

COMPETENCY BASED TRAINING FOR PRE-SERVICE NURSE: WHY IS COURSE CONTENT SEQUENCING IMPORTANT?

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Abstract

This paper on competency-based training for pre-service nurse and the role of course content sequencing, was conceived because of the gaps and encounters by practicing nurses in the clinical education sites receiving graduates' students for clinical placement. Also, by nurse educators expressing gaps in the training of students in nursing institutions. It was also conceived because of student's dissatisfaction with their training and gaps in the expectations of stakeholders in the training of pre-service competent nurse in training institution. The purpose of this write up is to expose the gaps that have been found and fill out the gaps by exploring the previous model of pre-service training, exposing challenges and developing strategies for improved implementation of pre-service training in nursing education. Thus, the objectives of this paper are to explore the previous model of pre-service training of competent nurses, to explain the challenges of its implementation, to strategies solution to these challenges. Information has been sourced from published journals, books and internet. It has been observed that pre-service training of competent nurse in nursing education, is one factor of the theory practice gap, medical errors in the nursing work force. The solutions in published materials include,

-Provision of standard guidelines for the implementation of pre-service nursing training globally.

-Provision of an adaptable Three-Year competency based Regional prototype for pre-service nurse by WHO.

-Introduction of evidenced based prevention, care, and treatment related core competencies into curriculum and course content.

-Program intervention and innovation based on need of key stakeholders and targeting improvement of course content, and assessment, methodology within the existing curriculum.

-Introduction of course content sequencing in nursing education, orientation of new graduate transition to practice.

Keywords: Pre-service nurse, Course content sequencing, Competencies required.

INTRODUCTION

To determine the training of competent nurses is a challenge to all nurse educators and stakeholders due to changes in demand for quality, safe nursing practice and the emergence of innovation in nursing technology. Nurse educators are faced with challenges that surround the quality of learning reflecting certain standards and describe essential attributes vital for transforming a novice to an expert. Nurses are required to deliver an acceptable performance within the context of the standards identified by the regulatory bodies; Nurse educators are commissioned to train pre-service nurses in such a manner that the outcome of learning exhibits the proficiency expected. Competency in the nursing profession is important and providing a clear theoretical definition of competency is the first step (Axley, 2008). Competency is a combination of attributes enabling performance of a range of professional tasks in accordance to the appropriate standards (Gruppen *et al.*, 2012). An emphasis is placed on the heightened levels of public concern regarding safety as a major factor which demands that nurses demonstrate clinical competence prior to entering the clinical setting (Davis and Sumara, 2010). Nurses are required to take responsibility to learn and apply skills associated with improving a wider system of care. Nurses are accountable and are held liable for their actions in the clinical practice (Dolansky and Moore, 2013). The assurance of continued competence is an essential element through which commitment should begin, and ongoing professional nursing

competence according to the level of expertise, responsibility, and domains of practice (Decker *et al.*, 2011). However, competency encompasses more than just psychomotor skills. Competency specifies the level of achievement expected and the tasks and contexts of professional practice in which we may see the competency demonstrated (Gruppen *et al.*, 2012). Nurses know that psychomotor skills are important but without the required knowledge, it does not constitute nursing. Knowledge of health and disease process is of little use without the appropriate nursing skills to apply. Planning and organizing capabilities are of little benefit to the clients if the attitude that a nurse should value is not present. Therefore, adequate training is essential for understanding and eventually performing nursing care with competence. Safe, competent, and ethical nurse practitioner practice requires the integration and performance of many competencies simultaneously (Canadian Nurses Association, 2010). Nurses constitute the largest health care work force, thus efficient production of competent and skilled nurses to manage complex health problems cannot be overemphasized. How can these be achieved? To answer these, this paper addresses three main objectives.

1. To explore previous training model in nursing education.
2. To expose gaps and challenges in training pre-service competent nurse
3. To identify training models or frame work to fill up these gaps or challenges.

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Exposing previous methods of training pre-service nurses

Nurse education consist of the theoretical and practical training provided to nurses with the purpose to prepare them for their duties as nursing care professionals. This education is provided to student nurses by nurse educators who have qualified experienced for educational tasks. Courses leading to autonomous registration as a nurse typically last four years. A nursing student can be enrolled in a program that leads to a diploma, an associate degree or a Bachelor degree in nursing. During past decades, the changes in education have replaced the more practically focused, but often ritualistic, training structure of conventional preparation. Orthodox training can be argued to have offered a more intense practical skills base, but emphasized the handmaiden relationship with the physician. Traditionally, from the times prior to Florence Nightingale, nursing was seen as an apprenticeship, in religious institutes by young women, although a proportion of male nurses, especially in mental health services existed. In 1860 Nightingale set up the first nurse training school, with a curriculum largely based around nursing practice with instruction focused upon the need for hygiene and task competence.

Some formalized nursing registration and curricula were based in higher education and not within the confines of hospitals. Yale school of nursing became the first autonomous school of nursing in the United States in 1923. In November 1955, World Health Organisation met in Brussels and made several recommendations, including that at least one experimental school of nursing be set up in each country.

The first department of Nursing Study at the University of Edinburg was established in 1956, with a five-year integrated degree programme introduced in 1960 (Hookson, 2016). Among nurse educators, arguments continue about the ideal balance of practical preparation and the need to educate competent nurses and to have a broader view of the practice. To meet both requirements, nurse education aims to develop a lifelong learner who can adapt effectively to changes in both the theory and practice setting (Hines *et al.*, 2012) (Table 1 below).

While it is clear that the use of medical simulation in nursing education is important for improving practice, patient safety, and interprofessional team skill, the balance of simulation to clinical time remains in the hands of the institutions (Government of Western Australia North Regional TAFE, 2016). Studies on nursing competency training methods focused on basic nursing education (Ezaki *et al.*, 2016). Clinical competency training methods for students involves scenario simulation, roleplay and objective structured clinical examinations are often used. Problem-based learning, tutorial training method where students work in small groups, present a nursing scenario with a problem and situation, create their own learning tasks and engage in active learning are often used. This method involves student-centred learning; instead of active teaching, lessons that encourage active learning are crucial for training thinking skills. Therefore, future studies are needed to identify components of nursing competency and test each training method to verify which method is effective for training each competency (Nakayama and Yokota, 2012). Next, we have clinical nurses' competency training methods. Clinical nursing practice is providing patient-centred care to achieve certain objectives. An important aspect connecting knowledge and skills is clinical judgment. The clinical judgment process involves reflection, which connects one's own actions and their outcomes. This reflection is a component of clinical judgment (Ogata, 2014). Integrating knowledge and skills in clinical settings is a feature of nursing competency and is associated with a core ability to provide care based on the needs of the person who is receiving the care.

Gaps and challenges in training pre-service competent nurses

Studies have shown that, new graduates are not well prepared for their duties in the field (Wykoff *et al.*, 2014). Moreover, it was noted that it took approximately eight months of clinical experience before new Bachelor Science Nursing graduates felt confident and competent in their clinical judgments (Redman *et al.*, 1999).

Table 1. Demonstration of previous era and emphasises in nursing area of competence and challenges

Era and emphasis in Nursing	Ideas emphasised in Nursing	Area of competence in nursing.	Challenges
Traditionally before Florence Nightingale	Nursing was seen as an apprenticeship Undertaken in religious institution by women.	These women were expected to care for families and neighbours unable to care for themselves.	No formalised Curriculum for Training of the women and only women of religious standard could give care.
During 18 th century, focus in nursing education was on practical nursing. In 1860, Florence Nightingale emphasised formalized nursing education with a curriculum.	They emphasised on ritualistic, training structure of conventional preparation and there were orthodox training. Emphasises was on the training of nurses based on nursing practice.	Practical skills Instructions were focused on the need for hygiene and tasks competence.	They emphasised the handmaiden relationship with the Physician. The formalised Registration were in higher education and not within the confines of the hospitals.
In the 19 th century era, in 1955, World Health Organisation Organization recommended, that "at least one experimental school of nursing be set up in each country. 20 th -21 st century era.	Emphases was on a five-year degree Programme introduced in 1960. In the 1980s, 90s and early 2000s nursing education focused on the creation of new graduates' programs targeted at advance practice nursing and nurse practitioners.	By the 1970s nurses were establishing their doctoral Programs, emphasising the nursing knowledge and science and research. Competence was based on technical skills. Leadership roles as well as clinical roles.	There were over whelming bureaucratic demand by hospital on nurse's time. The focus of nursing education and practice was on technical skills. The standards for Nursing programs continues to have disparities amongst countries and institutions.

Also, literature still report lack of necessary competencies among graduates due to lack of strategic leadership to drive transformation, unresponsive curricula (Brown and Crookes, 2016), The Lancet Commission and the Global Health Workforce Alliance reported that professional education has generally not kept up the pace of health care challenges (Global Health Workforce Alliance, 2013), the mismatch of competencies to patient and population needs, poor teamwork, narrow technical focus without broader contextual understanding and weak leadership to improve health system performance. As the nursing education to tertiary settings is progressing, the nature of the learning and application has also been altered. Nursing courses for enrolled and registered nurses remain on the basis of knowledge; skills and attitudes that nurses are expected to demonstrate in the workplace in a wide variety of contexts and settings.

Competency-based approach and sequencing model for training pre-service competent nurse

To solve the challenges highlighted, competency-based education has been introduced into nursing programs. Competency-based approach requires the analysis of relevant and current environment and needs from which they determine content and competencies to be achieved in the instructional program. This provides a foundation of the competency outcomes together with, interactive and student focused learning strategies, as well as outcomes and assessment of performance competencies. Competency based training emphasizes on assessment in real-life settings and situations, formed on how the learner is able to create judgment and demonstrate the knowledge based on the clinical scenario (Redman *et al.*, 1999).

Also, assess a learner's actual ability to meet a predetermined set of performance standards under controlled conditions and protocols and is focused on knowledge and principles essential for effective implementation of required skills (Lenburg *et al.*, 1999). The aims of competency-based sequenced approach are to provide safe, competent and ethical nursing care to clients. The Joint Commission for Accreditation of Health Care Organizations obliges that the clinical competence should be assessed, maintained, demonstrated, and continually improved (National League for Nursing, 2000). The purpose of the competency-based model is to evaluate and assess student's skill competency level. The main policy generalizes that all nursing students will be required to demonstrate competencies in all nursing procedures at each level of the year. The competency-based training curriculum is effective. Identified courses to be included in the proposed curriculum are sequenced. This full-time generic pre-service programme is offered for a minimum of three years but can be adapted to higher levels using the same approach. In line with the level and complexity of knowledge and skills, the design includes all the appropriate and relevant educational experiences to which learners are exposed during the clinical attachments. This innovative competency-based curriculum is delivered through various interactive teaching and learning approaches. The professional competencies expected on successful completion of the programme are included in the curriculum. To start, I feel the three-level set up of the curriculum is ideal. It allows the students to work through different types of courses. Courses are sequenced placing the class in a logical process (table 2 below) Also, students are exposed to primary care settings, in the communities where clients live which provides a holistic view of the clients, and how their lives are influenced by the determinants of health.

Table 2. Adaptable Course sequencing in competency- based nursing training

Level 1	Semester 1	Semester 2
	Information & Communication (ICT)	Sociology
	Anatomy and Physiology	Fundamentals of Nursing, Clinical
	Fundamental of Nursing theory	Professional, Ethical and Legal Aspects of Nursing
	Microbiology and parasitology	Psychology
	Introduction to Biochemistry	Nutrition and dietetics
Level2	Semester 3	Semester 4
	Health assessment Theory	Community Health Nursing theory
	Health assessment Clinical	Community Health Nursing clinical
	Paediatrics theory	Introduction to Research
	Paediatrics clinical	Medical and Surgical Nursing theory
	Pharmacology	Medical and surgical Nursing clinical
Level3	Semester 5	Semester 6
	Health service Management, Theory	Mental psychiatric Nursing, Theory
	Health service Management, Clinical	Mental and Psychiatric nursing, clinical
	Sexual and Reproductive health and Right	Obstetrics and Gynaecology, Theory
	Medical and Surgical Nursing 2, Theory	Obstetrics and Gynaecology, clinical
	Medical and Surgical Nursing 2, Clinical	

Table 3. Theoretical and practical skills attainment at each level

Level	Activities	Outcome/competencies
1	Students are provided with a sound foundation of biomedical sciences through a constructive student-Centred learning experience.	-Students acquire advanced knowledge of nursing theory and its application in nursing practice. -Students integrate research and evidence into the curriculum. -Students acquire leadership skills that will enhance Inter professional Collaboration.
2	The activities of level one is integrated into level two. Students are taught to create an exceptional learning experience and activities are designed to scaffold learning through course progression.	Students gain analytical and critical Thinking skills applied to nursing practice.
3	The nursing education capstone brings the future graduate's education to completion. Modules are sequenced in a way that each theory is immediately followed by a clinical module so that students are exposed to experiential learning.	These allow students to practise some competencies in the clinical skills laboratory, develop confidence before providing care to real patients. Students are able to synthesize information, evaluate care based on available evidence and make sound judgments and decisions.

Students are exposed to the health-care settings, that allow them to develop competencies to function in all health care settings. Clinical teaching is emphasized throughout the programme and will take place in carefully selected settings that facilitate proper learning and skills acquisition for effective practice by learners. So, looking at these, a curriculum plan with three levels that sequences with appropriate scaffolding of learning appears to be very good. As we move forward it is imperative to have a curriculum that is tailored to the needs of the healthcare systems of the current time period and not have irrelevant learning experiences in the course sequence (see table 3 above).

Conclusion

Competence-based curriculum innovation by sequencing courses will shift the nature of the educator-learner relationship, the way learners interact with the material, and how this will connect with clinical practice. Shifting the nature of the relationship will make room for much creativity, depth, and exploration; safe practice for success, as well as challenges that can be corrected; and the opportunity to focus on difficult-to-reach aspects of nursing skills and early graduate clinical experiences. This competence-based sequenced curriculum will impact practice by alerting new graduates to potential skills issues as they are in transition; the experience will offer them possible solutions to difficult and often unexplored aspects of their beginning practice. Competency is central to nursing practice and it is a critical contemporary issue to ensure a future supply of high-quality nursing care.

Recommendation

Previous programmes should influence current programs when challenges and gaps are filled. Seminars on gaps and challenges be conducted so that inputs could be obtained from students, trainers and managers. An adoption of better training model with well sequenced courses is required for global better nursing practice.

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