Third-Party Assessment and Targeted Continuing Education for Maintenance of Certification

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Employers, state boards of nursing, certification organizations, and others face the challenge of developing valid ways to assess competency and to identify and address ongoing needs. To meet these challenges, the National Certification Corporation added a continuing competency component to its maintenance program for its certified nurse constituents in 2010. This article outlines the program and its impact on educational needs over time. The data demonstrate that giving certified nurses and nurse practitioners a third-party tool to assess their knowledge, along with targeted education based on knowledge gaps, can improve their overall knowledge in core areas of certification.

Keywords: Certification, certification maintenance, competency, competency assessment, continuing competency

To best serve the public in a safe manner, health care professionals should maintain current competencies, stay up-to-date on changes in their field, and reinforce knowledge gained over time. One of the best ways to ensure this happens is through maintenance of certification controlled by health professionals themselves. The challenge of continuing competency is how to implement affordable yet meaningful assessments of health care professionals' lifelong learning efforts.

In 2010, the National Certification Corporation (NCC)—a non-profit organization that provides certification to nurses in the obstetric, gynecologic, and neonatal specialities as well as subspecialty certifications to licensed health care professionals—added a formal continuing competency component to its certification maintenance program for nurses and nurse practitioners (NPs) who hold NCC credentials. The NCC decided to change its maintenance program after researching the literature on the value of continuing education (CE) and the ability to assess learning needs. This article provides an overview of the NCC program and the progress it has made in the context of current continuing competency and the maintenance of certification issues in the health care field.

Background

Most state boards of nursing (BONs) require a certain number of CE hours to meet continuing competency goals, rather than identifying the type of CE needed. Some states require specific content important for a generalist registered nurse (RN) role, such as pharmacology, HIV, or intimate partner violence; however, they do not provide mechanisms to determine the type versus the amount of CE needed, especially for nurses who have specialized.

Before NCC embarked on its continuing competency initiative, each certified nurse or NP was required to earn 45 hours of CE in their certification over a 3-year maintenance period. Before 2008, 15 of the 45 hours could be in "related" areas. NCC's certification maintenance program allowed certificants to identify and determine their own educational needs based on self-reflection of content strengths and weaknesses.

Continuing education has been used as a way for professionals, in numerous fields, to remain current. Some professionals require it to maintain certification or licensure, and it has often been used as a measure of ongoing education and lifelong learning. Practice in the health care field is continually evolving, and literature has demonstrated that it can take 15-17 years to incorporate new information into practice (Massoud, Nielsen, Nolan, Schall, & Sevin, 2006). This creates gaps between current provisions of care and optimal provision based on new evidence. A "key factor for closing the gap between best practice and common practice is the ability of health care providers and their organizations to rapidly spread innovations and new ideas" (Massoud et al., 2006).

The NCC researched the literature on the value of CE and the ability to assess learning needs. In 2010, the Institute of Medicine found that CE improves the knowledge base, skill level and clinical outcomes in health care and can change behaviours and attitudes of professionals (Desilets, Dickerson, & Dickerson, 2010). In addition, CE has been shown to improve patient care management, nursing practice, and patient outcomes (Gallagher, 2007; Davis et al., 2006). NCC found that health professionals'

self-assessments are often inconsistent and inaccurate (Davis et al., 2006) and that professionals struggle to assess their own knowledge gaps (Eva, Cunnington, Reiter, Keane, & Norman, 2004; Dunning, Johnson, Ehrlinger, & Kruger, 2003; Heath, DeHock, & Locatelli, 2012; Dunning, Heath, & Suls, 2018). A systematic review of 17 articles found either a weak association or no association with physicians' abilities to self-assess when compared to external assessments (Davis et al., 2006).

These findings became the framework for the NCC's continuing competency initiative (CCI), which was started in 2008 by the NCC Board of Directors, content teams, and staff. The continuing competency program that evolved from the initiative is based on the Citizen Advocacy Center's (CAC) *Roadmap to Continuing Competence* (2011). The purpose of the CAC (2018) is to serve the public interest by enhancing the effectiveness and accountability of health professional oversight bodies. The NCC, along with other credentialing and licensing organizations, participated in many CAC-sponsored meetings to develop core principles for and recommendations to incorporate health care continuing competency efforts. These core principles emphasize using collaboration, evidence-based approaches, and clinician responsibility to create more accountability. During the CAC's 2011 Conference, it was determined that self-assessment does not provide the same degree of public accountability found in third-party assessment (Citizen Advocacy Center, 2011). Third-party assessment is more objective and accountable and became part of the recommendations included in the CAC's roadmap.

Development of the NCC's Program

The development and implementation of the Continuing Competency Program began with the revision of NCC's maintenance program in 2008, when the option of having 15 CE hours in "related" areas was eliminated and the requirement that all CE would focus on the specialty area was initiated. In 2009, a coding system was added. This required each certified professional to provide a specialty code for their CE activity to a topic grid representing core competency areas in their certification. The grid was developed for each certification specialty and represents the major content areas tested on the certification examinations. It was initiated to formalize and guide the decision-making process for how CE maintenance activities should be chosen to fulfill core competency knowledge requirements.

In addition, NCC developed a pilot assessment study in 2009 to evaluate knowledge strengths and gaps, which became the basis of each certificant's ongoing education plan for maintenance of certification. The pilot continuing competency assessment used the Women's Health Care Nurse Practitioner population based on core competency knowledge. The focus of the pilot CCI framework had five objectives:

- Ascertain whether certified nurses and NPs can adequately self-assess their content areas of weakness by having them complete a survey about their educational needs
- Collect assessment data to measure whether maintenance should relate to basic entry-level content or recent practice and research in the field
- Correlate RN assessment to actual assessment outcomes
- Provide feedback to individual RNs
- Explore development of CE activities to address the identified educational needs based on pilot assessment results.

Subsequent decision making and final plans regarding maintenance of certification were based on pilot outcomes indicating that self-assessment is an inadequate measure of knowledge strengths and gaps. It was also determined that the focus of continuing competency for the NCC-certified population should be equivalent to those meeting basic entry-level eligibility criteria for certification (Byrd, Burns, & Grossklags, 2013). The new maintenance of certification program was completed in 2009 and launched in 2010.

In 2010, a 125-question assessment tool was added to all core certifications, reflecting the core competency areas of the certification examination. Currently, it is administered on a secure platform on the NCC website. Certified professionals must complete the assessment within 2 hours and 15 minutes at the start of each new maintenance cycle. Based on the results of the assessment, an education plan is generated that identifies CE requirements for each individual.

The program was built upon a minimum requirement of at least 15 baseline hours of CE, which can be met in any core competency area for a specific certification. The remainder of the plan is based on individual performance on the assessment. Individualized educational plans can range from 15 to 50 CE hours. The 15 baseline hours can be incorporated into the core competency areas, if warranted, based on individual performance so no one who takes the assessment has a requirement higher than the NCC's previous 45-hour maintenance. Five hours are awarded for taking the assessment and can be applied to any core competency area.

To establish the need for additional CE in a core competency area, the NCC developed a specialty index rating system to tabulate the assessment results. The specialty index rating is calculated based on the weight and distribution of the core competencies on the certification examination. Some core competency areas are more heavily weighted based on the national job analysis completed every 4 to 5 years. Based on the mathematical calculations, a specialty index rating range from 1 through 10 is used to address the content and item distribution for each. Ratings of 7.5 or higher indicate that at least 75% of questions related to the core area met the standard. Ratings less than 7.5 generate keywords to guide the focus of CE within a content area to meet current knowledge competency statements. Not all keywords or topics are required; in fact, options provide the individual with

a range of recommendations to meet the total CE hours required for the category.

Implementation and Results

The NCC introduced the program in 2010 in the following stages:

- Stage 1 (2010–2013): Orientation phase to familiarize certificants with the process
- Stage 2 (2014–2016): First-time assessment was required and CE was based on educational plans
- Stage 3 (2016–2018): Second assessment after one cycle of individualized CE
- Stage 4 (2016–2018): Third assessment after two cycles of individualized CE.

The orientation phase was used to allow constituents to see how the process would work without it impacting their current maintenance cycle. The stages after orientation were developed to evaluate how a third-party assessment with individualized educational plans impacted outcomes over time.

Stage 1: Orientation (2010–2013)

In Stage 1, the educational plan was not binding and prior requirements of 45 hours were still in place. It was used as an orientation for all those holding core certifications, allowing them to become familiar with the new process. It demonstrated how the assessment was used to develop the individualized educational plan. During this time frame, information was provided to all core certificants about the new requirement that would be required for all core certificants starting in 2014.

Of the 65,174 individuals who were due for maintenance, 42,870 (66%) voluntarily participated in the CCI program. Table 1 demonstrates how certified individuals performed on the assessment in terms of how many CE hours they would be required if the results were binding. Approximately 63% would have needed the full 45 hours. Approximately 5% would have required only 10 to 15 hours. These early findings demonstrated that self-selection of CE for maintenance of certification did not necessarily correlate with the maintenance of knowledge of the core competencies specific to that certification. Instead, it may reflect personal interests or pursuit of education in areas in which knowledge maintenance is already mastered in contrast to areas in which a knowledge gap exists.

Stage 2: Mandatory Implementation (2014–2016)

The assessment became mandatory in 2014, providing each certified nurse or NP with an individualized education plan. Of the 70,260 individuals who were due for maintenance during Stage 2, 81% participated in the CCI. Non-participants were composed of those who opted not to maintain, elected emeritus status, or chose an alternate maintenance program. An alternate maintenance program was provided for individuals who objected to taking the

TABLE 1

Aggregate Summary of Assessment Performance in Stage 1

Total Continuing Education Hours Required	Participants	
	n	%
10	997	2.3
15	1,108	2.6
20	1,521	3.5
25	2,295	5.4
30	2,585	6.0
35	3,361	7.8
40	3,908	9.1
45	27,095	63.2
Total	*42,870*	

TABLE 2

Aggregate Summary of Assessment Performance in Stage 2

Total Continuing Education Hours Required	Participants	
	n	%
10	1,400	2.4%
15	1,435	2.5%
20	2,003	3.5%
25	3,061	5.4%
30	3,539	6.2%
35	4,513	7.9%
40	5,159	9.0%
45	36,061	63.1%
Total	*57,172*	

TABLE 3

Aggregate Summary of Assessment Performance in Stage 3 (January–May 2017)

Total Continuing Education Hours Required	Participants	
	n	%
10	3,067	8.2%
15	2,403	6.4%
20	2,595	6.9%
25	2,685	7.2%
30	2,762	7.4%
35	3,351	8.9%
40	3,351	9.0%
45	17,276	46.0%
Total	*37,529*	

TABLE 4

Continuing Education Requirements Over Time for All Participants Across Stages 1–3

		Continuing Competency Initiative Stage (45 Hours)				
Group	***n***	**1**	**2**	**1 to 2 Change**	**3**	**2 to 3 Change**
INPT	58,822	50.5%	50.2%	▼ 0.6%	35.9%	▼ 28.5%
LRN	6,592	85.5%	87.8%	▲ 2.7%	57.9%	▼ 34.1%
MNN	15,451	74.4%	75.5%	▲ 1.5%	59.4%	▼ 21.3%
NIC	31,378	70.5%	70.7%	▲ 0.3%	52.7%	▼ 25.5%
NNP	13,431	60.8%	54.2%	▼ 6.6%	46.9%	▼ 13.5%
WHNP	26,427	71.6%	74.3%	▲ 3.8%	49.7%	▼ 33.1%
Total	*152,101*	*63.2%*	*63.1%*	*0%*	*46.0%*	▼ *27.2%*

Note. INPT = Inpatient Obstetric Nursing; LRN = Low Risk Neonatal Nursing; MNN = Maternal Newborn Nursing; NIC = Neonatal Intensive Care Nursing; NNP = Neonatal Nurse Practitioner; WHNP = Women's Health Nurse Practitioner.

assessment or did not take the assessment because of confusion, inaction, or procrastination. The alternate maintenance program assumes a gap in all core competency areas and requires 50 CE hours across the core competencies. In this way, education had to be addressed in all core competency areas, because there was no individualized education plan to indicate individual knowledge strengths and gaps. Between Stages 1 and 2, CE was not specific to learning needs; therefore, no changes were expected in CE requirements and none were found. In Stage 2, 63% of certificants required 45 hours and less than 5% required 15 hours or less (Table 2). Stage 2 was the first time the assessment was required and individual education plans had to be met. Participants requiring the maximum 45 hours decreased across all certification specialties between Stage 2 and when they took the assessment for a second time in Stage 3. These results indicate that the use of targeted education helps to address knowledge gaps in the core competencies based on third party assessments and as a consequence CE requirements are decreased.

Stages 3 and 4: Education Plan Integration (2017–Present)

Individuals with maintenance cycles beginning in 2017 and beyond are noted in Table 3. Some have used the targeted education plan for three maintenance cycles, two of which were during the mandatory phase. The number of participants requiring 45 hours of CE decreased by approximately 17.2%, an approximate 27% improvement. Those who required only 10–15 hours more than doubled, with 5.8% of certificants needing fewer hours than when the program started. These findings built on the trend experienced in Stage 2, that targeted education based on third party assessment helped address knowledge gaps in the core competency areas of certification.

Table 4 shows data changes across each certification specialty over time. Participants who required a maximum of 45 CE hours specific to gaps in knowledge showed a decrease in CE requirements of 27%, demonstrating improvement in the core competency areas. Some mitigation may occur as more constituents participate in Stage 3, but the downward trend is evident. The implication here is that the third-party assessment, which provides individualized educational plans and ensures targeted education, continues to demonstrate an improvement in overall knowledge in the core competency areas across all the core certifications.

Stage 4 represents those who have taken the assessment and followed an individualized educational plan for a third maintenance cycle. Although it is early in Stage 4, 16,897 certificants have taken the assessment. Data demonstrate that only 31.5% require 45 hours, an improvement of 50% since the program began. Those requiring 15 hours of CE increased three-fold, which continues to exhibit the impact of focused CE on knowledge competency.

CE and Core Competencies

Table 5 presents how individuals performed over time in core competency areas specific to their certification. Although general increases occurred in the percentage of certified professionals needing CE from Stage 1 to Stage 2, Stage 1 participants were not held to the educational plan and could focus on any topics related to their certification. In Stage 2, the educational plan became a formalized part of the maintenance program that is required to maintain certification.

Stage 3 data represent the impact of individualized CE requirements based on assessment strengths and gaps. The data demonstrate that the Stage 2 assessment and targeted educational plan led to a decrease in the percent of certificants who required CE in each core competency area for all NCC certifications. Those needing CE in a specific core area decreased across almost all certifications, with improvements ranging from 1.4% to 35%. Only two certification groups, maternal newborn and neonatal nurse practitioner, did not show improvement in one core area: professional practice.

These findings are the first to our knowledge that follow CAC's *Road Map to Continued Competence,* where targeted educa-

TABLE 5

Core Competency Areas: Percent Needing Continuing Education Over Time

Area	Continuing Competency Initiative Stage		
	1	2	3
Inpatient Obstetric Nursing			
n	16,601	22,275	14,239
Fetal assessment	49%	52%	46%
Labor/delivery	65%	59%	54%
Pregnancy complications	80%	82%	64%
Postpartum	50%	60%	46%
Newborn	71%	68%	56%
Professional practice	45%	53%	37%
Low Risk Neonatal Nursing			
n	2,172	2,435	1,509
Mother fetus	72%	79%	56%
Normal management	95%	95%	82%
Neonatal complications	85%	88%	62%
Pharmacology	73%	90%	80%
Professional practice	59%	60%	52%
Maternal Newborn Nursing			
n	3,766	6,088	3,665
Maternal factors of newborns	71%	77%	70%
Postpartum	86%	86%	74%
Newborn	80%	83%	73%
Professional practice	31%	40%	31%

Area	Continuing Competency Initiative Stage		
	1	2	3
Neonatal Intensive Care Nursing			
n	2,640	11,808	7,341
General management	71%	78%	56%
Pathophysiology	78%	77%	67%
Pharmacology	74%	74%	65%
Professional practice	55%	58%	51%
Neonatal Nurse Practitioner			
n	3,673	4,867	3,903
Physical assessment	38%	48%	34%
Pathophysiology	77%	70%	73%
General management	43%	50%	28%
Pharmacology	68%	63%	60%
Professional practice	74%	69%	75%
Women's Health Nurse Practitioner			
n	8,009	9,699	6,871
Normal physiology and management	73%	78%	53%
Pathophysiology	74%	83%	62%
Physical assessment	64%	59%	54%
Pharmacology	92%	89%	82%
Professional practice	44%	49%	37%

tion is used to assess improvement of knowledge competencies in nursing maintenance of certification. Although there have been studies that show increased confidence and improvement in performing skills or acquiring discreet knowledge with targeted education, the NCC's CCI program has yielded outcomes that show improvement over time in generalized specialty knowledge through the use of third-party evaluation and targeted education in a large population of NCC-certified nurses (Lagneaux, Isley, Mclaughlin, & Hade, 2018; Hennessy & Cocoman, 2018).

Discussion

Nurses begin their career competency demonstration with the NCLEX-RN®, which assesses generalist RN knowledge. Certification demonstrates knowledge in a nursing specialty. RNs often choose a specialty area, but what makes an RN a specialty nurse? Is it based on their location of employment or on their demonstration of specialty knowledge? RNs who hold national certification in their specialty and who maintain it through a third-party assessment of knowledge and focused CE in core areas earn the specialty nursing title related to the specialized area of practice or population. RN licensing boards often require specific RN educational courses to maintain licensure. Certification that represents a level of specialty competence within their licensure, along with maintenance programs that provide up-to-date assessments of knowledge, further define the nursing competency within the specialty.

Continued competency is important not only for public protection, but as a regulatory function supporting patient safety and improved outcomes. Although many BONs rely on mandated CE, it is often untargeted and may not ensure life-long learning or competence. Targeted CE based on third-party assessment may better measure knowledge gained and validate that learning is taking place. It should ensure that health care professionals maintain competence throughout their careers and may attach licensure to competency.

The careers of nurses take different paths leading to specialization in complex areas of health care. Nurses often refer to themselves by specialty, implying they have specialized knowledge in an area of practice. BONs remain responsible for professional accountability and regulation to protect the public and ensure patient safety beyond the initial generalist degree. State licensing boards, however, do not regulate claims of special expertise and must rely on certification boards to verify knowledge in these specialty fields. It is critical that licensure and certification groups work together to ensure competence and maintenance of certification.

Key Findings

Communication is key to making substantial changes to any program. Although NCC made a concerted effort to thoroughly explain the CCI program across a continuum of platforms to all participants, two major miscommunication issues occurred:

- The process was prospective rather than retrospective. A core group who completed the orientation assessment during late Stage 1 were confused by the fact they had to retake the assessment to receive their mandatory education plan during Stage 2. In retrospect, a provision should have given participants who joined the program late in Stage 1 (but within 3 months of their maintenance due date) the option to use that plan for their Stage 2 maintenance cycle.
- Participants were confused by the fact that they could not use CE credits earned before the assessment for maintenance. The assessment is a measurement of knowledge strength and gaps to indicate when additional CE in a certain core competency is needed. The prior education of those participants was not yet sufficient to meet the standards for those areas.

NCC achieved its main goal for CCI implementation, which is to give the certified constituency a tool to provide them with feedback about where CE is needed. Targeted education makes the NCC certification credential more valuable. It assures employers, peers, and the public that nurses and NPs who hold NCC certification demonstrate competency in all core areas of their certification—whether concentrated or broad based.

Conclusion

The maintenance of certification program designed by the NCC, incorporating third-party assessment and targeted CE, shows CE can validate the acquisition and maintenance of specialty knowledge. Although CE is often used for educational purposes, this maintenance program demonstrates that individualized CE based on third party assessment may improve knowledge and demonstrates continued competency specific to ongoing certification related to licensure. The continuing assessment program now spans 8 years and demonstrates the impact of individualized CE on knowledge based on health care practice that is always changing. It provides for an assessment of strengths that allow providers to apply learning in their field without unnecessary CE requirements. It addition, it highlights gaps that mandate CE in specific core areas to ensure competency across the full role and scope. Nurses in specialty practices who make a personal decision to become certified and maintain specialty certification openly demonstrate their unique knowledge to the patients and families they care for, demonstrating on-going professional development beyond their generalist education.

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