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Nursing Education Practice Update 2022: Competency-Based Education in Nursing

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Abstract

Introduction: Competency-based education (CBE) is increasingly emphasized in nursing. Professional organizations and regulatory bodies are calling for radical transformation in nursing education along with increased emphasis on developing clinical judgment.

Methods: This practice update article provides a brief history of CBE in a variety of educational settings including health professions education and demonstrates the value of CBE strategies. The article also provides examples of the application of CBE to nursing education.

Conclusion: CBE offers the opportunity to enhance interprofessional education, increase the use of simulation, and improve clinical judgment in new graduate and advanced practice nurses.

Keywords

nursing faculty, nursing students, nursing education

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The Shift Towards Competency-Based Education

As nursing education programs begin to shift towards competency-based education (CBE), it is important to understand the impetus for this curricular transformation. Nursing roles are evolving in response to changes in healthcare delivery emphasizing health equity, improving population health, and caring for an increasingly diverse and aging population (National Academies of Sciences, Engineering, and Medicine, 2021). In order to best prepare students, there is an imperative for nursing programs to create deliberate learning experiences that equip graduates for the changing healthcare landscape. As noted by Giddens and colleagues (2022), "academic nursing has an obligation to transform nursing education in alignment with the current and future needs for healthcare" (p. 16).

The *Essentials* documents published by the American Association of Colleges of Nursing (AACN) have guided curricular development across baccalaureate and higher degree programs since the mid-1980s (AACN, 2019a). In response to shifts within healthcare delivery, AACN began revisions to the *Essentials* documents in 2018. Since that time, collaboration between academe and practice has resulted in a reimagination of curricular standards for nursing education including the framework of CBE. AACN's *Vision for Academic Nursing* (2019b) offers a plan of action including utilization of a competency-based model for educating the next generation of professional nurses.

AACN (2021a) has created a framework with ten domains and eight core concepts with associated sub-competencies within each of the domains (see Table 1). Deliberate learning activities will be developed within each of the defined competencies. Additionally, the CBE model is envisioned with two levels: level one for entry level programs such as baccalaureate degree programs and level two for advanced level programs such as masters or doctoral level programs. The new *Essentials* are designed to provide a transparent and stable understanding for faculty, students, and employers

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Table 1. AACN Domains for Nursing and Concepts for Nursing Practice.

Domains	Concepts
Knowledge for nursing practice	Clinical judgment
Person-centered care	Communication
Population health	Compassionate care
Scholarship for nursing practice	Diversity, equity, and inclusion
Quality and safety	Ethics
Interprofessional partnerships	Evidence-based practice
System-based practice	Health policy
Informatics and healthcare technologies	Social determinants of health
Professionalism	
Personal, professional, and leadership development	

Note. Adapted from American Association of Colleges of Nursing (2021b). The essentials: Core competencies for professional nursing education.

with regards to the competencies of graduates across programs.

Key landmark reports have set the stage for the shift towards competency-based nursing education. One such report was the Carnegie Foundation for the Advancement of Teaching report titled *Educating Nurses: A Call for Radical Transformation*. Benner and colleagues ((2009)) asserted that nursing education must be overhauled and suggested revolutionary curricular changes in an effort to transform nursing education. One of the major findings from their study of nursing education was that nurses are undereducated based upon the needs of practice and that the gap between academe and practice was much too great. One of the clear recommendations of the report was the need to contextualize new nursing knowledge within the practice setting and include experiential learning environments across curricula.

The National Academies of Sciences, Engineering, and Medicine (previously known as the Institute of Medicine) reports regarding medical errors have also contributed to the call for CBE. In 2000, the report titled *To Err is Human: Building a safer health system* illuminated the need for change with the fact that up to 98,000 patients die each year due to medical errors. As the largest group of healthcare professionals, nurses are at the forefront of patient care and have the opportunity to ensure quality. By 2010, *The Future of Nursing: Leading Change, Advancing Health* (National Academy of Sciences, Engineering, and Medicine) made specific recommendations for changes in nursing education including increasing the number of nurses prepared at the baccalaureate level, removal of scope of practice barriers, interprofessional collaboration, and expansion of leadership opportunities for nurses.

Finally, the National Council of State Boards of Nursing (NCSBN) conducted a practice analysis in 2013 which highlighted the increasingly complex healthcare environment and the need for strong clinical judgment and decision-making skills. In 2005, del Bueno's study of initial new graduate preparedness revealed that only 35% of new registered nurses were deemed safe. More current research by Kavanagh and Szweda (2017) indicate that only 23% of new nursing graduates are competent with basic clinical judgment skills despite passing the National Council Licensure Exam for Registered Nurses (NCLEX-RN). Unfortunately, "we are continuing to lose ground in the preparedness of New Graduate Registered Nurses (NGRNs) at a time when it is needed most" (Kavanagh & Sharpnack, 2021). The NCSBN has completed several phases of research in order to create a new examination, known as Next Generation NCLEX (NGN), to assess new graduates' readiness for clinical practice. Complex hypothetical, real-world clinical cases will be used for graduate's demonstration of clinical judgment. The NGN NCLEX exam is scheduled to launch in Spring 2023.

In summary, there have been a number of forces driving the shift towards CBE. As academic nurse educators, we must embrace the opportunity to prepare new graduates for their transition to professional practice and advanced professional practice. CBE, an approach that has been used effectively in a variety of educational settings, will propel novel approaches to enhance the outcomes of nursing education programs. This practice update article will present a definition and brief history of CBE in a variety of educational settings, including health professions education. The article will go on to explore the future of CBE in nursing education and give examples of how CBE may be incorporated in the nursing curriculum.

Competency-Based Education: An Established and Effective Strategy

There is a wide assortment of definitions for CBE that have evolved over the past 70 years. During this time, teaching has moved from a traditional model of grade-based educational objectives towards more of a learner-centric model (Gravina, 2017; Ten Cate, 2017). Today's learner-centric model is consistent with individualized learning plans designed to achieve mastery or competency. Bloom's hierarchical classification of different levels of cognition, originally published in the 1950s and used in education at all levels, supports this progression. Bloom's taxonomy is often used to classify learning outcomes, and thus to structure learning and the assessment of learning. The 6 levels of learning range from lower-level skills such as remember and understand to higher order skills of apply, analyze, evaluate, and create (Anderson & Krathwohl, 2000).

Teacher education embraced CBE in the 1960s with innovative primary teacher education ensuring graduates were adequately prepared for their teaching roles and then vocational programs adopted CBE in the 1970s (Kellogg, 2018). Also, in the 1970s, Alverno College pioneered CBE

in higher education and graduated the first ability-based learning class in 1977 (Alverno College, 2022). In the 1990s, other universities and colleges in the United States including Regents College (now Excelsior), DePaul College, Charter Oak State College, Thomas Edison State University and Western Governors University expanded on the original work of Alverno College (Bushway et al., 2018). These institutions embraced CBE as they started looking for new ways to serve adult learners and give them credit for their prior knowledge and experience (Bushway et al., 2018). In the late 1990s, professional associations started advocating for CBE. The Association of American Medical Colleges' *Medical Schools Objectives Report* advocated for CBE, and six competencies were identified by the Accreditation Council for Graduate Medical Education and the American Board of Medical Specialties (Saud & Chen, 2018). Throughout the 2000s, CBE became widely used in postgraduate medical education using the acronym CBME for competency-based medical education (Ten Cate, 2017). CBE has been embraced by other healthcare disciplines such as social work. The Council on Social Work Education first presented professional competencies and encouraged CBE in the 2008 Education Policy and Accreditation Standards (McGuire & Lay, 2020). In 2010, Benner et al. called for the redesign of nursing education to graduate nurses with the authority, as well as the responsibility, to practice and expose nursing students to competency evaluations.

Throughout the 2010s, wide-spread adoption of CBE in the United States was hampered by differing definitions of CBE and concerns about qualifying for federal student financial aid (Bushway et al., 2018; Kellogg, 2018). While the United States Department of Education released guidance to address funding qualifications, work continued to define CBE and the associated competencies at the professional levels (AACN, 2021a; Bushway et al., 2018; McGuire & Lay, 2020, Saud & Chen, 2018).

Part of the difficulty in defining CBE was that there was no consensus on the definition of competency or how to measure competency (Lurie et al., 2011). While the term competency is often used interchangeably with mastery, skill, proficiency, competent, and competence, CBE is more than skill development and demonstrating mastery of the skill (Gravina, 2017; Holmes et al., 2021; Ryan et al., 2022; Ten Cate, 2017). Despite the lack of consensus on a definition, there has been generalized agreement that CBE provides learners with personalized support for their learning needs, meaningful assessments, and measurable objectives so the learner can apply the knowledge, skills, and abilities toward current and future workforce needs (Bushway et al., 2018; Holmes et al., 2021; Saud & Chen, 2018; Ten Cate, 2017).

Within nursing, the AACN (2021a) released the culmination of the work of an expert task force convened in 2018 which includes a definition of nursing CBE and associated competencies with the definition of CBE as:

> Competency-based education refers to a system of instruction, assessment, feedback, self-reflection, and academic reporting that is based on students demonstrating that they have learned the knowledge, attitudes, motivations, self-perceptions, and skills expected of them as they progress through their education (AACN, 2021b).

AACN membership endorsed these new AACN essentials in April 2021, with the AACN call for nursing programs to shift toward CBE in baccalaureate, master's, and doctor of nursing practice programs and has provided tool kits and other resources to assist with the transition (AACN, 2021b, 2021c).

The integration of CBE into curricula reflects the evolution of both CBE and its definition. While there is general agreement that CBE has clearly defined learning outcomes that establish level of competence, rigorous assessment of those outcomes, and flexible timeframes, the method of CBE implementation varies from program to program (Bushway et al., 2018). For example, CBE has been integrated into traditional time-based learning, credit-hour model of learning (sessions or semesters) with traditional faculty assignments while other higher education CBE programs offer rolling admission, flexible timelines, and non-traditional faculty assignments (Bushway et al., 2018; Gravina, 2017). CBE can be integrated at the course level, used as a gate toward progression through the completion of a degree as is seen in some prelicensure programs, at a program level where CBE has been integrated throughout the entire curriculum for a particular degree program, or where CBE has been integrated university-wide for all program degrees (Bushway et al., 2018; Gravina, 2017).

Hossler and James (2021) offer the example of Western Governor's University (WGU), which utilizes a classic CBE model in their programs, including nursing. Students progress through the program at their own pace, advancing when they demonstrate competency, independent of the time spent mastering that competency. WGU employs a non-traditional model of faculty assignments, separating those who teach and mentor from those who evaluate students. This model decreases potential bias on the part of the evaluators, who did not create the learning experiences and do not know the students. The authors make the case that the WGU model of CBE is effective and economical (Hossler & James, 2021).

The variable time CBE model used by WGU can be difficult to implement in traditional academic environments, which structure tuition and learning experiences around a semester or quarter calendar. Indeed, the AACN specifies that they do not expect schools adopting the new *Essentials* to offer variable time education or to reorganize their curricula by competencies (AACN, 2021a). Galura and Warshawsky (2022) describe their experience using the AACN *Essentials* to revise a doctor of nursing practice curriculum, offering CBE within the traditional structure of a

time-bound program of semesters. An initial gap analysis, accomplished by mapping their curriculum to the new *Essentials*, informed changes to permit students to be evaluated on competencies throughout the program. This required the development of new courses, revision of existing courses, and creation of new clinical practice experiences. It also required inclusion of intentional opportunities for students to demonstrate competencies repeatedly, in different contexts, throughout the program (Galura & Warshawsky, 2022).

The Future of Nursing and CBE

The shift to CBE offers solutions to old challenges while simultaneously creating opportunities for innovation. Some of the areas that CBE affect include program accreditation, funding of higher education, preparation for licensure examinations, interprofessional education (IPE), and the use of simulation.

Although the AACN is the professional organization for baccalaureate and graduate level schools of nursing, their *Essentials* documents have been influential on nursing programs at all levels (Giddens et al., 2022). It is highly anticipated that nursing programs accredited by the Commission on Collegiate Nursing Education (CCNE), AACN's accrediting arm, will be required to use a competency-based curriculum for all undergraduate and graduate programs with the next revision of CCNE's Standards, Procedures & Guidelines; other schools will likely find the new *Essentials* valuable to guide curricular change. Schools embarking on curricular change for multiple programs may take this opportunity for cross-program collaboration and teaching, as the baccalaureate and graduate level competencies are organized into consistent domains and concepts (Lacasse & Miller, 2022).

CBE offers an effective strategy for preparing nursing school graduates to successfully complete the licensure exam (Hossler & James, 2021; Wolf, 2022). As mentioned previously, the NCSBN's new NGN will focus on measuring clinical judgment. CBE, which emphasizes repeated opportunities to demonstrate competencies across populations and patient care settings, gives learners the ability to develop clinical judgment (Saud & Chen, 2018).

Nurses work in teams with a variety of other health professions, thus, IPE has been increasingly valued. CBE is widely used in health professions education. IPE educators use a framework for collaborative practice that describes competencies for health professionals working in teams (Interprofessional Education Collaborative, 2016). The future of IPE may expand to include identifying profession-specific competencies and aligning them with IPE activities.

Simulation has been demonstrated to be an effective clinical learning strategy for nursing students (Hayden et al., 2014). Despite recommendations that programs may successfully substitute as many as 50% of clinical hours with simulation, a recent survey of nursing programs in the United States showed that schools average 9%–17% (Smiley, 2019). Meanwhile, one of the reasons that qualified students are refused admission to nursing programs each year is the lack of clinical sites (AACN, 2022). Simulation not only can mitigate the problem of insufficient clinical sites, it can also create multiple opportunities for nursing students to demonstrate competencies across varied population and patient care settings. CBE is likely to lead to an increase in the use of simulation.

In addition to innovations and solutions, CBE brings challenges and questions, particularly around logistics. Curricular change is labor-intensive and slow, and faculty may initially struggle to operationalize CBE principles. Fortunately, there are many resources available and many colleagues who are engaged in this work.

The task of transitioning from the current curriculum to a CBE curriculum may initially seem overwhelming. It will be necessary to include faculty with a variety of areas of expertise, and to work collaboratively on a shared vision for the program. The AACN offers an implementation toolkit with sample templates for curriculum mapping as well as specific resources for activities and assessments (https://www.aacnnursing.org/AACN-Essentials/Implementation-Tool-Kit). Exemplars included in these tool kits address questions each program will have when moving to CBE such as:

- How to implement CBE personalized learning within the time limited program (semester or quarter structure, and set duration of the program)?
- How to meet the needs of learners who have different competency levels at the starting point?
- How to support learners moving at different rates toward competency?
- How to create rigorous assessments that adequately assess competencies?
- How to determine grades? Should the program change to pass/fail grading? If so, how exactly should passing be defined?
- How to ensure that implicit or explicit bias does not influence the definition or assessment of competencies?

CBE may require more consistent assessments, and a more structured or even master curriculum to decrease the faculty burden of creating standardized assessments that rigorously test competency without implicit or explicit bias (Gravina, 2017; Holmes et al., 2021; Hossler & James, 2021; Westervelt et al., 2021). Faculty in a university setting may struggle to balance these requirements with an expectation of autonomy and academic freedom that is desired with the university setting. Nurse educators are familiar with the challenge of balancing education for the entire professional role with education for the licensure exam; CBE poses a similar challenge.

Both nursing and nursing education are scientific fields, ever evolving and changing as evidence is discovered and

disseminated. CBE offers an innovative approach for nursing education that can address the need to enhance clinical judgement and can integrate with IPE.

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