE DESCRIPTIVE STUDY

BY

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Abstract

The transition from nursing student to professional nursing practice has proven to be challenging (Bennett et al., 2017). New graduate nurses (NGNs) are expected to be practice-ready upon graduation. However, there is a gap between what is learned in nursing education and the clinical skills needed when the NGN enters the workforce (Bennett et al., 2017). Identifying academic clinical educational strategies to improve this transition to practice and meet the current healthcare demands is necessary (Sparacino, 2015). There is limited evidence that focused on the student experiences and perceptions of an Interprofessional Dedicated Education Unit (IPDEU). Therefore, the purpose of this qualitative descriptive study was to understand the experiences of nursing students participating in an IPDEU unit, and does participation in the IPDEU improve their overall perceptions of role clarity, teamwork, and communication amongst the healthcare team. Four themes and two sub-themes emerged from the data. The findings from this study showed that an IPDEU clinical experience was valued. Participants appreciated seeing the patient's entire hospital course from a different lens – the 10,000 foot-view. The participants expressed that they were able to see "behind the scenes" and how other healthcare providers prioritized their care. Participants were able to have better role clarity about other healthcare providers and what each discipline lends to the team. Participants did not feel as though their interdisciplinary communications skills improved, however, they did find value in seeing how other healthcare providers communicate. Findings from this study suggest that interdisciplinary clinical education should be considered for all undergraduate nursing programs.

Keywords: nursing student, new graduate nurse, clinical learning models, interprofessional education, interprofessional training wards, novice nurses, transition to nursing practice

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CHAPTER ONE – INTRODUCTION

Introduction to the Topic

The transition from nursing student to professional nursing practice has proven to be challenging (Bennett et al., 2017). The new graduate nurses (NGNs) inability to successfully transition to professional practice can have grave consequences. NGNs face many challenges and enormous pressures to meet professional expectations upon graduation (Bennett et al., 2017). They are expected to be practice-ready upon graduation. However, there is a gap between what is learned in nursing education and the clinical skills needed when the NGN enters the workforce (Bennett et al., 2017). This can have adverse effects on the healthcare system and the quality of care delivered by NGNs. With global reports documenting that more than 10% of patients experience adverse events during their care, NGNs need to be appropriately educated and supported so patient safety is prioritized (Murray et al., 2020). Therefore, understanding how to better assist the NGN transitioning to a competent nurse is essential.

The term ‘reality shock’ was first introduced by Kramer in 1974, who studied the experience of NGNs transition to professional practice (Duchscher, 2009). This term was used to describe the anxiety, doubt, and confusion as a student nurse transitions to the role of a professional nurse (Sparacino, 2015). According to Duchscher (2009), the initial 12 months of transition to acute care practice is when the NGN evolves through Kramer’s (1974) model. These stages are the honeymoon, shock, recovery, and resolution.

This is still pertinent to NGNs transitioning today. Unfortunately, NGNs often describe feelings of anxiety, insecurity, inadequacy, and instability as they reflect upon their nursing practice transition from their student nurse role (Duchscher, 2009). They often voice frustrations with the work environment, interpersonal relationships, and organizational and interdisciplinary communication (Dwyer & Hunter Revell, 2016). Many NGNs are not adequately prepared to

assume the role of a nurse without additional support upon graduation. Even with adequate support, many new nurses have intentions to leave their job and the nursing profession, which is an area of concern for health care institutions and the provision of safe patient care (Kaihlanen et al., 2017). Research has shown that turnover rates are as high as 30-69% within the first year of practice (Lin et al., 2014). Ten percent of NGNs state they intend to leave nursing or were uncertain about staying in nursing (Parker et al., 2014). NGNs decide to leave due to job demands, such as a heavy workload and high job stress, bullying, and poor nursing-provider relationships (Sandler, 2018). This turnover costs the United States (U.S.) healthcare system 1.4 to 2.9 billion per year (Dimino et al., 2020).

Much of the stress that the NGN experiences are due to the gaps between what was learned in academic programs and the reality of clinical practice (Monagle et al., 2018). Because of this, NGNs risk burnout and job dissatisfaction. Nursing students need to be immersed in practice experiences to learn how to make decisions, delegate, prioritize, and be part of a team. Therefore, it is essential that academic programs transform, innovate, and embrace new clinical learning modalities for NGNs.

Currently, most nursing students receive traditional didactic classroom instruction. They then learn technical skills and nursing practice in the laboratory or the clinical environment (Hayden et al., 2014). In the traditional clinical model, students are assigned patients under the supervision of a clinical instructor (Hayden et al., 2014). The size of the clinical group varies, with six to eight students typically in a group. Each student is then assigned one or two patients. The instructor has to rapidly transition from student to student to supervise skills such as medication administration or assessments. This is considered the gold standard of clinical

nursing education. However, there is a lack of evidence that identifies the effectiveness of this model for student learning and patient safety (Dimino et al., 2020).

However, with this model, students are often allowed to care for just a few patients, potentially minimizing their exposure to patients with a variety of healthcare problems. Students also usually do not have the opportunity to manage a multiple patient care assignment, prioritize care, or delegate to unlicensed assistants. This leads to students being unable to multitask and problem solve, which they will need once they transition to professional nursing practice. They also do not understand the healthcare system's complexity and are completely overwhelmed when entering the workforce (Wildermuth, 2020). They experience the reality of professional nursing practice, which was so different than in nursing school.

The ideal clinical experiences would offer a wide range of learning opportunities with exposure to a wide variety of clinical problems. It would allow students to practice skills, improve critical thinking and clinical judgment, and interact with patients, families, and other healthcare team members (Hayden et al., 2014). It would also allow the NGN to apply their didactic knowledge to the care of real patients in the clinical setting. Practicing these skills would better prepare the NGN for entry into practice.

Students also experience other difficulties in the clinical environment, which impacts learning. In a study by Jamshidi et al. (2016), students experienced challenges with ineffective communication, inadequate readiness, and emotional reactions. They felt they had difficulties dealing with instructors, patients, and department personnel, which led to ineffective communication. They also experienced discrimination in the behaviors of nurses towards nursing students. Students felt that they did not have sufficient knowledge or experience to provide

nursing care at the bedside (Jamshidi et al., 2016). This created stress and an inferiority complex, which further impeded learning.

In 2019, nursing schools in the United States (U.S.) turned away 80,407 qualified applicants from baccalaureate and graduate degree nursing programs (American Association of Colleges of Nursing [AACN], 2019). This is largely due to insufficient clinical sites, insufficient faculty, and clinical preceptors. Faculty shortages, decreasing availability of clinical placement sites, and reduced numbers of nursing students allowed on a patient care unit at one time have also created fewer educational opportunities for those enrolled in nursing school (Vnenchack et al., 2019). Patient safety initiatives, such as reducing catheter-associated urinary tract infections (CAUTI), have also reduced the number of procedures that nursing students can practice during their clinical time, further decreasing exposure to clinical skills (Hayden et al., 2014). This denies students the real-world preparation to manage critical patient scenarios.

To combat this faculty shortage, nursing schools have a variety of strategies they utilize to ensure students are appropriately supervised during clinical experiences. One approach is to hire adjunct clinical faculty. The faculty member is typically an expert clinician; however, they may not have the knowledge, skill, or experience necessary to be effective clinical instructors. This lack of formal training or mentoring can impede their ability to adequately prepare student nurses to transition to professional nursing practice (Wenner & Hakim, 2019).

Another method utilized to assist with the faculty shortage is the use of a dedicated education unit (DEU). DEUs are clinical units within a hospital setting where baccalaureate-prepared nurses are coached by academic faculty to serve as clinical instructors (CIs) (Dimino et al., 2020). Two students can work alongside a CI for a designated number of hours per week for a clinical rotation to optimize the clinical and teaching environment (Dimino et al., 2020).

DEUs have shown to improve critical thinking and reduce anxiety for NGNs transitioning to nursing practice (Vnenchack et al., 2019). In one study by Nishioka et al. (2014), students reported that the unit's learning environment, the nurse manager's leadership style, and the nursing care in a DEU were more favorable than in traditional units. This resulted in the quality of clinical education in DEUs being higher than in traditional settings (Nishioka et al., 2014). NGNs also perceive a more significant growth in nursing knowledge, clinical skills, clinical judgment, and professional behavior when their clinical setting is a DEU (Mulready-Shick et al., 2013). They also report improved nurse-to-nurse collaboration, leadership, and a higher degree of student satisfaction (Vnenchack et al., 2019).

However, one reported disadvantage to a DEU is the lack of significant exposure and interaction with the interprofessional team. Dimino et al. (2020) found that over 30% of NGNs in DEUs reported not being confident in communicating with physicians, asking for help, or managing and organizing their time. To create a reliable healthcare system, healthcare providers must communicate effectively and work efficiently within teams. In 2016, it was estimated that communication failures in both hospitals and medical practices accounted for 30% of all malpractice claims, which resulted in 1,744 deaths and \$1.7 billion in malpractice costs over five years (The Joint Commission, 2017). For healthcare professionals to work together and improve the quality of care, "an interprofessional team needs to integrate information and work together towards a common goal" (Horsley et al., 2016, p. 234).

Teamwork and collaboration are one of the Quality and Safety Education for Nurses (QSEN) competencies. Within this competency, nursing students need to function effectively within nursing and the interprofessional team (Hunt, 2012). This will help to foster open communication, mutual respect, and shared decision-making. These competencies will help

prepare future nurses with the knowledge, skills, and attitudes necessary to improve the healthcare system's quality and safety (Hunt, 2012).

There has been a call to promote more team-based education in health professionals' knowledge for many years (Billings & Halstead, 2016). In 1972, the Institute of Medicine (IOM) report called *Educating for the Health Team* recommended that healthcare providers from diverse backgrounds "explore ways to teach health care practitioners the art of teamwork" (Billings & Halstead, 2016, p. 186). In 1998, the Pew Health Professions Commission identified interprofessional education (IPE) as a need for all health professionals. The IOM has identified that teamwork and collaboration should be a part of the nursing curriculum (Romano, 2018). Highly competent interprofessional teams deliver care that is higher in quality and with better outcomes (McVey et al., 2014).

IPE teaching strategies include lectures, study groups, patient simulations, and clinical placements. However, there are many barriers to implementing IPE, such as lack of funding, inadequate faculty preparation, insufficient administrative support, and a lack of collaborators across disciplines. Because of this, most prelicensure education is uniprofessional (Hermann et al., 2016). Students learn their profession in a silo and not alongside other professional groups (Bradshaw & Hultquist, 2017). IPE occurs when students of "two or more professions learn with, from, and about each other to improve collaboration and the quality of care" (Bradshaw & Hultquist, 2017, p. 297). Although IPE is gaining momentum, values taught at the undergraduate level are typically only in the classroom setting and do not cross over into the clinical environment (National Collaborative for Improving the Clinical Learning Environment [NCICLE], 2019).

The evidence between IPE and student learning is well documented. IPE allows students to understand the roles and responsibilities of health care providers that they will interact with when they enter the workforce. Because of these interactions, they can "maintain a climate of mutual respect and shared values" (National League for Nursing [NLN], 2016, p. 8). They learn the value of effective teamwork and interprofessional communication and gain role clarity, which can lead to improved patient outcomes. (Reeves et al., 2016).

IPE allows health professional students to engage in interactive learning with those outside their profession. These interactions as students will enable them to have the baseline knowledge and confidence needed for team interactions, that will lead to improved communication and better patient outcomes (NLN, 2016). There are also studies linking IPE to fewer medical errors, decreased length of patient stay, and improvement in symptoms (Institute of Medicine [IOM], 2015). However, in a scoping review by Brandt et al. (2014), the authors found that scholars have not yet linked IPE to improved quality outcomes or patient experiences. Therefore, strengthening the evidence for the effectiveness of IPE to patient outcomes is still needed.

There are many benefits to IPE in both academic and clinical settings. With IPE, students learn how to communicate and collaborate with other healthcare professionals. In doing this, they develop mutual respect for one another's knowledge and skillsets (NLN, 2016). It also allows health professionals to learn the value of teamwork and how to collaborate with other members of the professional team (National Advisory Council on Nurse Education and Practice [NACNEP], 2015). Also, there is some evidence linking IPE to student learning (Lapkin et al., 2013). Students learn the value of effective teamwork and interprofessional communication and gain role clarity (Reeves et al., 2016).

Rationale for Selecting the Topic

Nurses play an essential role in enhancing the patient experience and achieving quality patient care outcomes during hospitalization (Kavanagh & Szweda, 2017). The widening preparation-to-practice gap of NGNs affects healthcare systems' ability to deliver consistent, safe, quality nursing care (Kavanagh & Szweda, 2017). However, despite ongoing positive changes to nursing education, nurses are still entering the clinical environment without the needed skills and knowledge required to practice (Sparacino, 2015). Therefore, identifying educational strategies to improve this transition to practice and meet the current healthcare demands is necessary, and it has significant relevance to nursing education (Sparacino, 2015). The DEU is an academic-practice partnership model with the overall goal of improving the transition to practice for new graduate nurses and ultimately improving patient outcomes (Vnenchack et al., 2019). Multiple studies suggest that DEUs are effective clinical learning units. They can enhance critical thinking and anxiety, develop a more significant growth in nursing knowledge, clinical skills, clinical judgment, and professional behavior, improved nurse-to-nurse collaboration and leadership with a higher degree of student satisfaction (Mulready-Shick, 2013, Vnenchack et al., 2019).

Significance

The United States (US) is projected to experience a shortage of RNs due to the aging of Baby Boomers and the expected growth needed for healthcare (American Association of Colleges of Nursing [AACN], 2019). Healthcare experts predict a nursing shortage of 260,000 registered nurses by 2025 (Wenner & Hakim, 2019). Although the RN workforce is listed among the top occupations in job growth through 2026, approximately one million RNs will retire by 2030 (AACN, 2019). This will leave a shortage of nurses and a significant gap in nursing

knowledge and expertise that will be difficult to replace. Therefore, hospitals and their academic partners should prepare nursing students better before they transition by optimizing clinical rotations (Virkstis et al., 2019). Many studies have looked at the transition to nursing practice and the strategies that can assist in that transition. However, most of these studies have looked at residency programs, preceptor support programs, and dedicated education units to improve outcomes such as job satisfaction, retention, and critical thinking (Chmil et al., 2015; Monagle et al., 2018; Norris et al., 2019; Vnenchack et al., 2019). One disadvantage is that the focus of these strategies is not on interprofessional education.

One clinically based IPE approach is the interprofessional dedicated education unit (IPDEU) (Banister et al., 2019). An IPDEU follows the same model as a DEU, where the clinical staff is used as instructors. This could include professions such as nursing staff, physical therapy, physician assistant, and speech therapy. These experiences allow students to focus on collaborative practice and team-based, patient-centered care, which will improve communication and role clarity between team members. Therefore, IPDEUs can help prepare nurses better to function more effectively within teams, hoping that it alleviates some of their frustration during their transition to nursing practice. The current literature published on these types of units is descriptive and explains the development of an IPDEU. However, there is a lack of literature on the impact of IPDEUs on student learning from the student's perspective.

Problem Statement

Knowledge about the difficulties with new graduate nurses' transitional experiences is not new. It was first described in the literature by Kramer (1974), who discussed and provided insight into the disparity between novice nurses and the reality of their experiences. Since that time, many researchers have explored factors that influence this transition using many outcome

measures (Chmil et al., 2015; Monagle et al., 2018; Norris et al., 2019; Vnenchack et al., 2019). These studies have guided hospitals and academic programs to have varied programs to support the NGN transition (Dwyer & Hunter Revell, 2016). However, despite that, burnout and job turnover remain high (Lin et al., 2014).

Prior research has shown that DEUs can improve critical thinking and anxiety for NGNs upon transition to professional nursing practice and that the quality of clinical education is higher in DEUs as compared to traditional settings (Nishioka et al., 2014, Vnenchack et al., 2019). DEU students also perceive a more significant growth in nursing knowledge, clinical skills and judgment, and professional behavior (Mulready-Shick et al., 2013) in addition to improved nurse-to-nurse collaboration and leadership (Vnenchack et al., 2019).

No studies were found in the comprehensive literature review conducted that focused on the student experiences and perceptions of an IPDEU through 2020. This study explored the experiences of students enrolled in either an Accelerated Bachelor of Science in Nursing (ABSN) or Direct Entry Master of Science Program (DEN – Master’s) who participated in an IPDEU during their prelicensure nursing program. The student nurses' experiences and perceptions regarding their participation in this type of unit and its impact on role clarity, communication, and teamwork were explored. The results of this study contribute to a re-design of the curriculum that could best align with those goals with the hopes of improving their transition to professional nursing practice.

Purpose Statement

The purpose of this qualitative descriptive study was to understand the experiences and perceptions of nursing students enrolled in an ABSN or DEN – Master’s program who participated in an IPDEU during their nursing program. The concepts of role clarity, teamwork,

and communication were explored. The findings of this study will contribute to the knowledge base of best practices in clinical education by exploring the perceived impact of the experience of student nurses who have participated in an IPDEU.

Research Question

The primary research question for this study was: What are the experiences of nursing students participating in an IPDEU unit, and do they improve their overall perceptions of role clarity, teamwork, and communication? An interview guide with one central question and several subquestions were developed to elicit relevant responses pertinent to this question. The primary goal of a research question in qualitative research is to narrow the purpose to several questions that will be addressed in the study (Creswell & Poth, 2018). It is recommended that the researcher has one central question and several subquestions (Creswell & Poth, 2018). The following research questions are based on the competencies from the Interprofessional Collaborative Practice (IPEC). According to IPEC, IPE creates a climate of mutual respect (Values/Ethics for Interprofessional Practice), uses the knowledge of one's own role and those of other professions to appropriately assess and address the healthcare needs of patients (Roles/Responsibilities), communicates with patients and health professionals in different fields (Interprofessional Communication) and applies relationship-building values and the principals of team dynamics to plan and deliver care that is safe, timely and effective (Teams and Teamwork) (Interprofessional Education Collaborative, 2016).

The central question, along with the subquestions, are below.

Central question

1. Describe what your experience has been like as a student in an interprofessional dedicated education unit.

Subquestions

- a. Are there skills that you felt were improved due to your experience in an interprofessional dedicated education unit?
- b. Are there skills that you have learned in other clinical settings that you did not use in the interprofessional dedicated education unit?
- c. What did you learn about other healthcare providers during your experience?
- d. Describe the improvements or drawbacks in patient care in this type of unit.
- e. Describe how your experience in the IPDEU has changed or not changed your ability to communicate with other healthcare professionals.
- f. How has your experience in the IPDEU changed or not changed your understanding of the role of other healthcare providers?
- g. How have your perceptions changed of how members of the healthcare team collaborate since you participated in the IPDEU experience?
- h. Is there anything else you would like to tell me about your experience in the IPDEU?

Definitions

For the purposes of this study, the following terms are defined as follows:

Transition to Nursing Practice

A transition can be defined as the "passage from one state, stage, subject, or place to another" (Merriam Webster, n.d.). Duchscher (2008) describes the transition as that "confusing nowhere of in-betweenness that serves as the channel between what was and what is" (p. 1104). This description adequately describes the experience that new nurses encounter as they transition from student nurse to professional nursing practice.

Dedicated Education Unit (DEU)

A dedicated education unit is a collaborative teaching strategy where experienced nurses on a dedicated unit serve as faculty during a student nurse's clinical rotation (Vnenchack et al., 2019). It is described as an innovative academic-practice partnership used to enhance nursing education and practice performance (Mulready-Shick et al., 2013). Staff nurses on a dedicated unit are trained as clinical instructors (CIs) and can facilitate student learning with a 1:1 or 1:2 staff nurse to student(s) ratio. The university faculty then shifts to coaching and supporting the staff nurses as new CIs and assisting with relationship development between the CI and student (Mulready-Shick et al., 2013). For this study's purpose, students will have participated in an IPDEU during nursing school.

Interprofessional Education (IPE)

Interprofessional education refers to education that occurs "when students from two or more professions learn about, from, and with each other to enable effective collaboration and improve health outcomes" (Interprofessional Education Collaborative [IPEC], 2020). IPE can be used to enhance collaboration and teamwork among healthcare providers. IPE can also help healthcare providers understand each other's roles and responsibilities and add to the team respect and value that each professional group brings to patient care (Lapkin et al., 2013). IPE can break down professional silos by training health professional students differently (National Advisory Council on Nurse Education and Practice [NACNEP], 2015). This will then lead to enhanced interpersonal and communication skills and teamwork and improved patient outcomes (Lapkin et al., 2013).

Interprofessional Dedicated Education Unit (IPDEU)

In an IPDEU, students receive clinical education in a dedicated unit with other healthcare professionals, such as nursing, speech language pathology, pharmacy, and physical therapy. An IPDEU follows the same model as a DEU, where the clinical staff is used as instructors. This allows students to build new knowledge and gain insight into the team's role in the delivery of patient care (Banister et al., 2019). This can improve teamwork and communication, which can assist in creating a reliable healthcare system.

Introduction to the Conceptual Framework

A theory can be defined as "an internally consistent group of relational statements that presents a systematic view of a phenomenon" (Walker & Avant, 2019, p. 65). Theories help guide research and practice and help provide an understanding of phenomena by organizing relevant concepts and statements (Walker & Avant, 2019). The theoretical framework used to guide this study includes the theory of *Transition Shock* by Duchscher (2008). This study examined the student experiences in an IPDEU regarding role clarity, communication, and teamwork. Although this study is not looking specifically at the transition to nursing practice of these nursing students, it is assumed that an IPDEU will assist in their transitional experience to professional nursing practice. This assumption is based on the positive transitional experiences of NGNs after the experience of a DEU (Smyer et al., 2015).

Duchscher first published her theory of transition shock in 2009. Her theory builds on Kramer's seminal work in the 1970s, which described the reality of "school-bred values" and how those conflicted with "work-world values" (Duchscher, 2009, p. 1104). Kramer's work emphasized how under-prepared the NGN was entering the workforce, which is stressed in Duchscher's work. The theory describes the feeling of moving from the known role of a student

to the less familiar role of a professionally practicing nurse and how this transition is influenced by developmental and experiential histories and situational contexts that cultivate expectations about professional roles and responsibilities and culture (Duchscher, 2009). Therefore, the experiences that student nurses have during their role as a nursing student will impact the stages of professional role transition.

This theory was chosen to guide this research study as many new nurses describe feelings of shock when they enter professional nursing practice (Hatzenbuehler & Klein, 2019). This is partly due to the disconnection between the concepts of nursing taught in school and the hospital environment's realities. This results in new nurses leaving the profession, which can affect patient care outcomes and nurse staffing. If students are adequately trained in nursing school and are better prepared to enter clinical practice, their feelings upon transition can hopefully be alleviated, resulting in less turnover.

Assumptions/Limitations

The assumptions of a study are things the researcher takes for granted relative to the study (Roberts & Hyatt, 2019). Assumptions help the reader to understand how these assumptions may influence the research study. First, this researcher assumed that this study's inclusion criteria would accurately reflect the student experiences of an IPDEU and would add benefit to this study. Secondly, this researcher assumed that the participants would be open and honest when answering all the interview questions, providing reliable data. Third, this researcher assumed that students who participated in an IPDEU in nursing school would better understand role clarity, have improved communication, and improved teamwork with other healthcare professionals. Lastly, this researcher assumed that participants in an IPDEU in nursing school would result in an easier transition to professional nursing practice.

Limitations are features of a study that may affect the results or ability to generalize the findings (Roberts & Hyatt, 2019). The limitations of this qualitative descriptive study include the availability of nursing students were willing to share their perspectives in an IPDEU and how that impacted their understanding of role clarity, improved communication, and improved teamwork. A purposive sampling approach was utilized in this study. The goal of purposive sampling is to obtain cases that are deemed information-rich for the purposes of the study (Sandelowski, 2000). However, this approach limits the generalizability of findings.

Summary of Chapter One

The purpose of this study was to understand the experiences and perceptions of nursing students enrolled in an ABSN or DEN – Master’s program who participated in an IPDEU during their nursing program. The concepts of role clarity, teamwork, and communication were explored. Participation in this type of clinical learning model occurred for at least two days, equivalent to 8 hours of learning. This study used a qualitative descriptive approach to explore student nurses’ experiences during their participation in an IPDEU. This chapter provided the introduction, background, and challenges surrounding NGNs transition from student nurse to professional nursing practice. The rationale for selecting the topic, the significance of the study, and the problem and purpose statements are also presented. This led to the research question and subquestions that this researcher explored. The theoretical framework guiding this study, as well as the assumptions and limitations, were also presented. The background of traditional and DEU clinical learning models used in preparing student nurses for professional practice was also introduced. IPE and its utility in enhancing collaboration and teamwork among healthcare providers were also presented. Chapter Two provides a detailed review of the literature,

expanding on several studies introduced in Chapter One. Chapter two also further defines the theoretical framework of this study.

Chapter Two - Literature Review

Overview of the Literature

This literature review focuses on identifying historical and relevant quantitative and qualitative studies on the transition of new graduate nurses (NGNs) to professional practice. These articles pertain to the difficulties that NGNs experience with role transition, hospital-based strategies utilized to improve transitional experiences, and the academic-practice partnerships that have been used to address the academic-practice gap. This researcher conducted an extensive literature review to gain an in-depth understanding of what has already been discovered related to new graduate transition. This literature review was divided into four major sections: (a) new graduate transition and the challenges they face, (b) the hospital-based and academic-practice strategies used to assist NGNs in their transition, (c) interprofessional education and training units, and (d) the theoretical framework guiding the study. Subthemes include summaries of studies that have reviewed the outcomes of Nurse Residency Programs (NRPs) and Dedicated Education Units (DEUs).

The literature review was conducted using the search terms: *new graduate nurse or new nurse or novice nurse, dedicated education unit or DEU, undergraduate student, nursing, interprofessional unit or ward, interprofessional education or IPE or interdisciplinary education or interprofessional learning, transition to practice*. The inclusion criteria were sources dating from 2010 to 2020. This timeframe was selected as Dr. Patricia Benner and her colleagues released their study titled *Educating Nurses: A Call for Radical Transformation in 2010*. This book recommends that all nurses enter nursing with a baccalaureate degree and have "formal learning experiences that include school-to-work transition internships" and life-long learning (Benner et al., 2010, p. 38).

A comprehensive electronic literature search was completed. An ancestry search of relevant articles from the bibliographies of studies was also completed. This process identified five additional articles that were included in this literature review. The following databases were searched: Cumulative Index to Nursing and Allied Health Literature (CINAHL), Google Scholar, OVID, and ERIC. The literature review was limited by source type to only include academic journals and only those written in English. The assistance of a library specialist was utilized.

Each article was reviewed for relevance to focus on the transition of NGNs and strategies to assist with that transition to the acute care setting. The initial search used the keywords *interprofessional dedicated education units (IPDEUs)*, which yielded nine articles. As there is minimal research on these types of units, the search terms were expanded to find relevant information related to the topic of interest. This included literature that discussed the transition to nursing practice, interprofessional education (IPE), and dedicated education units (DEUs). The next keywords used were *transition to nursing practice, new graduate nurses, or new nurse or novice* which yielded 745 articles. Subsequent searches led to 1,266 items on IPE and nursing learning outcomes, 745 items on NGNs and their transition to nursing practice, and 941 items on DEUs and acute care nursing hospital settings.

Approximately one hundred articles were retrieved from academic journals. These articles addressed various concepts related to the transitional experiences of NGNs. The topics included strategies to improve NGNs experiences, student perceptions of DEUs and the outcome of such units, outcomes associated with interprofessional education, and how preceptor support and the work environment impact the transition to practice. Seminal articles reviewing transitional experiences and transition shock were also referenced.

A closer review of the literature yielded 23 peer-reviewed articles that were found to be relevant to the topic. Exclusion criteria included articles older than 10 years, unless they were historically relevant. In addition, articles were excluded if they did not include nursing students or if they discussed graduate nursing. Articles that discussed patient satisfaction, patient perceptions, or faculty job satisfaction were also excluded. Although adequate preceptor support and the work environment were considered important factors in retention of NGNs, these concepts were not explored, so those articles were also excluded. This researcher chose articles from 2010-2020 to examine the transitional experiences of NGNs over time. There were no studies found from the U.S. that utilized IPDEUs to improve transitional experiences. Interprofessional training wards (ITW) were referenced in articles outside the United States (U.S.), and those pertinent were included in this review.

A filing system for hard copies of the 23 articles compiled during the literature review was developed to organize the literature. Categories were assigned for each of the variables relevant to this study, and articles specific to critical aspects of NGNs' role transition were filed. The categories in which the articles were filed include role transition, residency programs, DEUs, and IPE. The following is a discussion of the literature after eliminating articles that were not relevant or applicable.

Review of the Research Literature

New Graduate Nurse Transition

Changes in the U.S. health care system and practice environments have called for changes in the education of nurses (Institute of Medicine [IOM], 2010). However, despite the considerable strengths of nursing education, a significant gap exists between current nursing practice and the education students receive to prepare them for that practice (Benner et al., 2010).

This substantial gap can cause high stress and reality shock, contributing to a high turnover rate in the first year of nursing practice (Maria et al., 2017).

The training of new nurses is expensive, ranging from \$37,700 - \$58,400 per NGN (Blevins, 2018). These costs contribute to the overtime incurred by using existing staff to cover open shifts, hiring travel nurses to close the gap on open positions, closing beds, and training new staff (Ackerson & Stiles, 2018). Turnover rates of NGNs are about 17% in the first year and 43% by year three, which cost hospitals \$5.2 - \$8.1 million per year (Blevins, 2018). Therefore, strategies to retain NGNs are of interest to employers as this negatively impacts the quality of care delivered and the hospital's financial investment on preparing NGNs.

Although the transition from nursing student to registered nurse can be exciting, it continues to be an overwhelming experience for new graduates (Blevins, 2018). Successfully making that transition comes with various challenges, disappointments, and successes which impact the NGNs confidence, retention, and tenure in the profession (Maria et al., 2017). Therefore, revising pre-licensure curriculum that better prepares students for practice and identifying how to support NGNs in their transition is essential. Several studies have looked at this transition and the challenges that NGNs experience. The following section reviews NGNs role transition and the relevant literature that further explores the difficulties they encounter upon entrance to the nursing profession.

Role Transition

The role transition of NGNs can have an impact on the delivery of patient care. Previous patient care experiences and differences in educational preparation can influence the ability of the NGN to successfully acclimate into professional practice (Kumaran & Carney, 2014). The difficulties with role transition from student nurse to professional nursing practice were first

identified by Marlene Kramer (1974) in her book titled *Reality Shock: Why Nurses Leave Nursing*. In this seminal research, Kramer described the phases nurses new to the profession undergo as they transition to professional practice with strategies to ensure a successful transition.

Kramer identified four stages of role transition: 1) honeymoon, 2) shock, 3) recovery, and 4) resolution. In the honeymoon phase, the NGN undergoes a period of excitement and is eager to learn. Relationship building between the NGN and their preceptors is essential (Wakefield, 2018). The second phase is coined the shock phase. This is when NGNs realize the disparity between what they were taught in nursing school and the reality of actual clinical practice (Wakefield, 2018). The NGN is most vulnerable at this time to leave their job, profession, or to experience burnout in this stage. In the recovery stage, NGNs are starting to see the realities of practice with a more open perspective. They have less feelings of anxiety and have increased their coping ability (Wakefield, 2018). At about a year, in the resolution stage, the nurse fully transitions into a confident and competent practitioner (Wakefield, 2018).

In the seminal article by Casey et al. (2004), the authors conducted a descriptive comparative study using a survey to study NGNs stresses and challenges in six acute care hospitals in Denver, Colorado during their first year of transition to practice. A total of 784 surveys were sent out, and 270 NGNs (34% response rate) agreed to participate. Data were collected at baseline, three months, six months, and twelve months into their transition.

This study took place in two phases. During phase one of the study, the Casey-Fink Graduate Nurse Experience Survey was pilot tested from June 1999 to July 2001 with 12 NGNs. The instrument was tested for content validity using an expert panel of nurse directors and educators in both the academic and private hospital settings (Casey et al., 2004). The

psychometric properties of the initial survey were not published. During phase two of the study, the revised surveys were distributed to only NGNs at the academic teaching hospital who were entering an expanding graduate nurse residency program. The survey tool consists of five sections, demographic information, skills/procedure performance (three open-ended questions), comfort/confidence (25 items with a Likert scale response with 1 = strongly disagree and 4 = strongly agree), nine items on job satisfaction dimensions, and four open-ended (qualitative) questions about the work environment and difficulties in role transition. Internal consistency reliability was established on the original instrument with a Cronbach's alpha of .78. Additional reliability testing on the revised instrument indicated little change in internal consistency.

Casey et al. (2004) state that "most" NGN respondents identified 54 different procedures and skills that they were uncomfortable with on hire, although a percentage was not identified (Casey et al., 2004). Only 4% felt comfortable with all skills and procedures. For the 25 statements related to comfort/confidence, five were statistically significant using chi-square analysis. At baseline, most NGNs felt uncomfortable communicating with physicians, but they had gained confidence with this skill by six months to one year ($\chi^2 = 25.02, p = .003$). Additionally, NGNs gained confidence communicating with residents by six months to one year ($\chi^2 = 28.15; p = .001$). NGNs comfort and confidence significantly improved at six and twelve months of practice in these areas: delegating to ancillary staff ($\chi^2 = 32.78, p = .005$), setting priorities for patient care needs ($\chi^2 = 25.86, p = .002$), and making suggestions for changes to the nursing plan of care ($\chi^2 = 40.30, p = .001$) (Casey et al., 2004).

Phase 1 respondents became less satisfied with their jobs as they gained experience in the RN role ($p = .02$). Phase 2 NGNs at the academic teaching hospital reported significantly higher job satisfaction than the phase 1 respondents from all other sites. This indicates that participation

in a graduate nurse residency program was beneficial. One key finding from this study is that the NGN perceives that it takes 12 months to feel comfortable and confident practicing in the acute care setting, with six to twelve months being the most challenging role adjustment time (Casey et al., 2004). This time far exceeds the time allotted in traditional orientation models most hospitals provide. A second key finding is the importance of the preceptor role to the NGNs job satisfaction and their developing competency. Having more than three preceptors for orientation caused dissatisfaction with the orientation process.

There were limitations with this study that could have affected the validity of the results (Casey et al., 2004). Tracking NGNs for repeated measures at the hospital sites was challenging. There was attrition of some of the respondents at some locations by one year, although the attrition rate was not quantified. The instrument was under development with multiple revisions, which made administration and analysis difficult. Quantitative and qualitative sections were intermixed. This made the tool challenging to score, which could have affected the validity of the results.

Fink et al. (2008) published the qualitative data that was a part of the program evaluation by the University HealthSystem Consortium (UHC)/American Association of Colleges of Nursing (ACCN) post-baccalaureate graduate nurse residency program. More than 5,000 graduates enrolled in the UHC/ACCN residency program at 37 different academic hospital sites took the Casey-Fink Graduate Nurse Experience Survey ($\alpha = .89$). Only the qualitative data is reported in this study (Fink et al., 2008).

Fink et al. (2008) had a convenience sample of 434 (41%) respondents. NGNs were asked to self-identify the top three skills and procedures they were uncomfortable with. Intravenous starts (156), blood draws (58), and assessment skills (50) were identified at baseline

as the skills/procedures to cause the most discomfort. None of the NGNs felt they were independent with any skill at baseline, and only 10% thought they were independent at six months with all skills. Most NGNs identified more than 100 skills they were uncomfortable with at twelve months. These included skills such as participating in codes, intravenous insertions, tracheostomy care and suctioning, end-of-life care, and assuming the charge nurse role.

The NGNs were also asked what difficulties they were experiencing transitioning from the student role to the registered nurse (RN) role. At one year, 42% of the NGNs still perceived role transition difficulties, and five themes were identified. They included: a) role changes, such as increased responsibility, b) lack of confidence in skills such as physician communication, c) workload concerns such as organizing and prioritizing, d) fears such as harming patients or making medication errors, and e) orientation issues such as multiple preceptors and information overload (Fink et al., 2008). These role transition difficulties are shown in Figure One below.

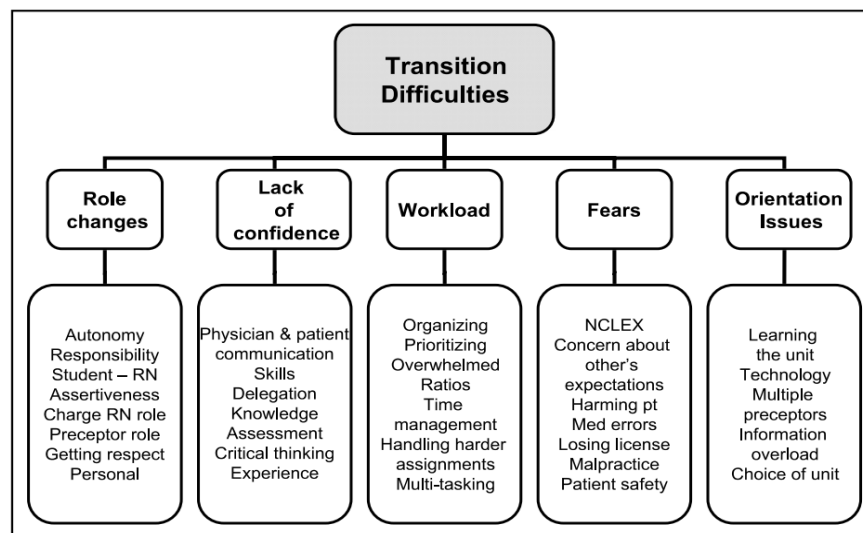


Figure 1. Graduate nurse resident role transition difficulties. NCLEX indicates National Council Licensure Examination; RN, registered nurse.

When asked what could be done to assist the NGN in their transition, four themes were identified. The NGNs wanted improved orientation, with consistent preceptor support and orientation extension as essential components. When describing the work environment support,

NGNs identified a gradual increase in nurse-to-patient ratios and opportunities to develop skills and confidence when directing unlicensed personnel. Lastly, the NGNs needed to feel a “stronger sense of belongingness” in the unit (Fink et al., 2008).

A limitation of this study was the diminished number of respondents over time. However, there was no data on how many dropped out of the study. This could have affected the validity of the responses. However, this study still adds to the body knowledge that NGNs experience difficulties with role transition from student nurse to professional nurse in the first year of practice. There is a gap in the NGNs comfort level, confidence, and skill proficiency, which can interfere with the NGNs ability to deliver safe, competent clinical care. Therefore, focusing on strategies to assist with that transition is essential (Fink et al., 2008).

Hatzenbuhler & Klein (2019) conducted a qualitative descriptive study. The study's purpose was to explore the perceptions of NGNs about their preparedness to enter clinical practice. The nurses graduated from six different educational institutions located in three states. To be eligible for the study, participants had to be baccalaureate-prepared registered nurses (RN) and were required to practice for a minimum of 12 months to 24 months. Data were collected through face-to-face interviews, which were audiotaped using a semi-structured interview guide. Three themes emerged from this study: (a) it is hard for nursing schools to prepare you for everything, (b) being in the workforce is different, and (c) pearls of wisdom.

The participants felt their nursing education program gave them the basic knowledge and skills needed to enter the RN workforce. However, students felt there were aspects of their professional roles that they were not adequately prepared for during their prelicensure nursing education. These responsibilities included delegating, prioritizing, using time management to care for multiple patients, and communicating with other health care disciplines and patients'

family members (Hatzenbuehler & Klein, 2019). They also felt unprepared for high-stress situations, such as high-acuity patients, difficult social situations, and coping with codes, death, and dying (Hatzenbuehler & Klein, 2019). The NGNs also shared recommendations to better prepare novice nurses for entry into professional practice. The NGNs emphasized the importance of mentoring from instructors, preceptors, and experienced staff members and the need for more hands-on experience in nursing education to ease the transition. The new nurses also expressed that consistency during new graduate orientation was necessary (Hatzenbuehler & Klein, 2019).

Dwyer & Revell (2016) conducted a literature review to identify factors influencing the NGNs transition to professional practice. The final sample included 42 articles published from 2001 – 2015, written in the English language, peer-reviewed, and quantitative. The articles' inclusion criteria consisted of studies that examined the relationship between factors that influence nurse transition and outcomes that evaluated the experience. Exclusion criteria included research studies that did not include the reliability and validity of the instruments and articles about a residency program. The results of this literature review suggest a complex interplay between intrapersonal, interpersonal, and organizational factors that influence an NGNs transition.

This review identified 29 intrapersonal factors that influence NGNs. Educational background was found to be a significant factor. Those NGNs with higher academic preparation were found to have higher perceptions of job difficulties ($p < .05$) and lower perceptions of job control ($p < .01$). They were also more likely to have turnover intent and leave their jobs. Associate degree nurses were found to be more likely ($p < .001$) to report job satisfaction than bachelor's prepared nurses, and they were more satisfied on six subscales of job satisfaction (Dwyer & Hunter Revell, 2016).

Eight interpersonal characteristics were found to influence NGN transition. Social support from supervisors, co-workers, or senior nurses was found to be very important. A lack of support from supervisors and co-workers negatively influenced job satisfaction and increased intention to leave. Workplace incivility and bullying negatively impacted an NGNs mental health. Authenticity was also essential in the relationship between the preceptors and the NGNs (Dwyer & Hunter Revell, 2016).

Organizational level influences on NGN transition were found in 25 research studies. Those with good orientation experiences had higher job satisfaction and were less likely to turnover. However, job stress negatively influenced transition. According to Dwyer & Hunter Revell (2016), workload and staffing shortages contributed to stress and adverse transition outcomes, including perceptions of job difficulties and job dissatisfaction. Those organizations with organizational behaviors that facilitate access to information, support, and opportunities to learn had decreased turnover intent and burnout. Those organizations also had increased organizational commitment, work engagement, and job satisfaction across all the studies in this review (Dwyer & Hunter Revell, 2016).

The authors concluded that multiple factors influence the transition to practice. There is a complex intersection between intrapersonal, interpersonal, and organizational level factors that will influence the outcomes of the NGN. Therefore, it is essential to design transition programs and educational offerings that address all three levels of influence. There are limitations to this review; however, there was not a consistent outcome measure for NGN transition. There was also some interpretation by the authors to decide which articles to include. Studies that were mixed methods or qualitative studies related to residency programs were excluded. This could have led to the omission of important influences on NGN transition.

Wong et al. (2018) conducted a qualitative descriptive study to explore NGNs challenges during their transition period. The authors aimed to provide insights into nursing programs and hospitals to facilitate the transition to improve retention rates. Eight nursing graduates were interviewed for one hour using a semi-structured interview to collect the data. Nine themes were identified: 1) workload, 2) lack of knowledge, 3) communication, 4) expectations, 5) change of role, 6) working atmosphere, 7) support, 8) blame/complaint culture, and 9) personal attitude. Participants experienced heavy workloads, which increased their stress levels. This contributed to an inability to communicate with patients and families, which exacerbated conflicts and misunderstandings. Additionally, they expressed difficulty communicating with patients and families and were afraid to clarify doctors' handwritten orders (Wong et al., 2018).

Participants were offered various support programs such as pre-RN training programs, orientation programs, mentorship programs, and peer support programs. Orientation programs and pre-RN training programs were highly effective. NGNs preferred to work with the same mentor. Due to their low self-confidence and anxiety, the NGNs hesitated to ask senior nurses questions. However, despite these variables, NGNs were optimistic about learning and overcoming challenges. They were always looking to learn and grow professionally. This study suggests that nursing programs, hospitals, and NGNs are all responsible for facilitating the changes needed to improve the NGN transition to practice (Wong et al., 2018).

Strategies to Assist New Graduate Nurses

New graduate nurses encounter many challenges during their first year of clinical practice. Understanding the strategies that assist with their transition can improve job satisfaction and retention. The studies identified in the previous section explored the transitional experiences

of NGNs. The following section reviews the relevant literature that explores strategies utilized to improve NGN transition experiences.

Residency Programs

Nurse Residency Programs (NRPs) help facilitate NGNs' transition to nursing practice. They reduce role stress, enhance job satisfaction, develop clinical competence, expand critical thinking, and increase organizational commitment (Friday et al., 2015). The "Future of Nursing" report, released in 2010 by the IOM, recommended that NRPs be implemented to aid in the transition into practice for NGNs. Many recent studies have shown that an NRP provides an added layer of support that results in job satisfaction and retention of the new graduate nurse (Ackerson & Stiles, 2018; Asber, 2019; Spector et al., 2015; Wildermuth et al., 2020).

Ackerson & Stiles (2018) conducted a literature review to explore the implementation of NRPs in acute care settings and their ability to retain nurses. The articles had to be primary research and published in peer-reviewed academic journals within the past ten years. Articles were included if they involved an NRP for an NGN in an acute care setting in the US. The articles also had to address retention or turnover rates as outcomes of the studies. NRP programs specific to specialized areas of nursing, such as maternity, were excluded. Twenty-six quantitative and qualitative research articles were found to fit the criteria (Ackerson & Stiles, 2018).

Internally developed programs were reported in nine (34.6%) of the studies, and 17 (65%) of the studies used established programs, such as the University Healthsystem Consortium/American Association of Colleges of Nursing Program (UHC/AACN). Overall, the studies that reported retention rates showed improved retention rates. The average retention rates of internally developed programs were less than NRPs using established programs by 2.77%.

However, only one study used a control group. In that study, the NRP group had a significantly greater retention rate (88.9%) than the control group (80%; $p = .014$) (Ackerson & Stiles, 2018).

Turnover rates were reported in nine of the studies. Turnover was compared before the implementation of an NRP program (pre-NRP) and after the implementation of an NRP (post-NRP) in four studies. The turnover rates after NRP implementation ranged from 6.41% to 13%, which was a decrease in turnover (Ackerson & Stiles, 2018). However, statistical significance was not reported. One study compared post-NRP turnover rates in three sites, one with a transitional program, one with a formal NRP program, and the third having a comprehensive three to six-month orientation. Turnover decreased in all three sites; however, the differences were not statistically significant. This is a limitation of this review.

Ackerson & Stiles (2018) concluded that using an NRP in acute care settings successfully retains NGNs, which decreases organizational costs. However, the success in retaining NGNs was only true for the first year. Therefore, this suggests that the nurses are no longer benefiting from participating in a structured NRP after the first year. Retention rates in the second year are due to organizational culture. Therefore, the focus should be on improving the workplace culture.

Asber (2019) conducted an integrative review to examine the effects of NRPs on the retention of NGNs. Inclusion criteria included peer-reviewed literature from 2010-2016 that reported NGN residency programs' outcomes related to turnover and retention. Sixteen articles met the criteria and were included in the review. Whittemore and Knafl's (2005) integrative review methodology was utilized to complete the review.

All 16 articles calculated retention rates for NGNs after one year of hire into an NRP. One-year retention rates were higher than the national average ranging from 74% to 100%. Two

of the studies compared rates of retention using an intervention group (completion of a formal NRP) and a control group. Although the highest retention rates were seen in the intervention group, it was not statistically different from the control group (Asber, 2019). Six studies reported retention rates for studies using organizational-based NRPs (74%-98%), two studies used Versant NRPs (92.9%-93.6%), while six used the American Association of Colleges of Nursing (AACN) NRP (90.6%-100%) (Asber, 2019).

The length of the programs varied from 12 weeks to one year. The retention rates from NRPs lasting a year in length ranged from 74%-100%, and 18-week NRPs reported retention rates of 92.9%-93.6%. One study focused specifically on the length of the program and dividing NRPs into four sections. NRPs that lasted less than 12 weeks had retention rates of 76.8%, 12-16 weeks had an 85.7% retention rate, 16-24 weeks had an 86.7% retention rate, while 98.5% of NGNs were retained in programs lasting more than 24 weeks (Asber, 2019).

In addition to retention rates, nine of the studies researched predictors of organizational commitment. Asber (2019) found that job stress, being in a hospital setting, and professional satisfaction scores were predictors of retention. Additionally, the overall Casey-Fink Graduate Nurse Survey (2004) scores and the organizational-prioritization and communication-leadership subscales were statistically significant predictors of organizational commitment. One study found that it took 12 months to establish a statistically significant decline in turnover related to perceived job stress. The authors concluded that nursing administrators should support NRPs as they increase retention rates and organizational commitment. However, organizationally created programs do not have the same increase in retention rates as national programs do. However, if a quality program is implemented, it can decrease job stress while building NGN confidence and increasing prioritization, communication, and leadership skills.

Wildermuth et al. (2020) conducted a phenomenological qualitative study to explore nursing students' lived experiences in a collaborative NRP. The NRP began with student nurses in a clinical immersion experience in their last semester of nursing school and continued through entry into practice. Students had a preceptor through their clinical immersion and orientation as a new nurse. Nine NGNs were in the final sample, and they were interviewed face to face in a private room at college. Only one question was asked: "What are your transition experiences as a student and a new graduate nurse in the collaborative nurse residency program?" (Wildermuth et al., 2020).

Three major themes emerged from Wildermuth et al. (2020). These included: 1) feeling overwhelmed, 2) feeling supported, and 3) feeling confident. Participants thought they should know more than they do and that they could not deliver the care they should be giving. Increased stress came from short staffing. Multiple admissions and discharges or critical events were significant contributors to the NGNs feeling overwhelmed. However, the participants felt as though their preceptors greatly supported them. They were very comfortable with their preceptors and felt they provided a safe environment to ask questions. Using the same preceptor for both the immersion experience and orientation added to the participant's confidence. Familiarity with the unit, co-workers, facility, and work patterns also contributed to the participant's confidence.

Four minor themes emerged in Wildermuth et al. 2020. These included communication with physicians, relationships with experienced nurses, jumping in, and learning. Communication was challenging, and the participants expressed being nervous about calling physicians. Participants also felt they had both positive and negative relationships with experienced nurses. They felt some nurses were stuck in their ways, while others wanted to help

the NGN succeed. Jumping in to help was seen as a positive experience. However, they also identified it as being scary. Learning was identified as active engagement with their preceptor by discussing cases, looking up items, and reading the notes. Wildermuth et al. (2020) concluded that the nurses' transitional experiences were unique, yet they identified common themes through their stories. While overwhelmed with their transition, the NGNs felt supported and developed confidence in this model. Hospitals could use prolonged engagement with a preceptor to aid in retaining NGNs.

Spector et al. (2015) conducted a longitudinal, randomized, multisite study to examine the effects of the National Council of State Boards of Nursing (NCSBN's) Transition to Practice (TTP) program and other transitional programs used to assist NGNs in transitioning to professional nursing practice. Hospitals in the intervention group adopted the NCSBN's TTP program, while those hospitals in the control group maintained their usual onboarding programs. Spector et al. (2015) found that NGNs in both groups are less satisfied at six and nine months than they are at baseline. However, NGNs in established NRPs remained the most satisfied over time ($p=.031$), and they had the lowest turnover rate of 12% ($p < .001$) (Spector et al., 2015). This supports Kramer's (1974) reality shock phenomenon that the NGN difficulty peaks at around five to seven months (Duchscher, 2009).

Dedicated Education Units

A dedicated education unit (DEU) is an academic-clinical partnership model that can address the challenges associated with traditional clinical models and enhance the NGNs readiness for practice (Rusch et al., 2018). In a DEU, staff nurses serve as clinical instructors (CIs) for students in partnership with the nursing faculty from the nursing school. In this model, the staff nurse helps to promote the students' development in higher-order thinking and decision-

making (Rusch et al., 2018). The following section reviews the relevant literature that further explores the use of a DEU in nursing programs and the outcomes of this innovative partnership.

Smyer et al. (2015) completed a longitudinal quasi-experimental repeated measures study to compare students in a DEU versus a traditional clinical setting. A convenience sample ($n=144$) was randomly assigned to either the DEU (experimental) or traditional clinical (control). The CIs were provided training on pedagogy to assist the instructors with their new position. Students worked a 12-hour shift with the same CI. The specific research questions addressed were: Are there significant differences in academic outcomes between students in a DEU and those in a traditional clinical unit on the following: 1) critical thinking, the nursing process, and quality and safety measures 2) scores on the standardized RN exit examinations, specifically in the area of critical thinking, the nursing process, and quality and safety measures, and 3) those outcome measures over time (baseline, post-DEU placement, and end of the program).

The students were in the second semester of their program, enrolled in an adult medical-surgical course with 135 hours of clinical practice. Ninety students were in the DEU, while 54 were in a traditional clinical setting. This was due to available clinical placements during this time frame. To measure outcomes, the Health Education System, Inc (HESI) standardized test was used to assess academic outcomes measures. Data were collected at baseline from the Fundamentals HESI, immediately after the clinical experience from the Medical-Surgical HESI, and over time from the RN Exit HESI examinations. Independent *t*-tests were utilized to compare demographic characteristics and group means differences between the DEU and traditional students' baseline measures of academic outcomes. A series of 2 x 4 mixed-model analyses of variance (ANOVA) was performed to assess differences between the groups over time.

Smyer et al. (2015) concluded that there were no significant differences between the DEU and traditional clinical students' baseline measures after the experience of a DEU or on the RN Exit examination of the academic outcomes. Although a significant time effect was found for various educational measures (overall HESI score, critical thinking HESI score, most QSEN competencies), the results were not statistically significant. However, the school received positive responses from students, faculty, and staff about the DEU model, and implemented a DEU in semesters three and semester four. Although this study did not show a change in academic outcomes, this DEU model did assist with recruitment in a hospital setting and assisted with a positive transitional experience for the NGN.

Vnenchack et al. (2019) completed a quasi-experimental study using a longitudinal design with repeated measures over time. The authors were interested in evaluating the DEUs impact on critical thinking, anxiety, self-confidence in clinical decision making, self-efficacy, and confidence in senior BSN students and how clinical institutions could integrate DEU concepts into their NGN onboarding. A convenience sample ($n=17$) was utilized, and all of these students were assigned to a DEU.

Each student completed one 12-hour shift per week for 12 weeks and was paired with a practicing experienced nurse (PEN) during their clinical hours. The PEN received training in techniques to reduce anxiety and the facilitation of critical thinking. Three instruments were used to measure the outcomes of the study. A 27-item Nurse Anxiety and Self-Confidence with Clinical Decision-Making Scale (NASC-CDM), which is a 6-point Likert type tool, was utilized to measure anxiety ($\alpha=.96$) and self-confidence ($\alpha=.97$). The General Self-Efficacy Scale (GSES) was used to measure self-efficacy (.82-.93). The Casey-Fink Survey was used to measure confidence through these five factors, and the authors provided their respective reliabilities: a)

stress ($\alpha=.71$), b) patient safety ($\alpha=.79$), c) support ($\alpha=.90$), d) communication/leadership ($\alpha=.75$) and e) professional satisfaction ($\alpha=.83$) (Vnenchack et al., 2019).

Vnenchack et al. (2019) found that there was an increase in general medical-surgical knowledge and critical thinking as reflected on standardized HESI scores that were administered at the beginning (831) and end of the senior semester (912) ($p < .001$). Students also had a 100% pass rate on the NCLEX compared to the overall US pass rate of 87.8%. Anxiety decreased over time from baseline to 12 months after graduation ($p < .05$), suggesting that NGNs experience less anxiety through their transition to professional practice.

Vnenchack et al. (2019) found that self-confidence related to clinical decision making increased with the NASC-CDM scale ($p < .001$), and self-efficacy showed improvement over time with the GSES scale ($p < .05$). There was also statistical significance in confidence with the Casey-Fink confidence survey between baseline and graduation ($p < .05$) and between baseline and 12 months after graduation ($p < .001$). A similar finding with both the Casey-Fink confidence survey and the NASC-CDM scale supports that the results are robust.

Dimino et al. (2020) did a mixed-methods retrospective study to explore the impact of a DEU on NGNs role transition. Students had graduated with their BSN from the same institution and either participated in a DEU ($n=83$) or traditional clinical (TC) ($n=54$) for their 16-week (120 hours) senior clinical experience. The total sample size was 137 students (28% response rate) from the electronic survey. The Revised Casey-Fink Graduate Nurse Experience Survey was used to compare the transitional experiences of NGNs. This survey consists of five sections: demographic information, self-reported skills/procedures performance, comfort/confidence, job satisfaction, life stressor, and transition difficulties.

Dimino et al. (2020) reported that NGNs with DEU experiences felt significantly more comfortable suggesting changes to the nursing plan of care ($\chi^2 = 8.303, p < .04$). NGNs also felt more supported by nurses on the unit after the DEU program ($\chi^2 = 5.808, p < .016$). A clinically significant finding but not statistically significant found that NGNs with DEU experience reported feeling more comfortable and confident communicating with physicians, delegating, prioritizing, and making suggestions compared to NGNs who had TC.

Patterns were identified from the qualitative data from the survey. The NGNs with DEU experience were "likely to cite the support that the clinical teaching model provided for managing the complexities of the floor" (Dimino et al., 2020, p. 124). The NGNs felt that the DEU experience assisted with their transition because they were familiar with the charting, floor-specific duties, and common diagnoses and treatments for the patients on their unit. Nine nurse managers participated in qualitative interviews. Three were from DEU units, and six were from TC units. Managers believed that those students from a DEU experience were more clinically prepared to care for their patients, quicker to train, and more focused on care in a holistic way (Dimino et al., 2020).

Sharpnack et al. (2014) completed an experimental research design study. Second-degree accelerated program students (SDEP) ($n=36$) were randomized to either a DEU or traditional clinical. Twenty students were assigned to the traditional clinical, while 16 students were assigned to the DEU. There were no significant differences in demographics between the two groups. Both groups' course and standardized assessment scores and simulation outcomes were assessed. The Creighton Simulation Evaluation Instrument (C-SEI) was utilized to score simulation outcomes ($\alpha=.97$). To measure the course outcomes, the scores of the Assessment Technologies Institute (ATI) were used.

Independent *t*-tests were completed on both groups' final course score, standardized assessment scores, and simulation scores (Sharpnack et al., 2014). Students in the DEU group had statistically significantly higher scores in medical-surgical, leadership, mental health, and research courses. They also scored statistically significant higher on ATI RN Comprehensive Predictor, RN Nursing Leadership, RN Adult-Medical Surgical, and RN Mental Health proctored assessments. The simulation scores assessed using the C-SEI were significantly higher for the DEU students ($t [33] = 4.145, p = 0.049$). The subset scores for critical thinking skills ($t [33] = 2.124, p = 0.049$) and patient's safety skills ($t [33] = 4.145, p = 0.001$) were also significantly higher while assessments scores were identical. The communication scale was not statistically significant ($t [33] = 1.541, p = 0.142$) (Sharpnack et al., 2014).

Mulready-Shick et al. (2013) completed a two-year evaluation study with clinical practice partners that examined multiple DEU's and traditional units' outcomes. There were 255 students who initially consented to the randomization and study participation; however, 165 (65%) completed the survey. Students in the DEU groups ($n = 111$) had higher response rates than the traditional group ($n = 54$). However, there were no significant demographic differences, confirming group equivalencies, as was intended with the random assignments.

Mulready-Shick et al. (2013) used three separate survey instruments. The Student Evaluation of Clinical Education Environment (SECEE) was used to assess the students' perceptions of the quality of clinical instruction and unit learning opportunities. There are three subscales with reliability coefficients ranging from 0.82- 0.94 in this tool, which measures students' clinical experiences and interactions with the instructor, students' clinical experiences and interactions with the preceptor, and the overall unit learning opportunities. This was

modified slightly to clarify that the instructor was the one who provided instruction directly to the student on the unit (staff nurse in a DEU and clinical instructor in the traditional model).

The primary investigator and research team created the two other scales, which was a limitation of this study. The Growth in Clinical Learning Scale rates student perceptions about the amount of growth in their nursing knowledge, clinical skills (including clinical judgment), and ethical and professional behaviors. This resulted in a unidimensional scale with a strong internal consistency (0.88). The Quality and Safety Competency Development Scale related students' perceptions of frequency for incorporating patient-centered care, safety, quality improvement, evidence-based practice, informatics, teamwork, and collaboration competencies in clinical practice. These items showed excellent discrimination with item-total correlations exceeding 0.30 with a Cronbach's alpha of 0.75 (Mulready-Shick et al., 2013).

Mulready-Shick et al. (2013) found that both student groups reported positive clinical education experiences and learning opportunities. However, DEU students reported significantly more positive learning experiences on all measures. On the modified SECEE scale, the DEU students exceeded the traditional students' ratings on both subscales and every single item. On the instructor subscale, the DEU group's average ratings were higher (3.72) as compared to the traditional group (3.21) ($F= 33.53, p < 0.001$). On the unit learning opportunities subscale, the DEU group's average ratings were 3.67 and 3.17 for the traditional group ($F= 40.48, p < 0.001$). DEU students also perceived more significant growth in clinical learning and developing nursing knowledge, clinical skills, and ethical and professional behaviors than traditional students ($F = 24.67, p < 0.01$). In this study, practice partners reported that DEU clinical learning experiences positively impact the NGNs transition to professional practice.

Interprofessional Education and Training Wards

One of the IOM Future of Nursing Report's recommendations is to focus on interprofessional education and evaluation (Russell et al., 2020). Upon graduation, nurses need to be able to work as effective members of the health care team. Interprofessional collaboration has been identified as a key component in reducing preventable adverse outcomes by promoting communication, role clarification, and mutual respect among health care professionals (Goulding et al., 2020). However, because incorporating IPE into existing nursing curricula has been challenging, most education is still delivered in a discipline-specific mode (Lapkin et al., 2013). However, communication with other healthcare team members has long been cited as one of the difficulties NGNs experience as they transition to the nursing workforce (Casey et al., 2004; Fink et al., 2008; Hatzenbuehler & Klein, 2019; Wildermuth et al., 2020). Therefore, effective interprofessional strategies are necessary to bridge the academic-practice gap in communication, teamwork, and role clarity with other healthcare team members. Several studies have looked at IPE, and these studies are outlined in this review. However, most have been on a one-time basis for a limited number of students and usually only involved students from two professions (Hermann et al., 2015).

Palese et al. (2019) conducted a quantitative study in Italy. The study's inclusion criteria included clinical practice rotations lasting at least two weeks in the same unit. The primary outcome was to determine the IPE occurrences as experienced by students. This was assessed by the question included in the rest of the questionnaire: "Did you experience IPE occasions during your most recent clinical rotation?" (Palese et al., 2019, p. 2). This was collected on a four-point Likert scale according to their experience. The research team developed this item and was piloted with 100 students to assess its clarity and understandability.

Out of 10,480 eligible students, 9,607 students participated in the study. Only 21.3% of the students reported always having experienced IPE during their most recent clinical experience. A total of 666 (6.9%) never experienced IPE, 3248 (33.8%) reported 'only a little' IPE experiences, and 3653 (38%) reported experiencing IPE opportunities 'to some extent' (Palese et al., 2019). Although IPE has been considered an effective educational strategy to increase collaborative competencies, students experienced a lack of interprofessional learning occasions in clinical, with 40.7% reporting 'never' to 'only a little' IPE opportunities during their last clinical rotations (Palese et al., 2019).

One of the limitations of this study is that students were asked to self-report their IPE experiences in their most recent clinical rotations and not in their entire nursing education program. This could have created some recall bias. Students were also asked about their perception regarding their occurrence (from 'never' to 'always'). However, this study does show that nursing students are not frequently exposed to IPE experiences throughout their clinical rotations. This limits the opportunities to develop teamwork skills that will transfer to future practice upon graduation.

Monagle et al. (2018) conducted a mixed-method, experimental, pretest/post-test study. The study's primary purpose was to determine if a structured reflection exercise would result in more practice-ready NGNs. Another aim was to determine what factors supported or impeded learning in NGNs first year of practice. A convenience sample (n=74) of NGNs with less than three months of nursing experience was recruited. The sample size was adequate initially. However, there was significant attrition with a loss of 24 participants, so the quantitative analysis will not be included.

Monagle et al. (2018) identified four themes through the qualitative analysis: enhancing communication, finding interprofessional support, responding to the complexity of care, and appreciating the nurse's role. NGNs did not feel that their communication was effective with patients and healthcare team members. They relayed frustration, knowing that another intervention needed to be done but did not know the next step in the scenario. Additionally, many NGNs expressed frustration getting the medical team's attention in response to a deteriorating patient. It was not until 10-12 months that they felt they could effectively communicate with the team, but they still lacked the confidence to push for a more reasonable intervention.

These themes have significant relevance to the educational preparation of NGNs. The authors concluded that learning how to communicate with the interprofessional team should be addressed when they are students. Although this study was not specific to IPE, this article's results reinforce the concept of IPE in undergraduate nursing education. They also recommended teaching a structured communication template for interprofessional communication, such as Situation-Background-Assessment-Recommendation (SBAR). It is thought that academic educators focus primarily on SBA and leave out the recommendation; however, it is essential to help students connect their learning with practice and should be included.

Simko et al. (2017) conducted a pre-and post-perception scale descriptive prospective study. Senior nursing students and third-year pharmacy students participated. The sample consisted of 60 students who completed the survey on the first day of class, but only 55 (90%) completed the survey on the last day. Students participated in a three-credit course comprising presentations from multiple professionals. The students were also divided into interprofessional

workgroups (nursing and pharmacy students), where they completed IPE assignments, activities, and simulations together throughout the semester.

The Interdisciplinary Education Perception Scale (IEPS - 18 Likert-style statements) and Collaboration and Satisfaction About Care Decisions (CSACD - nine Likert-style statements) were completed. Simko et al. (2017) stated that both of these tools are validated data collection tools; however, the Cronbach alpha score was not reported for either of these instruments. Data were analyzed using pre-and post-course surveys using chi-square tests. IEPS overall scores, sub-scores, and CSACD scores were compared using two-tailed *t*-tests.

For nursing students, the only statistically significant statement was "I know the role of a pharmacist in pain management" (26% pre-course to 53% post-course, $p=.021$). For pharmacy students, the increase in all four statements was statistically significant. These include the role of the pharmacist is important in pain relief ($p = .016$), the role of the pharmacist in pain management ($p = .001$), the role of the RN is important in pain relief ($p = .002$), and knowledge of the role of the RN in pain management ($p < .001$). For the IEPS, the total mean scores were higher for both groups post-course than pre-course (mean = 84 vs. 79, $p = .019$) and for the CSACD (mean = 35 vs. 26, $p < .001$). The data also showed a significant increase in the percentage of pharmacy students who strongly agree with a statement that acknowledges the importance of their role ($p = .016$) and knowledge of their role ($p = .001$) (Simko et al., 2017).

Simko et al. (2017) concluded that an IPE course for nursing and pharmacy students significantly increased the interprofessional team's knowledge and that each discipline had better role clarity. Pharmacy students increased their knowledge of the nursing role and better understood their role in pain relief in this course. There are limitations to this study because the course was a self-selected elective and a convenience sample of students, which could lead to

bias. Having a comparison group of students who did not have any interprofessional assignments would have strengthened the study's design.

Goulding et al. (2020) completed a mixed-methods study to examine the perceived changes in nursing and medical laboratory students' attitudes toward interprofessional collaboration following a simulation-based interprofessional education (Sim-IPE). A convenience sample (n = 17) was recruited. The data was collected using the Readiness for Interprofessional Learning Scale (RIPLS). The RIPLS scale is a 17-item survey consisting of a Likert scale. It measures undergraduate health care students' readiness to engage in IPE. The qualitative data were collected using a thematic analysis of the post-simulation debriefing.

Goulding et al. (2020) found that the RIPLS surveys ranged from 4.4 – 5.0 on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. These scores suggest that the students valued IPE. Also, after participating in Sim-IPE, the mean scores increased in all areas assessed, and 100% of the students agreed that learning with other healthcare providers improved their effectiveness as healthcare team members, which will benefit patients. The statistical significance of these results was not reported, however.

The thematic analysis of the qualitative data was completed by two researchers originally, and a third researcher coded all of the responses with a 96% interrater reliability. The themes identified were a) role clarity, b) skills, c) patient safety, d) communication, e) feelings and emotions, f) time, and g) perceptions of the simulation. The participants expressed an increased value regarding learning with and about each other. Communication as an interprofessional competency was identified as very important; yet, they both identified a different language between their disciplines (Goulding et al., 2020).

Goulding et al. (2020) concluded that students agreed that having the opportunity to learn as part of the interprofessional team would improve health care team effectiveness and, ultimately, patient outcomes. The simulation was able to encourage role identification and the development of interpersonal communication. They suggested that IPE simulations, which are facilitated by educators trained in simulation pedagogy and evaluated using validated tools, should be a way to enhance student satisfaction and encourage collaboration between professions.

Granheim et al. (2018) completed an integrative review of the literature to identify how simulation and interprofessional learning (IPL) are used together in undergraduate nursing programs to address interprofessional communication and collaboration. Only peer-reviewed articles written in English that looked at both simulation and IPL focused on communication and collaboration outcomes between 2006 and 2016 in undergraduate nursing were included in this integrative review.

Granheim et al. (2018) reported the key themes, which included collaboration, learning in practice, understanding of roles, and communication. A combination of simulation and IPL appears to improve the collaboration of students, as they felt that they worked better together with other disciplines after the simulation. This was evidenced by the mean score of 4.40 for team performance, where a score of over 4.0 qualified as significant. In all the studies, students benefited greatly from teamwork. Simulation-based exercises in IPL allowed students to have better role clarity. Improvement in conflict management after the simulation experience was significantly improved ($p < .001$). One study that used a communication tool: Situation, Background, Assessment, and Recommendation (SBAR), to improve communication demonstrated an increase in students' communication confidence by 13% post-test. This review

does show that IPL and simulation improve undergraduate nursing students' interprofessional communication and collaboration. However, reviewing articles only limited to those two variables may limit the strengths of the findings.

Oosterom et al. (2019) conducted a systematic literature review on interprofessional training wards (IPTW). An IPTW is defined as an inpatient clinical ward where students from more than one health care profession (e.g., medical, nursing, and pharmacy) collaborate to provide patient care. The overall purpose of this review was to guide those starting an IPTW. Thirty-seven articles from 14 different IPTWs were included in the data extraction process. Six were located in Scandinavia, and eight were situated outside of Scandinavia at places such as the United Kingdom, Australia, and London.

Twenty studies were mixed methods. The quantitative data used questionnaires with Likert scales, and the qualitative studies used semi-structured interviews, observations, and the critical incident method. Many of these studies ($n=7$) presented pre and post-evaluations of students rating their IP skills. Students felt they had better role clarity in medical care after the IPTW experience. In one study, students in an IPTW placement ($n=239$) reported a higher degree of autonomy and independence in how they functioned and performed patient care in an IPTW compared to students in a non-IPTW placement ($n=405$). However, a limitation of this study was that it measured satisfaction and perceptions based on students' self-reported evaluations.

Seven studies also reported high patient satisfaction scores with no change to the quality of care delivered due to the IPTW. The authors concluded that IPTW had shown promising results in short-term student learning outcomes and patient satisfaction rates. However, the results were largely self-reported. High levels of learning have not been evaluated. The authors

recommended future research using standardized tools and should focus on which types of IPTWs have the most effective outcomes.

Hallin & Kiessling (2016) published a qualitative descriptive study based on a retrospective review of students' free-text answers in a student evaluation after an IPTW course. This study's primary purpose was to address the student's perspective of their learning in an IPTW. The one question asked was, "What is your general opinion of your learning experiences in the clinical training at the IPTW?" Students who participated in this unit had completed their theoretical courses and all uniprofessional clinical. This two-week course encompassed eight days of team training on the ward. Due to a large number of course evaluations, the sample size was narrowed and only included answers from randomly selected semesters. Answers from 333 students were collected with a mean response rate of 82% (159 nurses, 98 medical, 45 physiotherapy, and 31 occupational therapists).

Data were analyzed by content analysis with two main themes. Students felt the IPTW was "an enriching interprofessional learning environment – a safe place with space" (Hallin & Kiessling, 2016, p. 143). Students felt everyone's opinion was valued, contributing to teamwork and communication between disciplines. The second theme was "awareness of own development with faith in the future – from chaos to clarity" (Hallin & Kiessling, 2016, p. 143). Students reported an increase in self-confidence and knowledge about themselves through the course. Collaborating and communicating with other team members also helped them see their personal development and knowledge level. There was an increased knowledge and understanding of other professions.

Hallin & Kiessling (2016) concluded that an IPTW is a safe place for students to go from feelings of chaos to clarity. Students were able to develop personally and interprofessionally.

Students also had a comprehensive view of and faith in their ability to practice professionally in healthcare, which could help temper the transition shock that most NGNs experience. This study shows an excellent benefit in IPTWs to improve communication and teamwork and allow students to grow in their profession.

There are limitations to this study. The responses were based on free-text answers only. Interview data could have rendered more in-depth answers. However, a large amount of data was retrieved from 333 students over eight years, and data saturation was reached. Additionally, due to the study's design, longer-term learning outcomes in the context of the IPTW could not be evaluated.

Furr et al. (2020) conducted a qualitative descriptive study to evaluate nursing students' perceptions of roles and responsibilities following an IPE experience. They participated in a two-day IPE grand rounds event with physician's assistant students, pharmacy students, and physical therapy students. The event was specifically focused on the outcomes of roles and responsibilities. The goal of the grand rounds event was to discuss the case and determine the best discharge plan for the client and communicate and collaborate while learning about each other roles and responsibilities.

In Furr et al. (2020), each group discussed the case for 30 minutes and then debriefed the session in the lecture hall. After the training, students were asked to complete a journal entry and select five words to describe their experiences. Two themes emerged from the journal entries, and four themes emerged from the five words identified. The themes from the journals were self-perception and perception of others. Nursing students did experience confidence and saw how vital their roles were to patient care. They received positive feedback from other disciplines about how vital their role was on the team. However, the nursing students felt the physician

assistants had more knowledge (and power) in the patient scenario, making them uncomfortable. However, they did feel more prepared for interdisciplinary meetings and collaboration.

Furr et al. 2020 concluded that IPE is needed in education to address roles and responsibilities within the healthcare team. Nursing students also must understand their worth and value to the team, and IPE can assist the profession in asserting nursing's voice. The nursing students did obtain valuable information about the roles and values of the other team members. They appreciated working on teams and felt this IPE would assist them when transitioning to clinical practice.

Synthesis and Critique of Research Findings

The transitional experiences of NGNs have been studied in the nursing literature for about fifty years since Kramer's (1974) seminal work. A review of the literature found consistent themes in role transition difficulties experienced by NGNs. New nurses do not feel adequately prepared for nursing practice after graduating from their prelicensure nursing education (Hatzenbuehler & Klein, 2019). NGNs express concerns about a lack of confidence in skills performance, communication, teamwork, and difficulties with organization, delegation, and prioritization (Casey et al., 2004). They have many frustrations with the work environment, such as increased workload, and they feel most unprepared for high-acuity patients (Hatzenbuehler & Klein, 2019).

Studies included in this literature review were mainly conducted with traditional BSN undergraduate students. Only one study was conducted with second-degree accelerated nursing students, where students were randomized to either a DEU or traditional clinical. The remainder of the DEU studies (n=4) were conducted with either senior or junior BSN students. The eight IPE studies were either conducted with traditional BSN students, and the educational background

was not discussed. The three studies about NRP programs did not discuss the educational background of the students involved in the studies.

Studies included in this literature review were noted to examine or explore strategies that have been shown to improve NGN transitional experiences. The method(s) of evaluating those experiences revealed quantitative, qualitative, and mixed-method studies. Many different outcome measurements were studied, and there was no consistency in the outcomes reported. These included outcomes such as retention, turnover, critical thinking, anxiety, confidence, and academic outcomes, using HESI, ATI, and course scores. The Casey-Fink Graduate Nurse Survey was the most common instrument utilized in these studies. However, a total of 15 instruments were used to measure outcomes. Many of the studies reported the validity and reliability of the instruments. However, some did not report this data. Depending on the study design, data were collected before, during, or after an intervention. Many of the studies failed to report the statistical significance of this data. Interventions were also variable. Interventions included simulation, a structured reflection exercise, NRPs, DEU experiences, IPE, and IPTW. In the qualitative studies, semi-structured interviews and observations were the most common data collection strategies. Four articles included were integrative and systematic reviews on topics relevant to NGN transition.

An evaluation of the literature demonstrated that nursing research discusses NGNs transitional experiences and recommended strategies to improve that transition. Strategies such as DEUs and IPE have improved confidence, critical thinking, and transition experiences. Based on the literature review, three primary themes were identified: NGNs experience difficulties with the transition to nursing practice, strategies such as DEUs, IPE, and IPTWs have shown improvement in communication with other healthcare providers and teamwork, and the use

NRPs affect NGN retention and turnover. This search revealed a gap in the literature exploring the experiences and perceptions of students participating in an IPDEU. The current literature published on these types of units is descriptive and describes the development of an IPDEU. As minimal nursing research has examined student perceptions of IPDEUs, it is essential to establish the foundation for future studies by completing a qualitative descriptive study.

This qualitative descriptive study explored the experiences and perceptions of nursing students enrolled in an ABSN or DEN – Master's program who participated in an IPDEU during their nursing program. Exploration of their experiences focused on the concepts of role clarity, teamwork, and communication. These perspectives contribute to what is known regarding the experiences of students in IPDEUs and if those experiences improve their knowledge of other healthcare providers. Additionally, it adds to what is known about teamwork and communication improvement in this type of unit. This knowledge may be applied to NGNs' transitional experiences; in that, it improves readiness and decreases new graduate turnover rates.

Implications of filling this gap in research may enhance academic-service partnerships and positively impact NGNs transitional experiences. This could improve turnover rates, the quality of patient care delivered, and nurse and patient satisfaction. Exploring students' experiences and perceptions who participated in an IPDEU can provide insight into improving current clinical learning models to meet the needs of students as they transition from nursing student to professional practice. Improving this transitional experience can have an impact on NGN turnover rates. This, in turn, will reduce costs to healthcare organizations, and will have the ability to affect patient safety positively.

Conceptual Framework Further Defined

As discussed in Chapter One, the conceptual framework that served as the guide for this study was the *Transition Shock model by Duchscher (2009)*. Duchscher first published this theory in 2009, where she introduced this emerging theory after ten years of research encompassing four qualitative studies. Those studies used a phenomenological approach and focused on the transition experience of NGNs. These research studies were longitudinal, and NGNs were followed for 18 months. Semi-structured interview templates were used to collect data at one, three, six, nine, twelve, and eighteen months. Participants also completed pre-interview questionnaires and submitted monthly journals during their transition.

Transition shock emerged from these experiences. What identifies this experience is the contrast between the relationships, roles, responsibilities, knowledge, and performance expectations required in their familiar role in the academic settings compared to what is expected in the professional role. Although this role is not linear for each person, the adjustments were most intense through the first one to four months post-orientation.

This new reality creates exhaustion and isolation for the NGN. The intensity and labile nature of emotions expressed during this time are impressive. Difficulties creating these emotions were most commonly associated with a lack of clinical practice and confidence, insecurities in communicating and relating to new colleagues, and a lack of support for the role transition. The primary fears articulated by the NGNs were: 1) being 'exposed' as clinically incompetent, 2) failing to provide safe care to their patients, and 3) not being able to cope with their new roles and responsibilities. These fears were rooted in the concern that they would not be accepted as a valued member of the professional community.

The physical response was due to the NGN giving all their energy to perform in their new role. The NGN was also adjusting to shift work and having difficulty making clinical judgments for which they felt minimally qualified yet responsible. The sociocultural response was about the NGN finding their way in a world they had been prepared for but were not fully ready for. Relating to other professionals was difficult.

Hierarchical relationships were reinforced, and NGNs had difficulties delegating and supervising licensed and unlicensed personnel. They felt this was a role they had never practiced in undergraduate education. NGNs were often put into situations that they were not prepared for. Many NGNs stated they were placed in clinical situations beyond their cognitive or experiential comfort level. Managing a patient load of a relatively controlled and stable level of acuity in their patients with access to a seasoned nurse was within their comfort zone. This conceptual model outlines the role transition difficulties that NGNs continue to experience today, highlighting the multifaceted approach needed to assist NGNs. Academic institutions and hospitals each have a role in ensuring that NGNs are supported through their professional adjustment.

Academic institutions should provide information about the role transition to senior nursing students and facilitate clinical placements that will appropriately prepare the graduate for the dynamic professional practice environment. This can be done with innovative academic-practice partnerships such as DEUs and IPDEUs. Additionally, hospitals should expand and extend workplace orientations and provide structured mentoring programs that assist with relationship building between seasoned nurses and the multidisciplinary team. NGNs should also be placed in units with consistent and relatively stable clinical settings, increasing workload over time.

Summary

Chapter two provides a comprehensive review and synthesis of the literature. This chapter presents a discussion of NGNs role transition in nursing, the strategies utilized to improve transitional experiences, and the academic-practice partnerships used to strengthen the academic-practice gap. Additionally, *transition shock* was defined as the conceptual model that guided this study. Based on the studies in this review, the role transition process presents challenges imposed by NGNs, practice expectations upon hire, the physical demands of shift work, new roles and relationships, communication and teamwork with other healthcare members, and professional responsibility. The literature also identified multiple studies that suggest that the initial transition period lasts as long as 12 months. Findings indicate a gap in the new graduate transition process related to readiness to practice upon role transition. The new graduate nurse may not be prepared for the professional nurse's expected role requirements, and lack confidence and ability in their role when they transition from student to their first professional role. These findings suggest that changes in the preparation process both in academic and healthcare settings may be needed to bridge this gap (Monagle et al., 2018).

Casey et al. (2004) found that NGNs lacked confidence in their skills upon graduation, expressed frustration with the work environment, struggled with organization and prioritization, and had difficulties communicating with physicians. As stated previously, most of the studies reviewed were with traditional BSN students. Only one study was completed with second-degree accelerated students; therefore, it is not clear if accelerated students have the same transitional experiences.

Dimino et al. (2020) found that a DEU experience assisted NGNs with transition experiences. After experiencing a DEU, NGNs were more confident and comfortable

communicating with physicians, delegating, and prioritizing. Vnenchack et al. (2019) found that NGNs who participated in a DEU in their senior year of undergraduate nursing school had an increase in their general medical-surgical knowledge and critical thinking. Additionally, NGNs expressed decreased anxiety over time from beginning in the DEU to 12 months after graduation, suggesting that NGNs who participate in a DEU experience less anxiety through their transition to professional practice.

Granheim et al. (2018) also found in their integrative review of the literature that simulation and interprofessional learning (IPL) can be used together in undergraduate nursing programs to address interprofessional communication and collaboration. Oosterom et al. (2019) found that students had better role clarity after the IPTW experience. The authors concluded that IPTW had shown promising results in short-term student learning outcomes. However, the results were largely self-reported and measured in terms of satisfaction and perceptions. The authors recommended future research using standardized tools with a focus on which types of IPTWs have the most effective outcomes.

Other recommendations based on study findings include educating nursing students and newly hired graduates on transition to practice, providing structured residency programs to expand on clinical competencies, and assigning consistent, educated preceptors (Ackerson & Stiles, 2018; Casey et al., 2004; Clipper & Cherry; 2015; Duchscher, 2009). For a structured NRP the success in retention was only true for the first year. In the second year, retention rates were due to organizational culture. Efforts to retain in the second year should focus on improving the workplace (Ackerson & Stiles, 2018). Therefore, hospital administrators should be attentive to nurses' concerns related to the work environment that increase satisfaction and organizational commitment (Unruh & Zhang, 2014). By addressing these workplace issues

before the intent to leave has formed, the organization is likely to increase the intention to stay and reduce turnover among newly hired graduate nurses (Unruh & Zhang, 2014).

In conclusion, transitioning from student nurse to professional nursing practice is multifaceted. Academia and practice partners should collaborate to provide innovative solutions that will assist the NGN to transition successfully. NRPs, DEUs, and IPE have all improved the transition experience, job satisfaction, teamwork, and communication. IPTWs have been shown to increase role clarity, teamwork, and communication of the interprofessional team outside of the U.S. However, there were no studies found through this comprehensive literature review that have utilized IPDEUs to improve transitional experiences in the U.S. Chapter Three will discuss the methods used in this study to answer the research questions posed.

Chapter Three - Methodology

The methodology chapter of a dissertation (Chapter Three) describes the design and specific procedures used to conduct a research study (Roberts & Hyatt, 2019). Assuring that this section is clear, comprehensive, and detailed will ensure that other researchers can adequately judge the results and replicate the study (Roberts & Hyatt, 2019). The researcher needs to consider the problem and research question to be investigated, the purpose of the study, and the nature of the data (Roberts & Hyatt, 2019). This, then, drives the method used for the research study.

Research Design Overview

Choosing an appropriate research design to answer a research question is one of the most critical steps in the research process. Therefore, this chapter discusses the methodology utilized to examine the student perceptions and experiences of those who participated in an IPDEU during nursing school. This chapter reviews the target population, sampling method, setting, recruitment, data collection, and data analysis procedures.

This qualitative descriptive study aimed to examine the experiences and perceptions of undergraduate nursing students who participated in an IPDEU during their nursing program. The student's perceptions of their participation in this unit and its impact on role clarity, communication, and teamwork was explored. This study's findings contribute to the knowledge base of best practices in clinical education by exploring student nurses' experiences who have participated in an IPDEU.

Based on the comprehensive literature review conducted, a gap was identified. As a result of the literature review, this researcher did not find relevant studies on the student experiences and perceptions of an IPDEU through 2020. The current literature published on these types of

units is descriptive and describes the development of an IPDEU. This researcher aimed to use the interview questions' responses to contribute to the existing knowledge of this topic of interest.

This study's findings will provide nurse educators with more knowledge about student experiences in an IPDEU that could improve communication, teamwork, and collaboration in the clinical setting. This could lead to a re-design of the curriculum to enhance NGNs transition to professional nursing practice. The theoretical framework of Kramer (1974) was used to guide this study. The study design assisted in gathering data through personal interviews, using a semi-structured approach of open-ended questions.

The methodology used for this research study was qualitative. Qualitative research focuses on research as a humanistic or idealistic approach to understand people's beliefs, experiences, behaviors, and attitudes (Pathak et al., 2013). It focuses on collecting and analyzing non-numerical data, such as text or audio. This will assist the researcher to understand concepts, opinions, or experiences (Polit & Beck, 2017). Qualitative research follows an emergent design, as the research takes shape based on the participants' viewpoints (Polit & Beck, 2017).

Qualitative research is chosen as a research design when an issue needs to be explored (Creswell & Poth, 2018). Because there is a lack of literature on student experiences and perceptions of an IPDEU, qualitative research was ideal for this study.

Qualitative descriptive research was utilized to examine poorly understood phenomena. The approach provides straightforward descriptions of experiences and perceptions (Sandelowski, 2010). It describes the who, what, and where of events or experiences from a subjective perspective (Doyle et al., 2020). In a seminal article, Sandelowski (2000) states that qualitative descriptive research is relatively unacknowledged but is not a new research tradition. It is a tradition that allows researchers to produce findings closer to the data as given and with

less interpretation than qualitative research traditions such as phenomenology (Sandelowski, 2010). It enables researchers to stay close to and describe participants' experiences. Although sometimes misunderstood, qualitative descriptive research produces findings that are detailed and interpretative products (Sandelowski, 2010). Researchers who use this research tradition are interested in understanding the human experience in its unique context. Because this research study aimed to understand undergraduate nursing students' experiences and perceptions who participated in an IPDEU during their nursing program, a qualitative descriptive design best suited this phenomenon.

Target Population

The target population for this study was nursing students enrolled in an Accelerated Bachelor of Science in Nursing (ABSN) or Direct Entry Master of Science Program (DEN – Master's) who have participated in an IPDEU in the prelicensure portion of their nursing program. Traditional undergraduate students were not included in this study as ABSN and DEN – Master's are the only options available for students at the university where the study occurred. Inclusion criteria for this study included student nurses who participated in an IPDEU clinical learning model for at least two clinical days, student nurses who speak and understand the English language, and student nurses who are enrolled in an ABSN or DEN – Master's nursing program. Nursing students who have not experienced an IPDEU or those students who cannot speak or understand the English language were excluded.

Sampling Method

Purposeful sampling and snowball sampling were employed in this study. Purposeful sampling is selecting participants for the amount of detail they can provide about a phenomenon (Polit & Beck, 2017). It involves selecting individuals who have had the experience related to the

to the phenomenon of interest (Hays & Singh, 2012). This method allows the researcher to gain first-hand knowledge and detailed information about the student's experience in an IPDEU. This facilitated the discovery of common themes, which enabled this researcher to develop a deeper understanding of the phenomenon being explored. There was an attempt to recruit additional students who have been in IPDEU using snowball sampling. Researchers who use snowball sampling can easily establish a trusting relationship as they are referred from another participant (Polit & Beck, 2017). However, there were no additional students identified utilizing this sampling methodology.

Sample Size

The recommended sample size in qualitative studies is between five and 25 individuals (Creswell & Poth, 2018). The study included six participants who participated in the IPDEU during their nursing program. The final sample included students enrolled in both the ABSN ($n = 2$) and DEN – Master's program ($n = 4$). The guiding principle with qualitative studies is data saturation. Data saturation is sampling to the point at which no new information is obtained, and redundancy in the data is achieved (Polit & Beck, 2017). Data saturation was achieved with the completion of the interviews after the sixth student.

Setting

Participants were offered in-person, telephone, or video-conferencing interviews, using technology the student was comfortable using. The students were asked what type of video-conferencing they had available in the research query. Zoom was the video-conferencing technology that was utilized at the university. Therefore, all the students chose to use Zoom. If a student chose a video-conferencing technology and had difficulty with it prior to or during the interview, the researcher planned to call the student to troubleshoot the technology issues and

assure the student that the interview could continue via telephone. However, none of the participants had trouble with the technology, and all joined the interview at the scheduled time. Interview type and location were based on the participants' convenience and preference to accommodate their schedule. All interviews were recorded, and the researcher prioritized the confidentiality of the study participants. Participants were notified that the researcher was recording the interview to aid in data collection through the informed consent process. None of the interviews occurred in person, as all the students chose to use video-conferencing technology. Data collection started in the fall of 2021. The researcher was ready to collect data in the summer of 2021. However, the IPDEU did not run over the summer of 2021 due to the COVID-19 pandemic. When it was time to schedule interviews, it would have been safe to complete face-to-face interviews, given the rate of COVID-19 transmission at that time. However, the students were comfortable using a video-based technology for the interview, and all chose to do the interview via zoom.

Recruitment

Gaining access to a site and participants is an essential consideration as a research study is designed (Polit & Beck, 2017). Having a gatekeeper at the institution where the data collection occurred was vital to gaining access to the student nurses with an IPDEU experience. This assisted in getting participants interested in the study and to respond to the researcher that they were interested in being included in the study. For this study, the nursing associate dean at a research university in the northeast region of the U.S. was the gatekeeper for this researcher. The researcher then worked with the class faculty member, who enabled recruitment. Permission to conduct the study was achieved from the human subjects review board, or Institutional Review Board (IRB), at Western Connecticut State University. It was confirmed that IRB approval was

not needed at the site where data collection occurred. The associate dean at the university confirmed with the site IRB that approval was not needed at the institutional level as long as the researcher had IRB approval from her own university.

To introduce the study, this researcher had initially planned to visit the classroom if the classes were in person. However, all classes were being held via zoom in a synchronous format. Initially, a recruitment video was recorded and was sent out to students. This video included a brief introduction to the study, the rationale for the study, the time commitment required for the study, and how the participants' confidentiality would be protected. The benefits of participating and the process of what would occur during the interviews were also discussed. The gatekeeper sent the recruitment video and flyer to prelicensure program lead, which was distributed to the students via email. This initial attempt did not yield any students. Therefore, the faculty member invited this researcher to the class via zoom to introduce the study to the students. The students were enrolled in a class titled "Common Problems of Adult Health and Clinical Judgement." This is a six-credit course where students learn to care for adults with acute and chronic conditions. This researcher was given time to introduce the study at the beginning of class. Being available to answer any questions the students had was helpful, as this made the students feel comfortable that the researcher was available and responsive to their needs. This researcher received some questions during class. The class had approximately 90 students. However, only nine had enrolled in the IPDEU. Two students agreed to participate out of approximately nine enrolled in the IPDEU. The first two students who were interviewed were in the ABSN program. Both students opted to wait for the interviews until finals were complete. The IPDEU experience for the ABSN students is voluntary and not required in their program of studies.

In the spring of 2022, another cohort of students signed up for participation in the IPDEU. These students were enrolled in the DEN – Master's program and were also enrolled in the class titled "Common Problems of Adult Health and Clinical Judgement." However, only seven out of 116 students participated in the IPDEU. This was due to staff burnout and density concerns in the IPDEU unit due to the COVID-19 pandemic. The local hospital decided to reduce the number of students in the IPDEU rotations. The recruitment video and flyer were again distributed to the students by the prelicensure program lead. This again did not yield any students who agreed to participate. Therefore, the faculty member for the class introduced the study for the researcher during class and sent information out via email and class announcements. This initially yielded another six potential participants. Only four followed through with the completion of the study documents and interview.

Once a student expressed interest in participating, an email including study information were sent to each student. This included a research query that the students were asked to complete stating their intentions if they plan to participate in the study or decline to participate. The packet also included the informed consent document and the demographic survey to gain descriptive data, which was collected via survey monkey, should they choose to participate. These forms could be returned via email or postal mail, and the student chose whichever was easier for them. Each student chose to send back all the documents via email. Once all the paperwork was received, an interview was scheduled. Participants were advised that they could opt not to participate in the study without penalty and that their decision to participate or not to participate would not affect their grades in any way. However, none of the participants voiced any concerns or hesitation about proceeding with the interviews. A \$25.00 Amazon gift certificate was given to each student after the interview was completed, and their transcript was

reviewed as gratitude for their participation. The gift certificate was mailed to the student's preferred address once the interview was complete. Each student was asked their address at the end of the interview. Emailing the gift certificate was considered if they were uncomfortable providing a mailing address. However, this was unnecessary as each student was comfortable providing their mailing address.

Once the students agreed to participate, the research query, the informed consent document, and the demographic survey was completed and returned to the researcher. An email address and phone number were requested to set up the interview. The preferred method of communication was utilized. For each student, email was the preferred method of communication. The informed consent included permission to audiotape and to allow for transcription of the interviews. The participants who consented to the study were informed of the study's purpose, risks, and benefits. No anticipated risks, other than their time and inconvenience, were expected. The students were also informed that their decision to participate or not to participate did not impact the outcome of their courses in any way. The students were also informed that the benefits of participation would not be experienced directly by participants. However, they were notified that their participation would affect study results that could assist in future nursing school curriculum design.

Data Collection

Data collection in qualitative descriptive studies is designed to understand "the who, what, and where of events" or experiences (Sandelowski, 2000, p. 339). Strategies, such as focus group interviews, individual interviews, observations, and examining documents and artifacts, help the researcher gain a broad range of information about events (Sandelowski, 2000). The primary method of collecting qualitative data is interviewing study participants (Polit & Beck,

2017). Individual interviews were the strategy utilized for data collection in this study. Recording the interview, along with field notes, was utilized.

Semi-structured interviews are used when researchers want to be sure that specific topics are covered during their interviews. An interview guide can be useful to ensure that the topics are covered. The interviewer's primary role is to encourage participants to talk freely about all the topics in their guide and tell their stories in their own words (Polit & Beck, 2017). This researcher completed an interview guide that included the central question and several subquestions.

The research questions were designed to gather in-depth responses regarding student nurses' perceptions and experiences in an IPDEU. This qualitative descriptive study aimed to understand the experiences and perceptions of ABSN and DEN nursing students participating in an IPDEU. Understanding if those experiences further improved their overall perceptions of interprofessional role clarity, teamwork, and communication were also explored. An interview guide with one central question and several sub-questions were developed to gather responses pertinent to this question. The following research questions are based on the competencies from the Interprofessional Collaborative Practice (IPEC). The interview guide consisted of the following central question and subquestions:

1. Describe what your experience has been like as a student in an interprofessional dedicated education unit.
 - a. Are there skills that you felt were improved due to your experience in an interprofessional dedicated education unit?
 - b. Are there skills that you have learned in other clinical settings that you did not use in the interprofessional dedicated education unit?

- c. What did you learn about other healthcare providers during your experience?
- d. Describe the improvements or drawbacks in patient care in this type of unit.
- e. Describe how your experience in the IPDEU has changed or not changed your ability to communicate with other healthcare professionals.
- f. How has your experience in the IPDEU changed or not changed your understanding of the role of other healthcare providers?
- g. How have your perceptions changed of how members of the healthcare team collaborate since you participated in the IPDEU experience?
- h. Is there anything else you would like to tell me about your experience in the IPDEU?

It was requested that the student is in a distraction-free location. This was the experience for each interview, and there were no interruptions during any of the interviews. This allowed the interview to be more productive and produced a recording that could be transcribed. Being respectful, courteous, and a good listener were necessary skills in the interview process (Creswell & Poth, 2018). This researcher attempted to create an environment as comfortable as possible, which was essential to gain trust and collect as much data as possible (Creswell & Poth, 2018). Building rapport during the interview helped to provide a rich and detailed account of the students' experiences (McGrath et al., 2018). One way the researcher attempted to build rapport was to approach the interviewee with an open and curious attitude by re-stating why their point of view was requested (McGrath et al., 2018). Additionally, telling the students about this researcher's background and asking questions that seem less threatening, such as "Please tell me about your experiences with an IPDEU," helped build rapport quickly (McGrath et al., 2018).

Encouraging participants to talk freely about their topic and to tell stories in their own words assisted in gathering rich data (Polit & Beck, 2017).

Before the interview commenced, participants were asked to select a code name to maintain confidentiality. All interviews were recorded utilizing the record function within Zoom. The students were notified that the interview would be recorded and that this recording would be sent for transcription. This researcher re-iterated that their confidentiality and anonymity would be maintained. The recording was sent to Rev transcription to get the verbatim transcript of the interview. The transcripts were sent to the researcher within 12 hours of each interview. Once the transcription was complete, this researcher reviewed each transcript while listening to the recordings to ensure accuracy. Any transcription written as "inaudible" was corrected before sending the transcript to each participant.

The transcripts were then sent to the participants within 24 hours by email for member checking. Each participant was asked to review the transcript to ensure that what was transcribed accurately reflected their thoughts. Participants were asked to make any edits to the transcripts if they found errors or omissions. Each participant responded by email that the transcripts were accurate, and none of the participants made corrections to the transcripts.

Data Analysis Procedures

Data analysis allows the researcher to organize, provide structure to, and elicit meaning from the data they have collected (Polit & Beck, 2017). Content analysis was the analytic strategy of choice for this descriptive study (Sandelowski, 2000). Content analysis allows researchers take a large number of text words and condense them into smaller content categories (Polit & Beck, 2017). Using this process, the researcher collects narrative data to identify prominent themes and patterns among the themes (Polit & Beck, 2017).

There are three different approaches to content analysis. Conventional content analysis is typically used when existing literature on a phenomenon is limited (Hsieh & Shannon, 2005). The study starts with the data and codes that emerge through data analysis (Polit & Beck, 2017). In directed content analysis, researchers begin with a theory, and codes are defined before analysis. This is often used to validate a theory (Polit & Beck, 2017). In summative content analysis, keywords are identified before data analysis. This attempts to explore keywords rather than to infer meaning (Hsieh & Shannon, 2005). The focus is on discovering the underlying meaning of the words or content (Hsieh & Shannon, 2005). For this research study, conventional content analysis best matched the aim of the study. This analysis allowed the researcher to collect data using open-ended questions, be immersed in the data, and then code the data that was collected.

The following steps were taken during data analysis. Transcripts were read repeatedly to achieve immersion and obtain a sense of the whole (Hsieh & Shannon, 2005). A transcription service called Rev was utilized to take the collected data and transcribe it verbatim for analysis. Codes were then derived from the data to capture key thoughts and concepts. A software tool called Delve was used to assist the researcher in organizing the data on each transcript collected during the interviews. Delve is a web-based qualitative tool that allows the researcher to organize transcripts. Each transcript was uploaded into the tool, and then the process of inductive coding began. With inductive coding, themes emerge from the raw data (Thomas, 2006). It allowed the researcher to code from each transcript and organize the passages that correlate with that code or theme. These codes were then classified into meaningful clusters and labeled as categories and sub-categories (Hsieh & Shannon, 2005).

Lincoln and Guba (1985) identified trustworthiness criteria to improve the rigor of qualitative research. These criteria align with the quantitative concepts of validity and reliability (Hays & Singh, 2012). Trustworthiness criteria include: credibility, transferability, dependability, confirmability, and authenticity (Polit & Beck, 2017). Identifying ways to improve the rigor of the research study is an essential part of a study.

Credibility refers to the study's believability or do the conclusions make sense (Hays & Singh, 2012). It refers to the confidence in the data's truth and interpretations (Polit & Beck, 2017). Credibility is the internal validity of the research study. Member checking is a strategy utilized to improve the study's credibility. Member checking was ongoing as data was collected using deliberate probing to ensure that the participants' meanings were understood (Polit & Beck, 2017). If the researcher needed further information during the interview, probing questions, such as "tell me more about that," was asked. Member checking also occurred immediately after the interviews.

Each participant was asked to review the transcript to ensure that what was transcribed accurately reflected their thoughts. Participants were asked to make any edits to the transcripts if they found errors or omissions. Each participant responded by email that the transcripts were accurate, and none of the participants made corrections to the transcripts.

Dependability refers to the consistency of the results over time (Hays & Singh, 2012). It shows that the findings are consistent and could be repeated. Credibility cannot be attained without dependability, so dependability is just as critical as credibility. Utilizing a semi-structured interview maintained consistency in the interview process across participants. This allowed for consistency in the data collection procedures. Maintaining an audit trail is another way to improve dependability. This enables another researcher to follow the decision trail,

allowing them to arrive at the same or comparable conclusions (Nowell et al., 2017). Audit trails are kept providing physical evidence of data collection and analysis procedures (Hays & Singh, 2012). The audit trail was kept in a binder and was kept in a locked file cabinet. Contents of the audit trail included: a) the demographic collection form, b) the informed consent, c) the interview protocol, d) the field notes, e) the transcriptions of the data, f) all the drafts of the codebooks, and g) the reflexive journal. These documents provided evidence regarding the research process (Hays & Singh, 2012).

Transferability is similar to external validity in quantitative research (Hays & Singh, 2012). In qualitative research, generalizability is not the goal. Instead, the researcher's goal is to provide enough description of the research process so that the readers of the research can decide the degree to which any findings apply to individuals or settings (Hays & Singh, 2012). Thick description is the technique utilized to improve this study's transferability. Providing rich, thorough, and vivid descriptions of the research context, the participants in the study, and the processes observed during the inquiry will improve credibility. The field notes and the audio recordings were transcribed verbatim for analysis by a transcription service.

Field notes were generated during the interview. These were short notes collected during the interviews while maintaining participation and eye contact with the participants (Phillippi & Lauderdale, 2018). These short notes, or key phrases, were then utilized to create a detailed field note following the interview. Field notes are both descriptive and reflective (Polit & Beck, 2017). Descriptive notes are the observed events and conversations. Information about the dialogue, actions, and context are recorded completely and objectively (Polit & Beck, 2017). Reflective notes document the researchers' personal experiences, reflections, and progress while in the field (Polit & Beck, 2017). The location of the interview and the type of setting were

included in the field notes. The participants' overall demeanor was also noted, as well as any non-verbal behaviors. (Phillippi & Lauderdale, 2018). Any changes to the interview questions and the reasons why those questions were adapted were included. Lastly, a reflection of the whole interview and this researcher's performance as the interviewer were documented after each interview. This allowed for a critical reflection of each interview to assess performance, biases, and feelings (Phillippi & Lauderdale, 2018). It also allowed the researcher to make any necessary changes for the following interview. These field notes were helpful as the data analysis started several months after the interviews first started.

Confirmability refers to the degree to which the study captures the reflections of the participants. To do this, researchers must "listen to the data" or "listen to the voices" (Hays & Singh, 2012, p. 201). Achieving confirmability means preventing interference from the researcher (Hays & Singh, 2012). Using field notes and using an audit trail were the ways this researcher used to achieve confirmability. The description of the field notes and the audit trail are referenced above. This allows the researcher to be transparent about the research steps taken through development to report the findings (Korstjens & Moser, 2018).

Limitations of Research Design – Internal and External Threats

This study focused on exploring the experiences and perceptions of each study participant. Because of this, the students' prior experiences with IPE and their background may influence their perceptions of the experience with the IPDEU clinical learning model. Also, the accuracy, honesty, and completeness of their responses may be a limitation of this study. A purposive sampling approach, along with snowball sampling attempt, was utilized in this study. This sampling approach may generate a sample where the participants' views do not represent the general population. In qualitative research, generalizability is referred to as transferability. To

achieve transferability, the researcher must provide a detailed description of the research process so that the reader can decide which findings apply to their setting (Hays & Singh, 2012).

The researcher's potential bias can result from prior opinions and assumptions regarding the phenomenon under study (Polit & Beck, 2017). To ensure that the data collection, analysis, and interpretation of the data are in pure form and reflect the study participants' thoughts, the researcher must remove bias. One strategy utilized is bracketing. In bracketing, the researcher attempts to remove any preconceived beliefs and opinions about the phenomenon under study (Polit & Beck, 2017). Maintaining notes in a reflexive journal assisted with bracketing. This journal was kept throughout the data collection and analysis, as this helped to clarify personal values and identify areas of bias. The reflexive journal was kept electronically and was a part of the audit trail. It includes items such as reactions to the participants and settings involved in the research, thoughts about feelings that may indicate a lack of neutrality, and the identification of any possible role conflicts (Polit & Beck, 2017).

Ethical Considerations

Researchers who study humans must protect their rights (Polit & Beck, 2017). This study was reviewed and approved by the IRB of Western Connecticut State University. Local IRB approval at the site was not needed. Each participant was informed of the study's general purpose and that if they decided to participate it would not place them at undue risk (Creswell & Poth, 2018). Individuals who chose to participate in the study were given an opportunity to review the consent form and were given an opportunity to ask questions or clarify information before each interview started. Because the informational session was done virtually, this researcher's contact information was provided. This included an email and phone number. Each participant followed up via email with the researcher. Written consent was obtained before the interview to ensure

voluntary participation. Each student was also notified that they could choose to withdraw from the study at any time voluntarily. The confidentiality of the study participants remained a priority at all times. A code name was chosen by each participant rather than attaching other identifying information to the actual data (Polit & Beck, 2017). The informed consent documents, the demographic survey, and field notes were printed on paper. These are stored in a binder in a secured locked file cabinet. All recordings are stored on a password-protected computer.

Chapter Three Summary

This chapter provides an overview of the methodology used for this qualitative descriptive research study. This research study explored the student experiences and perceptions of those who participated in an IPDEU during their nursing school. The study's purpose and research questions were re-stated in this chapter. The target population, sample, setting, recruitment process, and research design were also outlined. Lastly, the ethical considerations were explained. The protection of human subjects, privacy, and confidentiality of the participants was maintained.

Chapter Four - Data Analysis and Results

Introduction

This qualitative descriptive study aimed to understand the experiences and perceptions of nursing students enrolled in an ABSN and DEN program who participated in an IPDEU during their nursing program. According to Creswell and Poth (2018), qualitative research is conducted when an issue needs to be explored. The researcher wants the participants to share their stories and to hear their voices (Creswell & Poth, 2018). Exploring student nurses' perceptions contributes to the body of knowledge about which clinical models can best prepare students during nursing school to ease their transition to nursing practice. The study included six participants who participated in the IPDEU during their nursing program.

The student nurse study participants each chose to do a zoom interview session. The date and time chosen were most convenient for them. The researcher utilized one central question with multiple subquestions to explore the experiences and perceptions of their IPDEU clinical days. The interviews were recorded and transcribed by REV, a secure transcription service. The transcripts were reviewed during analysis multiple times to aid in the discovery of emerging themes. Each participant was sent the interview transcript for member checking within 24 hours. The central question and subquestions that were asked during the individual interviews are as follows:

1. Describe what your experience has been like as a student in an interprofessional dedicated education unit.
 - a. Are there skills that you felt were improved due to your experience in an interprofessional dedicated education unit?
 - b. Are there skills that you have learned in other clinical settings that you did not use in the interprofessional dedicated education unit?

- c. What did you learn about other healthcare providers during your experience?
- d. Describe the improvements or drawbacks in patient care in this type of unit.
- e. Describe how your experience in the IPDEU has changed or not changed your ability to communicate with other healthcare professionals.
- f. How has your experience in the IPDEU changed or not changed your understanding of the role of other healthcare providers?
- g. How have your perceptions changed of how members of the healthcare team collaborate since you participated in the IPDEU experience?
- h. Is there anything else you would like to tell me about your experience in the IPDEU?

Before the interview, the study participants were asked to select a code name to maintain confidentiality. Once transcription was completed, the transcripts were reviewed while listening to the recordings to ensure accuracy. Errors or omissions were corrected and confirmed with the participant before data analysis. Each transcript was read several times to look for patterns. This was done to develop a deeper understanding of each participant's experience. Those patterns were coded, and those codes were then developed into themes. These themes were depicted in the exploration of the student nurses' experience related to their participation in the IPDEU clinical model. A software tool called Delve was used to assist the researcher in analyzing the data from each transcript that was collected during the interviews.

Included in this chapter is the description of the sample and how the participants were recruited. A summary of data collection and data analysis procedures is presented. Finally, the main themes and sub-themes are further explained in the detailed analysis of the data.

Description of the Sample

This section introduces the participants that were interviewed for this research study. Before the interview, a demographic form was completed by each participant. The participants who agreed to take part in the study had participated in the IPDEU during the semester that the interview occurred. The experiences of each participant were similar. They each had two half days in the IPDEU, following a nurse one day and another discipline on the second day. The disciplines followed were either a speech-language pathologist (SLP) or a physical therapist (PT). Additionally, each nursing student was paired with either an SLP, PT, or Physician Assistant (PA) student.

Purposeful sampling was used in the recruitment process. This type of sampling is the selection of participants for the amount of detail they can provide about a phenomenon (Polit & Beck, 2016). Before being interviewed, the researcher confirmed that each study participant had participated in the IPDEU. The study consent and demographic forms were sent to them for review. Before starting the interview, these were reviewed with each participant to ensure understanding. Any questions were answered either via email or before the interview commenced. Each participant was also sent a research query, and they were given a choice to either enter the study or decline participation. Study participants signed the informed consent, completed the research query, and completed the demographic survey upon acceptance to participate. The signed consent form and the research query were returned via email before the scheduled interview. The demographic questionnaire was completed using survey monkey. Once the paperwork was received, an interview was scheduled. Participants were advised that they could opt not to participate in the study without penalty and that their decision to participate or not to participate would not affect their grades in any way. However, none of the participants voiced any concerns or hesitated about proceeding with the interviews.

IRB approval was obtained from the researchers' university. IRB approval was not needed at the site where the data collection occurred. Recruitment began in the fall of 2021, although, the researcher was ready to collect data in the summer of 2021. This was delayed due to the COVID-19 pandemic. A recruitment video was recorded as in-person classes were not in session. The recruitment video and flyer were sent to the gatekeeper at the university, which was then distributed to the students via email. This initial attempt did not yield any students. Therefore, this researcher was invited to a zoom class to introduce the study to the students. This yielded two students who agreed to participate out of approximately nine students.

In the spring of 2022, another cohort of students signed up for participation in the IPDEU. However, only seven students participated due to staff burnout in the IPDEU unit due to the COVID-19 pandemic. The recruitment video and flyer were again distributed to the students via the university. This again did not yield any students who agreed to participate. Therefore, the professor for the class introduced the study for the researcher during class and sent information out via email. This initially yielded another six potential participants. However, four followed through with the completion of the study documents and interview. The snowball sampling technique was attempted at each interview to recruit more potential study participants. Snowball sampling is where earlier study participants are asked about other potential participants (Polit & Beck, 2016). However, this did not yield additional participants.

All interviews were conducted at a time and date convenient for study participants. Interviews were conducted in the privacy of the researcher's office or home using the Zoom recording on the researcher's computer. Rev services were utilized for transcription. Study participants answered one central research question and several subquestions about their

experience participating in the IPDEU. Each study participant was given an Amazon gift card with a twenty-five dollar cash value upon completing their interview and transcript review.

Each study participant completed a 17-item demographic form. Data collected from the demographic form included the following: their name, primary language, preferred phone number, and email address. They identified how they chose to be contacted, their age range, which gender they identify with, and if they work in healthcare currently. If they did work in healthcare, they were asked to identify which setting they work in, along with a description of that role. The students were asked to identify if they had any experience with interprofessional education and, if so, what experiences they had. They were asked to identify which nursing program they were enrolled in and if they had another degree. What unit did their IPDEU experience occur, and the length of their IPDEU experience was also asked. All study participants completed the demographic form in its entirety. Demographic data is described below in Table 1.

All study participants (100%) were in the IPDEU for two half days, and all completed their experience in a medical/surgical unit. Participants' age ranges were from 18-22 (16.67%), three study participants were in the age ranges of 23-29 (50%), one participant was in the age range of 30-40 (16.67%), and one participant was over the age of 51 (16.67%). All participants (100%) had completed their Baccalaureate degree in another field, and one participant (17%) had a Ph.D. All participants (100%) identified English as their primary language. Two students (33%) currently work in healthcare either as a Patient Care Assistant (PCA) in a hospital setting or as a Home Health Aid in an outpatient setting. Four students (67%) had previous interprofessional education (IPE), and all four were in the Direct Entry Master's program. The

students who had previous IPE had engaged in simulation, classroom instruction, and virtual simulation. The two other students enrolled in the ABSN program did not have previous IPE.

TABLE 1
Demographic Data of Study Participants

Variable	<i>n</i>	%
Age Range		
18-22	1	16.67
23-29	3	50
30-40	1	16.67
41-50	0	0
51 and over	1	16.67
Gender Identify		
Male	1	17
Female	5	83
Currently Work in Healthcare		
Yes	2	33
No	4	67
Current Role		
PCA	1	50
Home Health Aid	1	50
Current Setting		
Outpatient	1	50
Hospital	1	50
Previous IPE Experience		
Yes	4	67
No	2	33
Previous IPE Experiences		
Simulation	4	
Classroom Instruction	4	
Virtual Simulation	4	
N/A	2	
Program Enrolled In		
ABSN	2	33
DEN	4	67
Educational Level		
PhD	1	17
Bachelor's Degree in another discipline	5	83
Service Line (IPDEU)		
Med/Surg	6	100
Length of IPDEU Experience		
2 days	6	100
3-5	0	0
6-10	0	0

Summary of the Results

Data collection included the recorded interviews along with field notes. Data saturation was met after interviewing all six of the study participants. Four main themes were captured from the data, and two sub-themes were within one of the main themes. The four main themes captured during data analysis included:

- The 10,000 Foot View: Student nurses appreciated seeing the patient's entire hospital course from a different lens.
- Role Clarity: By spending time with other healthcare providers, student nurses could better understand their role and what additional services they provide to the patient.
- Communication: Student nurses appreciated seeing how healthcare providers communicate with other healthcare providers on the team and patients.
- In the Way: Students nurses felt that they were not utilized; they felt in the way and could not provide patient care.

Two sub-themes were identified from the data. These sub-themes overlapped with the 10,000 Foot View main theme. The two sub-themes were:

- Collaboration
- Teamwork

Detailed Analysis

Qualitative data analysis involves categorizing text that are similar (Hays & Singh, 2012). Qualitative content analysis was the data analysis method chosen for this study. The goal of content analysis is to take the large amount of text into “efficient number of categories that represent similar meanings” (Hsieh & Shannon, 2005, p. 1278). In content analysis, codes are defined during data analysis and are derived from the data (Hsieh & Shannon, 2005). This

allows the researcher to collect data from open-ended questions, read word for word, and then code (Hsieh et al., 2005). Interview data was transcribed to text using REV transcription. Member checking was utilized during the interviews to confirm that the researcher understood each participant. Additionally, the transcripts were sent to each participant via email within 24 hours of the interview to ensure accuracy. The transcripts were read and the interviews were listened to several times before data analysis began. Directly quoted text from the participants were used to support the themes identified. This will also assist the reader to gain insight into the perceptions and experiences of student nurses in an IPDEU.

Field notes were also kept and reviewed while listening to the interview recordings and reading each transcript. The field notes contained this researchers' thoughts and reactions of the interview and of each study participant. This allowed the researcher to immerse in the data to become familiar with the responses of the participants.

Theme: The 10,000 Foot View

One of the major themes identified was the 10,000-foot view. All of the study participants expressed that the IPDEU experience allowed them to see interactions that they had not been able to see while providing direct patient care at the bedside in the traditional clinical model. The participants expressed that they were able to see "behind the scenes" (student "Isabella") and how other healthcare providers prioritized their care (student "Olivia").

Participants also stated that it allowed them to see the patients' entire hospital course and how big the team was caring for the patient (student "Monte"). Being with other healthcare providers afforded the participants experiences that they otherwise would not have been a part of:

Student "Monte": You're learning a lot, but it's difficult when you're doing patient care in a nursing program to constantly be seeing things from a 10,000-foot view, unless you're constantly looking for it or unless you have a great clinical instructor, that's always kind of showing you that view. That's how I like to think so I enjoyed the IPDEU experience because it allowed me to

see that patient's entire hospital course, what needed to be done, what challenges they had along the road and how everyone on that team and how big that team was, was working to get them home.

Student “Isabella”: I guess the one thing that I did see that was new is just what happens behind the scenes. Because I'm really just in the patient's room and then at the nurses station, but seeing that after the evaluation, the SLP was going and... I didn't even know the doctors' had a little separate room somewhere. He was going to the room and having that interaction. It's almost what's happening off-set in a movie, the behind the scenes stuff, which I had never seen before.

Student “Ava”: I mean, I would say from day one, in my clinical experiences I was seeing collaboration and the OTs coming in and the PTs coming in, case managers and social work. I was on a neuro unit for my first semester and so you see a lot of the OT and PT and that multidisciplinary care that is needed, so I'm not sure that participating in the IPDEU necessarily changed any of my perspectives around the importance of interprofessional collaboration, but it was really helpful to get more of the behind-the-scenes communication that happens.

Student “Bianca”: And so, in my typical clinical setting, I don't usually see the nurse and somebody who's consulted interact. Oftentimes I will be in the room doing something with my patient and some service who's been consulted will come in and say, "Can I have a few minutes with the patient?" Or I'll just step back and observe. But I rarely see communication happening because I'm just not at the nurses station with my nurse, or I'm not following around the consulted service. I'm in the room.

Student “Olivia”: I didn't realize that the therapists in the hospital created their own schedule. It's kind of like a wing it when they get in, see who was priority. They usually have about time to see, I think they said six patients, so they're listed top priority and then down. I can't remember the exact numbers that went with it, but when they would sign into their case or their caseload, there would be priority numbered people of who needed to be seen, because they might need an updated progress note so that they can get discharged.

Student “Emma”: I learned that there's so much more involved in caring for a patient than just what you see by the bedside.

Subtheme: Teamwork

Student “Bianca”: So it was very interesting again, to see how teams are formed and then how they will likely change as the patient status changes as they move through their clinical course of care while they're in the hospital. So I think the dynamism of the whole health care setting, it really impressed upon me during IPDEU because I think you can get really siloed into your work and in your classwork and in your clinical placements as a student and you don't really understand how teams can change.

Student “Isabella”: One thing I just thought of that I think was really cool, was when I ran into the SLP again on my unit later, I was watching him do the evaluation and he was working with the patient feeding him apple sauce and seeing how that went. I could see that the patient's hand was shaking, and so I turned around to grab a towel, and as I turned back around it, he was

turning around to grab one. It was that moment when we were actually functioning as a team, and I was almost anticipating his need. I felt like that was a really, really cool thing because it happened so quickly from having only one day where I worked with him.

Student “Olivia”: So, if I need help, I'm going to go help somebody, and if they need help, I would be willing to go help them. Just teamwork, I guess, their teamwork, how they work together.

Subtheme: Collaboration

Student “Ava”: I would not say that it's changed because I have always been viewing the need for interprofessional collaboration in today's medicine and healthcare system as critical to the care of a patient, and so I don't think it's necessarily changed, it's just been reinforced.

Student “Bianca”: I don't know if it changed my perception. I think it just added to it. I already knew that there were lots of players and lots of moving pieces and a lot of communication that's constantly happening. So I think it just further solidified the perspective in the understanding that I already had of how dynamic and how variant it can be from patient to patient and from team to team.

Student “Olivia”: I think everyone is definitely very busy all day. But I did learn that people are very willing to help out, willing to help you and make sure that your patients are getting the best care possible, just really receptive, especially what the therapist or the nurse thinks about how the patient's progressing.

Student “Isabella”: I think all of these experiences where I'm forced to collaborate with other professions is helping me break down those biases that I have toward other providers. And this is definitely my own problem here, but I imagined them to be very pretentious. That wasn't my experience, they were all very welcoming.

Student “Monte”: Honestly, I have my background's a little interesting and it's from a military background where collaboration is necessary to success. So that was my expectation because I was in military medicine and that was my expectation coming into medicine. So I wouldn't say it changed my perceptions. It was more a proof of concept. I was like, "Yes, I'm doing the right thing. I'm in the right arena because I love this team environment."

Theme Summary

The participants realized that there was much more involved in caring for a patient than what they saw at the bedside. They witnessed other healthcare providers interacting and communicating. They also realized how big the healthcare team is and were able to view healthcare from a different lens. The participants did not feel their view of interprofessional collaboration changed, but it was reinforced from their experiences. One student felt that IPE

was allowing her to “break down biases” towards other providers (student “Isabella”). One student felt as though she actually had less interprofessional collaboration in the IPDEU as she did not attend rounds as she does in the traditional clinical model (student “Emma”). These perspectives will serve them well as they continue in their academic preparation and transition to nursing practice after graduation.

Theme: In the Way

Each of the participants expressed that during their IPDEU experience, they could not provide direct patient care and that it was an observation experience. Because of that, the participants felt as though they were not utilized in the clinical setting. They often expressed that they felt “in the way” (student “Monte”) and that it was difficult not to provide patient care (student “Ava”). This feeling of being in the way was more common when the students shadowed the nurse. When they were following other disciplines other than nursing, they still felt in the way to a degree. However, that feeling was less as they did not have the knowledge or skill to provide care in the same way as the SLP or PT (student “Olivia”):

Student “Ava”: Yeah, it was a little awkward, especially. when things were happening, like with the patient who pulled out her NG tube, and sheets would need to be changed. Everything needed to be addressed and the nurse was one person. Duh. I would've been happy to help her but couldn't. Anyway, yeah. I mean, it does feel a little strange to me that we're not there to actually support the professionals but I guess it makes sense.

Student “Bianca”: And we kept feeling like we were just in the way, because this patient needed quite a bit of assistance from that point onward. And so we ended up eventually just standing outside of the room and watching because there were enough people in the room that it just made sense for us to step out.

Student “Olivia”: We weren't able to provide patient care so all of those skills. We weren't really allowed to do anything, just observe. It was kind hard for me, because I am a nursing student, and we weren't able to provide care or anything. It was a lot of observation, which was what I was doing with the physical therapist, but I'm not a physical therapy student.

Student “Isabella”: Well, it was very hands-off. We weren't allowed to practice any of our physical skills. So really any of my nursing skills I didn't really get to use.

Student “Monte”: I wouldn't say to patient care, but obviously, we're shadowing, we're in the way to a degree.

Student “Emma”: Very different if I'm being honest. I felt as if I was just standing around. I felt as if I was in the way sometimes. I know they told us that we couldn't do anything, we were just supposed to watch. And me pursuing a career in Nursing, I can't just watch. It was hard for me to just stand there and do nothing when I wanted to help, you know?

Theme Summary

In summary, the participants enjoyed their experience in the IPDEU. However, because it was an observational experience, they felt as though they were in the way (student "Monte") and that they were often standing around (student "Emma"). Because it was a hands-off experience, the students did not feel as though they were able to practice any of the physical skills that they were learning. They felt it was hard not to assist when they wanted to help, and this feeling was expressed more when they were shadowing the nurse.

Theme: Role Clarity

Each of the participants found value in following a discipline other than nursing. As each of the interviewed participants was a nursing student, they did not find value in observing a nurse. The participants felt as though they understood the nurse's role as they provide direct patient care in the role of the student nurse in their traditional clinical model. However, when the participants were with either the SLP or PT, each participant expressed that they could learn so much about how each discipline provided care, how knowledgeable they were, and how they prioritized care. They also stated that they were able to expand the scope of what each specialty could offer their patients (Student "Monte"). Additionally, each participant had another student with them that was either an SLP, PT, or Physician Assistant (PA). One student was paired with

a PA student, and the student was "floored at how busy the nurse was" (student "Ava"). Each of these experiences added to the role clarity of other disciplines:

Student "Ava": The other healthcare provider, the physical therapist, it was really eye opening to see just how critical physical therapy is to the discharge likelihood of a patient, and the discharge planning. I mean, it makes total sense. Obviously it's the PT, the OT. Like, that there's a lot of the need for supporting a patient's independent functioning or whatever it is, whether it's that they really need to go into inpatient rehab or they can go into a different kind of environment, whatever it is, just that they are so critical to the discharge planning.

Student "Bianca": I just didn't really know what to expect out of a hospital based SLP. I have a better understanding what school based SLP do. I have a distant family member who is also does speech-language pathology research. So she's an SLP, but for the research end of things, she's not clinical. And so, I have a very nebulous understanding of what an SLP does in a hospital setting up until this point in which he sat us down, he opened epic and he was showing us how he followed his patients and how he organizes his day. And based on the needs that people have. How he rates the people that he needs to see.

Student "Olivia": I didn't realize that the therapists in the hospital created their own schedule. It's kind of like a wing it when they get in, see who was priority. They usually have about time to see, I think they said six patients, so they're listed top priority and then down. I can't remember the exact numbers that went with it, but when they would sign into their case or their caseload, there would be priority numbered people of who needed to be seen, because they might need an updated progress note so that they can get discharged.

Student "Isabella": I have never seen speech-language pathology. I think a lot of people, myself included, have that idea that they basically just work with children and help them with pronouncing all of their letters. Right now, my regular clinical is on a neuro floor, and so it really worked well to see that evaluation through the interdisciplinary experience, and then see how it's going to fit into my practice on my regular unit.

Student "Monte": It didn't change the basics, but it expanded the scope of what I knew they could do. And at least for me, it was really notes of providers that I previously would've maybe looked to see that they had a consult, but not really dived into. If I had a patient that had a particular specialty for the rest of the semester following them, I would really dive into that note because I knew it was a gold mine of information that would make my day a lot better if I really took the time to read it. So I think it just kind of expanded the scope of what I knew each specialty could do.

Student "Emma": This experience definitely changed the role that I saw with the SLP because like I said, much more than I actually thought they do. I think it definitely changed with the SLP because, like I said, when I was in my first clinical, because I was just on one unit, I was only in the room with the SLP for a little bit, and then I would leave. But shadowing an SLP and seeing how they move around, and how they communicate with so many different patients.

Theme Summary

In summary, the students expressed that the IPDEU experience allowed them to expand the scope of what they knew the PT or SLP role was (student "Monte"). They realized that each discipline did more than they expected (student "Emma") and that these experiences would help them to fit into their practice during the academic progression and upon transition to professional nursing practice (student "Isabella"). The participants could better see how other healthcare providers prioritize their work, which gave them a better understanding of their role.

Theme: Communication

Each participant expressed that they had experienced interactions in the IPDEU that gave them different perspectives about communication. One participant witnessed communication between healthcare providers that could have been improved. They witnessed communication between providers that they may not have seen before or that they were able to practice communication skills with patients. The participants did not appreciate that their own communication skills were improved with other healthcare providers in the IPDEU because they did not get a chance to practice their communication skills. However, one participant did express that it was "important to be very clear in your communication" (student Ava) as she was able to see how poor communication led to a delay in a patient's care:

Student "Ava": And that was really helpful, I thought, in that it's important to be very clear in your communication. After our IPDEU experience in the morning, we then did a Zoom debrief with a larger group of participants in the IPDEU and there was a discussion amongst the faculty, or they shared their experience about how it's really important to be very specific about the urgency of a request like that because if you just say, "We need somebody." That doesn't necessarily convey the level of urgency about how quickly you need somebody.

Student "Bianca": I would say I think I have a better understanding now of what information is relevant and what information is maybe not as relevant in giving a report, maybe specifically to another nurse or specifically to an SLP. But beyond that, I actually don't really think that my communication skills have improved that much.

Student “Olivia:” I did really appreciate how everybody communicated with each other and how you could go back and see notes that people write, so that you would be able to provide care the next day if you were coming. So, if the night person wrote a note, you can check in and see how your patient was doing the next day.

Student “Isabella”: But there was a patient that we went to see for the SLP evaluation and the patient's roommate... It was the window bed that we were supposed to be seeing, but the first bed just stopped me and chatted for probably 30 minutes so I never even got to see the other patient. He had very, very strong opinions that clashed with a lot of my own beliefs, and so practicing that conversation where I don't have an emotional reaction, I don't argue or try to change somebody's mind, and just hear them and support them without supporting the belief. It was really good practice, and I don't necessarily get to do that so much in my own clinical day, because I have so many tasks that I have to check off.

Student “Monte”: I think sometimes we get very elaborative with some of the things we ask of people, but I think just getting more exposure to that and it wasn't a lot, but just getting more exposure to seeing how different practices communicated. It just further refined when I see an SLP or a PT or an OT and they're asking me a question about my patient. I can kind of think in my head, "I know why they're asking that question and I know the answer that they really want."

Student “Emma”: I think it definitely changed with the SLP because, like I said, when I was in my first clinical, because I was just on one unit, I was only in the room with the SLP for a little bit, and then I would leave. But shadowing an SLP and seeing how they move around, and how they communicate with so many different patients.

Theme Summary

Participants in the IPDEU were exposed to various communication styles during their experience. They were able to get a better understanding of how to communicate better the urgency of your request (student “Ava”), and they were able to witness how healthcare providers communicate with one another (student “Olivia”). One participant felt she had more time to practice communicating with a patient because, in the traditional clinical model, she felt she had too many tasks to complete (student “Isabella”). However, the participants did not feel they could practice their communication skills because they were just observing. Still, they did feel they had a better understanding of what information is essential for each discipline.

Summary

This chapter summarizes the experiences of six student nurses' who participated in the IPDEU clinical learning model during their nursing school experience. Interviews provided valuable data about the student nurses and their experiences and perceptions of the IPDEU. Study participants were all enrolled in the same nursing school, in two different programs, ranging from 18 to over 51 years of age. Study participants all reported that their IPDEU experience was in a medical/surgical unit. The length of their IPDEU was two and a half days. The exploration of the perceived experiences of these student nurses was gathered through individual interviews. These experiences were captured through digital recording using zoom and field notes. Interviews were securely recorded using zoom and transcribed into text using Rev transcription service. All participants reviewed and approved their transcripts before the data analysis. Data saturation was met after six interviews.

Data from the interviews of study participants yielded four main themes, and two sub-themes that were associated with one main theme. Each theme was defined and presented with supporting statements from specific study participants. Themes were established through qualitative content analysis. Conventional content analysis codes are derived directly from the text data (Hsieh & Shannon, 2005). The four main themes and two sub-themes included: the 10,000-foot view, in the way, role clarity, and communication. The two sub-themes that emerged from the data analysis process included: teamwork and communication. Based on the themes, sub-themes, and study participant supporting statements, the IPDEU clinical model provided meaningful interactions with other healthcare providers that assisted the student nurses in seeing healthcare through a different lens. Additionally, the participants could see the value that other disciplines add to the team, which will benefit them as they continue on their academic journey and transition to professional nursing practice. Participants were also able to see how

the healthcare team members communicate with each other and patients, which is different from what the students stated they are seeing in their traditional clinical models.

Chapter Five - Conclusions and Discussion

Introduction

This study aimed to explore the experiences and perceptions of nursing students enrolled in an ABSN or DEN – Master's program who participated in an IPDEU during their nursing program. The concepts of role clarity, teamwork, and communication were also explored. The qualitative descriptive study design was chosen for this research topic because it needed to be explored further as limited studies were found in the literature review. This chapter includes a summary of the findings presented in Chapter Four. The findings and their relation to the other literature regarding the phenomenon of interest are also discussed. Additionally, limitations to the study, implications of the results for practice, suggestions for further research, and the study's conclusions are also presented.

Summary of the Results

This study employed a qualitative descriptive research design that aimed to explore the experiences and perceptions of nursing students enrolled in an ABSN or DEN – Master's program who participated in an IPDEU during their nursing program. A purposive sample of six nursing students participated, and they were individually interviewed in a convenient setting of their choice. Each study participant chose Zoom for their interview. This research study answered the following research question: (1) What are the experiences of nursing students participating in an IPDEU unit, and do they improve their overall perceptions of role clarity, teamwork, and communication? The six nursing students had completed their IPDEU clinical days and were either enrolled in an ABSN or DEN – Master's program. One central question with eight sub-questions was posed to each participant. The questions were open-ended, with interviews lasting no longer than forty-five minutes in duration. All interviews were audio-recorded and transcribed by REV, a professional transcription service. A software tool called

Delve was used to assist the researcher in organizing the data from each transcript. Delve is a web-based qualitative tool that allows the researcher to organize transcripts. Qualitative content analysis was used to review and code the study participants' transcripts. After completing qualitative content analysis of data, four main themes, with two sub-themes, emerged. The four themes that emerged were: the 10,000-foot view, role clarity, communication, and in the way. The two sub-themes arose from the 10,000-foot view theme: teamwork and collaboration.

Discussion of the Results

The transitional experiences of NGNs have been studied in the nursing literature for about fifty years since Kramer's (1974) seminal work. The literature review found consistent themes in role transition difficulties experienced by NGNs. Overall, new nurses do not feel adequately prepared for nursing practice after graduating from their prelicensure nursing education (Hatzenbuehler & Klein, 2019). NGNs express a lack of confidence in skills performance, communication, teamwork, and have difficulties with organization, delegation, and prioritization (Casey et al., 2004). Therefore, building clinical models that allow students the ability to practice in these areas is vital. This qualitative descriptive study examined the perceptions and experiences of nursing students in an IPDEU, revealing that knowledge about communication, teamwork, and role clarity is improved when students engage in interprofessional learning in a clinical setting. An evaluation of the literature also demonstrated that nursing research discusses NGN's transitional experiences and recommended strategies to improve that transition. Based on the literature review, three primary themes were identified: NGNs experience difficulties transitioning to nursing practice, strategies such as DEUs, IPE, and IPTWs have shown improvement in communication and teamwork with other healthcare providers, and the use of NRPs affect NGN retention and turnover. This qualitative descriptive

study provided valuable insight into the experiences and perceptions of student nurses who participated in IPDEU clinical days during nursing school and if participation improved their overall perceptions of role clarity, teamwork, and communication. The study participants provided evidence that the IPDEU clinical model was a positive experience. Participants expressed that they witnessed how healthcare works with a broader view and had a better understanding of role clarity with regard to other healthcare disciplines. Although the participants of this study were unable to practice their communication skills with other healthcare providers, they were afforded the opportunity to witness interprofessional communication and how vital clear communication was to the patient's outcome. The six study participants' interviews supported the four overarching themes and two sub-themes that emerged from the data analysis process. The four themes that emerged from the data were: The 10,000 Foot View, Role Clarity, Communication, and In the Way. The two sub-themes identified were: Communication and Collaboration. A discussion of the identified themes follows:

Theme I: The 10,000-Foot View

The findings suggested that all the interview participants had a favorable learning experience in their IPDEU clinical. This experience allowed them to see interactions they had not been able to see while providing direct patient care at the bedside in the traditional clinical model. Participants appreciated seeing the patient's entire hospital course from a different lens. The participants expressed that they could see "behind the scenes" of healthcare and how other healthcare providers prioritized their care. Upon graduation, nurses need to be able to work as effective members of the health care team. Interprofessional education is one of the strategies that can be utilized in nursing school to help students see the value in other healthcare

professionals. This theme is not supported in any current literature reviewed and is a new finding for this study.

Interprofessional collaboration has also been identified as a key component in reducing preventable adverse outcomes by promoting communication, role clarification, and mutual respect among the interprofessional team (Goulding et al., 2020). The IPDEU clinical model afforded the participants in this study this opportunity. By witnessing healthcare professionals interact, communicate, and prioritize their patient load, participants witnessed healthcare being provided from the 10,000-foot view, an experience not afforded in the traditional clinical model. The two sub-themes identified overlapped with the 10,000-foot view theme. The two sub-themes are as follows:

Sub-theme I: Teamwork

The findings of this study showed that participants were able to learn about how teams are formed from their IPDEU experience. One student commented that after her IPDEU experience, she had the opportunity to work with the same SLP that she followed during one of her traditional clinical days. They were working with a patient together, and she felt as though they were functioning as a team, anticipating his needs, just from their one day together.

Sub-Theme II: Collaboration

The findings of this study showed that participants did not feel their view of interprofessional collaboration changed, but it was reinforced by their experiences. Seeing behind-the-scenes communication that happens helped to understand the interprofessional collaboration that occurs. Students felt that IPE allowed them to "break down biases" towards other providers. Another student did feel as though there was less interprofessional collaboration in the IPDEU as they did not attend rounds as they typically do in the traditional clinical model.

Theme II: In the Way

The findings of this research suggested that students did not feel useful during their IPDEU experience. Each participant expressed that during their IPDEU clinical days, they could not provide direct patient care and that it was an observation experience. Because of that, the participants felt they were not utilized in the clinical setting. They often expressed that they felt "in the way" and that it was difficult not to provide patient care. Because it was a hands-off experience, the students did not feel as though they were able to practice any of the physical skills that they were learning. The participants also expressed that they are used to helping in the clinical setting. However, because it was an observational experience, they would sometimes stand outside the patient's room and watch as enough staff was in the room. The students did express that it was easier to shadow and observe when they were with another healthcare discipline, such as PT. However, when shadowing a nurse, participants felt they should be able to assist to be helpful. One student commented that this experience would have been better served in their first semester before they started their traditional clinical setting to understand better what a nurse does before entering into the clinical setting as a student nurse. All participants commented that they would prefer to shadow another discipline other than nursing. Therefore, shadowing different disciplines other than nursing was recommended. This theme is not supported in any current literature reviewed and is a new finding for this study.

Theme III: Role Clarity

The findings of this research study suggested that student nurses who participated in an IPDEU had improved role clarity of other healthcare providers. All six study participants discussed that they learned a great deal about how each discipline provided care, how knowledgeable they were, and how care was prioritized. They also stated that they were able to expand the scope of what each specialty could offer their patients. This theme supports prior

research. Oosterom et al. (2019) conducted a systematic literature review on interprofessional training wards (IPTW) and concluded that students had better role clarity after the IPTW experience. Simko et al. (2017) concluded that an IPE course for nursing and pharmacy students significantly increased the interprofessional team's knowledge and that each discipline had better role clarity after the course. Participants also realized that each discipline did more than they expected and that these experiences would help them during their academic progression and upon transition to professional nursing practice. The participants could better see how other healthcare providers prioritize their work, which gave them a better understanding of their role. Furr et al. (2020) conducted a qualitative descriptive study to evaluate nursing students' perceptions of roles and responsibilities following an IPE experience. The nursing students learned valuable information about the roles and values of the other team members (Furr et al., 2020). They appreciated working on a team skills and felt this type of IPE would assist them when transitioning to clinical practice.

Additionally, Granheim et al. (2018) found that simulation-based exercises in IPL allowed students to have better role clarity. Interprofessional collaboration has been identified as a key component in reducing preventable adverse outcomes by promoting communication, role clarification, and mutual respect among health care professionals (Goulding et al., 2020). Therefore, this research study suggests that an IPDEU clinical model allows students to have a broader view of other healthcare providers and how each discipline contributes to the patient care delivery model.

Theme IV: Communication

The findings of this study found that the student nurses who participated in the IPDEU expressed that they had experienced interactions in the IPDEU that gave them different perspectives about communication. Participants in the IPDEU were exposed to various

communication styles and could better understand how to communicate the urgency of a request. They witnessed how healthcare providers communicate with one another, and from this experience, participants focused more on communication with other care providers. However, this study found that participants did not feel they could practice their communication skills because they were just observing. They did find value in witnessing interprofessional communication as it gave each participant a better understanding of what information is essential to communicate for each discipline. This theme supports the literature.

NGNs experience communication difficulties upon transition to professional nursing practice (Casey et al., 2004; Fink et al., 2008; Hatzenbuehler & Klein, 2019; Wong et al., 2018). Previous patient care experiences and the differences in educational preparation can influence the ability of the NGN to successfully acclimate into professional practice (Kumaran & Carney, 2014). Therefore, finding ways to improve communication skills during nursing school is paramount. Participants in the IPDEU were exposed to various communication styles during their experience. Although the participants did not feel they could practice their communication skills because it was an observation experience, they did feel they better understood what information is essential to communicate for each discipline. Monagle et al. (2018) conducted a mixed-method, experimental, pretest/post-test study and concluded that learning how to communicate with the interprofessional team should be addressed when they are students. Hallin & Kiessling (2016) conducted a qualitative descriptive study and concluded that IPTWs improve communication and teamwork and allow students to grow in their profession.

Therefore, having students engage in interprofessional learning in an IPDEU clinical model could afford students the opportunity to practice communication skills and exposes them

to a variety of communication styles. Experiences in nursing school may help to improve students' communication skills as they transition to professional practice.

Limitations

The study was limited to nursing students who were either enrolled in an ABSN or DEN–Master’s pre-licensure program. No traditional baccalaureate nursing programs were included. Additionally, the sample only included student nurses from one university in the northeastern region of the U.S. Results may have been more varied if the study was offered at different sites and with traditional baccalaureate nursing programs, which would add to the transferability of the findings. Additionally, only student nurses were included in this study. Results may have varied if other healthcare disciplines, such as PT, were included in the sample. Another limitation of this qualitative descriptive study was the availability and willingness of student nurses to participate in the study and to share their perspectives on their experiences. Findings from this study are limited by the small sample size ($n=6$) of student nurses. Another limitation was that the student nurses who viewed their IPDEU experiences in a positive light agreed to participate. The perceptions of those who did not respond to the recruitment video and flyer remain unknown. Another limitation was the length of time spent on the IPDEU clinical unit. Student nurses only had two half days in this clinical model. Although the study participants overall had a good experience and learned about interprofessional communication, role clarity, and teamwork, if the students had more days in this type of clinical, they may have had different views. Another limitation was that four of the six students who had participated had expressed that they had previous IPE. One study participant verbalized during the interview that she was having difficulty identifying if the skills she gained were learned in the IPDEU or other educational opportunities, such as simulation. Their previous experiences with IPE could have impacted their experiences and perceptions in the IPDEU.

Implications of the Results for Practice

Study findings have demonstrated several implications for the practice of student nurses' participation in the IPDEU clinical model. One primary implication is that participation in an IPDEU should be considered a part of undergraduate clinical education. As stated previously, there has been a call to promote more team-based education in health professionals' knowledge for many years (Billings & Halstead, 2016). In 1998, the Pew Health Professions Commission identified interprofessional education (IPE) as a need for all health professionals. The IPDEU is an innovative strategy to achieve IPE in the academic setting and should be considered for inclusion in the curriculum. Although students enrolled in this study were either ABSN or DEN–Master's program students, those who participated in the IPDEU had a positive experience. They learned a significant amount of knowledge about how healthcare is delivered. This type of clinical education allows nursing students to see the big picture of healthcare delivery and view healthcare delivery through a different lens. An IPDEU allows students to interact with other healthcare disciplines, allowing them to have improved role clarity. Students can also see different communication practices throughout the healthcare setting, which could impact their communication practices when they enter nursing as new graduate nurses. Therefore, making an IPDEU clinical experience a required part of undergraduate education is recommended.

Participants in this study found significant value in following another discipline and limited value in following a nurse. Students identified that since they are in nursing school, they understand a nurse's role and primary responsibilities as they had all provided direct patient care as nursing students in their traditional clinical experiences. However, when the participants were with either the SLP or PT, each participant expressed that they could learn so much about how each discipline provided care, how knowledgeable they were, and how they prioritized care.

Students also found value in being paired with other students from a different healthcare programs, such as PA and PT students. Therefore, being in a discipline other than nursing is a recommendation for other IPDEU clinical experiences. Participants primarily shadowed PT and SLP. However, some other disciplines to consider for inclusion in an IPDEU clinical model would be pharmacists, case managers, and social workers. This will allow students the opportunity to learn along with other disciplines, which will improve role clarity, teamwork, and communication. These additional experiences will allow students to expand their knowledge base about various healthcare providers, allowing them to view healthcare from a different lens.

Another implication found in this study is that the amount of time spent in the IPDEU should be increased. In this study, participants only spent two half days in the IPDEU. Even with that limited amount of time, the vast insight that the students gained about healthcare delivery and other healthcare disciplines was found to be extremely valuable. Allowing students to spend more time with other disciplines will assist in further building upon their knowledge of role clarity. Additionally, it will further improve teamwork and communication in the healthcare setting, which is essential to improve patient care outcomes. Therefore, more time in the IPDEU will further refine essential skills that participants will learn in this type of clinical model. Each participant in this study expressed that this experience was purely an observational experience and that they were not allowed to provide hands-on care. Because of that, students often felt in the way and would often leave the bedside if there were too many healthcare providers in the room. This could have affected their experience such that students may not have felt the full impact that the IPDEU could have had on their learning. Although they gained significant knowledge from the observation experience, allowing students to be interactive with the patient and provide hands-on care would ensure that they feel a part of the healthcare team

and valued in the role of students in the clinical setting. Therefore, as nursing programs consider implementing IPDEU clinical models, providing hands-on care should be a consideration for inclusion.

Suggestions for Future Research

The findings of this study presented relevant information that can be added to the body of knowledge surrounding IPDEUs. This type of clinical learning model can be utilized in academia and clinical practice settings as a strategy to promote team based education. Although the participants in this study represented a small sample of students who participated in an IPDEU, their perspectives were critical in solidifying existing knowledge surrounding interprofessional education and bringing forth new knowledge regarding an IPDEU. Although there were many commonalities in the experiences reported by study participants, there were also some areas that could have been improved, which suggests future research. Because this study had a small sample size and was limited to one university in the northeast region of the U.S., a replication of this study with a larger sample size should be considered to see if the findings are different. Also, replication of this study should be considered using different regions of the U.S. to see if the findings are different.

This research study only included student nurses. Because of this, a replication study using various students in other health professions, such as SLP and PT, is indicated to examine if their experiences are similar to nursing students in an IPDEU. Students in this study were enrolled in either an ABSN or DEN-Master's program. Each student who participated had at least a bachelor's degree before entering this program. Therefore, future research should be considered with traditional prelicensure undergraduate baccalaureate nursing students to see if the findings differ. Future research should also be considered with new graduate nurses. Students in the IPDEU in this study found benefits to participation. They were able to see

healthcare through a different lens and were able to see the big picture of delivering patient care. They had improved role clarity of other healthcare professionals and experienced interdisciplinary communication. However, it is unknown if these experiences will improve their transition to professional practice. Therefore, a qualitative descriptive study comparing traditional clinical models vs. IPDEU participation in new graduate nurses should be considered. Many students who participated in this study had experienced previous IPE in their nursing programs. This could have skewed their perceptions of the IPDEU. Therefore, in future research studies, consideration should be made to exclude students with previous IPE experience. Lastly, some students discussed the post-debrief session and its value in allowing them to integrate what they saw in the IPDEU into learning. Therefore, future research should be considered in exploring the impact of the interdisciplinary post-debrief session after participation in the IPDEU and its impact on student learning related to interprofessional role clarity, teamwork, and communication.

Conclusion

This qualitative descriptive study explored the experiences of six student nurses who participated in the IPDEU clinical learning model. Study subjects participated in the IPDEU during nursing school and each shared their experiences and perceptions of their IPDEU clinical days. Four themes and two sub-themes emerged from analysis of the study participants' interviews. These findings described the experiences of participating in the IPDEU. These findings gave insight to how participation in the IPDEU impacted their communication, role clarity of other healthcare providers, and the overall view of healthcare from the 10,000-foot view. Additionally, student nurses expressed feeling in the way during their clinical time, as they were not able to provide direct patient care. Overall, however, participants found value in their experience in the IPDEU clinical learning model. The study findings satisfied the aim of

this study as the researcher sought to explore the experiences and perceptions of student nurses participating in an IPDEU clinical unit and if this had an impact on their perceptions of teamwork, role clarity, and communication. Previous studies have been completed only with a DEU. This is the first known study to assess the effectiveness of an IPDEU. Despite study limitations, findings presented several implications for the science of nursing education, adding to the existing knowledge regarding this type of clinical learning model.

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APPENDIX A

RECRUITMENT FLYER



Introduction to the study

A Doctoral Ed.D nursing student is seeking research study participants to explore the possible benefits of participation in an Interprofessional Dedicated Education Unit (IPDEU) clinical learning model. This study seeks to examine the experiences and perceptions of your experiences in an IPDEU during undergraduate nursing school.

Study Title

Exploring the experiences and perceptions of student nurses who participated in an interprofessional dedicated education unit (IPDEU): A qualitative descriptive study.

Why are you doing the study?

The transition from nursing student to professional nursing practice has proven to be challenging and new graduate nurses face many challenges and enormous pressures to meet professional expectations upon graduation. Understanding what clinical models can better prepare students during nursing school will help to ease that transition.

If I agree to participate, what will the time commitment be?

Each participant will be interviewed, either in person, via phone, or virtual via video-conferencing technology, at your convenience. The interview will take approximately 45-60 minutes.

How will my confidentiality be protected?

All information obtained from you will be confidential. Your privacy will be protected at all times. You will not be identified individually in any way because of your participation in this research.

Study participants will receive a \$25 Amazon Gift Card

Questions? Contact Joanna Vallie @vallie001@wcsu.edu or 603-557-6296



APPENDIX B
RESEARCH QUERY

I agree to participate in this study

I do not agree to participate in this study at this time

If you agree, please provide the following:

Name: _____

Phone Number: _____ Do you text on this phone? Yes No

Email address: _____

Preferred Contact Method: Email Text Phone

What type of video-conferencing technology have you used (check all applicable)?

Zoom Web-Ex Microsoft Teams Other: _____

If you agree to participate, please fill in the forms titled “Informed Consent” and fill in the demographic survey.

Thank you for your time!

APPENDIX C

HUMAN SUBJECTS REVIEW FORM

Informed Consent

Doctorate in Nursing Education Program
Western Connecticut State University
Department of Nursing
81 White Street
Danbury, CT 06810 Phone: (203) 837-8651

Informed Consent to Participate in a Research Study

Project Title: Exploring the experiences and perceptions of student nurses who participated in an interprofessional dedicated education unit (IPDEU): A qualitative descriptive study

Principal Investigator: Joanna Vallie, MSN, RN Doctoral Student, Western Connecticut State University

Faculty Advisor: Dr. Barbara Aronson, Ph.D., RN, CNE, Professor/Ed.D Program Director, Southern Connecticut State University, Department of Nursing, New Haven, Connecticut 06515; (203)392-7278

Study Site: Locations may include, but are not limited to the telephone, virtual via video-conferencing technology, coffee shops, restaurants, cafes, public libraries, or other public places as requested by study participants.

Introduction/Purpose: You (“study participant”) are invited to participate in a research study. The study will be conducted under the direction of Joanna Vallie, RN (“principal investigator/PI”). The purpose of this study is to explore the experiences and perceptions of nursing students who have participated in an Interprofessional Dedicated Education Unit (IPDEU) during their nursing program. The principle investigator will also explore if these types of units improve nursing students’ overall perceptions of role clarity, teamwork, and communication with other members of the healthcare team. The intent of this researcher is to gather these perceptions as it relates to the experiences of the IPDEU.

Procedures: The interview session between you and the principal investigator will be approximately 45-60 minutes and will be recorded so that it can be transcribed and analyzed. In order to protect your identity, all identifying information will be removed from the recordings and the transcript. The interview will take place at a location convenient to you.

Benefits: As a study participant, the benefits of this study were not designed to benefit you directly. However, there is the possibility that the knowledge gained from this study can be used in future design of clinical learning models to better prepare nursing students upon graduation for transition to professional practice.

Voluntary Participation: Your participation in this research is voluntary. You may refuse to participate in this research without any negative consequences for you. Study participants may at any time and for any reason, discontinue participation without any negative consequences. Simply let the principal investigator (Joanna Vallie), know. All study participants will be awarded an Amazon gift card of a \$25 value. Participants will receive gift cards once they have completed the interview and have reviewed and confirmed accuracy of interview transcript.

Confidentiality: All information obtained from you will be confidential. Your privacy will be protected at all times. You will not be identified individually in any way because of your participation in this research. The data collected, however, may be used as part of publications and papers related to the researcher's doctoral dissertation. The data obtained from you will be accessible to (a) Joanna Vallie, the principal investigator and her advisor (b) Dr. Barbara Aronson, Ph.D., Chair of the Ed.D program at Southern Connecticut State University. The researcher will protect your confidentiality by removing all identifying information and assigning an identification code for discussing data. All data collected will be stored in a locked cabinet and on an encrypted external hard drive. The transcription service, which will be a content expert on the topic of this study will have access to the data. However, the information will be protected by the nondisclosure agreements that they will utilize in protecting the confidentiality of the study participants.

Statement of Consent: Before you sign this form, please ask any questions on any aspect of this study that is unclear to you. You may take as much time as necessary to decide if you wish to participate. If you have further questions, you may contact Joanna Vallie by telephone at (603) 557-6296 or electronic mail @vallie001@wcsu.edu. If you have questions regarding your rights as a research participant, you may contact the Western Connecticut State University Institutional Review Board.

Participant Signature: I confirm that Joanna Vallie has explained to me the purpose of this research, the study procedures that I will undergo, and the possible risks and discomforts as well as benefits that I may experience. You have had time to answer questions about this study and your questions have been sufficiently answered. You voluntarily agree to be in this study and understand that you can stop participation at any time. I have read this consent form and I understand it. Therefore, I give my consent to participant in this research study.

Printed Name: Participant

Date

Signed Name: Participant

Date