Competency in Nursing: A Concept Analysis
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abstract
Competency is a topic of great interest to educators and administrators in practice disciplines, particularly health care disciplines such as nursing. This article focuses on the role of competency in nursing. Through a concept analysis process, various elements of competency were assessed. The defining attributes of competency are the application of skills in all domains for the practice role, instruction that focuses on specific outcomes or competencies, allowance for increasing levels of competency, accountability of the learner, practice-based learning, self-assessment, and individualized learning experiences. The learning environment for competency assurance involves the learner in assessment and accountability, provides practice-based learning opportunities, and individualizes learning experiences.


Although the concept of competency is relevant to all health care disciplines, a common understanding of what competency is does not exist. A comprehensive review of the literature regarding clinical competency by Watson, Stimpson, Topping, and Porock (2002) yielded little consensus about a clear definition or measurement of the concept of competency. Indeed, educators and employers of health care professionals often have disparate views of competency (Whittaker, Smolenski, & Carson, 2000).

No mechanism exists for most health care facilities to ensure that practitioners remain up-to-date with current best practices. Schools of nursing throughout the United States struggle to determine the best ways to educate students who demonstrate entry-level competencies. Employers struggle to determine the best ways to validate entry-level competencies and determine specialty competencies.

METHODS
A review of nursing, medical, public health, and educational literature from the 5 years prior to January 2006 was conducted. The keyword “competency” was used to search publications in English. The search engine CINAHL yielded 187 articles and the search engine Ovid yielded 60 articles. Articles lacking application were not used. The reference lists of selected articles provided additional sources. In addition, landmark publications such as the Institute of Medicine’s (IOM; 2003) Health Professions Education report were used.

The method used for the concept analysis was taken from Walker and Avant (2004). Their seven-step process provides a structured way to analyze the concept of competency (Sidebar 1). The purpose of this analysis was to provide a framework for tracking knowledge, skills, and attitudes throughout a career.

FINDINGS
Role of Competency
The role of competency in education has grown dramatically as health care employers and educators have identified the gap between education and practice. The IOM (2001) identified several challenges to health care in the United States. To improve initial and ongoing professional education, the IOM called for educational strategies to include a focus on competence. Additionally, graduates are not typically prepared to care for high-acuity patients with comorbidities and complex treatment regimens (IOM, 2003).

Gaps between educational preparation and actual practice were attributed to factors such as a lack of funding to update curricula and a limited focus on teaching in academic health centers. The IOM outlined the following core competencies for health professionals: work in interdisciplinary teams, provide patient-centered care, employ evidence-based practice, use informatics, and apply quality improvement (IOM, 2003).

Although the majority of literature about competence in nursing education focuses on undergraduate education, assuring increasing levels of competency across the educational continuum is important. Education at the
graduate level and beyond must be offered with increasing competency as a goal.

Although education based on competency may be agreed upon, determining which competencies are most critical, at what level they should be demonstrated, and how to teach them remains unclear. Evaluating cognitive, affective, and psychomotor achievement of skills and knowledge that increase in complexity throughout a career is challenging.

Origin of the Concept of Competency

Competency is derived from the Middle French and Latin word *competens*. To be competent is to be proper or rightly pertinent, to have requisite or adequate ability or qualities, to be legally qualified or adequate, or to have the capacity to function or develop in a particular way (Merriam-Webster Online, n.d.). The National Council for State Boards of Nursing (NCSBN; 2005) defined competency as “the application of knowledge and the interpersonal, decision-making, and psychomotor skills expected for the practice role, within the context of public health” (p. 81). McMullan et al. (2003) distinguished between competence and competency, stating that competence is focused on the description of the action or behavior, while competency is focused on the individual’s behavior that underpins the competent performance. These terms are frequently used interchangeably.

Beginning in the early 1980s, many boards of nursing began to explore the issue of competencies for graduating nurses in their states. Several states developed essential competencies of nursing program graduates. Typically, these competencies are specified by educational program preparation (e.g., diploma, associate degree, and bachelor’s degree). Most identify the knowledge, judgment, skills, and professional values expected of graduates of nursing programs.

Continued competency became a topic of intense and frequent discussion among nurses nationally in the 1990s as professional nursing organizations, consumer advocacy groups, and a rapidly changing health care environment led nursing to continue its efforts to create safe environments for patients. This movement was accelerated by the Pew Health Professions Commission’s reports (Pew Health Professions Commission, 1995) and the Interprofessional Workgroup on Health Professions Regulation (IWHPR; 1997) continuing competence summit in the mid-1990s.

In 1999, Lenburg (1999b) described the Competency Outcomes and Performance Assessment (COPA) model, which was applied in an academic setting but viewed as equally applicable in the practice setting (Redman, Lenburg, & Hinton Walker, 1999). This model uses four guiding questions to create an organizing framework to assist in the transition to competency outcomes and performance assessment. Eight core competencies were identified (Sidebar 2). Evaluation is performed at didactic and clinical levels to promote accountability in the eight core areas.

Also in 1999, the Accreditation Council for Graduate Medical Education (n.d.) endorsed general competencies for residents. This was the first step in the council’s process of incorporating these competencies into its requirements. The general competencies identified for medical residents were patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice.

Genomics, once considered a specialty area, is increasingly being recognized as a central science for all health care professionals. With this in mind, a panel of nurse leaders convened in 2005 to establish competencies required for delivery of genetic and genomic focused nursing care. The essential competencies of pro-
fessional responsibilities, professional practice domain, referral activities, and provision of education, care, and support were identified. Each core competency has specific behaviors by which it can be assessed. The Genomics Consensus Panel recommends strategies to facilitate the development of the competencies to include long-term planning to incorporate genomic information to improve public health, faculty and practice nurses seeking continuing education or academic courses to update their genetic and genomic knowledge, and collaboration with other disciplines (International Society of Nurse Geneticists, 2007).

**Uses of the Concept of Competency**

The NCSBN (2005) acknowledged the relevance of continued competency of nurses at all levels as an important issue for all state boards of nursing. To apply the concept of competency to all practitioners at all levels of practice, the NCSBN definition focused on the practice role within the context of public health.

Competency-based education is defined by the Accreditation Council for Graduate Medical Education (n.d.) as an approach to instruction and assessment that places primary emphasis on identifying and measuring specific learning outcomes or competencies. This approach to instruction contrasts with more traditional didactic methods of teaching and evaluation. Didactic course evaluation uses objective testing strategies to determine cognitive achievements, whereas competency-based education uses demonstration of skills and knowledge to evaluate performance potential.

**Competency Assessment.** Currently, in most states, a nurse is determined to be competent when initially licensed. Continued competency is assumed thereafter unless otherwise demonstrated. The dominant method to assess a health care professional’s continued competency is traditional didactic continuing education (e.g., formal conferences, lectures, and dissemination of educational materials; IOM, 2003). Little evidence exists that these methods have any effect on clinicians’ behavior or patients’ or systems’ health outcomes (IOM). State boards of nursing are considering other ways to determine continued competency of practicing nurses.

Evaluating continued competency is a difficult process, primarily because the evaluation standards are not yet clear for nursing. The NCSBN (2005) outlined several options for a basis for evaluation: the current entry-level National Council Licensure Examination (NCLEX), generalist core competency at each licensure level, focused areas of practice, essential emerging knowledge, or some combination of these.

Whereas some states have differentiated competencies for new graduates, other states have opted to improve the preparation of nurses for entry into practice through other means (New Mexico Consortium for Nursing Workforce Development, 1999; North Carolina Board of Nursing, 2005). The Kentucky Board of Nursing (2006), after examining the congruence between education and practice, proposed the implementation of an integrated practicum to be completed prior to graduation and a clinical internship to be completed immediately following graduation.

Certification by national agencies has historically been a voluntary process, yet some states use certification as an indicator of entry-level competency. However, research is lacking to demonstrate that certification examinations are linked to competency or improved patient outcomes (Whittaker et al., 2000).

The performance-based development system is a competency assessment system that uses video, audio, and written simulations to measure competency for practice (del Bueno, 1990). del Bueno developed this assessment tool to standardize the orientation program for new hires. The performance-based development system measures critical thinking as well as interpersonal and technical skills in many practice settings.

**Competency Assessment in Initial Education.** A competency-based approach to initial nursing education is not the norm for most prelicensure schools of nursing. Watson et al. (2002) noted the absence of a reliable and valid method of competency-based training. Many programs issue a grade for didactic content mastery and a pass–fail grade for clinical performance (Fordham, 2005). This practice further distances graduates from an expectation of an assessment of ongoing competence.

Evidence of fitness for practice can be demonstrated through the development of a practice portfolio (Fordham, 2005; Girot, 2000; McMullan et al., 2003). A portfolio is a purposeful collection of traditional and nontraditional work that represents student or nurse learning activities, progress, and achievement over one’s academic career (Scholes et al., 2004).

The development of a practice portfolio places the onus for learning and development with the individual. Indeed, the use of practice portfolios is based on principles of adult learning and active learning rather than passive learning (McMullan et al., 2003). In addition to promoting active learning and individual accountability, portfolios are thought to promote development of critical-thinking skills. Although portfolios are widely used and accepted by schools of nursing and offer many positives, their evaluation continues to be a subjective process that is not easily amenable to standardization or objective assessment (McMullan et al.). Ensuring equity
and consistency in evaluation is a key concern with the use of portfolios (Scholes et al., 2004).

Krenz (2003) suggested using nursing outcomes classification as the foundation for a competency-based undergraduate curriculum. Krenz used discipline-specific outcomes in curriculum revision to write competency statements that reflected what nursing students were to achieve in care implementation. Analysis of this curriculum development determined that it provided clarity and direction to the curriculum.

Similar to the COPA model, Reising and Devich (2004) suggested assessing progressively difficult skill sets in successive semesters of a baccalaureate nursing program as a way to evaluate competency. Consistent evaluation criteria across all courses should include critical thinking and priority setting, health assessment, psychomotor skills, and communication, including patient teaching and documentation. As with other methods of competency assessment, lack of evaluation consistency was a drawback identified by students and faculty. Student anxiety, not necessarily a disadvantage of other methods of assessment, was a significant drawback as well (Reising & Devich).

In addition to competency assessment for students, competency assessment in ongoing and advanced practice is becoming more common.

**Competency Assessment in Ongoing Practice.** The IOM (2003) recommended that all licensed health professionals be required to periodically demonstrate their ability to deliver patient care as defined by the core competencies for health professionals. These competencies were to be measured directly through technical competence, patient assessment, evaluation of patient outcomes, and other evidence-based assessment methods. Further, the IOM recommended that certification bodies require certificate holders to maintain competence throughout their careers by periodically demonstrating their ability to deliver care reflecting the core competencies.

Currently, the most common method of demonstrating continued competence for licensure renewal is continuing education (NCSBN, 2005). Continuing education is required for license renewal by 25 registered nurse boards and 24 licensed vocational nurse boards. Of these, 12 boards require specific subject matter as a part of licensure maintenance (NCSBN). Other boards require a specific number of continuing education or practice hours. For renewal of an inactive license, many boards require a refresher course and some require a competency examination (NCSBN). Advanced practice nurses may also be required to seek specific content (Yoder-Wise, 2006).

Advanced practice nurses have a similar model for demonstrating ongoing competence. The American Academy of Nurse Practitioners certification renewal process requires documentation of clinical practice as a nurse practitioner, and continuing education (Yoder-Wise, 2006). The American Nurses Credentialing Center accepts practice hours, continuing nursing education, academic education, presentations, publications, and preceptorship for certification renewal (Yoder-Wise).

Portfolios, widely used to evaluate competence in initial education programs, are gaining popularity as a tool for documenting ongoing competency in practice. Web-based systems for tracking competencies for professionals in practice are available and gaining popularity. Software for this inexpensive and portable method of maintaining records related to ongoing competency activities continues to be developed (Hobbs, 2005).

### Defining Attributes of Competency

In their review of the literature regarding competency in nursing education, Watson et al. (2002) found that in 22 of 61 articles on the topic, authors did not define the term competency. The NCSBN (2005) elucidated the reasons why there is no clear solution to evaluating competency. The reasons for the lack of clarity in defining competency include that competency is multifaceted and difficult to measure; the volume of nurses in practice makes it difficult to identify feasible and meaningful, yet cost-effective, regulatory approaches; agreement is lacking about who should be responsible for continued competency; nursing careers are widely divergent with various levels of practice; and there is an inherent evolution of practice from the new, entry-level graduate to the experienced nurse (Bargagliotti, Luttrel, & Lenburg, 1999).

The barriers to clarity outlined by the NCSBN are compounded by the fact that there are currently two common uses for the concept of competency: maintaining ongoing competency in practice and preparing for initial licensure (Sidebar 3).

### CASES OF A COMPETENCY FOCUS IN EDUCATION

#### A Model Case

A model case provides an example of the concept that demonstrates all defining attributes of the concept, or a pure exemplar (Walker & Avant, 2004). For an example of a model case, consider the following actual nursing school curriculum.

Alverno College is known for its innovative focus on the learner. This college was among the first to use a web-based diagnostic digital portfolio to allow nursing students to track their learning progress through their years of study (Alverno College, n.d.). As students receive feedback from faculty, external assessors, and
peers, they are able to look for patterns in their own academic work to continue development in areas indicated and be autonomous learners. Clearly defined competencies provide a guideline, and students must demonstrate mastery of lower-level competencies before moving into higher-level content. Students are expected to demonstrate integration and mastery of knowledge, interpersonal, decision-making, and psychomotor skills. The diagnostic digital portfolio is built on Alverno’s student assessment-as-learning process, making it more transparent to the student and others who seek to understand this important educational program. It also provides actual, accessible performance data with which graduates can create an electronic résumé for potential employers or for graduate schools (Alverno College). The teaching and evaluation process used by Alverno College represents a model case that incorporates the defining attributes of competency-based education.

A Borderline Case

A borderline case is an example of a case in which some, but not all, defining attributes of the concept are demonstrated (Walker & Avant, 2004). Borderline cases are inconsistent in some way with one or more of the defining attributes of the concept. For a borderline case of competency assessment in nursing education, consider the following actual example.

A registered nurse to bachelor of science in nursing program at a large Southwestern university is a web-based program that individualizes degree plans and clinical experiences. Students start portfolio construction at the beginning of the curriculum and maintain a current portfolio throughout. Courses are specifically designed for registered nurses and advanced placement or graduate course substitution based on previous experience is encouraged. Testing is not a component of any course, but each course does require students to write at least one paper with clearly defined criteria. Although the program is considered strong and innovative, it represents a borderline case of a competency focus in education because it is missing defining attributes (i.e., a focus on fostering learners’ ability to self-assess and provision of opportunities for independent study).

A Contrary Case

A contrary case is one in which none of the defining attributes are met, or a case that is “not the concept” (Walker & Avant, 2004). For a contrary case of a competency focus in education, consider the following constructed example.

School A is a traditional didactic-based program in which testing classroom content is the primary method of evaluation. Students attend classroom instruction exclusively for the first 2 years of the 4-year program. The second half of the program includes a clinical component that requires students to perform nursing skills that must be completed before the end of the program. Students can either pass or fail the clinical component of each course, and detailed feedback is not provided regarding their clinical performance. All defining attributes of competency are absent in this imaginary nursing program.

ANTECEDENTS AND CONSEQUENCES

Antecedents are events that must occur prior to the occurrence of the concept. Consequences are the events that occur as a result of the occurrence of the concept, or the outcomes of a concept (Walker & Avant, 2004).
Antecedents for competency are educational programs, students, faculty or teachers of nurses, and practicing nurses. The literature review suggested that willingness to use innovative approaches to nursing education and assessment of ongoing readiness for practice is also an antecedent.

Consequences of competency remain largely undetermined and untested. The current literature implies that a consequence of a focus on competency in education is a narrowing of the gap between education and practice, leading to improved patient outcomes, clinical judgment, and accountability and self-assessment of learners.

**EMPIRICAL REFERENTS**

Empirical referents are processes by which the concept of competency can be measured (Walker & Avant, 2004). Measuring the gap between education and practice continues to challenge researchers, educators, and practice administrators. Watson et al. (2002) demonstrated a lack of reliable and valid methods for evaluating competency, particularly in education. As measurement tools are developed and selected, ensuring that they are comprehensive, reliable, valid, and free of bias is important.

The current trend of using portfolios to demonstrate ongoing competency lacks a clear empirical referent for competency. Development of processes by which portfolios can be standardized and evaluated is required before portfolios will provide measurable outcomes.

Krenz (2003) suggested using the nursing outcomes classification as the foundation of a competency-based undergraduate curriculum. Competency statements that reflect what nursing students are to achieve in care implementation are a step closer to objective measurement of outcomes.

Assessing progressively difficult skill sets in successive semesters of a baccalaureate nursing program provides a comprehensive solution to measurement (Reising & Devich, 2004). However, inconsistency in evaluation is a drawback to this subjective method, as is student anxiety (Reising & Devich).

**CONCLUSION**

Competency is an exciting and challenging concept in education that may address gaps between education and practice. The best methods to teach and evaluate using a competency model remain unclear and in need of more research.

There is a lack of consensus about several important issues surrounding competency. A clear and consistent definition of competency is an important step. Determination of at what point to measure competency is needed. Initial competency measurement is critical, but it needs to be determined at what point in an individual’s career measurement of competency moves from general competence to specialized competency. Determining who is responsible for developing guidelines and assuring initial and ongoing competency is another important issue. This responsibility could lie with the individual, a professional association, an employer, a board of nursing, or credentialing entities. The American Nurses Association has stated that assurance of continuing competency is the shared responsibility of these various entities (Whittaker et al., 2000).

As methods for assessing and teaching from a competency-based framework continue to be developed, it is important for these issues to be considered. A flexible, efficient, and effective framework will be required to assess the broad range of nursing functions (Lenburg, 1999a). A model must be developed that provides for safety of care to patients, incorporates choice for nurses to document or demonstrate their competency, and is cost-effective and practical.

Certification, portfolios, electronic tracking of competencies, and progressive skills testing are useful. Further research in this area is required. Bridging the gap between practice and education requires innovation by nurse educators in collaboration with practice partners.

**REFERENCES**


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**key points**

**Competency in Nursing**

1. Competence is focused on the description of the action or behavior, whereas competency is focused on the individual’s behavior underpinning the competent performance.

2. Little evidence exists that commonly used continuing education methods have any effect on clinicians’ behavior or patient/ systems health outcomes.

3. The current literature about competency implies that a consequence of a focus on competency in education is a narrowing of the gap between education and practice, leading to improved patient outcomes, clinical judgment, and accountability of learners.


