Global Journals LaTeX JournalKaleidoscope™
Artificial Intelligence formulated this projection for compatibility purposes from the original article published at Global Journals. However, this technology is currently in beta. *Therefore, kindly ignore odd layouts, missed formulae, text, tables, or figures.*

Workplace Readiness of New ICU Nurses: A Grounded Theory Study

La Toya Lewis-Pierre[1], Linda Amankwaa[2] and Joann Kovacich[3]

[1] University of Miami

Received: 13 December 2013 Accepted: 5 January 2014 Published: 15 January 2014

Abstract

Background: Intensive Care Units (ICUs) are hiring large groups of new nurse graduates without providing these new hires with the training to promote competency. Objectives: The purpose of the study was to explain workplace readiness of new graduates entering the ICU from the perspectives of managers, clinical educators, preceptors, and new RN graduates. Method: Grounded theory was the qualitative approach used with this study. A total of 24 indepth interviews were conducted with managers, educators, preceptors, and new graduates in ICUs.Results: The Novice Nurse Embracing the ICU theory (NNEIT) emerged from the following four themes: (a) embracing the new ICU role, (b) overwhelming experience of performance ambiguity or anxiety, (c) adapting to the ICU, and (d) embodying the new ICU RN role. Conclusions: The theory that emerged from the study will provide guidance in resolving the discourse of the competencies and skills for new nurses entering the ICU.

Index terms— critical care, new graduates, workplace readiness, orientation, and grounded theory.

1 Introduction

ew graduates need to shift paradigms from student to critical care nurse. The National Council of the State Board of Nursing (NCSBN) reported, 40% of new graduates have reported making medication errors. These errors are directly linked to the complex multifaceted patients the new graduates are responsible for managing **??**2013). A common concern within the nursing community is whether RN graduates are prepared to enter the intensive care unit (ICU). The 2010 Future of Nursing report stated that orientation programs "will help ease the transition of new, entrylevel nurses into the workforce and reduce the attrition rate" (Institute of Medicine (IOM) & Robert Wood Johnson Foundation, p. 18). Technological advancement, prioritization, training ability, and socialization to the ICU add transitional challenges to new graduate orientation (Graham, Hall, & Sigurdson, 2008). The new graduates lack of critical care knowledge is a concern of experienced nurses.

Workplace readiness for new RN graduates in the ICU varies with organizational needs and fiscal responsibilities. According to Trepanier, Early, Ulrich, and Cherry (2012) new graduate orientation can cost an organization up to $36,960 per intern for a critical care residency program. New RN graduates receive orientation to the ICU but are overwhelmed and unaware of the clinical expectations and skills needed to care for the complex critical care patient population (Proulx & Bourcier, 2008). Nursing schools emphasize theory but lack operational tools to prepare new graduates with sufficient exposure to critical care practice to transition the student into the clinical ICU setting (Gavlak, 2007). Identifying specific competency requirements for graduate nurse practice in the ICU is essential for recruiting and retaining new nursing staff.

Clinical competency is an essential component for improving patient care outcomes and nurse decision-making (Tilley, 2008). ICU nurses respond to rapid changes in the patient's condition and require extensive knowledge appropriate to care and manage the unstable patient (Storesunda & McMurray, 2009). In this type of practice, nurses evaluate patient information, promote decision-driven interventions, and individualize patient care plans. Facilitating the transition from graduate RN to functioning ICU nurse requires nurturing, guidance, and skill

building from experienced nurses. Because of the nursing shortage and the influx of new graduates to the profession, addressing new RNs' learning needs is a high priority.

New nursing graduates lack preparation for critical care practice. They are nonetheless expected to care for patients and demonstrate competent practice within the ICU, which is a high-skill care unit in the hospital (Chesnutt & Everhart, 2007). Camire, Moyen, and Stelfox (2009) concluded that medication errors occurred 10.5 out of 100 patient days in the intensive care unit. Inconsistent training of new graduates in the ICU increases the new nurses' risks for medication errors.

Previous researchers have focused on the general concept of new graduates entering the workforce. Lacking are studies on ICU workforce readiness identified by frontline leaders in diverse ICU specialties. This qualitative grounded-theory study explored the perceptions of new ICU graduates' workplace readiness among managers, clinical educators, preceptors, and new ICU graduates.

2 II.

3 Purpose

The purpose of the qualitative grounded-theory study was to generate a theory to explain workplace readiness and the needs of new graduates entering the ICU from the viewpoint of multiple stakeholders: managers, clinical educators, preceptors, and new RN graduates. The main purpose of this research was to explore these concerns, document the need for change, and create a theory that addressed the needs and readiness of new graduates.

4 III.

5 Research Method and Design

Qualitative research bridges the gap between research and practice (Silverstein & Auerbach, 2009). Strauss and Corbin's grounded-theory design guided the investigation of new graduate workplace readiness. This design is pertinent for research that applies "new understandings of predictable processes and patterns of behavior to improve the quality of patient care or to alter patterns that negatively affect patient outcomes" (Nathaniel & Andrews, 2007, p. 1). Due to limited information regarding new graduates' workplace readiness in the ICU, grounded theory, which explicates meaning, is an appropriate approach for research related to the workplace readiness of new graduates entering the ICU.

After IRB approval, participant selection began with electronic email and verbal communication with nurse leaders in the medical, coronary, surgical, neuroscience, and trauma ICUs in a South Florida hospital. In the five ICUs, all of the nurses completed a critical care internship and preceptorship. Selection of participants depended on their role in the hospital, years of experience, and willingness to share candid perspectives. The population represented nurses who have experienced managing performance, evaluating, training, and mentoring new graduates in the ICU. Additionally, nurses who have experienced entering the ICU as new graduates were included. Prior to conducting the interviews, each participant signed an informed consent.

Participants answered demographic and indepth semi-structured interview questions in a one-onone format. The interviews were audio-recorded and transcribed. Manager, educator, and preceptor questions were separate from the new graduate questions to maintain consistency with participant responses from the four samples. To facilitate the data collection process, eight participants representing each group participated in a pilot study to verify the research process and questions. Feedback and memo notes from the pilot interview group were used to modify the final interview documents. The trustworthiness plan for the research study consisted of four integrative components: credibility, confirmability, transferability, dependability. Upon the completion of the pilot study, 16 nurses representing the four research groups participated in the study.

6 IV.

7 Data Analysis

In total 24 nurses participated in the interview process, eight of whom participated in the pilot study to provide face validity. The constant comparative method facilitated the discovery of common themes grounded in the interview data. Member checking consisted of each participant receiving a copy of his or her transcription for purposes of validation as well as to make corrections as appropriate. The qualitative software program Nvivo9® was used to assist in the coding and data reduction process. NVivo enables the researcher to identify trends, patterns, and large themes **??**Durian, 2002). General components of the data and generated summaries of the responses were compiled. The questions and responses were reviewed line by line to develop categories.

V.

8 Findings

Sixteen nurses who have as new graduates and working with new graduates entering the ICU participated in the study. Three preceptors entered the ICU as new graduates. Embracing the new ICU role was the overarching theme, while minor themes included overwhelming experience of performance ambiguity or anxiety, adapting to

the ICU, and embodying the new ICU RN role. Core categories developed from the iterative-grounded theory process, constant comparison of the data, comparing incidents to incidents, and relating categories. Themes were narrowed down to those most frequently occurring, and ranked according to occurrence. This ranking resulted in eight themes: (a) knowledge of disease, (b) procedures, (c) communication, (d) responding to changes in the patient's condition, (e) knowledge of medications, (f) overwhelming experience, (g) time management, and (h) patient care management. These eight themes were then aggregated to facilitate the development of the final themes.

Respondents from all four groups expressed the need for nursing schools to increase the technical skills taught to nursing students. While theoretical information was sufficient to enter practice in the ICU, the students' technical skills were limited to the tactical skills of IV insertion, bed bath, Foley catheter insertion, and general patient care tasks. Although the skills, which require additional training, are necessary to enter into practice as an ICU nurse, the limited skills are also necessary for practice on a basic medical-surgical patient floor.

Research findings revealed essential cognitive and tactical competencies and skills that affect the new graduate's level of care, decision-making ability, knowledge level, and skills. New graduates are beneficial to the ICU and health care organizations but the graduates' entry into nursing practice face barriers which presents challenges to successful integration into ICU practice. The barriers focus on the new graduates' ability to learn new information, develop critical thinking skills, and adapt to the high acuity ICU environment while communicating with the patient and families. Although the barriers to ICU nursing practice create a negative impact, nursing leaders are willing to support and guide the new graduates into practice. Based on this data, the Novice Nurse Embracing the ICU theory (NNEIT) emerged.

Theme 1 : Overwhelming experience of performance ambiguity or anxiety.

The overwhelming experiences described by the interviewees included (a) theory to practice, (b) responding to changes in the patient's condition, (c) assisting with procedures, and (d) knowing disease process. There are concerns relating to the new graduates changing their thought process from school to real nursing practice. According to one nurse manager, I lost an intern because she was feeling overwhelmed. The new nurse mentioned to me, "There is no way that this is ever going? I can ever do this. This is just too much." "And just looking to see how fast everybody moves and how quickly they decide on interactions and how they can multi task is definitely daunting." I think in the first 30 days they are totally overwhelmed with the things that they will be expected to do.

9 One of the preceptors concurred:

A big challenge for them [new nurses] in the first 30 days is to reach out and say, "I need help. I need you to do this for me" or delegating. I think major challenges are knowing what is the priority. For example, looking at 30-40 orders and determining what to get done now, getting somebody to help them, and delegating what can be completed later. They may be scared of asking for help or they may think they know what to do but they don't. Similarly, a manager from the ICU reflected,

The new nurse is looking to see how fast everybody moves and how quickly they decide on interactions and how they can multi-task is definitely daunting? Completing the amount of tasks that you have to complete in the ICU and charting is overwhelming. Keeping on top of things as well as all the physician interactions, family interactions, procedures that happen at the bedside, not being able to work in your own time, and really not being able to organize your time because it's being organized for you.

One of the educators added, I think that one of the biggest challenges is that the new graduates lack the ability to critically think and are overwhelmed because of their lack of knowledge?

The following statement describes the new muse graduate's perception and experience:

The biggest challenges were just getting up to the speed of the ICU, in those critical situations you have to move and you have to do something split second for the patient or it could be life or death as well. Getting accustomed to the speed of the ICU was a challenge. Although it is only two patients, you have to realize that everything you do for those patients is critical for them, every minute is vital, and you cannot just waste time. From turning the patient or giving them meds, or changing any fluids or anything that they need or doing dressings. Just every second you have to be doing something even though you have two patients.

10 Theme 3: Embodying the ICU Nurse Role

Embodying the ICU nurse role theme described by the interviewees included (a) ICU patient assessment, (b) critical thinking, and (c) time management. A new nurse observed, ICU nurses must continuously assess patients and reassess the patient's as frequently as needed to obtain insight and ascertain when there are significant changes with the patients or unexpected outcomes will occur.

The educator from the ?. Unit summed up, the time management issue: Time management skills are not developed in nursing schools but in real nursing practice that requires the application of knowledge. The lack of time management is a big issue, which the novice nurse needs to grasp quickly for survival due the multiple responsibilities of the ICU nurse.

11 VI.

12 Discussion

Thirty-nine percent of new graduates that enter the ICU have reported inconsistent orientation (Wendt, 2009). This means that conflicting orientation standards in the ICU could result in undesirable patient outcomes. A direct link exists among clinical competencies, patient outcomes, and nurse decision-making (Tilley, 2008). Incorporating the NNEIT into the orientation program for new graduates may facilitate a smooth transition into the ICU.

13 a) Embracing the new ICU role

The expectation is that graduates learn ICU skills rapidly and immediately apply the learned information. Many respondents commented on the essential competencies and skills new graduates need to practice in the ICU, which enabled the discovery of this primary theme and the three minor themes. Burns and Poster (2008) concluded that hospitals assume the new graduates training includes the competency and expectations to perform the essential skills required in a safe and independent manner.

14 b) Overwhelming experience of performance ambiguity or anxiety

Participants noted that unexpected experiences in the ICU such as transitioning from school to practice, responding to changes in the patient condition, assisting with procedures, and knowing the disease process as experiences that overwhelm the new graduates. This is in keeping with Kaddoura (2010), who found new graduates feel apprehensive and uncertain about their new role. The unexpected events in the novel environment can lead to anxious feelings about the new expected clinical performance.

15 c) Adapting to the ICU

The majority of the participants identified essential components that contributed to the new graduates adapting to the ICU: interactions with patients, families, and colleagues; ICU medication management, and prioritization. Novice ICU nurses must have skills to care for the non-communicative patient, patients with multiple co-morbidities, patients requiring ventilator support, and patients with invasive monitoring (Muldowney & McKee, 2011). The novice practitioner perceived interactions with patients, families, and colleagues as an intimidating experience, but such interaction is pivotal to ensuring timely care and communication of information.

16 d) Embodying the new ICU RN role

Most of the participants identified essential components that contributed to the new graduates adapting to the ICU, including competency with ICU assessment, critical thinking, and time management. Assessment and time management are essential skills of the ICU nursing practice and guide clinical decisions. According to Tanner (2006) "Nursing requires an understanding of not only the pathophysiological and diagnostic aspects of a patient's clinical presentation and disease, but also the illness experience for both the patient and family and their physical, social, and emotional strengths and coping resources" (p. 205).

17 VII. Implications and Recommendations

The findings of this study have a number of important implications for future nursing practice, nursing leaders, and schools of nursing. The national nursing shortage presents severe challenges for acute care facilities, specifically in the specialty areas such as the ICU. Beecroft, Dorey and Wenten (2008) reported that 30% of RNs resigned from their first position in one year and 57% resigned positions after two years. Organizations should provide guidance and support for new graduates as they transition into practice to prevent early departure from the nursing profession. NNEIT allows for the identification of competencies and skills new ICU RNs need to practice successfully in the ICU.

The results are relevant to nursing leadership. The findings provide insight regarding the practice gap and transition from graduate nurse to specialized ICU RN. This information can be used to develop targeted interventions aimed at establishing the new graduate competency by addressing the new graduate's specific transitional needs to enhance and create a safe practice environment. Because new ICU RNs have limited exposure in nursing school to the ICU, the inclusion of the NNEIT could enhance the new nurses' transition into the ICU.

Based on the themes that emerged from the study, it is critical that nursing leaders and ICU managers complete an initial knowledge, competency, and skill assessment of all new graduates entering ICU practice. This practice gap analysis will benefit the organization and the new graduate entering into nursing practice and the ICU. The organizational benefits include the initial assessment of the new graduate's learning needs, potential skill and competency practice gaps, and specialty interests. The inclusion of a simulation lab experience to adjunct clinical and classroom learning experiences will help promote the new graduate's self-reflection and critical thinking skills. Additional simulation lab training for the nurse managers, preceptors, and educators could promote the use of a

beneficial resource to reduce practice gaps. As a result, the organization can appropriately develop and monitor an individualized orientation plan based on the nursing specialty and the new graduates learning gaps.

Nursing schools may consider workplace readiness evaluation tools administered to junior and senior nursing students to assess specialty interests among prospective nurses. Based on the accumulated responses, the schools may plan clinical rotations related to the new graduate's initial career specialty. Matching the clinical rotations to the new graduate's interest level will provide an opportunity for the new graduate to assimilate into the environment and understand the role expectations of nursing who practice in that specialty.

Nursing schools can also incorporate an ICU rotation in the last year of the nursing program to allow students to observe the ICU environment. During this time, students can identify the roles, competency, and skill expectations of the ICU nurse. The clinical rotation will clarify ICU nurses' role expectations and enhance the individual's transition to practice as a new ICU nurse.

Future research may concentrate on the differentiation between competencies and skills. During the data collection process, it was apparent that a select few of the pilot and final research group participants understood the differences between competencies and skills. Most respondents in the pilot and final research groups referred to competencies only as skills. This confusion suggests significant challenges in facilitating the workplace readiness of new graduates working in the ICU. The confusion of the educator, manager, and preceptor groups affect the new graduates' transition into the ICU.

Potential replication of the study in other specialties such as the ER, OR, and medical-surgical departments will be beneficial in addressing new graduate workplace readiness in other specialties. A further study could assess the perceptions of workplace readiness of new graduates from the perspectives of nursing schools, nursing leadership, and new graduates. Additional studies are needed to explore the workforce practice expectations from the manager, educator, preceptor, and new graduate nurse groups and explore the potential differences in the practice expectations. Further, a more extensive study could be done for bachelor's and associate degree prepared nurses to determine potential differences in perceptions of workplace readiness to enter the ICU.

18 VIII.

19 Conclusion

The ICU RN role is demanding. Using the results of the study, managers, clinical educators, preceptors, new RN graduates, and health care organizations will have a theory to aid in determining the workplace readiness of new RN graduates entering the ICU. Organizations may design a program to combine theoretical knowledge with expected clinical competencies. According to the 2010 Future of Nursing report, "well-planned, post-hire transition programs have shown better outcomes and fewer errors than do pregraduation clinical immersion programs" (Institute of Medicine & Robert Wood Johnson Foundation, p. 18). Incorporating the NNEIT may lead to shorter transition times for new graduates as they acclimate to their new nursing roles in the ICU. Using the NNEIT, institutions may be able to provide new program strategies to address the discourse of the competencies and skills for new nurses entering the ICU. ICU nurses are expected to have the critical thinking skills and knowledge to quickly react to changes in the patients' condition. In the intimidating and multifaceted ICU, supporting the new nurses' transition into practice is pivotal for the new ICU nurses' success. Nursing organizations, schools, and the new graduates are equal stakeholders in supporting the new nurses' readiness to practice The NNEIT can serve to bridge the practice gap from student to ICU nurse and help recent graduates overcome existing barriers as they make their transition. By reducing the overwhelming experience of performance ambiguity or anxiety, the new graduate will adapt to the fast-paced ICU environment and embody the new ICU RN role. [1]

[1] Workplace Readiness of New ICU Nurses: A Grounded Theory Study

2 

Figure 1: Theme 2 :

[Wendt ()] *2008 RN practice analysis: Linking the NCLEX-RN examination to practice*, A Wendt . https://www.ncsbn.org/2008_RN_Practice_Analysis.pdf 2009. Chicago, IL. (: National Council of the State Board of Nursing)

[Gavlak ()] 'Centralized orientation: Retaining graduate nurses'. S Gavlak . 10.1097/00124645-200701000-00006. *Journal of Nurses in Staff Development* 2007. 23 (1) p. .

[Burns and Poster ()] 'Competency development in new registered nurse graduates: Closing the gap between education and practice'. P Burns , E C Poster . 10.3928/00220124-20080201-03. *The Journal of Continuing Education in Nursing* 2008. 39 (2) p. .

[Tilley ()] 'Competency in nursing: A concept analysis'. D D S Tilley . 10.3928/00220124-20080201-12. *Journal of Continuing Education in Nursing* 2008. 39 (2) p. .

[Proulx and Bourcier ()] 'Graduate nurses in the intensive care unit: An orientation model'. D M Proulx , B J Bourcier . http://www.ncbi.nlm.nih.gov/pubmed/18669706 *Critical Care Nurse* 2008. 28 (4) p. .

[Graham et al. ()] 'ICU survival guide'. P Graham , P Hall , S Sigurdson . 10.1097/01.NUMA.0000305992.00356.3f. *Nursing Management* 2008. 39 (1) p. .

[Camire et al. ()] 'Medication errors in critical care: Risk factors, prevention, and disclosure'. E Camire , E Moyen , H T Stelfox . *CMAJ* 2009. 180 (9) p. .

[Chesnutt and Everhart ()] 'Meeting the needs of graduate nurses in critical care orientation: Staged orientation program in surgical intensive care'. B M Chesnutt , B Everhart . http://www.ncbi.nlm.nih.gov/pubmed/17522191 *Critical Care Nurse* 2007. 27 (3) p. .

[Trepanier et al. ()] 'New graduate nurse residency program: A cost-benefit analysis based on turnover and contract labor usage'. S Trepanier , S Early , B Ulrich , B Cherry . http://www.medscape.com/viewarticle/770115_4 *Nursing Economics* 2012. 30 (4) p. .

[Kaddoura ()] 'New graduate nurses' perceptions of the effects of clinical simulation on their critical thinking, learning, and confidence. environment'. M A Kaddoura . 10.1111/j.1478-5153.2011.00426.x. *Nursing in Critical Care* 2010. 16 (4) p. .

[Storesunda and Mcmurray ()] *Quality of practice in an intensive care unit (ICU): A miniethnographic case study. Intensive and Critical Care Nursing*, A Storesunda , A Mcmurray . 10.1016/j.iccn.2009.02.001. 2009. 25 p. .

[The Future of Nursing: Leading Change, Advancing Health Joint Commission Testimony: Institute of Medicine (IOM) and the F
'The Future of Nursing: Leading Change, Advancing Health'. http://www.jointcommission.org/assets/1/18/RWJ_Future_of_Nursing.pdf *Joint Commission Testimony: Institute of Medicine (IOM) and the Robert Wood Johnson Foundation*, 2010.

[Tanner ()] 'Thinking like a nurse: A research-based model of clinical judgment in nursing'. C A Tanner . http://www.ncbi.nlm.nih.gov/pubmed/16780008 *Journal of Nursing Education* 2006. 45 (6) p. .

[Transition to practice ()] *Transition to practice*, https://www.ncsbn.org/363.htm#why 2013. National Council of the State Boards of Nursing.

[Beecroft et al. ()] 'Turnover intention in new graduate nurses: A multivariate analysis'. P C Beecroft , F Dorey , M Wenten . 10.1111/j.1365-2648.2007.04570.x. *Journal of Advanced Nursing* 2008. 62 (1) p. .