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Perceptions of Preparedness Among New Graduate Nurses: Traditional Curriculum Versus Concept-Based Curriculum

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Perceptions of Preparedness Among New Graduate Nurses: Traditional Curriculum Versus
Concept-Based Curriculum

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Abstract

Concept-based curriculum (CBC) is a newer trend in nursing education curriculum aimed at preparing new graduates to enter the workforce as generalist nurses better suited to care for a more medically complex population. Using CBC, students are introduced to concepts in order to build conceptual understandings as they engage in knowledge and skill learning, as opposed to a traditional nursing curriculum that is taught in sections grouped by patient population and medical complexity. At a nursing school housed within a private university in the southeast, the traditional nursing curriculum was replaced with CBC in 2016. To better understand the preparedness of new graduate nurses, students graduating from both traditional curriculum and CBC curricular designs were asked about their perception of preparedness in five specific areas during their first three months of clinical practice. The results of the explanatory mixed-methods survey, which consisted of Likert scale responses and qualitative data, showed no statistically significant difference in perception of preparedness between the two groups. The outcomes of each individual curricula were not dramatically different, but the actionable data reinforces the importance of clinical learning.

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Introduction and Background

Registered nurses (RNs) constitute the largest portion of the nation's healthcare professionals and will continue to be in high demand as predictions forecast a 15% growth in employment opportunities by 2026 (American Association of Colleges of Nursing [AACN] Fact Sheet, 2019). Growth in the RN workforce is anticipated due to the shift in focus to preventive care, growing rates of chronic conditions, and demand for healthcare services as people live longer and lead more active lives (U.S. Bureau of Labor Statistics, 2018). To meet the demands of the healthcare system, nursing schools are rethinking curricula and program outcomes to produce generalist nurses. Graduates prepared as generalist nurses maintain a broad base of skills and can adapt their knowledge and skills to various situations, such as preventative or primary care (American Association of Colleges of Nursing [AACN], 2021). Therefore, generalist nurses can enter the workforce prepared to take on a variety of roles while safely providing high-quality, patient-centered care across health care settings (World Health Organization, 2020).

Concept-based curriculum (CBC) is being more widely used in nursing education because of its specific design aimed of helping students understand broad principles that can be applied in different contexts (Giddens et al., 2012). Traditional curricula focus on task-oriented clinical care, medical diagnoses, and patient populations. On the other hand, concept-based learning helps students organize and categorize information to integrate clinical decision-making with theory and construct understanding so that knowledge supports nursing care and clinical judgment (Getha-Eby, Beery, Xu, & O'Brien, 2014; Hardin & Richardson, 2012; Repsha, Quinn, & Peters, 2020). A nursing school housed within a Christian university in the southeast recently transitioned from a traditional nursing curriculum to CBC in fall of 2016 with the first cohort of

students educated using the new CBC graduating in the spring of 2020. This project focuses on the outcomes of that change from a student perspective.

Problem Statement

Transition to clinical practice can be difficult for new graduate nurses and being ill-prepared can have grave consequences. Although many studies have addressed the difficulties in transition to practice, there is a paucity of studies comparing the curricula used to prepare nursing students. The following research question was used to guide this project: what is the difference in perception of preparedness among new graduate RNs educated using traditional nursing curriculum versus those educated using CBC design? The answer to this question may shed light on the practical differences in outcomes of the two curricula. This study may contribute to the existing literature by helping educators understand the self-perceptions of practice preparedness among new graduates and highlight any differences that may exist between students graduating from the two curricula.

Purpose

The purpose of this study is to examine student perceptions of preparedness for practice by comparing those instructed using traditional curriculum to CBC.

Review of Literature

The literature contributing to the background of this project is sparse. At the core are three main concepts: perceptions of preparedness, traditional nursing curriculum, and CBC.

Perceptions of Preparedness

A 2005 study examined a 10-year history of competency testing and performance-based metrics which showed that 65-75% of graduates failed to meet expectations of entry-level clinical judgement (Del Beuno). Acute care hospitals, which overwhelmingly employ new

graduate RNs, continue to report incongruence between the expectations of education and employers. Preceptors identified medication administration, technical nursing skills, patient safety, prioritization, and communication as areas of weakness for new graduates (Berman et al., 2014). The transition period is admittedly difficult for new graduates but can be made worse by the dissonance between the new graduates' self-perceptions of preparedness and the employers' expectations of preparedness (Huston et al., 2017).

Perceptions or feelings of preparedness in new graduate nurses have been explored in narrow contexts, such as in code situations or transition to practice during a pandemic. However, perceptions of preparedness have rarely been studied in a general sense or during the immediate timeframe following licensure as an RN and entrance into the workforce (Lanahan et al., 2022; Watt & Pasco, 2013). Many studies examined the readiness of students to enter practice prior to graduation (Dudley et al., 2020; McKitterick et al., 2020; Shahsavari et al., 2020), while other studies examined the feelings of academic faculty and hospital administrators regarding new graduate practice-readiness (Huston et al., 2017). The most relevant of these studies reported common elements of the clinical learning environment that appeared to significantly influence perceived work readiness in graduates: the extent to which the learning environment was student-focused, receiving individualized education, and that which had an innovative and adaptive learning culture (Dudley et al., 2020; McKitterick et al., 2020). Additionally, studies assessing experienced RNs' expectations of their new graduate counterparts highlights several key areas for clinical competence: critical thinking skills, clinical judgement, communication skills, and technical skills (Missen et al., 2016). Together, the elements of clinical learning and key areas for clinical competence should provide a framework for successful preparation of pre-licensure nursing students.

The limited literature indicates that while nursing students profess a perception of readiness for practice, there are several areas in their education and clinical practice environment that could be improved. Clinical skills training and simulation could be enhanced by utilizing smaller class sizes and skills laboratories, so all nursing students have an opportunity to practice skills more than once and gain mastery of skills necessary for their clinical placement (Woods et al., 2013).

The literature regarding new graduates' perceptions of their own preparedness is thin. It is because of this gap that this project was implemented. The study examined new graduate nurse's perceptions of preparedness in a reflective manner following their transition to practice. Because the previously mentioned studies assessed perceptions of preparedness from the student and experienced RN perspective in very narrow contexts, they may be missing key concepts that could inform educational practices. Allowing students time in clinical practice before evaluating their perceptions may provide realistic self-assessments and more relevant data for program improvement.

Concept-based Curriculum

The use of CBC, as opposed to more traditional curricula, is a growing trend in nursing education. The move to implement CBC in nursing started with leading organizations including the Institute of Medicine and National League for Nursing (NLN). In fact, the American Association of Colleges of Nursing (AACN) has called for innovation in nursing education through regular faculty evaluation and revision of course content, approaches, and methods of instruction (Repsha et al., 2020). Traditionally, patient populations and medical diagnoses provided a framework for the structuring of nursing curricula. CBC focuses on teaching core ideas or concepts woven throughout a curriculum to promote critical thinking and deeper

learning (Billings & Halstead, 2016). Information overload may prevent nursing students from being able to determine what essential information is required for safe and competent nursing practice applicable to all patient populations (Baron, 2017). Incorporating CBC is one method for promoting long-term memory development of crucial concepts that will help students transition from coursework to real practice situations (Repsha et al., 2020).

Several benefits of using CBC are revealed in the literature. Multiple authors concluded CBC promoted an interactive learning environment that utilized more small group activities, class discussions, reflective journaling, and peer learning with a student-centered teaching approach (Gooder & Cantwell, 2017; Lanz & Davis, 2017). Furthermore, using CBC allowed for greater integration between theory and clinical learning for nursing students (Higgins & Reid, 2017). Although NCLEX pass rates initially dropped for several schools implementing CBC, the pass rates surpassed the national average in subsequent years (Deane, 2017; Kumm & Laverentz, 2017).

However, other studies showed no significant benefit of the use of CBC over traditional nursing curriculum (Duncan & Shultz, 2015). Additionally, students learning in CBC did not show any change in their motivation to learn (Fromer, 2017). Although Fromer (2017) determined the CBC had no effect on standardized exam scores, Lanz & Davis (2017) noted improved scores. One reason for the lack of literature regarding the benefit of using a CBC may be its recent implementation. Understanding the perceived readiness for practice among recent graduates with work experience may inform the practices of nursing schools using a CBC.

Theoretical Model

This project aimed to seek the perceptions of recent graduates about their clinical readiness to practice. The theory providing a framework for this project is Barbara Resnick's Self-Efficacy

Theory. Self-efficacy theory is based on social cognitive theory and has two main concepts: self-efficacy and outcome expectations (Peterson & Bredow, 2020). Self-efficacy expectations are judgements about personal ability to accomplish a task and outcome expectations are judgements about what will happen if a given task is accomplished successfully. According to Resnick's theory (Figure 1), those judgements are made through four information sources: one's own performance, vicarious experience, verbal persuasion, and physiological feedback (Peterson & Bredow, 2020). Performance is arguably the most influential source of self-efficacy because performing a skill successfully increases self-efficacy (Bandura, 1995). In the study population of new graduate RNs, performance was vital to self-efficacy as new nurses began routinely performing tasks and skills on their own in the work environment. Vicarious experience for new graduate nurses is also important because seeing peers or others in the workplace successfully completing tasks increases confidence and strengthens self-efficacy beliefs. Finally, verbal persuasion is commonly seen in clinical settings, with preceptors, managers, clinical instructors, and others supporting and encouraging students and new graduates in their beginning stages of practice (Peterson & Bredow, 2020).

These three concepts are important for self-efficacy throughout nursing school and through the transition to practice. In clinical lab courses, students learn skills, perform those skills multiple times to engage in deliberate practice, then demonstrate their mastery in the clinical setting. The ability to successfully perform these skills improves self-efficacy. Vicarious experience and verbal persuasion are both concepts taught throughout nursing education and clinical practice. Students or new graduates watching peers complete tasks successfully and receiving verbal reinforcement and praise from clinical instructors, managers, preceptors, or providers is crucial to self-efficacy.

For this project, the concept of self-efficacy and its interaction with the theory constructs – information sources, environment, and person – was used to drive the development of the survey tool. The goal of the questionnaire was to elicit self-efficacy perceptions of new graduate nurses by asking them to assess their self-perceptions of readiness to practice in five areas.

Project Design

To better understand the perceptions of preparedness among nursing school graduates, this project used a mixed-methods explanatory sequential design (Creswell and Creswell, 2018). A questionnaire was developed to elicit the information by anonymous survey response. The survey tool was sent in the fall of 2022 via email to graduates from a school of nursing's Bachelor of Science in Nursing (BSN) program who graduated from either traditional curriculum or CBC. Both quantitative and qualitative responses constitute the primary data for the study.

Project Population

The setting for this project was a nursing school housed within a private university in the southeast, which has a current enrollment of approximately 750 undergraduate pre-licensure nursing students. Graduates of this program that were surveyed for this project are employed throughout the country in various health care settings. Responses regarding a participant's employment setting ranged from hospital settings to outpatient clinics with a heavy focus in hospital or acute care settings.

The project population consists of graduates from the university's BSN program who graduated from either traditional curriculum or CBC. To be included in the study, students must have graduated between the years of 2018 and 2022. The inclusion criteria were determined based on the number of graduates from each curriculum in hopes of obtaining parametric samples. The total number of graduates solicited for participation in the survey was 771, with the

total sample size equaling 116 participants. Of the 116 responses, 70 responses were from participants graduating from CBC, while 46 responses came from individuals graduating from the traditional curriculum.

Instrumentation and Methods

The survey instrument was created to elicit specific responses about the practice preparedness of pre-licensure nursing graduates (Appendix A). To help form the questionnaire and provide face validity, university faculty, clinical adjunct faculty, and local hospital nursing managers and administrators were asked to describe key areas essential for successful transition to practice. These responses, in addition to the goals of CBC, generated five categories for the questionnaire: communication with providers, critical thinking skills, time management, prioritization of tasks, and medication administration. The resulting questionnaire was composed in the framework of the theory of self-efficacy and consisted of three Likert-scale questions, with each question containing the five categories, followed by three open-ended questions. The participants were asked to assess their perceived readiness in five areas from “extremely unprepared” to “extremely prepared”, then asked to explain their reasoning behind their response in the open-ended questions. Qualitative questions followed Likert-scale questions to elicit sequential explanatory responses and possibly support the reasoning behind the quantitative answers, as well as improve the understanding of the answers.

Participants were recruited by the Associate Dean of Nursing, who emailed the Qualtrics survey to 771 individuals who met the eligibility criteria. The survey was sent once at the beginning of the fall 2022 semester and twice more as a reminder at one-month intervals. Data collected from the survey was used to measure the perceived level of preparedness reported by the study population.

Data Analysis

A total of 116 responses were received. For the quantitative portion of the survey, each answer option was assigned a numerical value and the sum of the five categories yielded the score for each of the Likert-scale questions. The scores obtained were averaged for each group – graduates from the traditional curriculum and graduates from the concept-based curriculum – and independent samples t-tests were performed using SPSS to compare the means. Summary statistics were used to further describe differences and similarities between cohorts of perceived readiness in individual areas – such as communication and critical thinking. Qualitative data was analyzed by methods of Corbyn and Strauss utilizing NVivo software to code line by line and identify patterns and themes (2015). The qualitative questions were used to further explain the quantitative findings by offering a richer description of the reasoning behind the nurses' answers to the Likert-scale questions.

Results

The number of nursing alumni meeting the project inclusion criteria was 771. Of the 771 nursing alumni solicited to be part of this study, 165 (21.4%) accessed the survey. However, only 116 (15.0%) responses were included in the final data set ($N = 116$). There were 49 responses excluded due to incomplete survey response, such as only answering the demographics questions.

Quantitative Results

Demographic information collected included gender, age, and race/ethnicity (Table 1). Practice and education characteristics collected were graduation year, city and state of practice, and area of practice. Within the sample ($N = 116$), most respondents were white ($n = 98, 84.5\%$), female ($n = 109, 94.0\%$), and in their twenties ($n = 103, 88.8\%$). The grouping variable for this

study – the curriculum used for instruction – was determined by the primary investigator based on responses to the question “In what semester and year did you graduate from your pre-licensure nursing program?”. There were 46 respondents (39.7%) from the traditional curriculum and 70 respondents (60.3%) from CBC. Regarding practice area, the responses varied with the top areas identified as other ($n = 39$, 33.6%) and critical care/ICU ($n = 27$, 23.3%) (Table 1). All 119 participants reported practicing in the contiguous United States.

The results of the independent samples t-test showed the difference in overall perceptions of preparedness was not statistically significant between the two curriculum cohorts ($p = .662$). The mean rating for overall preparedness for those graduating from the traditional curriculum was 3.93 on a 5-point scale (Figure 2). The mean rating for overall preparedness for those graduating from the CBC was 3.86 on a 5-point scale (Figure 2). Summary statistics of the responses for each Likert scale question explain preparedness ratings between cohorts in specific areas of practice (Figure 2, Figure 3, Figure 4). The highest rated area of preparedness overall, and for the clinical and didactic settings for both groups was *medication administration* (Figure 2). The lowest rated area of overall preparedness for both groups of graduates was *time management* (Figure 2). However, participants from both groups rated *communication* as the area in which they were least prepared by their didactic and clinical courses (Figure 3, Figure 4).

Qualitative Results

Three open-ended questions that followed the Likert scale questions in the survey tool were used to collect the qualitative data. Two questions asked participants to explain areas in which they were most, and least prepared after graduating from their pre-licensure nursing program. The final question asked for feedback regarding how the institution from which they graduated could help improve their preparation for practice. The qualitative questions were not

answered by all participants. Of the 46 traditional curriculum participants, 42 (91.3%) responded to the qualitative portion of the study. Of the 70 CBC participants, 63 (90.0%) responded to the qualitative portion of the study. Each open-ended response was coded line-by-line to elicit responses from participants that served as raw data. Those responses were analyzed, and from that, categories emerged. Most categories came from the quantitative piece of the questionnaire, where participants were asked to rate their preparedness in the five categories. Within those categories were properties that helped define the meaning of the category to the participants. Each qualitative response was sorted by cohort – CBC or traditional curriculum – prior to analysis. Following analysis, the codes used were connected across questions to yield similar categories for each cohort where it made sense to do so given the data.

Most Prepared

Across both curriculum cohorts, medication administration was the category in which participants reported feeling most prepared during their first three months of practice. Participants referred often to their comfort with safe medication administration by recounting the five rights of medication administration and using terms like “most prepared” and “sufficient training” to describe the thoroughness in which they were taught the skill. For both cohorts, critical thinking was the second most common category in which they were most prepared. The category of “nursing knowledge” was also recognized in both cohorts, with traditional curriculum participants identifying disease processes as a strength. CBC participants identified various areas of “nursing knowledge” such as adult patient care, emergency situations, pharmacology, pathophysiology, and nursing skills that contributed to their preparedness. Finally, the traditional cohort identified patient populations as an area of significant preparedness, whereas the CBC cohort named prioritization as learned through clinical

experience as an area of significant preparedness. See Table 2 for further details regarding participants' reports of preparedness.

Least Prepared

Both curriculum cohorts reported communication as the category in which participants felt least prepared during their first three months of practice. Participants referred specifically to their discomfort with provider communication, citing the lack of experience and opportunity for practice. Additionally, both cohorts described time management as the second most common category in which they were least prepared. The category of "prioritization" was also recognized in both cohorts, with both citing limited practice as a reason for feeling inadequately prepared. The groups also both described specific nursing knowledge as a deficit in preparedness, pinpointing specialties like pediatrics and assessments as examples of areas in which they lacked robust knowledge. CBC participants further described triage, women's health, charting, and emergency situations as areas needing improvement. Finally, the traditional cohort identified on-the-job training as a necessity due to the limitations of the program to teach specific workplace procedures. For the final category, CBC cohort described critical thinking as a skill they felt least prepared to carry out in practice. Most cited the need to develop critical thinking on-the-job as the reason for feeling deficient in this skill. Refer to Table 3 for further details regarding participants' reports of preparedness.

Areas for Program Improvement

Three main categories emerged from the final open-ended question, which was designed to elicit information about improvements the academic institution could make to help in students' preparation. Realistic clinical experiences, more lab time, and simulation experience were areas reported by each cohort, as needing improvement. Participants identified 12-hour shifts,

increased patient load, and time management experience as key factors in creating more realistic clinical experiences. Each cohort also cited the need for increased skills practice and hands-on learning as reasons for recommending more lab time. However, only the traditional curriculum cohort linked need for time management experience with increased lab time. The final area of improvement shared by the groups was simulation experience. Both groups stated the need for more simulations. The traditional curriculum cohort cited the need for more realism in simulations and more realistic provider communication experience as a necessity for more robust simulation experience. CBC focused on the desire for simulation scenarios to be “low stakes” to obtain more benefit from the experience.

There were two categories that emerged that were unique to one cohort. For traditional curriculum, participants identified a need for expanded didactic content and specialty training to feel better prepared to transition to practice. Recommendations for additional didactic content include more education on difficult conversations and teaching to practice as opposed to teaching to NCLEX. More specialty training with unique patient populations, like labor and delivery and oncology, was also identified as a need by the traditional cohort. CBC participants recommended experience with varying roles in healthcare through interprofessional collaboration, advanced degree nurses, and others in leadership roles to create a more seamless transition. In addition to recommendations, many participants from the CBC group also praised the pre-licensure program for their skill in preparing graduates, especially through the dedicated education unit program. Exemplars and further information regard participant suggestions can be found in Table 4.

Discussion

The key finding of this project revealed that there was little difference in the perceived preparedness of new graduate nurses when comparing those educated using a traditional

curriculum design with those educated using CBC. However, the differences that were revealed were noteworthy. Considering the goal of CBC is to teach concepts throughout a curriculum to promote critical thinking (Billings & Halstead, 2016), it should be expected that students graduating from the CBC model would report higher levels of preparedness in the realm of *critical thinking* when compared to the traditional group. While the CBC cohort did score *critical thinking* as a top area of preparedness, the traditional cohort did as well. In fact, while 20.6% (n = 13) of nurses from the CBC group named *critical thinking* as the area of greatest preparedness, 14.3% (n = 9) of nurses from the CBC group reported *critical thinking* as the area in which they were least prepared (Table 2, Table 3). One graduate responded via survey stating, “Much of my critical thinking skills in my first three months were developed while debriefing or discussing patient care with my preceptor” (Table 3). This statement indicates that the time spent training on-the-job was more beneficial in preparing this recent graduate to critically think than their classroom or clinical experiences.

For the traditional cohort, *critical thinking* was named in the top five for “most-prepared” area of practice (23.8%, n = 10), and not named at all in the “least-prepared” category. It is surprising that the traditional group rated critical thinking higher than the CBC group given the objectives of the CBC model. One possible explanation for this is the time between education and practice. Graduates of the traditional curriculum were further removed from their educational programs and may have had trouble recalling their perceived preparedness during their first three months of practice. Conversely, graduates of CBC are still novice nurses and may perceive their preparedness as lacking in comparison to seasoned nurse colleagues.

As mentioned above, the CBC group named *critical thinking* as an area where they felt least prepared, however, the traditional curriculum named *on-the-job training* as a weaker area of

preparedness. One participant stated, “There are fundamentals to be taught in didactic, but the rest must be learned at the bedside” (Table 3). This idea that there is a limit to what nursing school can prepare nurses for was more prominent in the traditional group as opposed to the CBC group. Perhaps this is due to the nature of the cohort having more real-life experience as nurses and understanding there is always more to learn in the field of patient care.

There were many more similarities between the groups than differences. The CBC and traditional curriculum cohorts felt well prepared for safe medication administration, which was overwhelmingly mentioned in the open-ended response questions and scored highly in the Likert-scale questions. Respondents confirmed high ratings given to preparedness in *medication administration* by explaining, “Safe medication administration is a concept I feel extremely confident in, because I was able to learn its importance and practice in a safe environment”, and “The rights of medication administration were continuously drilled into our brains. As a new nurse, I was so thankful. It truly helped me be a safe nurse and even catch the mistake of a coworker” (Table 2). This concept was a strong theme across both cohorts. Perhaps this was due to the way safe medication administration is taught. It does not depend on the curriculum structure, but instead is a straight forward skill that is easily understood and taught according to the Five Rights of Medication Administration (Grissinger, 2010).

Other areas of similarity between the groups were areas in which the participants felt least prepared as they entered practice. These were communication, time management, prioritization, and specific nursing knowledge. Participants from both cohorts noted that *communication*, *time management*, and *prioritization* were areas of practice best learned in the clinical environment. Due to the nature of overseeing and teaching nursing students at the bedside, there are often few opportunities in nursing school clinical settings to practice these

skills independently. Individuals from both cohorts reported little practice in these areas until they held their first jobs in clinical practice. Per the goals of CBC, concepts such as communication, time management, and prioritization are woven throughout the curriculum. Given this fact, one could expect the CBC group to score these areas higher. The CBC group did in fact rate their preparedness from didactic courses slightly higher than the traditional group in all areas except for prioritization. Even with the higher rankings, participants from the CBC group still identified these areas as needing the most improvement upon entry to practice.

Implications for Practice

Overall, this project expanded the knowledge comparing graduate's perceptions of preparedness. While there were not vast differences among the cohorts, potentially valuable information was obtained regarding curriculum changes. First, an overwhelming number of respondents expressed need for more realistic clinical scenarios. More simulations, more robust and meaningful clinical experiences, and more hands-on experience with real patients were among the most cited areas for needed improvement. These are small changes that may be added to a current curriculum as opposed to a complete curriculum overhaul.

Significantly, many respondents from the CBC cohort praised the program and its ability to produce high quality nurses. While areas for improvement were mentioned, positive program attributes were just as common. One participant noted, "I felt like I was way more prepared to become a nurse than my other peers who went to other schools" (Table 4). While take-aways from this project include suggestions such as adding more realistic clinical experiences, it is important to remember there are aspects of the current program that have been successful. Students perceived overall preparedness for practice, which is the goal of the nursing program and is not to be overlooked.

Strengths, Limitations, and Future Directions

Strengths of this project included the provision of important data and feedback to the educational system. The robust data set collected produced information that may aid the curriculum committee and experiential learning committee at the university in making changes that will better prepare graduating nurses for practice.

There were several limitations to this project. First, the COVID-19 pandemic began just before the first cohort of CBC graduates joined the workforce. As new graduates, these nurses entered a strained healthcare environment with little support, which likely affected their perceived preparedness. Additionally, the project examined perceived preparedness, which is subject to self-report bias. There was no objective data gathered to support self-reported preparedness. Finally, the transition to CBC was still new, having only been taught for six academic years at the time of the study. Only three cohorts of students had graduated from CBC when the project survey was distributed. It is difficult to determine how well CBC was implemented during these years, as curriculum transition can be challenging.

This project provides insights into new graduates' perceived preparedness and offers areas of improvement that could be explored in future studies. Benefit could be gained from replication studies at different nursing schools that transitioned from a traditional to a CBC. Moreover, additional evaluation studies of CBC could help understanding of successful implementation of CBC. Future studies may also consider comparing curricula outcomes by using objective data, such as assessment scores and preceptor evaluations, in combination with subjective self-evaluations to bolster findings.

Conclusion

Curriculum is defined as “all of the educational experiences that learners have in an educational program, the purpose of which is to achieve broad goals and related specific objectives” (Iwasiw & Geldenberg, 2015, p. 4). This is an especially important reminder when considering the two facets of nursing education – didactic and experiential learning. This project demonstrated that while the content organization of the didactic portion of learning matters, it goes together with the clinical experiences. The outcomes of each individual curricula were not dramatically different, but the actionable data reinforces the importance of clinical learning. Results from this scholarly project could be used in further research to identify program strengths and improve program outcomes.

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Appendix

Appendix A

Survey tool for Perceptions of preparedness among new graduate nurses: Traditional curriculum versus concept-based curriculum

Q1 What is your gender preference?

- Man (1)
 - Woman (2)
 - Non-binary / third gender (3)
 - Prefer not to say (4)
-

Q2 What is your age?

Q3 What is your race/ethnicity?

- American Indian or Alaska Native (1)
- Asian (2)
- Black (3)
- Hispanic or Latino (4)
- Non-Hispanic (5)
- Native Hawaiian or other Pacific Islander (6)
- White (7)
- Other (8) _____
-

Q4 What semester and year did you graduate from your baccalaureate nursing program?

Q5 What was your program of study?

- Accelerated BSN (1)
- Partner Program (2)
- Traditional BSN (3)
-

Q6 What is your current city and state of practice?

Q7 What best describes your current area of practice? Select all that apply.

- Critical Care/ICU (1)
- Emergency Department (2)
- Home Health (3)
- Medical Surgical (4)
- Pediatrics (5)
- Post Anesthesia Care Unit (6)
- Operating Room (7)
- Outpatient Clinic/Office (8)
- Other (9) _____

Page Break _____

Q8 How prepared did you feel in the following areas during your first 3 months as a practicing graduate RN?

	Extremely unprepared (1)	Somewhat unprepared (2)	Neither prepared nor unprepared (3)	Somewhat prepared (4)	Extremely prepared (5)
Communication with providers (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Critical thinking (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Safe medication administration (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Time management (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prioritization of tasks (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q9 How well do you feel didactic (classroom) courses prepared you for practice in the following areas?

	Not well at all (1)	Slightly well (2)	Moderately well (3)	Very well (4)	Extremely well (5)
Communication with providers (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Critical thinking (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Safe medication administration (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Time management (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prioritization of tasks (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q10 How well do you feel your clinical experiences during the program prepared you for practice in the following areas?

	Not well at all (1)	Slightly well (2)	Moderately well (3)	Very well (4)	Extremely well (5)
Communication with providers (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Critical thinking (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Safe medication administration (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Time management (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prioritization of tasks (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q11 In what area of nursing (from the areas listed in the previous questions above, or in any area you wish to mention) did you feel MOST prepared in your first three months as a practicing new graduate nurse. Please explain your answer with as much detail as possible.

Q12 In what area of nursing (from the areas listed in the previous questions above, or in any area you wish to mention) did you feel LEAST prepared in your first three months as a practicing new graduate nurse. Please explain your answer with as much detail as possible.

Q13 What could Belmont School of Nursing improve upon to make future graduate nurses more prepared for practice? Please explain in as much detail as possible.

Table 1
Sample Demographics

	<i>N</i>	%
Gender		
Male	6	5.2
Female	109	94
Prefer not to answer	1	0.9
Race/Ethnicity		
Asian	6	5.2
Black	4	3.4
Hispanic/Latino	3	2.6
Pacific Islander/Native Hawaiian	1	0.9
Other	3	2.6
White	99	85.3
Age		
20-24	69	59.5
25-29	34	29.3
30+	12	10.3
Practice Area		
Critical Care/ ICU	27	23.3
Emergency Department	9	7.8
Medical Surgical	14	12.1
Operating Room	2	1.7
Other	39	33.6
Outpatient Office/Clinic	16	13.8
Pediatrics	8	6.9
Post Anesthesia Care Unit	1	0.9
Curriculum Cohort		
Traditional curriculum	46	39.6
Concept-based curriculum	70	60.3

Table 2*Traditional vs Concept-based curriculum preparedness – most prepared*

Traditional curriculum		Concept based curriculum	
<u>Category</u>	<u>Property</u>	<u>Category</u>	<u>Property</u>
Communication (n = 5, 11.9%,)	With providers, with families, with patients	Communication (n = 5, 7.9%)	With patients, with providers, shift report
Critical thinking (n = 10, 23.8%,)	Learn through assessment	Critical thinking (n = 13, 20.6%)	
Medication administration (n = 18, 42.9%,)	Most comfortable, safe, sufficient amount of training, very prepared	Medication administration (n = 33, 52.4%)	Safe
Patient populations (n = 6, 14.3%)	Safe care, Adult, OB, Medical surgical	Prioritizing tasks (n = 6, 9.5%)	Through clinical work, hands on experience
Nursing knowledge (n = 2, 4.8%)	Disease processes through didactic coursework	Nursing knowledge (n = 9, 14.3%)	Adult patient care, assessments, emergency situations, pharmacology, pathophysiology, importance of patient presentation, nursing skills
NVivo Exemplars – Traditional curriculum			
<p>“The rigorous testing and grading during both the didactic and clinical sessions prepared me to think critically in all situations” (<i>critical thinking</i>)</p> <p>“My charge nurse and preceptors voiced that I had more critical thinking skills compared to other new graduate nurses” (<i>critical thinking</i>)</p> <p>“The rights of medication administration were continuously drilled into our brains. As a nursing student, I was annoyed we had to keep learning the 5 rights over and over. However, as new nurse, I was so thankful. It truly helped me be a safe nurse and even catch the mistake of a coworker.” (<i>medication administration</i>)</p>			
NVivo Exemplars – Concept-based curriculum			
<p>“I feel that the classroom portions and care map requirements at Belmont prepared me very well with regard to critical thinking and understanding the pathophysiology behind conditions my (ICU) patients experience.” (<i>critical thinking</i>)</p> <p>“Safe medication administration is a concept I feel extremely confident in, because I was able to learn its importance and practice in a safe environment at Belmont.” (<i>medication administration</i>)</p> <p>“Time management and prioritization come more when given the responsibilities of a nurse and we are not always given the chance to practice those things as much in clinicals.” (<i>time management</i>)</p> <p>“I believe the concepts were delivered in a seamless way, where the difficult material was grasped and retained.” (<i>critical thinking</i>)</p>			

Table 3*Traditional vs Concept-based curriculum preparedness – least prepared*

Traditional curriculum		Concept based curriculum	
<u>Category</u>	<u>Property</u>	<u>Category</u>	<u>Property</u>
Communication (n = 18, 42.9%,)	With providers, inadequately covered, no opportunity to practice	Communication (n = 23, 36.5%)	With patients, with providers
Time management (n = 16, 38.1%)	Inadequately covered	Critical thinking (n = 9, 14.3%)	Related to clinical decision making, developed on-the- job
Prioritization (n = 7, 16.7%)	Least prepared, little practice	Specific nursing knowledge (n = 8, 12.7%)	Triage, women’s health, charting, pediatrics, emergency situations
On-the-job training (n = 10, 23.8%)	Limitations of program, importance of workplace specific training	Prioritization (n = 5, 7.9%)	Done in clinical, not enough practice
Specific nursing knowledge (n = 3, 7.1%)	Pediatrics, physical assessments, nursing skills	Time management (n = 18, 28.6%)	Difficult to teach, needs to be practiced
NVivo Exemplars – Traditional curriculum			
<p>“We were taught SBAR and that’s where it was left. It was good as a template of communication but the necessity of communication with providers was never taught until I was on the job.” (<i>communication</i>)</p> <p>“There are fundamentals to be taught in didactic, but the rest must be learned at the bedside.” (<i>on-the-job training</i>)</p> <p>“I don’t feel like we got enough hands-on experience with real bodies.” (<i>specific nursing knowledge</i>)</p>			
NVivo Exemplars – Concept-based curriculum			
<p>“Communication with providers is so specific to each hospital and each unit and I felt it was rarely practiced in nursing school. We gave SBAR’s, but very rarely is the full SBAR how I communicate with providers in my day-to-day practice as a nurse.” (<i>communication</i>)</p> <p>“Much of my critical thinking skills in my first three months were developed while debriefing or discussing patient care with my preceptor.” (<i>critical thinking</i>)</p> <p>“Time management cannot be taught, only obtain through practice.” (<i>time management</i>)</p> <p>“I was not challenged to manage patient tasks enough to be prepared for practice where I manage four stepdown patients.” (<i>prioritization</i>)</p> <p>“...we were learning how each nurse liked to lay out their day and time manage differently but couldn’t try it out for ourselves...” (<i>time management and prioritization</i>)</p>			

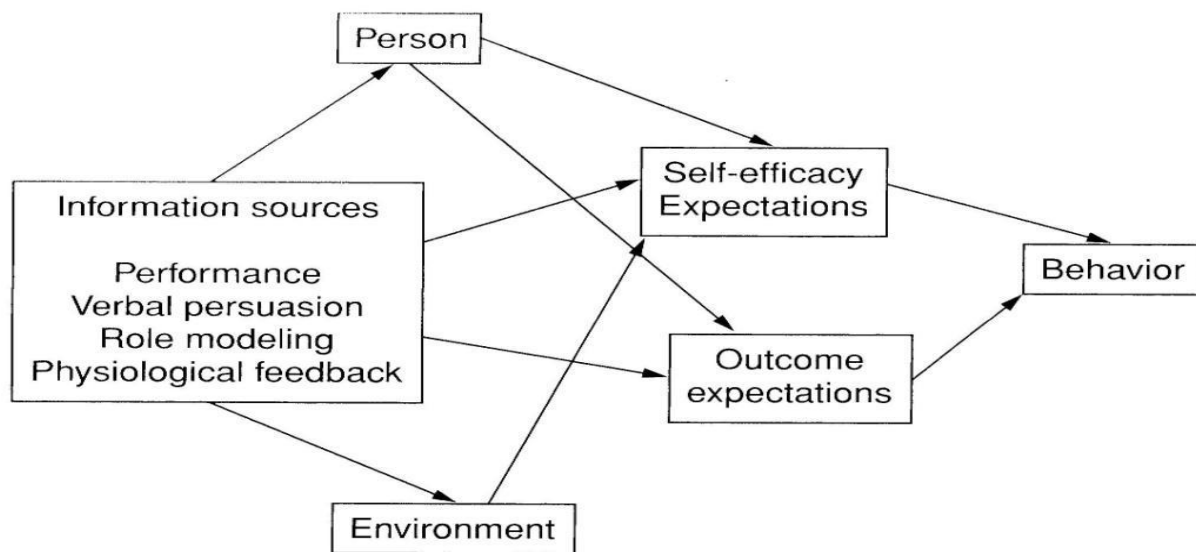
Table 4*Traditional vs Concept-based curriculum preparedness – areas for program improvement*

Traditional curriculum		Concept based curriculum	
<u>Category</u>	<u>Property</u>	<u>Category</u>	<u>Property</u>
Realistic clinical	Realistic patient load, 12-hour shifts, more clinical days, more provider communication, patient education opportunities, time management experience	Realistic clinical	More meaningful clinical, realistic patient load, time management experience, longer clinical time, additional preceptorship
More lab time	Increased skills practice, time management experience	Positive attributes	Dedicated education unit program
Specialty training	Increased variety of patient populations (community health, pediatrics, labor and delivery, oncology)	Experience with varying roles	Interprofessional collaboration, advance degree nursing options, leadership roles
Simulation experience	More simulations, more realism in simulations, realistic provider communication	Simulation experience	More simulations, low stakes simulations
Didactic content	Education on tough conversations, teach to practice and not NCLEX	Limitations	Hospital culture effects, pandemic, nursing school limitations
NVivo Exemplars – Traditional curriculum			
<p>“I think clinicals need to be focused less on care plans and more about what a real nursing looks like as well as practicing as many skills as possible. Care plans are fine as far as the way a nurse thinks but practicing and feeling prepared as a day-to-day nurse needs more emphasis in order to create more confident nurses.” (<i>realistic clinical</i>)</p> <p>“I think they need to make simulations more realistic and give students more than just one semester of shadowing an individual nurse would help. That way they really understand how busy they are and can watch what she does for time management and critical thinking.” (<i>realistic clinical</i>)</p>			
NVivo Exemplars – Concept-based curriculum			
<p>“I do feel there should be more of an emphasis on the fact that nursing school is meant to give you the tools to become a nurse, not send you out into the nursing field ready to be independent.” (<i>limitations</i>)</p> <p>“I felt like I was way more prepared to become a nurse than my other peers who went to other schools.” (<i>positive attributes</i>)</p> <p>“I unfortunately graduated during COVID times, so I think that had a lot to do with feeling slightly unprepared.” (<i>limitations</i>)</p> <p>“I felt very prepared leaving nursing school but a hospital and it’s culture almost broke me.” (<i>limitations</i>)</p>			

Figures

Figure 1

Barbara Resnick's Self-Efficacy Theory



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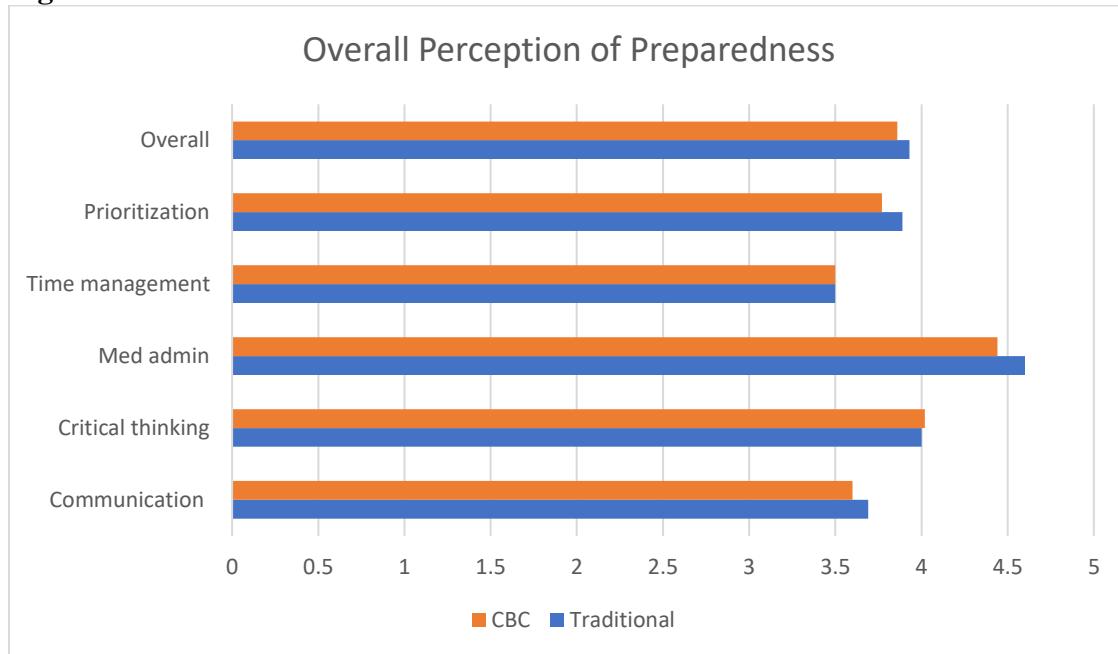
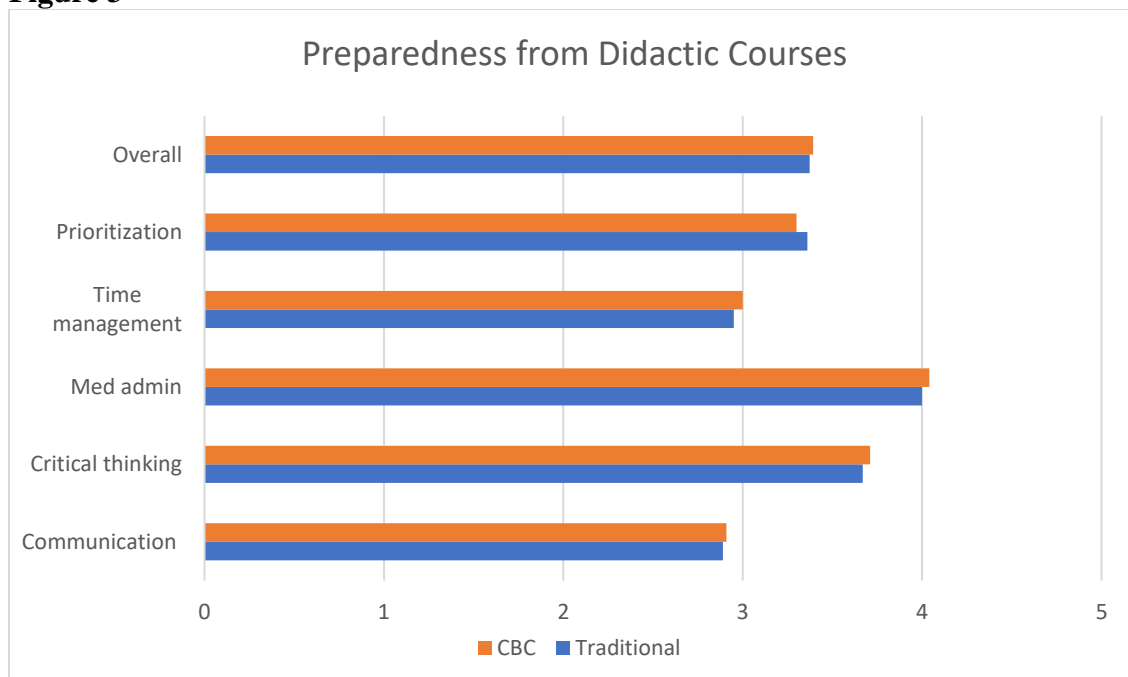
Figure 2**Figure 3**

Figure 4