Conceptual Models for Clinical Nurse Specialist Role and Practice

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Abstract

A model or framework is central to achieving clinical nurse specialist (CNS) role consistency and sustainability and in supporting evolution of CNS as a distinct and legitimate healthcare expert in the healthcare delivery system. Models can describe CNS practice, CNS role structure, or regulatory authority to practice as a CNS. A model explaining CNS role structure describes the elements and characteristics of the role and the relationships between and among those elements. A model for CNS practice is a process model demonstrating interrelationships among elements constituting practice including domains of practice, practice competencies, and desired outcomes. Process models explain the relationship between practice competencies and clinical outcomes. A regulatory model explains the authority to practice, including legal requirements and the associated scope of practice. Existing models explaining CNS role and practice are limited; many current models are developed to explain advanced practice nursing and are not role specific. Existing models and frameworks are discussed for their usefulness in explaining CNS role and practice. Multiple models are needed to provide deeper understanding of the unique characteristics of the CNS role and core CNS practice competencies. No one model is best; the best model is the one that explains the phenomenon of interest.

Keywords

Clinical nurse specialist · Advanced practice nurse · Conceptual model · Conceptual framework · Domains of practice · Practice competencies · Practice outcomes

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2.1 Introduction

The evolution of the clinical nurse specialist role has its roots in the mid-twentieth-century effort to move nursing education into academic institutions of higher learning and out of apprentice-based hospital training programs (Fulton 2014). University-based programs introduced theoretical and scientific knowledge into nursing curricula assuring that graduates used clinical reasoning and exercised sound judgment in the practice of nursing. Nursing education slowly shifted from a focus on performing tasks directed by others, primarily physicians, to autonomous decision-making grounded in scientific principles. This shift in focus caused nurse leaders to recognize a need for an advanced, clinically expert nurse who could provide direct care to patients and families while serving as a leader in the clinical setting promoting excellence in the practice of nursing. Frances Reiter (1966), the first dean of the Graduate School of Nursing at New York Medical College, described the expert nurse-clinician as a master practitioner for all dimensions of nursing practice. This expert clinician would provide clinical care while using judgment to assess problems, determine care priorities, and select the best nursing measures to achieve therapeutic objectives. In addition, the expert nurse would promote quality of care and remove system-level barriers to nursing care delivery (Reiter 1966). About this same time, the National League for Nursing (NLN) was developing the idea of a nurse with a clinical specialty to promote application of new knowledge and advanced clinical methods for the ever-evolving areas of specialty care (NLN 1958). Through these efforts, graduate education emerged in the United States, and the clinical nurse specialist (CNS) role was established. From the beginning, a CNS was defined as a graduate degree (postbaccalaureate)-prepared nurse with a deep knowledge of and clinical expertise in an area of specialty practice (Fulton 2014). Over the ensuing decades, hundreds of articles about the CNS role and practice have been published demonstrating remarkable consistency in the descriptions across many different specialty practices and varying health systems.

Clinical nurse specialist is one of several advanced clinical practice roles in nursing. Other commonly recognized advanced clinical practice roles include nurse practitioner, nurse-midwife, and nurse anesthetist, though the designation of advanced practice varies by country. Conceptualizations of the CNS role and practice have been published in the form of models and frameworks. This chapter explores models and frameworks for CNS practice and examines advanced clinical practice models applied to the CNS role as an advanced practice nurse. The objectives for this chapter are as follows:

1. Discuss the purpose of models and concepts central to CNS role and practice.
2. Examine selected models and frameworks of CNS practice and advanced clinical practice.
3. Discuss challenges, opportunities, and future directions for enhancing models for CNS role and practice.

The models discussed in this chapter were selected as representative of different types of models; this is not an exhaustive discussion of all published CNS or advanced practice models and frameworks. Readers are invited to consider other available models and frameworks for relevance in guiding CNS role development, education, practice, and regulation within the context of individual national healthcare systems.

2.2 Purpose of Conceptual Models

Concepts are abstract ideas existing in the mind as a representation, a mental construction of thoughts related to something generalized from particular instances. A conceptual model is a description of interrelated concepts in a rational scheme for structuring knowledge. The terms conceptual model and conceptual framework are used interchangeably. The concepts in a model can exist along a continuum from highly abstract to very concrete. Conceptual models are used to explain phenomenon of interest to a discipline. There is no one best conceptual model; multiple models of a same phenomenon provide alternative ways for explaining and examining a phenomenon.

A metaparadigm provides an overarching understanding of important concepts within a field of study. Nursing models should include the central concepts in the metaparadigm of nursing, which are humans, the environment, health, and nursing. The majority of scholarly work undertaken by nurses in the past four decades addresses these four concepts (Hicks 2014). Although there is no one best way to view a phenomenon such as clinical specialty nursing or advanced nursing, evolving conceptual models benefits patients, nurses, other providers, and stakeholders by ensuring consistency of practice and practice expectations. Models assist advanced nurses to articulate a professional role and practice, serve to organize knowledge about role competencies, and facilitate knowledge development about the role, practice, and associated outcomes. Models can demonstrate differentiation of advanced clinical roles (clinical nurse specialist, nurse practitioner, midwife, and nurse anesthetist), from other advanced or specialty roles (educator, administrator, and researcher). Models can also help differentiate one type of advanced clinical role from the other and distinguish advanced clinical roles from generalist staff nurses.

2.3 Definition of Clinical Nurse Specialist

The International Council of Nurses defines an advanced practice nurse as a "registered nurse who has acquired the expert knowledge base, complex decision-making skills and clinical competencies for expanded practice, the characteristics of which are shaped by the context and/or country in which s/he is credentialed to practice"

(ICN 2019). Other professional nursing organizations and governmental agencies also have published definitions and descriptions of the clinical nurse specialist that share similarities (American Nurses Association 2013; American Association of Critical-Care Nurse 2014; Canadian Nurses Association 2019; National Association of Clinical Nurse Specialists 2019; European Specialist Nurses Organizations 2015). A composite of existing definitions, practice expectations, and the associated characteristics of the CNS role is as follows.

The clinical nurse specialist (CNS) scope of practice extends beyond the generalist nurse in terms of expertise, role functions, mastery, and accountability and reflects a core body of nursing and health knowledge. In addition to providing expert specialty direct care to patients and their families, CNSs function as leaders in advancing nursing practice by teaching, mentoring, consulting, and ensuring nursing practice is evidence-based. CNSs interpret the public's need for nursing services by evaluating disease patterns, technological advances, environmental conditions, and political influences. CNSs help assure that the profession meets its social mandate to provide quality, cost-effective, cutting-edge nursing services to the public. The following characteristics delineate the CNS role and practice:

- CNSs are generalist-prepared professional nurses (registered nurses) with additional graduate-level (postbaccalaureate) preparation in a formal program of study (master's or doctoral degree).
- CNSs are expert clinicians providing direct clinical care in a specialized area of nursing practice. Specialty practice is influenced by scientific discovery and the public need for nursing services in delimited areas requiring in-depth knowledge and skill. Specialty areas of practice may be well established or emerging and can be categorized by developmental age or gender (e.g., pediatrics, geriatrics, women's health); clinical setting (e.g., critical care, emergency); a disease/pathophysiological state (e.g., oncology, diabetes); type of care (e.g., counseling, palliative, rehabilitation); or type of problem (e.g., pain, wound, incontinence).
- Clinical practice for a specialty population includes health promotion, risk reduction, and management of symptoms and functional problems related to disease and illness.
- CNSs provide direct care to patients and families, which may include diagnosis and treatment of disease.
- CNSs practice patient-/family-centered care that emphasizes strengths and wellness over disease and deficit.
- CNSs influence nursing practice outcomes by leading and supporting nurses to provide scientifically grounded, evidence-based care.
- CNSs implement improvements in the healthcare delivery system and translate high-quality research and other evidence into clinical practice to improve clinical and fiscal outcomes.
- CNSs participate in the conduct of research to generate knowledge for practice.
- CNSs design, implement, and evaluate programs of care and programs of research that address common problems for specialty populations.

- CNSs practice in a wide variety of healthcare settings, such as hospitals, community clinics, schools, mental health facilities, and occupational health clinics to name a few. CNSs practice in ways and in places that meet the needs of the public.

2.4 Building Blocks of Models and Frameworks

A model or framework is central to achieving CNS role consistency and sustainability and in supporting evolution of CNS as a distinct and legitimate healthcare expert in the healthcare delivery system. Models should embrace the definition of the CNS role, provide explanations for the relationships between practice and outcomes, and reflect practice consistent with nursing's metaparadigm of humans, nursing, health, and environment. No one model can easily encompass all elements, and multiple frameworks have been proposed for describing both advanced practice roles in general and the CNS role in particular. Models can describe one or more central concepts of the CNS role, such as CNS practice, CNS role structure, or regulatory authority to practice. The distinct purpose of many existing models and frameworks is often not stated, and comprehensive models frequently lack clarity and focus by attempting to explain all characteristics and dimensions of the CNS role.

Separate models and frameworks are needed to explain CNS role structure, CNS practice, and regulatory authority to practice. A model explaining CNS role *structure* describes the elements and characteristics of the role and the relationships between and among those elements. A model for CNS *practice* is a process model demonstrating interrelationships among elements constituting practice including domains of practice, practice competencies, and desired outcomes. Process models demonstrate the relationship between practice competencies and clinical outcomes. A *regulatory* model explains the legal requirements for practice and the associated scope of practice. Multiple models will provide deeper understanding of the CNS role and practice. No one model is best; the best model is the one that explains the phenomenon of interest.

Understanding the difference between CNS as an advanced practice *role* and CNS *practice* is a prerequisite for developing useful models and frameworks. A *role* is a unique set of functions for which the necessary knowledge and skills are obtained through education, training, or other requirements. For the CNS role, a prerequisite is formal education beyond the basic generalist nursing registered nurse education. Graduate nursing education includes common content for all advanced practice roles; however, each role (CNS, nurse practitioner, midwife, nurse anesthetist) has a unique curriculum designed to prepare graduates to function in that particular role.

Practice is the act of applying role-based knowledge and skills in the provision of care to patients, families, groups, or communities for the purpose of achieving designated outcomes. Competencies are statements of expected actions representing the application of role-specific knowledge and skill. Practice involves

implementing the nursing process—assessment, diagnosis, planning, intervention, and evaluation—using the unique competencies of the role. A model for CNS practice should demonstrate linkages between the competencies of practice and the outcomes of practice.

A *regulatory model* describes the relationships between and among credentials necessary for practice, authority within a scope of practice, and other prerequisite or continuing requirements for practice. Credentials are mechanisms for validating achievement of competency in a role and may include academic degree, professional certification, clinical training verification, specialty training, or other documentation that serves to validate competency consistent with a role. A regulatory model should stipulate both the required credentials and the scope of authority in which the person holding the credentials has authority to practice. Where a license is issued by a governmental agency or body, the license is a mechanism for designating a scope of practice.

Multiple models and frameworks have been developed over the years to explain CNS and advanced practice nursing (Spross 2015; Arslanian-Engoren 2019). Models are often organized by *domains*, which are areas of similar concepts, knowledge, activities, or outcomes. Domains differentiate generalized areas of content. CNS practice has been conceptualized as occurring in three distinct, interacting domains—patient (direct care), nurses/nursing practice, and systems/organizations (NACNS 2019). The knowledge, skill, and activities within each of the domains are similar and related. In other models, the competencies have been organized by domains. Seven core competencies of advanced practice nursing, described by Hamric and Tracy (2019), are direct clinical practice, guidance and coaching, consultation, evidence-based practice, leadership, collaboration, and ethical decision-making. Each competency domain captures similar knowledge, skills, and activities.

Substantive areas of practice have also been used to describe CNS domains of practice. Three substantive areas of CNS, derived from Lewandowski and Adamle's (2009) review of the literature, were managing the care of complex and vulnerable populations, educating and supporting interdisciplinary staff, and facilitating change and innovation within healthcare systems. Substantive areas of practice are similar to the domains of practice and used interchangeably; however, the substantive areas of practice may be more precise and communicate more specificity.

Competencies are demonstrated in actual performance of a skill in a defined context and involve the application of critical thinking, knowledge, and technical and interpersonal skill. Professional organizations develop competencies for role and specialty practice. Professional competency statements guide curriculum development and student educational experiences. Having competence implies both the ability and capability to perform in a functional role and to achieve desired outcomes (Cowan et al. 2005).

A *scope of practice* is legal authority to act independently—use judgment and determine actions—within legally recognized boundaries. A scope of practice is granted by governmental body and regulated using a legal mechanism such as licensure. CNSs, like all advanced practice nurses, are first registered nurses holding a

license to practice in an autonomous scope of nursing using independent judgment to diagnose and treat problems amenable to nursing interventions. An advanced practice nursing license extends the boundaries of practice beyond the registered nurse license. Legislative bodies determine a scope of practice in statute (law) and regulate the practice within the law using a licensing mechanism.

2.5 Critiquing APRN Models: Two Exemplars

To better understand the distinct purposes of models and the various uses of domains and competencies within models and frameworks, two models for advanced practice nursing are discussed. Hamric's model of advanced practice nursing, initially developed to explain the CNS role (Hamric and Spross 1989), has been expanded over the years to explain all advanced practice roles (Hamric and Tracy 2019). Graphically designed as four large concentric circles, the model is primarily a structural model that includes the criteria for authority to practice. In Fig. 2.1, the left side of the diagram is a graphic representation of Hamric's model. The model's first, innermost circle represents the primary criteria for an advanced practice nursing role and includes graduate education, professional certification, and practice focused on patient/family. The second and third circles of the model are competencies. The second circle, the central competency, is direct clinical practice. The third circle contains core competencies and includes guidance and coaching, consultation, evidence-based practice, leadership, collaboration, and ethical decision-making skills. In total, the model includes seven competency domains. The fourth and outermost circle in the model represents a fluid boundary between the profession and environmental elements affecting advanced practice nursing, including regulatory and

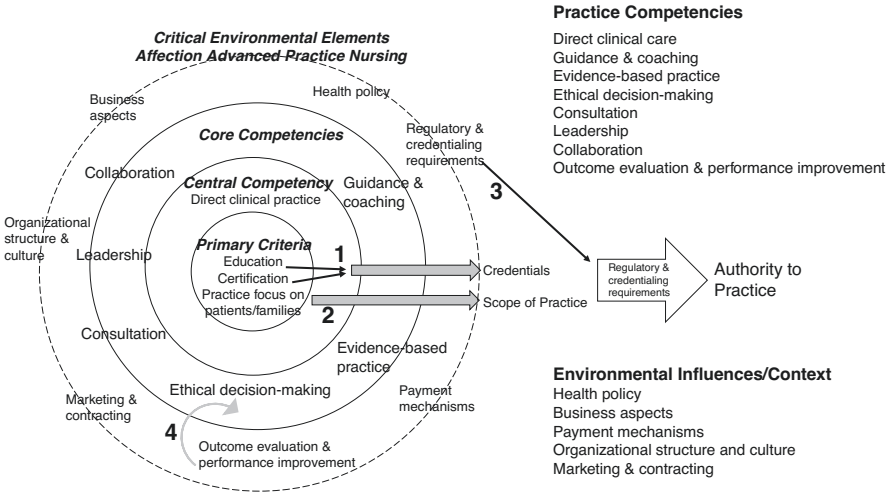


Fig. 2.1 Critique of Hamric's model (Hamric and Tracy 2019) for advanced practice nursing (Copyright © J.S. Fulton 2019)

credential requirements, business aspects, health policy, payment mechanisms, marketing and contracting, organizational structure and culture, and outcome evaluation and performance improvement. These environmental elements create a milieu, shape advanced practice, and must be managed as part of maintaining practice (Hamric and Tracy 2019).

Critique of Hamric's model. The innermost circle, identified as *primary criteria* for an advanced practice nursing role, includes credentials required for practice, education and certification, and a scope of practice that is patient and family centered. Credentials and scope of practice are elements of *authority to practice* model. In addition, the outer circle, environmental elements affecting practice, includes regulatory and credentialing requirements. All elements aligned with regulatory requirements could be placed in a separate, authority to practice model, which could be expanded to offer a clearer explanation (see #1, #2, and #3 in Fig. 2.1).

The profession is charged with meeting society's needs for nursing services. Perhaps public need for nursing should be the primary or central element. Identifying authority to practice as the primary criteria places regulatory authority as the central tenant of advanced practice, which diminishes the profession's responsibility to our social mandate. The profession first identifies needs and then advocates for governmental authority to practice in a scope so as to meet the public need. Authority to practice shaped by the public need is the last step in expanding nursing. More aptly the order of progress should be (1) public need, (2) education and training programs preparing nurses, and (3) regulatory authority to deliver the needed services.

While the innermost circle represents authority to practice, the second and third circles of the model define domains of *competencies.* With the exception of direct clinical practice being central, the competency domains are not weighted and are broad enough for each advanced practice role to create competency statements within the domains consistent with a functional role. Indeed, these competency domains can be found in many advanced practice nursing professional competency standards created by professional nursing organizations and government statements (American Nurses Association 2013; American Association of Critical-Care Nurse 2014; Canadian Nurses Association 2019; National Association of Clinical Nurse Specialists 2019; European Specialist Nurses Organizations 2015; United Kingdom, Department of Health 2015).

The fluid outer boundary between the profession and environment includes elements affecting and shaping advanced practice. The difference between an external element and a practice competency is not clear. Outcome evaluation and performance improvement is arguably an essential competency of advanced practice (see #4 in Fig. 1.2). Likewise it can be debated how many and to what extent the other external elements can be considered core competencies of advanced practice. Managing reimbursement and payment mechanisms, marketing and contracting services, and engaging in shaping health policy are arguably important competencies for advanced practice nurses. Hamric's model, revised over years, is based on considered thought but limited research. Primarily a structural model, it pulls together elements of advanced practice nursing. It has expanded over time to explain all advanced practice roles while also limiting its ability to explain any one role.

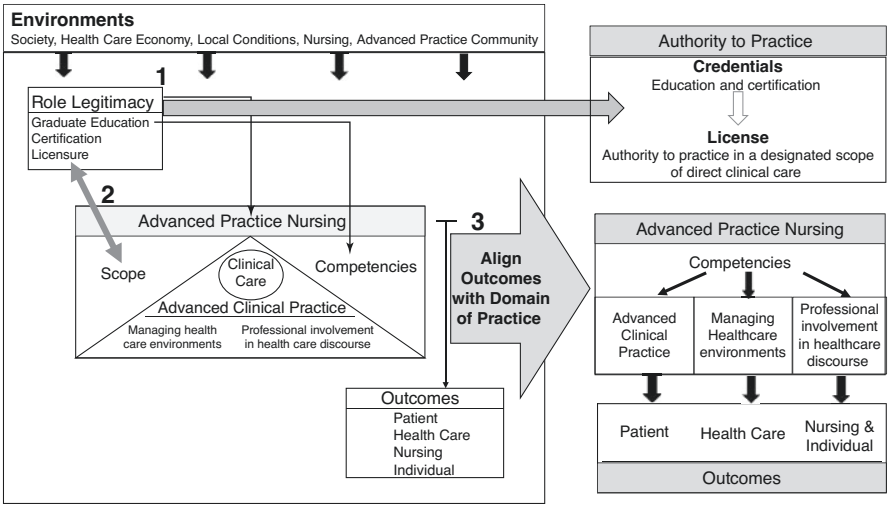


Fig. 2.2 Critique of Brown's (Brown 1998) framework for advanced practice nursing (Copyright © J.S. Fulton 2019)

Unlike Hamric's structural model, Brown's (1998) framework is a process model linking practice competencies with outcomes. Brown described the model as a broad, comprehensive framework of advanced practice nursing including four main elements: role legitimacy, advanced practice nursing, outcomes, and the environment in which practice occurs (Brown 1998). In Fig. 2.2, the left side depicts the original Brown model. Role legitimacy includes graduate education, certification, and licensure. A line depicts the linkage between graduate education and acquisition of clinical competencies; another line depicts the necessity of role legitimacy as prerequisite for advanced practice. Within the authority to practice box, the elements are graduate education, certification, and license. Within the advanced practice box, scope and competencies are balanced alongside the three domains of practice—advanced clinical practice, managing healthcare environments, and professional involvement in healthcare discourse. Outcomes are defined as the consequences of practice in the three domains. Patient outcomes are health outcomes for individuals. Healthcare environment outcomes include improved accessibility to care, availability of diverse healthcare services, and lower cost. Professional nursing outcomes reflect career enhancement opportunities for the individual advanced practice nurse. The framework links practice to clinical outcomes. In addition, the model depicts advanced practice nursing within the context of the larger environmental influences of society, healthcare economy, local conditions, and the advanced nursing community.

Critique of Brown's Framework. Brown's framework, like Hamric's model, includes authority to practice in the model, represented as role legitimacy. The model also includes scope of practice as an element of advanced practice. Scope is defined as specialization, expansion, autonomy, and accountability. Every license

includes a scope of legal authority in which the license holder practices autonomously and is held accountable. Role legitimacy elements would best be placed in a separate authority to practice model with graduate education and certification as credentials leading to a license to practice in a designated scope. Figure 2.2 demonstrates moving the role legitimacy and scope to a separate model, demonstrated on the right side of the figure (see arrows #1 and #2 in Fig. 2.2).

Competencies, in Brown's Framework, include both core and role. Core competencies are expert guidance and counseling of patients and families; research critique, utilization, and conduct skills; and skills in working cooperatively with others. Role competencies include clinical, diagnostic, and management experiences in specialty areas and differing areas of expertise in organizational management. Competencies practiced in the three domains of clinical care—clinical practice, healthcare environments, and professional involvement—lead to outcomes in four domains. As a practice model, the outcomes could be better aligned with their respective domains of practice, as demonstrated in Fig. 2.2, arrow #3. Like Hamric's model, Brown's framework represents considered thought but lacks empiric support. Brown has not updated or revised the model since it was originally published.

Reviewing and critiquing these two models demonstrates the importance of differentiating among models explaining structure, practice, and regulatory authority and between domains of practice and domains of practice competencies. Both models included regulatory authority to practice that could best be explained in a separate model. Research is needed to demonstrate the value of CNS and other advanced practice roles. Models linking practice competencies to clinical outcomes are needed. Identifying and validating practice outcomes would make clear the expectations to the public and therefore the rationale for authority to practice.

2.6 Conceptual Models and Frameworks for CNS Role and Practice

Frameworks explaining structure of the CNS role describe the elements, characteristics, and domains of the CNS role. An example of a structural model is seen in Fig. 2.3. This model, adopted by the NACNS (2004), demonstrates the structure of the CNS role as three interacting practice domains imbedded in specialty practice knowledge, skills, and standards of practice. Direct care is the central domain; two additional domains, nurses/nursing practice standards and systems/organizations, overlap inside the direct care domain. The three domains, called *spheres of influence*, became the organizing frame for CNS practice competencies (NACNS 2004). Each of the three spheres of influence included practice competency statements organized by assessment, diagnosis, outcome identification, and planning, interventions, and evaluation. Each sphere included outcomes aligned with the practice competencies.

The model was revised by NACNS (2019) to include the larger context of CNS practice represented by an outer boundary and included healthcare environment, societal needs, healthcare policy, and interprofessional collaboration. The name of

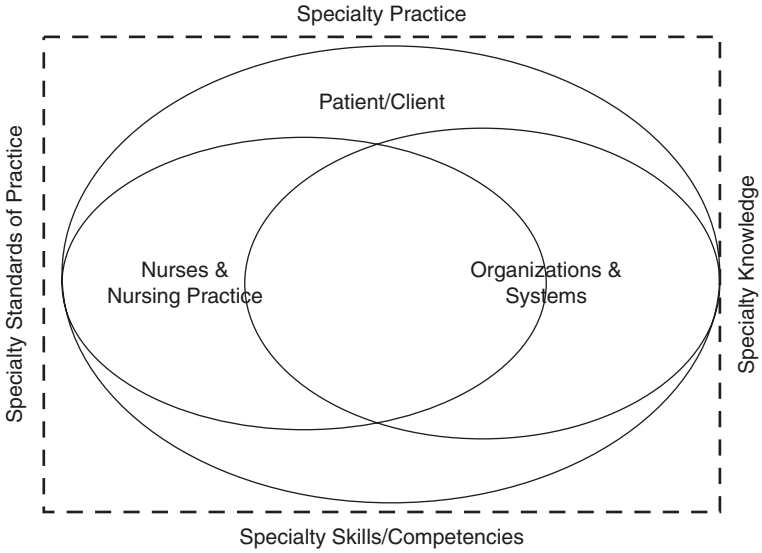


Fig. 2.3 Clinical nurse specialist practice conceptualized as core practice competencies in three interacting spheres of influence and guided by specialty knowledge, skills, and standards (Copyright © J.S. Fulton 2003)

the domains of practice were changed to *spheres of impact* from spheres of influence while retaining direct care as central with the two additional interacting spheres. Practice in one domain interacts with the other domains such that CNS practice in each domain is synergistic for the full practice actualization (NACNS 2019). As a model, it defines the domains of practice that explain role performance, the relationship of the domains to each other, and the contextual elements in which the domains are located. As a structural model, it does not explain the process of practice or link practice to outcomes. The revised model, seen in Fig. 2.4, depicts CNS competencies outside the domains; however, the accompanying explanation retains the structure of competencies organized by domain and existing within the spheres of impact, not external, and includes associated outcomes (NACNS 2019). Placing the competencies outside the spheres is an inaccurate representation of the narrative explanation.

Frameworks explaining practice describe the relationship between practice competencies and practice outcomes. These models incorporate processes and interactions by which practice competencies take place and make possible an intervention, therapy, or change. Practice models explain the linkages between practice competencies and practice outcomes in the designated domains of practice and across the scope of practice.

A model depicting the relationship between CNS practice competencies and outcomes was developed by Boyle (1996). Boyle's model recognizes both direct and indirect practice in three domains, including direct care, nursing staff, and healthcare

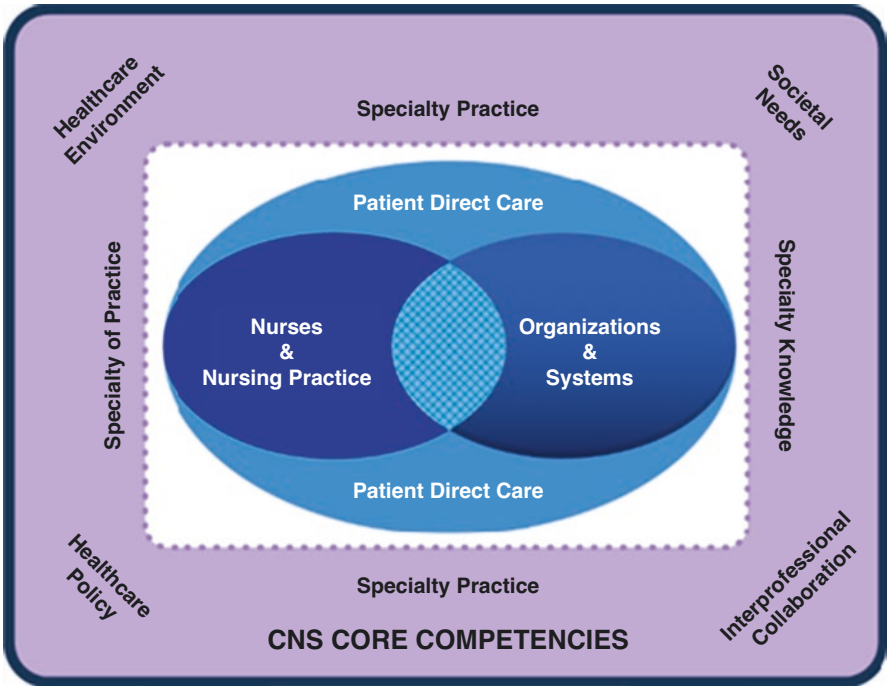


Fig. 2.4 Clinical nurse specialist practice conceptualized as practice in three interacting spheres actualized in specialty knowledge and standards occurring in a larger environment influenced by societal needs, health policy, healthcare environment, and interprofessional collaboration (NACNS 2019)

team/system. Direct care is defined as the provision of CNS services delivered directly to patients and families within a specialty consistent with specialty practice standards. The model also recognized the direct and indirect influence of CNS practice on personnel in the health system and identified indirect influence as an outcome of CNS practice because of a CNS's ability to improve outcomes through system-level interventions. Figure 2.5 is an adaptation of Boyle's model depicting relationships among CNS practice competencies in all three spheres and the culminating impact on patient and family outcomes within a given healthcare context or setting.

The new model links practice competencies and practice outcomes with sufficient specificity that it could be used to support research about the CNS role and practice, though neither the original Boyle's model nor the revised model has been empirically validated. The NACNS practice competencies and their related outcomes have been validated (Baldwin et al. 2007, 2009; Fulton et al. 2015) providing a measure of validity to the structure of the CNS role.

Frameworks explaining authority to practice are based in a social contract acknowledging professional rights and responsibilities of nurses and include a mechanism for public accountability. These frameworks describe the interrelationships of

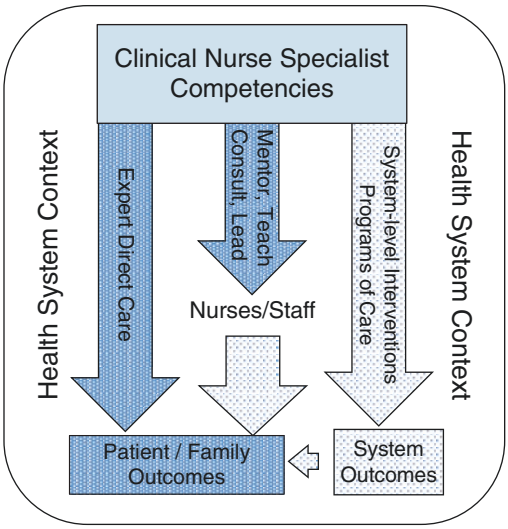


Fig. 2.5 Clinical nurse specialist practice model demonstrating direct and indirect practice competencies and outcomes in three domains and occurring within a healthcare system (Copyright © J.S. Fulton 2019)

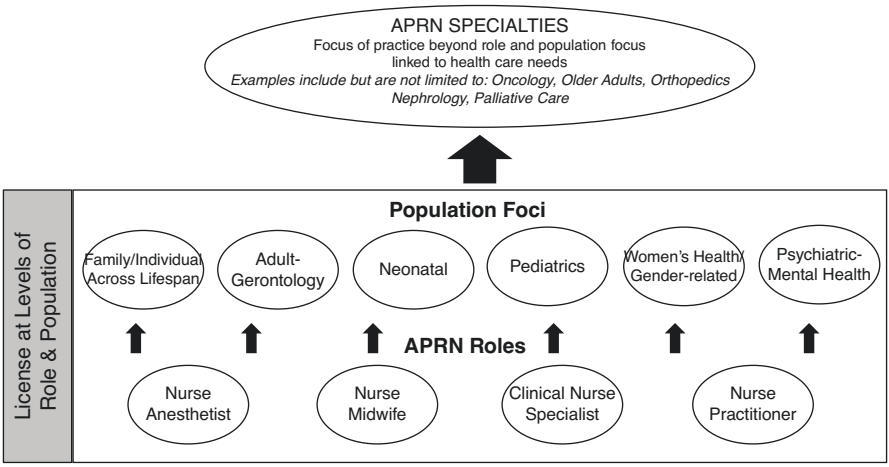


Fig. 2.6 Advanced practice registered nurse (APRN) regulatory model

the requirements for practice and an associated scope of practice. In the United States, the APRN Consensus Model (2008), depicted in Fig. 2.6, is a framework explaining authority to practice. The framework, developed by representatives from national nursing community, addresses variability in advanced practice nurse recognition and authority to practice by identifying both the roles eligible for advanced practice authority and the associated scope of practice. Advanced practice roles

eligible for recognition are CNS, nurse practitioner, nurse-midwife, and nurse anesthetist. The scope of practice for the roles may be neonate, pediatric, adult/gerontology, family across the life span, gender health (men's or women's), and psychiatric/mental health. In this model, specialty practice beyond a population is not regulated, resulting in a decoupling of specialty education from graduate creating challenges for specialty education in CNS curricula.

In the United States, nursing practice is regulated at the state level, and the model proposes one approach to advanced practice recognition for all 50 states, each with different rules and requirements. The model stipulates requirements for educational preparation, accreditation of educational programs, professional nursing certification, and regulatory titling. For CNSs, the most significant gain was universal recognition of the CNS role as advanced practice. As could be anticipated, such a sweeping effort across the 50 states has, to date, met with varying success. One significant downside to the model is that specialty populations, which are limited to only six, exclude other, arguably equal specialty patient populations.

Two specialty populations not recognized in the model are oncology and critical care, both specialties representing complex, vulnerable populations and having a robust body of scientific evidence supporting practice. These specialties, with their individual knowledge and skill base, could easily support graduate education and prepare advanced nurses for a scope of practice in the specialty populations. The model also excludes the maternal-infant specialty population, which has led to a decline in advanced practice nurses caring for this vulnerable population. Thus the model, while affording some clarity to regulation across the 50 states, has been criticized for being too narrow and prescriptive. A challenge for any regulatory model is to find the right balance between prerequisite requirements and a scope of practice that enables nursing to respond to society's existing and changing needs for nursing services (Fulton 2019).

2.7 Differentiating CNS Practice

A shortcoming of many early CNS structural models was the failure to level competency domains for CNS advanced practice resulting in little distinction between generalist nursing and advanced practice nursing. Initially called "sub-roles," Hamric's early work (1989) identified CNS practice competency domains as clinician, educator, consultant, and researcher, which are not unique to CNS practice. All nurses are expected to practice as clinicians, educators, consultants, and researchers. The depth, scope, and related outcomes of practice in these areas depend on functional role and corresponding academic preparation and clinical training. For example, bachelor's-prepared nurses engage in research activities, as do master's-, practice doctorate (DNP)-, and research doctorate (PhD)-prepared nurses albeit not at the same level and with different expected outcomes.

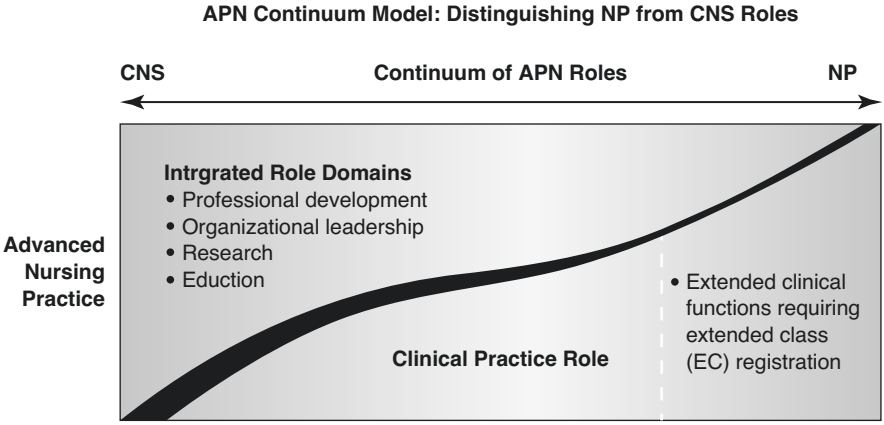
Differentiating advanced practice from expert generalist practice was the purpose of Culkin's (1984) model, which was grounded in the definition of nursing as the diagnosis and treatment of human responses to actual or potential health

problems. Assuming the possibility of human responses exists as a normal distribution, the model suggests that generalist nurses are prepared to deal with a more narrow range of the human response than an advanced practice nurse. Expert generalist nurses may excel at interventions for a wider range of responses when compared to more novice nurses, but would not be able to intervene across the wider range covered by an advanced practice role – a wider range of response due to graduate-level preparation in theory and science that supports problem-solving beyond expert experience. The model is theoretical, supported by examples for discussion, but lacks empiric verification.

An example of a research-based module that differentiated practice competencies for the advanced roles of CNS and nurse practitioner (NP) is Fenton and Brykczynski's (1993) adaptation of Benner's (1984) domains of practice. Benner's (1984) original work described seven domains of practice and identified practice competency within the domains as a continuum proceeding from novice to new clinician to expert in an area of practice. Benner's work resulted from interviews with generalist nurses, and while it included expert practice, it did not describe advanced practice. Fenton (1985) conducted an ethnographic study examining CNSs and their work. When comparing the findings to Benner's domains, Fenton identified several additional CNS-specific advanced competencies to existing domains, and one new domain, consultation, was added as a CNS practice domain. Similarly, Brykczynski (1989) conducted a naturalistic study to provide a contextual account of experienced nurse practitioners and suggested modifications to Benner's domains and competencies to reflect nurse practitioner practice. Comparing the results of the independent studies, Fenton and Brykczynski (1993) created a model that distinguished CNS practice from NP practice and distinguished both from expert generalist practice.

By comparing findings from independent studies, Fenton and Brykczynski's collaboration demonstrated that advanced practice can be multidimensional with both overlapping and distinct role competencies. NP practice has greater emphasis on management of patient health and illness status in the primary care setting compared to CNS practice with greater emphasis on consulting with staff around patient advocacy, interpreting nursing responsibilities to others, and role modeling nursing practice. Bryant-Lukosius (Fig. 2.7) further clarifies the essential distinctions between the two roles with an advanced practice continuum model, emphasizing how CNS practice focuses more on supporting clinical excellence through professional development, clinical leadership, education, and research while NP practice focuses more on direct patient care. Also indicated in the model is a point on the continuum of expansion where NP practice expands beyond the scope of the initial registered nurse license and needs additional authority to practice.

CNS practice is largely in a field historically viewed as nursing, and in extending the boundaries of traditional nursing, there has been little emphasis on additional authority to practice. In contrast, other advanced practice roles, including NPs, have been expanding nursing practice into areas historically identified with physician practice, often resulting in considerable pushback from physicians around regulatory authority to practice. Figure 2.8 depicts the different emphases of the CNS and



Source: Bryant-Lukosius, D. (2004 & 2008). *The continuum of advanced practice nursing roles. Unpublished document.*

Fig. 2.7 The continuum of advanced practice nursing roles

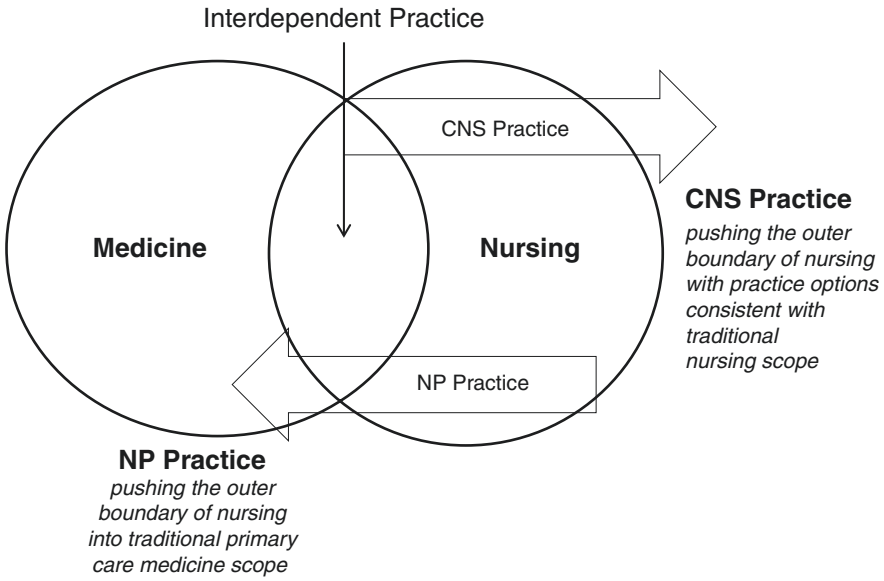


Fig. 2.8 Schema depicting clinical nurse specialist (CNS) and nurse practitioner (NP) practices expanding nursing practice in different directions, including area of interdependent practice (Copyright © Janet S. Fulton 2009)

NP roles, with the NP role expanding more into traditional medical practice. This figure also includes an overlapping area of practice identified as interdependent practice representing care that is interdependent on both providers for delivery of the total treatment. For example, insertion of an intravenous medical device may

rest totally with a nurse's autonomous judgment for device selection and placement so that medically prescribed intravenous fluids and medications can be administered. As healthcare practices become more interprofessional, models are needed to distinguish nursing practice from medical and other practices.

CNS practice, existing predominantly in the traditional scope of nursing, allows for easier adaption of the role in differing countries and cultures. Whatever boundaries exist for nursing in a country, there is always a need to innovate and improve the care provided by nurses, to update standards of nursing practice, and to work within the healthcare system to facilitate best practices and remove barriers to care. The CNS role can support nurses in providing safe, high-quality, innovative care within the context of any setting, system, or culture.

2.8 Challenges and Opportunities

Over the years science has changed the precision of diagnostic techniques, led to the development of many more pharmaceutical agents, and made routine and complicated surgical procedures infection-free, restorative therapies. Nursing practice has changed too, to keep up with the scientific discoveries and specialized treatments. Yet it remains as true now as ever that wherever nursing is practiced, there will be a need for a nursing care expert to provide care to patients and families, identify the needs of populations, and lead others in promoting excellence in nursing practice. The CNS role was created by the nursing profession to fill the gap.

One ongoing challenge for CNSs is visibility. CNS practice is largely in the area of traditional nursing practice. Much about generalist nursing practice is poorly articulated to the public and outcomes are inadequately documented. In contrast to NP's higher public profile in delivering primary care, CNS practice is, like nursing practice in general, often invisible. Nursing practiced in what has been traditionally considered medicine, and, to a lesser extent, nursing practiced in the interdependent area, has a higher profile than the more traditional nursing interventions promoting care and comfort. Nurses teaching diabetic self-care may be invisible to other providers and the larger health system. A CNS expert in diabetes care supporting the nurses by designing evidence-based teaching guidelines and culturally appropriate resource materials is even more invisible (Fulton et al. 2019). Explaining that CNS practice is nursing practiced at an advanced level when nursing practice itself is invisible is quite a challenge. There is an urgent need for models that can be used to support research for documenting CNS practice outcomes.

Existing models and frameworks for CNS role and practice lack empiric support. Many models were developed by thought leaders and have served to guide the development of the roles and practice. However, research has often codified the language of the models without challenging the validity of the model itself. Researchers would often ask CNSs to identify or quantify activities in each of the old "sub-roles" while not considering the appropriate level of these activities for CNS practice or linking activities to outcomes. In addition, models used to describe

all advanced practice roles fail to capture the nuances of each role and practice. Generalized models lack the specificity to capture the rich, detailed data needed to demonstrate CNS and nursing outcomes.

Additional conceptual work is needed to differentiate the CNS role and practice from other advanced practice roles. Understanding the unique knowledge, skill, and contributions of each role will help promote greater collaboration and cooperation among advanced practice nurses. The result will be a stronger profession better equipped to lead globally for the improvement of the health and well-being of the public. Our conceptual perception of ourselves becomes our reality. To that end the greatest opportunity is to more clearly define the CNS role and practice.

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