

## THE ROLE OF ADVANCED PRACTICE NURSES: NURSE PRACTITIONERS, CRNAS, AND MORE

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### **Abstract**

The goal of this text is to capture the role of advanced practice nurses. With growth of the APN role, the pool of healthcare providers will be expanded, thus improving the healthcare for many who are underserved. Offers the following text for review and acceptance.

### **Keywords**

Advanced practice nursing, advanced nursing practice and the role of nurse practitioner are terms that can cause confusion, particularly because they are inconsistently used. This article will clarify the terms ideally for discussion. These definitions are proposed as a starting point for dialog. Changes and modifications will be necessary to reflect an ongoing dialog and to reach common agreement. Review of these definitions should be done from multiple points of view. It is important to consider the patient, the nursing profession, the nursing specialist, the nursing educator, and any practice act regulating advanced nursing practice. While developing these definitions, a broader consideration of the international use of these terms is encouraged. Legal regulation of all nursing roles needs to be considered.

An advanced practice nurse is described as a care provider, as this has been the traditional scope of nursing practice. However, more contemporary definitions refer to the management of care. This broader focus is taken, with care management involving the provision of care, as well as other interventions. Therefore, the advanced practice nurse is one who has “acquired the expert knowledge base, complex decision-making skills and clinical competencies necessary for extended practice, and are accountable for those functions to the public.” The initial role of the advanced practice nurse emphasized “across the continuum of care,” distinguishing that role from a nurse with “a narrower, technologically- and acutely-oriented specialist’s focus.” The description of practice indications was not limited to “clinical treatment,” but included “case management and the write/treatment of prescriptions” to capture the many ways nurses would manage care. There is broad agreement that advanced practice nurses are necessary to address the current demands of health care. Public law 101-597 recognizes the important public use and the constraints on supply that make their availability essential (DOCKS at The University of North Carolina at Greensboro & "Randy" Rasch, 1996).

### **1. Introduction**

Advanced practice nursing is defined as the management of the care of patients with complex needs. Advanced practice nursing (APN) is a term used to describe a variety of nursing interventions that may be provided to patients. But just what are these interventions, and how do they combine with patient teaching and the prevention, assessment and management of

psychosocial problems to jeopardize independent practice or even to push out the boundaries of ordinary practice?. APN is an approach to the delivery of nursing care, and it uses other nursing intervention as well. Instead of being directed toward the needs of a single patient, the care itself is done at a higher level. (DOCKS at The University of North Carolina at Greensboro & "Randy" Rasch, 1996). This management includes not only the care directly provided by the nurse or her designee, but also the care to be provided by the patient and/or family. Techniques may include medication, treatments, or patient teaching about diet, exercise and other lifestyle changes, as well as technological interventions such as dialysis, cardiac monitoring, suctioning, oxygen therapy, and others. Knowledge of advanced pharmacokinetics and current drugs in use is essential. Patients with these kinds of complex needs also require assistance with symptom management, wound healing, comfort measures, techniques for coping with illness by both patient and family, and knowledge of how to help patients and families manage the complex regimens required by many serious illnesses. Even patients with less complex needs may require nursing care for management of problems such as fever or nausea. All advanced practice nurses will need some skills in each of these areas if important services to patients are not to be lost. Knowing how to help patients and families with all of these needs is necessary (Kilpatrick et al., 2023).

Historically, nurse practitioner (NP)—one type of advanced practice nurse—programs were created to increase access to primary care in medically under-served areas. Since 1999, 44 states and the District of Columbia have approved licensure or certification for NPs to practice independently—not under physician supervision or collaboration. Nursing organizations have long sought a level of provider status for advanced practice nurses practicing within their own domains of primary care. Career ladder development, improving the ability of nurses to practice at the peak of their ability and education and potential goals of nursing system reform principles found in IOM's Keeping Patients Safe, An 10-year strategic plan to provide a clear picture of the route needed to establish safe practice environments in all types of health-care delivery systems was recently released by the Joint Committee on Protection of Patients. Randomized clinical trials indicate that APN primary care appears to be a safe and effective way of providing care to vulnerable populations, and APN may, in certain circumstances, provide a wider range of related services to clients. Cruz v. Montanside Medical Hospital, to challenge the mandatory physician supervision of NPs' practice as determined by the State Nurse Practice Act and to positively influence their practice freedom, was leveled in 1995 by those California entities.

### **1.1. Background and Importance of Advanced Practice Nurses**

Advanced practice nurses, or APNs, are professional nurses who occupy an expert clinical role and who have the capacity to reason about their practice (Kilpatrick et al., 2023). Advanced practice nursing competencies may involve knowledge and understanding of particular areas of clinical practice, and the development of higher-order reasoning or metacognitive skills to translate this knowledge into an expert plan of action. The development of clinical reasoning in advanced practice nurses is thus seen as an essential component of their expertise. Clinical reasoning is a thinking, acting, and reflecting process that involves the collection and evaluation of patient information, the identification of the problem, the establishment of goals, the selection of nursing

interventions, and evaluation of outcomes or consequences of actions for the nursing care provided to the patient.

A useful conceptualization of clinical reasoning identifies components of knowledge and components of reasoning skill. Knowledge components include required knowledge and knowledge sources used in problem-solving activities. The components of reasoning skill relating to task performance are used in clinical problem-solving and include diagnostic reasoning, therapeutic reasoning, and evaluative reasoning. Reflective aspects of clinical reasoning involve the thinking required to evaluate the consequences of clinical actions, learning from experience, and the ongoing adjustment of the reasoning process.

## **2. Types of Advanced Practice Nurses**

1. Nurse Practitioner The future of advanced-practice nursing has largely centered on organizational issues, role function issues, and professional autonomy issues, such as prescriptive authority for nurses in advanced practice (DOCKS at The University of North Carolina at Greensboro & "Randy" Rasch, 1996). Each advanced practice role (NP and CNS) was originally conceived after careful planning by nurse scholars. The further development of the roles is now driven by the practice needs of clinical settings. Shortages of resident physicians, especially in pediatrics, have added impetus to this trend. Basic questions needing to be addressed include: What is a nurse practitioner? What is a clinical nurse specialist? Is there a difference? What is advanced nursing practice? The NP has practiced in primary care or ambulatory settings, and the credential for practice has been certification and/or licensure beyond the registered nurse. The NP has generally provided a broad range of patient services and has largely proceeded without collaboration with other nurses. The CNS has customarily practiced in an institutional setting, sometimes only with inpatients, but may see patients returning to outpatient clinics after hospital discharge. The role was initially conceived primarily as a consultation role for the RN. The CNS's credential to practice has typically been a master's-degree education, and the role has focused on patient populations or problems. NPs and CNSs are regulated in certain states to the level of synchronized practice, yet it is contended herein that the conceptual bases for the roles differ substantively.

2. Certified Registered Nurse Anesthetist Certified Registered Nurse Anesthetist (CRNA) first began to provide anesthesia during the American Civil War, delivering anesthesia in the field hospitals of the Union Army. The history of anesthesia delivery by nurses predates the Federal Government's involvement in health care. Today CRNAs administer approximately 65% of anesthetics given to patients in the U.S. each year. CRNAs are the primary providers of anesthesia care in rural America. In some states, CRNAs are the sole providers in nearly 100% of rural hospitals. In the wake of Medicare's 1997 decision to recognize CRNAs as "suppliers" of anesthesia services in the nation's payment regulations for the Medicare program, the Federal Government will now provide protection to the nation's Certified Registered Nurse Anesthetists (CRNAs). With the Medicare program's recognition of CRNAs, a Certified Registered Nurse Anesthetist will be able to practice to the full extent of his/her training and the nurses' state nurse practice act.

## 2.1. Nurse Practitioners

Scholarly practice in advanced practice nursing has now been able to create a model that transcends the traditional parties and certifications and policies that have defined it until now within each national health system so that it is extended to all countries in the region and every corner of the planet. A global perspective of advanced practice nursing shifts the focus from issues related to scope and any limits to practice, to issues related to evidence-based practice. Although updated expertise had already been generated in a systematic way at a national level within the scope of clinical practice and/or some professional collaboration, it was impossible prior to this initiative to access it from common frameworks that facilitate compilation, evaluation and updating of the same content at a global level.

The proposal that nurses should expand their roles in primary health care globally includes a clear mandate for the further development, expansion, and greater worldwide recognition of all nursing roles, including the 2 most common advanced practice nursing roles: nurse practitioners and clinical nurse specialists. Advanced practice nurses comprehensively attend to the needs of individual patients/families/communities with acute, chronic, or complex conditions, regardless of their health risk or setting. Advanced practice nurses initiate and influence changes in the composition of the necessary systems. They support providers to offer safe and high quality care, helping to increase access to timely services. Moreover, as leaders, educators, researchers and collaborators, advanced practice nurses help to ensure health care tailored to the needs of communities. Despite the consensus on the common core elements of advanced practice nursing and its value for patients, families, communities and the health care system, the roles continue to show great diversity internationally. In fact, in many countries, existing laws and regulations do not recognize advanced practice nursing as an independent profession. These idiosyncrasies are observed in countries with an adequate density of nurses and where the discipline is relevant to patients with a certain percentage of advanced training nurses. Countries of the region hope that this new model contributes to updating the discipline in the light of common basic care actions, and to opening a constructivist debate with the academic sectors to understand and reach consensus on the care interventions that qualify, distinguish and protect nursing as an independent discipline. This care model of advanced practice nursing has been developed since the confluence of knowledge of the scientists of the first global network of the discipline formed.

## 2.2. Certified Registered Nurse Anesthetists (CRNAs)

Certified Registered Nurse Anesthetists (CRNAs) are advanced practice nurses who have specialized in the nursing practice of anesthesia. As of March 20, 2019, there are 53,215 CRNAs and 30,320 student registered nurse anesthetists in the United States, and CRNAs practice in every setting in which anesthesia care is delivered. These settings include traditional hospital surgical settings and non-hospital settings, such as ambulatory surgery facilities, offices of dentists, and plastic surgeons, among many others. With the current shortage of anesthesia providers in the United States, safe and high-quality anesthesia care will be the result of a team effort, with CRNAs and other providers working together to ensure the best patient outcomes possible. 36 states report a moderate shortage of anesthesia providers, either nurse anesthetists or anesthesiologists or both.

Anesthesia services may also be provided by physicians or anesthesiology assistants. The role of nurse anesthetists in Korea decreased considerably after 1999 despite their long history of practice, with nurses responsible for over 60% of anesthetics given to patients by 1990. Nearly half of CRNAs practicing in 2017 in the U.S. were 50 years or older, and the aging population in the United States will increase the demand for health care services in the coming years, giving APNs a vital role to play. A recent study suggested that with an emphasis on advanced nursing practice, these professionals may be able to provide more services with less cost.

In the United States, advanced practice nurses (APNs) are required to complete a graduate-level educational program, pass a national certification examination, and are awarded a national certification credential. Nurse practitioners (NPs) have provided care, counseling, and education to patients for over 50 years in the United States. NPs are also required to earn a second advanced practice registered nurse (APRN) degree in addition to a specialty certificate. Six states in the UK offer NP programs and each program is required to have a master's degree program; an increase from only 1 in 2007. In the UK, NPs were initially deployed to alleviate shortage and are now being utilized in various settings across the country.

### **2.3. Clinical Nurse Specialists**

Nursing has been at the forefront of the development, utilization, and educational preparation of advanced practice professionals in the United States. However, unlike the unity shown in the physician assistant profession in educating one type of provider with consensus about what this person should do, nursing preparation has led to varying definitions of advanced practice nursing, including the nurse practitioner, the nurse midwife, the clinical nurse specialist, and more recently, the nurse anesthetist. To ensure the future of APNs, it is critical to distinguish between them and also to clarify what each specialized role should and should not entail.

The consensus model for the clinical nurse specialist has delineated competencies for this role, recognizing that knowledge and skill acquisition should be based in graduate education for the CNS. The four component model of the clinical nurse specialist encompasses the roles of the teacher, consultant, researcher, and clinician. The unique contributions and strengths of the CNS are highlighted as the position is employed as a specialist in a practice setting. Entrenched in a nursing theory, with enhanced critical thinking skills, the CNS assesses, plans, intervenes, and evaluates a unique patient population with an eye toward implementing change on a system-wide level. There is an overhaul of the perception of the clinical nurse specialist nursing community, exemplary clinical nurse specialist implementation projects are initiated at a neurobehavioral clinic, and it is demonstrated in the coming years that CNS interventions can both improve care and be cost-effective (M. Gordon et al., 2012).

### **2.4. Certified Nurse Midwives**

Certified Nurse Midwives (CNMs) are the oldest component of the advanced practice nursing group. Certified Nurse Midwives used to be referred to as independent practitioners but now are referred to as independent providers. A Certified Midwife works with relinquishing hospitals and has a spotty practice routine in these facilities. Certified Midwives need a physician to sign client charts and serve as supervisor. Additionally, a second credential, the Certified Midwife (CM) was



developed to create an alternate pathway to midwifery practice for those without a nursing education. The candidate for Certified Midwife must hold a bachelor's degree and complete the same Masters Education program as the Certified Nurse-midwife and meet the same certification requirements with the exception of the RN license (Sanders et al., 2024).

One type of midwife, the Certified Professional Midwife (CPM) is certified by the Midwives Alliance of North America (NARM). The CPM credential is granted to those who complete a course of study in midwifery at an approved school, complete a prescribed number of births as the primary birth attendant and fulfill other clinical requirements, and pass an examination covering the didactic portion of their education. CPMs largely practice in homebirth or birth center practices, and their training is geared towards those settings. There are other practicing midwives with a variety of educational backgrounds and experience. These midwives are often referred to as “lay” midwives. While many of these midwives may have exceptional clinical skills developed over many years of training and practice, there is no clear validation of skills or competency measure for their practice, reports of practice patterns and outcomes vary widely. The Certified Professional Midwife and lay midwife communities grew in the 1970's as a response to the more rigid structure and requirements of the Certified Nurse-midwife process (Gustin, 2018).

### ***3. Education and Training***

The first formal education program for APRNs was developed almost a century ago in 1900. Although the availability of formal education has significantly increased, there still remains a shortage of nursing faculty to teach APRNs in clinical practice due to the demands for advanced clinical practice. The ongoing education of APRNs who already work with patients is essential to maintain competency in an environment of evolving science, policy, and technology. Difficulties in accessing quality preceptors and obtaining clinical placements, especially in efforts to expand nursing workforce diversity, are additional challenges in APRN education. Despite these obstacles, a review of the strategies available to address such challenges shows that several approaches can be taken by all stakeholders in the APRN educational process. Federally Qualified Health Center (FQHC) rotations from two NP programs are used as examples to highlight the successful implementation of several strategies which NP students' access to quality clinical placement experience in FQHCs is expanded and improved (Fitzgerald et al., 2011).

Because of the increasing complexity of the care needed by an aging U.S. population and the larger number of Americans who are newly insured under the 2010 Patient Protection and Affordable Care Act, it is essential that health care providers are prepared to deliver high-quality, cost-effective care. APRNs could be part of the solution to providing health care access. Advanced practice registered nurses include nurse practitioners (NPs), certified nurse-midwives (CNMs), certified registered nurse anesthetists (CRNAs), and a newer specialization, clinical nurse specialists (CNSs). APRNs provide a wide range of clinical, organizational and human resource skills, and can provide patients high-quality, culturally and socially appropriate care. For example, NPs are prepared to take health histories and provide complete physical exams; diagnose and treat a variety of illnesses; order, perform and interpret diagnostic studies; and develop comprehensive treatment strategies. Nearly all of these competencies parallel those of physicians and RNs

prepared with a higher degree. NPs provide a variety of services including prescribing medications, performing minor surgeries and procedures, and admitting/dismissing patients.

### **3.1. Advanced Degrees Required**

As nurses collaborate with other diverse professionals supporting the health care process, collaboration also grows among nurses themselves. Step by step, integration positions take across linkages in nursing. Nursing Assistant crosses research assistant, a professional Nurse shifted to refinement professions such as Nurse Specialists, would, later, evolved to Nurse Practitioner and Nurse Manager. A Nurse Manager route describes these as a distinct path from refinement to administrative roles. The nursing profession has evolved over the years due to the need identified in the community. Along the times, challenges were placed before the profession encouraging the growth of new nursing forms (Oldenburger et al., 2017). If the need reflects sophistication, innovation in the profession can take root. For instance, North American Nurse developed Hospital-Based Health Care, a practice that tested under other settings due to its success in several intensive care treatments. This resulted in a more frequent use of hospital nurse practitioners as Intensive Care Nurses who, aside from nursing, also possess a degree on medicine rowing both professions. This is an important success story for the nursing community and if the venture is guided responsibly, novel nursing alternatives could also materialize. Multiple time and budget constraints in treating areas of overlapping surgery at Hospitals enforce the establishment of independent Nurse Anesthetist positions. Later, steps are taken to grant broader flexibilities in the professional compliance of nurses. Helper nurses originated in poorer or isolated areas, working without direct medical supervision and being trained specifically for this. With a nursing foundation, they also are prepared to assist in some areas of medical practice. This form is close to the Japanese Care Workers. Subspecialization of the older nursing paths across variety breadth of disciplines is also encouraged broadly. On the schizophrenia field, for instance, the Psychiatric Path leads to the introduction of the possible future Psychiatric Nurse Practitioner integration position (G. Stewart, 2003).

### **3.2. Clinical Hours and Preceptorship**

The clinical portion of advanced practice nursing education is an essential component of training future nurse practitioners (Wilson Hood, 2018). Future CRNAs may start clinical rotations immediately upon entry into a graduate program and gain experience, skills, and perception as other advanced practice nurse professions. Various combinations of clinical hours corresponding to different weeks of full-time equivalent hours have been utilized by different nurse practitioner programs. Those full-time equivalent hours typically did not include time spent on diverse sites in addition to a block of sixty hours in one particular place.

The requirement for a nurse practitioner preceptorship is the second reason why the average time from graduate program entry to certification as a new nurse practitioner is observed. Advanced practice nurses hold close ties that are deeply woven within the community of nursing. Nurse practitioners and certified registered nurse anesthetists train directly with a provider of health care, which is considered the cornerstone of education for this advanced practice nursing model. It has been noted that most CRNA students receive mentorship from faculty before employing sites,

which likely facilitates certification and employment. This could serve to reduce the amount of time from entry into their program to starting practice as a CRNA.

#### **4. Scope of Practice**

##### **4.1 Discussion**

The Role of Advanced Practice Nurses: Nurse Practitioners, CRNAs, and More Health care more and more surrounds us. It is most apparent in the general sense when we visit a medical doctor. Ill individuals often only desire to find a doctor and receive a solution to their predicament. The individual attempting to make a doctor's appointment may not dwell on the utter complexity of the health care system itself. They are to feel better and that is all that seems to matter. Health care, on the other hand, is the subject of numerous procedures, management, and regulations that impact daily life in innumerable ways. A main factor in this system is the practitioner, especially the massively complex and heterogeneously trained nursing workforce. It is the advanced practice nurse (APN) that can often relay that so-sought after peace of mind (L Ryskina et al., 2024).

While this likely sounds very broad in scope, it reveals an important fact about the health care workforce ... credentials and abilities matter a great deal. Health care in the United States (US), and many other countries, is a unique field. Any individual, for the most part, can treat an automobile or invest their own money (or at least that is mostly the case). But health care is different, very different. Mid-20th century medicine was difficult and often led to abominable discoveries. Etching into core truths about the human account revealed the ghastly nature of the timeline. But by today's standards those same practices seem primitive and often unrestricted, no matter how well intended. There are now boundaries in the field that require various certifications and tests before certain ambitions can be met. Some of the more sanctioned roles include medical assistants, licensed practical nurses, registered nurses, certified nursing assistants, physician assistants, and nurse practitioners.

##### **4.1. Autonomy and Collaboration**

Registered nurses are the most trusted professionals throughout 2017, a testament to being ranked as such consecutively for 15 years. Medical expertise, ethical standards, honesty, and professionalism along with contributing positively to society have been consistently rated 80% or higher over the same time frame. More than merely trustworthiness, public image is essential to professional autonomy, or self-governing within a regulatory framework to continuously act in the best interest of the patients. In nursing, professional autonomy relates to the self-regulation with the goal being safe, high-quality, and cost-effective patient care (F. Haupt, 2016). Autonomy also influences recruitment, retention, professional satisfaction, and professional growth and development. The most basic concept in nursing is to do no harm; harm to a patient is one of the worst liabilities in healthcare, both legally and ethically. In this era of increasing numbers of hospitalized patients with chronic and complex conditions and acuity, the only way to efficiently and effectively practice safe, quality and high-value care is through a professional mode. An industry-wide transformational approach to healthcare delivery, however, has caused everlasting and irreversible negative changes in the foundational, historical pillars of access and continuity of care by healthcare delivery teams of known and trusted professionals; the registered nurses. A



modern, safe, legally- and ethically-practicing nurse acts under the standards of care that are developed by professional peers in consideration of trends and averages for a certain condition, setting, and population. The numbers of errors and omissions in those standards raise as the most basic knowledge in medicine and the basic assessment skills; knowledge of the anatomy and physiology of the patients are failing. Although specific instances of neglect can be caught in the course of a lawsuit, none of the experts will be able to tell whether the standards have been breached if the insurance providers simply strip away the most basic elements of traditional nursing care from physicians' notes. Economic, profitability-driven staffing policies hinder nursing assessments; rather than attempt the impossible assessment of clean lung sounds on numerous patients with chronic heart failure on minimal oxygen, the limitations are such that the RNs, the advanced practice nurses (APNs), and the more experienced LPNs are forced to technically assess for adventitious lung sounds, and their knowledge never goes beyond that or the basic anatomy of lungs. Large caseloads of patients with chronic obstructive pulmonary disease on chronic supplemental oxygen expose innumerable healthcare facilities to significant fines, as the federal government has opened revenue-generating avenues to prosecute such neglectful review of the basic health and well-being of the public. Exploiting a false and manipulative narrative has caused a rush in reckless, dangerous and unjust policies that directly contradict the most fundamental elements of nursing practice and are causing permanent and undiscovered harm. Efforts to question or dispute these are being silenced; any mention of basic, first-line assessments, skin-to-skin measurements, and physical signs, or the inability to assess the most fundamental aspect of a patient, specifically one's oxygenation, respiratory status and comfort, is being disregarded and suppressed as malice.

#### **4.2. Prescriptive Authority**

The authorization of independent prescriptive practice for advanced practice nurses (APNs) is important for the future of medicine in the United States. This action would authorize licensed APNs at the national level to independently manage their patients by prescribing the appropriate medication, devices, and using federal supplies and diagnostic procedures. Maryland would conform to the national legislative criteria (M. Beck, 1995). Provisions and regulations would be established by the state board of nursing (SBON) in accordance with the format developed jointly by the federal Health Care Policy Agency and the federal Health and Human Services Agency. Within ten months of the effective date, each nurse practitioner (NP) would pass a nationally standardized examination developed by the National Organization of Nurse Practitioner Faculties (NONPF). This Certification of Prescriptive Practice for the Advanced Practice Nurse (CPP-APN) examination would be administered by the Nurse Practitioner Certification Examination Committee (NPCEC). On or after 12 months from the effective date, NPs would submit a signed attestation form to the SBON. This would verify that the NP has the relegated number of clock hours in the differential diagnosis and pharmacotherapy of various aspects of one's medical specialty. Continuing education would be in pharmacotherapeutics. Advanced practice nurses authorized to prescribe would complete by the end of 12 months after the effective date forty-five clock hours in differential diagnosis and pharmacotherapy for each medical specialty population

focus on the practice. Respective medical specialty focus means the disease and different analysis of the deviant process within the body of competence of the APN derived from the primary, chronic or acute care (J. Brousseau, 2014). At least twenty-five of the forty-five clock hours would be completed in differential diagnosis and twenty clock hours would be in pharmacotherapy. Advanced practice nurses who terminate their prescriptive authority as described in this section would meet relevant requirements. Upon reactivation for such authority, nurses who prescribed for over 960 hours in the prior nine consecutive years would pay back the hours deficit to the SBON. Upon being found to have written 200 medically improper prescriptions with foreseeable harm, the NP would verify the option of a drug or device card to every patient before prescribing any dangerous or questionable deceptive drugs or devices. Advance practical nurse would verify option right before writing the prescription. Each institution would verify the name brand descriptor, side effects, decongestants, equilibrant, and predictable natural history of the illness when taking the drugs or device likely to be prescribed and treatment alternatives.

### ***5. Regulation and Certification***

Nurse practitioners (NPs) are one of the four recognized advanced practice nursing (APN) roles. They are registered nurses (RNs) with graduate preparation in nursing. The primary care roles of NPs also have a strong emphasis on health promotion and maintenance. The effectiveness of NPs in delivering such care has been demonstrated in several countries. The emphasis on primary and preventive care is becoming increasingly important with the increasing prevalence of chronic illnesses. In the USA there are over 100 million people with at least one chronic condition, and this is expected to increase by 37% in the next 20 years. Priority is placed on health care reform initiatives to provide more community-based and preventive care. NPs with the right knowledge and skills can contribute to these initiatives. (M. Parker & N. Hill, 2017) By developing protocols and methods of evaluation, they can provide the evidence that has the potential to change the practice. Care of patients who require treatment over a long period of time, such as people with chronic diseases, is particularly likely to benefit from the use of protocols, and this is also seen in the increased use of case management. Case management is defined as a method where a nurse with advanced preparation takes on clients with special needs and coordinates the efforts of everyone who contributes to the client's care. The principles of practice include ensuring that the care is uninterrupted, that high quality, cost effective care is provided, and that the outcome is optimal. NPs provide care in a variety of settings, and care coordination transcends these settings. Coordinating the transitioning patients across settings is an increasingly important and recognized role of nurses. In sum, a NP (or any other APN) needs to have advanced preparation in one of the four roles, as well as additional responsibilities that can include research, education, consultation, mentorship, and leadership. With greater responsibilities comes the need for greater knowledge and skills. Inadequate general or specific preparation, as well as negative societal attitudes, impacts the ability to fulfill these responsibilities to the full extent. APNs are currently one of the most controversial health professionals because their roles (and as such their competencies) differ from traditional nursing roles, and they are not always clearly understood by other health care professionals or the community. The uptake of the APN roles and their effectiveness in the clinical

setting depends on the extent to which their supervisors accept and champion the APN role. Barriers to a fully effective implementation of APN are raised and explored from an international perspective. APNs have been providing care in the United States since the early 1960s. Currently over 236,000 nurse practitioners (NPs) account for about two thirds of the APNs in the US. There are professional titles and scopes of practice for the four distinct roles of APNs (NPs, clinical nurse specialists, nurse midwives, and nurse anesthetists) in all US states; however, it is up to each state regulatory board of nursing to decide if APN can practice without physician oversight. APNs, equipped with technical skills and broad knowledge in the discipline, have educational preparation at the master's level.

### **5.1. State Licensure**

The practice of advanced nursing, including Nurse Practitioners (NPs), Clinical Nurse Specialists (CNSs), Nurse Midwives (NMs), and Certified Registered Nurse Anesthetists (CRNAs), is regulated by both the state Nurse Practice Act and the state Nurse Licensing Board. In recent years, advanced practice nurses (APNs), other than those certified as CRNAs, claim that legislative language and board enforcement have restricted their ability to practice autonomously (M. Beck, 1995). More specifically, these nurse practitioners claim that they are legislatively required to practice only with physician-determined medical guidelines. To a limited extent, they support this argument with the point that all recent legislative initiatives they have lost on the issue of prescriptive authority. The various state board positions regarding advanced practice nurse autonomy are analyzed and additional language that could be included in the Nurse Practice Act is provided. This language would broaden APN scope of practice to include the option of autonomous practice and prescriptive authority. It is anticipated that this language will enable current collaborators, medical associations, nursing organizations, and state boards to more constructively draft mutually agreeable guidelines.

### **5.2. National Certification**

Advanced practice registered nurses (APRNs) must be nationally certified by the appropriate body before practicing in Georgia unless they have been practicing in Georgia for at least fifty months (DOCKS at The University of North Carolina at Greensboro & "Randy" Rasch, 1996). Other Georgia requirements for APRNs include certification in a particular role and specialty, graduate nursing degree with a focus in the role and specialty, and a protocol. No GA Board of Nursing requirements for career-long learning are listed. In the state of Georgia, an APRN is defined as a certified nurse-midwife, certified nurse practitioner, clinical nurse specialist, or certified registered nurse anesthetist who is licensed in the state. In order to legally practice as an APRN in the state of Georgia, the APRN must be licensed to practice as a registered professional nurse in the state of Georgia, be certified by a national credentialing body acceptable to the board in the appropriate role and population focus, meet advanced practice educational requirements, and enter into and maintain a regulated written agreement with a physician within the criteria established by law and rule for nurse protocols.

## **6. Practice Settings**

Advanced practice nurses (APNs) have been proposed to play important roles in health systems, improving the accessibility of care and the health status of populations. The Pan American Health Organization recognizes the potential contribution of APNs to health systems and has committed to remove barriers to their effective deployment in primary health care (PHC) in the Region of the Americas. Practices settings, as well as roles and responsibilities of APNs are presented in the Americas, illustrating the experience of five countries in the Region. Further, strategies to facilitate the development and implementation of APN in the Americas are provided. This step involves identifying strategies and solutions for achieving the goals and expected outcomes identified in Step 4 (Oldenburger et al., 2017). Each country will be responsible for establishing APN roles and responsibilities that best fit its specific context, building upon—but limiting overlap with—existing nursing roles. PAHO, in conjunction with CC, universities, and other organizations, can provide technical cooperation for the development of a core set of basic competences. Ensuring that countries have similar definitions for APNs may allow for monitoring, evaluation, and comparison of these roles and their effect across the Region. It is felt that the time is right to engage in a constructive dialogue and share experiences and concerns, in an effort to harmonize definitions for APN in the Americas. In addition, a common framework for PHC may provide opportunities for countries to further develop, strengthen, monitor, and evaluate PHC, as well as to compare progress.

### **6.1. Primary Care**

This description outlines an 8-step procedure for the advancement of advanced practice nursing (APN) in primary care, first tailored to Latin America and Caribbean countries. It additionally presents more general recommendations for the organization of country workshops, identifies responsibilities of collaborating centers (CCs), universities, and professional associations in advancing APN. Basic understanding of APN concepts and the importance of primary care are required. Organization of these events is driven by a recognition of the essential role of primary care and APN in achieving universal health coverage and meeting the Sustainable Development Goals set by the United Nations. The general recommendations are developed with the goal of promoting the advanced practice nurse role in various health sectors on a global scale. The seven steps for the organization of country workshops and eventual establishment of advanced practice nurse roles or specialties are: (1) background analysis, (2) stakeholder assessment and assignment of interdisciplinary organizing committee, (3) organization of workshop, (4) development of goals and expected outcomes, (5) development of an implementation plan, (6) workshop follow-up and evaluation, and (7) celebration and recognition (Oldenburger et al., 2017).

### **6.2. Hospitals and Acute Care Settings**

So you've completed your MSN degree and have obtained your Acute Care Nurse Practitioner credential; now what? Although there are an increasing number of jobs for ACNPs, many hospitals may not yet see the value of hiring ACNPs. Additionally, a hospital hiring an ACNP will not automatically know how best to use the ACNPs in their hospital. For this reason, it is essential that role implementation guidelines good practices be created as a resource for both hospital administration and the ACNPs themselves to foster the successful implementation of the ACNP

role. There is an increasing need for acute care providers that can bridge the gap between hospitalists and critical care intensivists to meet the patient acuity and concerns related to care transition (Elizabeth Liego, 2013). This role provided by Acute Care Nurse Practitioners (ACNPs) has been shown to facilitate the improvement of compliance with critical care clinical practice guidelines. Commensurate with an expanding population and concomitant health care needs, ACNPs are poised for steady future growth in a myriad of inpatient and outpatient clinical venues. With the upcoming changes in health care law and the initiation of the Affordable Care Act, hospitals are seeking employment of advanced practice RNs to effect care quality improvements while exploring unconventional financial strategies. While hospitals experiment with alternative health care models, new provisions and additionally the passing of the “patient choice and affordability” act are aimed at improving both, quality health care provision and cost containment. One such provision, value-based purchasing, allows for the Center for Medicare/Medicaid Services to reward hospitals that meet higher quality care standards; evaluations will be made based on hospital performance during inpatient episodes, ultimately impacting future recoupment funds for the hospital. As a new enhancement incentive for improved cost containment, hospitals have also been given the option of funding hospitalist-based Accountable Care Organizations designed solely for inpatient and post-acute services.

### **6.3. Specialty Clinics**

6.3.1. Nurse run clinics have been established in most health and human services districts funded through state grant monies. Where such clinic are available, they can be used to its full capacity by enhancing access to community groups through worksite/ employment, shelters, community centers, housing projects, day care centers, and schools in high risk areas. Contractual agreements can be developed with local county clinics of the health department to provide care/services to senior High school students. Access can be expanded for low income individuals through setting of amnesty days where services will be offered free of charge. Such service is available regularly at the Veterans Administration clinics to attract patients into the health care delivery system. Recently various types of public clinics have been opened all over the country, which accept children in the treatment programs or weight management clinics for weight reduction whom have been advised to see their private physician. This group has a higher rate of drop out compared to adult groups (M. Gordon et al., 2012). Committee development and staffing is thus needed to offer more freedom to the NP to make decisions and to be fully aware of the patient’s problem. With attention of certain regulations, especially the new regulations regarding the dispensing of methadone were recently implemented. Descriptive analysis of Patients seen and medical complaints treated were done for one year by medical complaints type and demographic characteristics at the very first clinic in 1979.

6.3.2. There has been a rise in the development of different classes of advanced practice nurses in the United States because of many reasons, including a rise in the similarity of the scope of practice among multiple roles such as CPNP, NNPS, Family NP. With this new titles of Nursing practitioner in Boot camp, Rural health NCR or Pediatric satellite clinic NP, come into existence greater possibilities for misunderstanding and a legal dilemma for both nursing professionals and legislators. This evolution of specialization in



advanced practice nursing has made supervision of other nurses by the registered nurse with BSN without knowledge in the new sub-specialty such as the hospital based pediatric NP or the school NP problematic. With this increase in the specialization of APRNs and the practice settings that have been expanded to a variety of specialties and populations, a comparison needs to be done among the four core roles, including the clinical nurse specialist (CNS), since nursing specialization does not refer only to PNP, CFNP, or NNM specialty. Even the typical CNS role has evolved to be specialized in different job aspects such as sub specialty, and/or complex patient groups. Both patients and professionals are still not knowledgeable about the scope of CNS practice. Assistant regards nurse practitioner because of decrease in time with assistant to improve patient management, fears of decreased hospital billings due to hospital budget cutting, and a factor that was considered to prevent misunderstanding by physicians concerning the scope of NP practice. Despite this, it is well accepted that the CNS is at the pinnacle of professional nursing practice and has an essential role in the coordination of patient services and in the hospital management for the improvement of nursing care.

### ***7. Collaboration with Other Healthcare Professionals***

Nurse practitioners are innovative, high level practitioners supported by graduate education that bridges the gap between medical and nursing practice. NPs can provide a wide range of services, including holistic precedence, diagnosis and management of acute conditions and chronic conditions for people of all ages. NPs take accountability for patients, provide health promotion, preventive and curative care; however the specifics of their care may vary dependent on their knowledge and competency of the individual NP. NPs can provide a wide range of services beyond that traditionally provided by the general practitioner (GP) by working in hospitals, in community-based hospitals, or in a combination of the two. Another potential barrier is that NPs may be employees of separate out-of-hours service cooperatives and therefore not have a natural incentive to work together. Subsequently, it may be particularly challenging for NPs to work with some GPs. Similarly, GPs may not be adequately informed by the out-of-hours triage or the electronic patient record system of patient registration thus overestimating the skills of the NP. Currently, NPs may be unequally distributed between teams in and around the different out-of-hours cooperatives and the teams may vary in structure. There are valuable lessons that are relevant to implementing NPs in out-of-hours services which should also be considered by primary care services looking to integrate new different trans multi professional skills mix (van der Biezen et al., 2017).

#### **7.1. Physicians**

Advanced nurse practitioners (ANPs) have evolved significantly over the last decade and have been well recognized globally. Advanced practice refers to a level of practice by health service providers. They have additional expert or specialist clinical skills, knowledge, decision-making, and abilities. An advanced reflective and evidence-based approach will examine the current and relevant insights in clinical practice with reference to international criteria and roles and how the role will adapt this profession in order to meet current and future needs. In addition, the development of democratization and increased transparency of public services has placed nurses in a political and professional position where they encourage the direct implementation of health

policy. The successful installation of ANP care from a general pediatric center is primarily reported (Htay & Whitehead, 2021). Reading is applied to existing services that mostly come from a pediatric center located in the community and have to consider opportunities and challenges from a broader view.

## **7.2. Pharmacists**

Clinical pharmacists serve as a bridge between the world of physicians and CRNAs and the tenuous world of medications. The role of the clinical pharmacist appears to be quite different in the two countries as well as two healthcare systems. The clinical pharmacists are fully integrated into the healthcare team. They have been part of the standard team since the modern, evidence-based health management structure, which includes a senior physician/scientist fully trained in internal medicine or general practice, was established. Since this creation, every Israeli hospital department has included at least one full-time clinical pharmacist. The senior physician or department head and a clinical pharmacist jointly staff the department.

Interactive discussions in the department are common, with the senior pharmacist proactively discussing problematic patients. Therefore, a clinical pharmacist intervention is already accepted and, in many cases, expected. In addition, every reported adverse reaction or medication error activates the patient's insurance trigger policy (J. Rose et al., 2021). Within 48 hours, an inquiry committee, headed by the director of TPM (Treat, Prescribe, Monitor), convenes to investigate. If a clinical pharmacist was not already involved, one is immediately brought in order to provide data and expertise. By contrast, in the United States, older physicians are trained before clinical pharmacy practice was widespread. As physicians currently training finish residency, 15% of total US physicians will have done all their training in the era of modern and institutional clinical pharmacy. Medical trainees today are extremely likely to work alongside a clinical pharmacist from the beginning of their career, and accept the clinical pharmacist as per the norm of the healthcare team. This currently includes the vast majority of hospitalists; along with the clinical pharmacists seeing many of the team's consults, interns and residents from all disciplines. Nationally, clinical pharmacists intervene to prevent >800,000 adverse medication events annually, reducing patient harm by >20% and saving >\$3 billion/year.

## **7.3. Therapists and Counselors**

Therapists working in epilepsy care can also include psychological therapists, neuropsychologists, social workers, support workers, art therapists, play therapists, dance movement therapists, and counselors. It is good practice for counseling professionals to ensure clients are made aware of their level of qualifications.

Therapists are easy to locate, understanding how each can contribute to improved well-being and symptom management has been less straightforward. Therapist credentials differ by region. Regardless of background, therapists should be able to provide a personalized account of training and qualifications upon request.

Posting job titles outside each therapy's area of practice informs patients and families as to the qualifications of the individual. In some regions therapists are subject to legislations, others

incorporate varying levels of tutor count. Additionally, a psychotherapist interprets feelings, whereas a therapist considers moods.

### **8. *Quality and Safety in Advanced Practice Nursing***

Today's health care environment is complex and demands improving quality and safety outcomes. For health care practitioners to optimize their care, practice guidelines with safety protocols available must be followed. Nurse practitioners (NPs) are advanced practice nurses who practice evidenced-based, patient-centered care, who focus on improving quality and safety outcomes and adhere to all safety protocols. As practice guidelines become more readily available, the expectation is that the more consistently Nurse Practitioners (NPs) follow the guidelines, the more it will improve quality outcomes (Elizabeth Liego, 2013). It is also an expectation that nursing satisfaction with care for the Acute Care Nurse Practitioner (ACNP) model of care would be high as these practitioners are prepared specifically to improve quality and safety outcomes. Satisfaction with Acute Care Nurse Practitioner – ACNP (NP) care is good. It is a finding that compliance with ACNP orders is correlated with improved patient outcomes. Inconsistent compliance with ACNP orders prompts an examination of the factors that affect adherence.

Nurse practitioners (NPs) are advanced practitioners that are capable of assessing, diagnosing, and treating patients. State multiple reviews including a prestigious study recommended that advanced practice registered nurses (APRNs) practice to the full extent of their licensure. Nurse practitioners (NPs) are one type of APRNs, and there are different types of NPs, including those that work outside of primary care in areas like the inpatient setting. As workforce shortages and increasing patient loads continue to rise, there is a continued focus on alternate methods for delivering efficient, effective health care. One such solution that has gained national attention is the increased utilization of NP's in acute care settings.

#### **8.1. Evidence-Based Practice**

Evidence-based practice enables the delivery of high-quality, individualized and efficient patient care by combining methodologically sound scientific research with experiential knowledge and patient preferences. Following the leading research strategies outlined by the Centre for Evidence-Based Management (CEBM), brief standard guidelines, a comprehensive summary of other approaches, and a selection of various books and articles regarding advanced practice nursing are presented in Report 1. An evaluation of limitations and potential biases is included. And individual reflexive considerations and a review of ways to improve future projects are addressed in the final part of this analysis (Htay & Whitehead, 2021).

In the hierarchy of evidence-based health care, the highest quality of evidence comes from meta-analyses of randomized controlled trials, and the lowest quality of evidence from expert opinion and non-systematic observation, stories, or analogies. On the 1-7 scale, evidence levels such as RCT, well-designed controlled trials without randomization, well-designed cohort or case-control studies, systematic review of descriptive and qualitative studies, and expert expectations, beliefs or consensus are found to be the most effective in a way to provide the strongest empirical and theoretical foundation for many practices in the everyday provision of health care. A pre-appraised

literature offers pre-digested research summaries, some of which score research articles using a numerical score based on internal validity.

## **8.2. Patient Safety**

Patient safety is a central concern of any society and a key concern of all healthcare providers as well. Nurse practitioners (NPs), also known as advanced practice nurses, hold a master's or doctoral degree and can have prescriptive privileges. Studies have shown that NPs provide patient care that is as good as, or even better than, that provided by physicians (M. Beck, 1995). As a result, the positive influences of NPs have become increasingly important.

NPs provide care that is of at least the same quality as that of physicians. Some evidence even suggests that NPs certified to work according to protocols may provide services of even better quality than those provided by some physicians. Nurse practitioner acute care (NPAC) programs are the fastest-growing sectors of advanced nursing education. After the implementation of NPAC programs, many hospitals worked to ensure that the workload was at a manageable level. These nurses now provide outpatient care to more than 916,000 patients within the United States annually, a 184.2% increase over the last five years. About 60% of all visits included both evaluation and management of new problems, new diagnoses, and initiation of care plans. Assessment as care plan development was most prevalent among office and clinic encounters. Since NPs can greatly benefit patients, it is important for state and federal policies to be restructured to take advantage of such care from those who provide it with expertise in assisting patients, increasing patient safety. Accordingly, all states must confer prescriptive privileges upon APNs.

## **9. Challenges and Opportunities**

Advanced practice registered nurses (APRNs) include nurse practitioners (NPs), certified nurse-midwives (CNMs), certified registered nurse anesthetists (CRNAs), and clinical nurse specialists (CNSs) (Fitzgerald et al., 2011). As a group, APRNs represent an underutilized source of quality health care providers who consistently provide high-quality, cost-effective patient care in a variety of healthcare settings. In the past 100 years, many unique advanced practice roles have emerged to enter the nursing spectrum.

Though the first nurse anesthetist was recognized as long ago as the American Civil War, it was not until 1914 that formal educational programs were instituted. For the last thirty years, since the advent of nurse practitioner programs in 1965, the various roles have emerged. As a group, APRNs consistently provide high quality, cost effective patient care in a variety of health care settings (DOCKS at The University of North Carolina at Greensboro & "Randy" Rasch, 1996). In the patient care arms race, ancillary staff would be employed in clumps as needed. The nursing clump would employ these APRNs who could provide women's health, obstetrical, or mental health care services. Collectively, today the majority of APRNs are employed in primary care settings; however there is an urgent need for broader utilization of APRNs in all Patient Care Service settings. Overcoming the many barrier to APRN practice in today's health care environment will result in the delivery of high quality, cost effective health care to many individuals, particularly

among the traditionally underserved patient populations. This will help to alleviate the health care worker shortage.

### **9.1. Legal and Regulatory Challenges**

One of the goals of DNP- and PhD-prepared RNs who wish to practice at the top of their license is to work as APRNs in roles such as NPs and CRNAs. However, legal, regulatory, and licensure challenges present significant barriers to practice in these roles. As of May 2018, there are eight states and the District of Columbia that have statutory changes broadening language to include the term “APRN” or including other inclusive language for APRN roles. Only six states and the District of Columbia do not require a specific supervisory agreement to practice as a CRNA.

Fifteen states require CNSs to have collaborative practice agreements or be supervised by physicians in order to prescribe medications, while CNSs have no authority to prescribe in 16 states. In 2002, nurse practitioners and physician assistants were given lasting prescriptive authority, while the three additional APRN groups were given prescribing authority for 5 years. It is important that this prescribing authority be expanded to lasting authority for consistency with nurse practitioner APRN practice. In addition, legislative changes in several states broaden language to terms such as “healthcare professionals,” “advanced practice registered nurses,” or “clinical professional nurses,” thereby allowing for the inclusion of APRNs. There are three amendments that would mandate that the Department of Veterans Affairs take steps to require the elimination of payment differentials between physicians and APRNs. However, changes have been gradual and inconsistent, with significant inconsistencies and barriers remaining across various healthcare facilities.

### **9.2. Expanding Roles and Opportunities**

**9.2.1. Introduction** Changing health care systems have influenced the development of new roles and opportunities for advanced practice nurses (APNs). Comprehensive information for nurses interested in starting or maintaining a career as a nurse practitioner (NP), clinical nurse specialist (CNS), or certified registered nurse anesthetist (CRNA) is provided. The CNS and NP roles in four practice settings were analyzed and compared; tasks and knowledge/skills common to both roles were identified including management aspects critical to APN care (DOCKS at The University of North Carolina at Greensboro & "Randy" Rasch, 1996).

**9.2.2. Rationale for Analysis** As in all health care roles, CNSs and NPs must address patient/family needs in the context of the management of their health problems. This management includes care provided by the nurse and care to be provided by the patient and/or family. Techniques may include medication, treatments, or patient teaching about diet, exercise and other lifestyle changes, as well as technological interventions such as dialysis, cardiac monitoring and oxygen therapy. Knowledge of advanced pharmacokinetics and current drugs is essential. Symptom etiologies, pathogenesis of disease, and diagnostic methods are important to determine what care should be provided by the nurse. Patient needs vary; for example, although some patients with chronic diseases may manage adequately for months, others may decompensate rapidly and frequently. Patients with complex needs require assistance with symptom management; wound healing; coping techniques; and managing complex regimens of therapy, treatments, and/or diagnostic



tests. Even patients with less complex needs may require nursing care for problems such as fever or nausea. All APNs will need some skills in these areas (M. Parker & N. Hill, 2017). Given that it is unlikely individuals can be expert in the care needs of all patient populations, APNs specialize. NPs frequently focus on a population (e.g. pediatrics) whereas CNSs usually focus on a patient problem or a nursing or medical specialty (e.g. pain). Thus, although all patient and family care management must be addressed, the focus of care and practice for different APNs will vary. APNs must address patient and family problems and needs within their appropriate scope and/or refer to other health care providers. APNs will continue to specialize but must know how to address all patient and family needs; therefore, how to coordinate patient care is critical. Given these areas of management, tasks and knowledge/skills common to the CNS and NP role were identified.

### **10. Conclusion**

The issue of defining advanced practice nursing (APN) roles has been steadily increasing in terms of the frequency, intensity, and stridency of the discussion and debate. Initially, of course, the primary concerns were encapsulated in the questions, "What is an NP?" and "What is a CNS?" Issues included but were by no means limited to delineating educational and licensing criteria, securing third-party reimbursement, determining prescriptive privileges, setting up mechanisms for inservice training, and waging debates on issues of practitioner parity in relationship to other health care professionals. These initial and relatively circumscribed concerns presented little cause for altering discussions of the NP/CNS controversies or concerns. However, over the years, and in an incremental fashion, the issues of APN roles went onward and outward, away and beyond the initial confines of the NP/CNS debates, coalescing into a more general discussion of the conditions or circumstances that, in their aggregate and myriad manifestations, define the parameters of APNs. Other implications were identifiable as major CN, consumer, freedom of information, and public policy implications (DOCKS at The University of North Carolina at Greensboro & "Randy" Rasch, 1996).

#### **10.1. Summary of Key Points**

In 2020 the World Health Organization called for expansion and greater recognition of all nursing roles, including advanced practice nurses (APNs) to better meet patient care needs. The various roles available to graduate-educated nurses in practice have been reasonably well speculated upon and researched, certainly within the standard multi-discipline, practitioner-oriented forums of the US. However, little is known about the global prevalence of APNs, their structures of work, the systems within which they practice, and the impact they have on patient, provider, or system outcomes (Kilpatrick et al., 2023). A clearer understanding of the roles that are in place across the globe, and how they are being used will support greater role harmonization, and inform global priorities for APN education, research, and policy reform. The two most common APN roles are nurse practitioners (NPs) and clinical nurse specialists (CNSs). They are often successful in improving access to more equitable care in rural or remote communities. There is some evidence that alternative service delivery models may enhance coordination of care among children with needs, and there is qualitative evidence that pediatric APNs performing consultations with office-based providers can increase knowledge transfer. APN roles in different countries are nested

within various unique structures of care, working in diverse settings and regulated by specific systems. The APNs of a given nation can be charged to provide care to communities, or in “low and middle-income countries” may care for patients and families with acute, chronic, or complex conditions. APNs support other providers to deliver high quality care. They are used to manage curiousness that is hard to diagnose or treat, and they are trained to evaluate for patterns that may indicate an alternating path of therapy should be attempted. APNs in dermatology care for patients who are unable to procure or pay for a physician visit, but who cannot self-manage their condition. Amplified effort has entered into understanding how such roles might fabricate, what determines their professional and demographic composition, and how they could be appertused to optimize health results. Generalist APNs typically fill gaps in the care system, supporting the delivery of holistic, individual care to patients and families. It is well established that NP roles have shared components, and that the core of their professions is fairly consistent. High-income countries use wider and more flexible scopes of practice allow for greater role versatility, and that APNs in such nations typically provide more direct services. Top-level medical leadership is often composed of APNs with advanced degrees, who are responsible for the development or application of policy frameworks that determine regional service delivery (DOCKS at The University of North Carolina at Greensboro & "Randy" Rasch, 1996).

### **10.2. Future Directions in Advanced Practice Nursing**

The issue of defining advanced practice nursing roles is increasingly a subject of national discussion and debate. Much of the impetus for this debate has been the increasing tendency for advanced practice in nursing to carry the label of nurse practitioner (NP), rather than that of clinical nurse specialist (CNS; (DOCKS at The University of North Carolina at Greensboro & "Randy" Rasch, 1996)). Factors contributing to this labeling problem include the recent growth of interest in primary care practice models, the lack of a unified plan for categorizing advanced practice nursing roles, and a perception that the CNS lacks title portability and that regulatory barriers often preclude practice parity between NPs and CNSs. The long-standing demarcation between the roles of NP and CNS is dissolving, and the traditional separation of these roles by practice setting is no longer the case. Although CNSs originally focused practice in inpatient settings and in the reduction of future incidence of disease, their practice arena has shifted steadily towards the expansion of outpatient care. Similarly, NPs are increasingly being found outside of the primary care clinics, where they traditionally practiced. As the roles of CNS and NP have undergone evolution and change, the societal need for two separate advanced practice nursing roles has become less clear. However, federal and state legislators, forced by organized nursing groups, have mandated that care provided by NPs in private practice be supervised by physicians, effectively curtailing NP practice in the area where they were originally designed to function. Meanwhile, non-hospital-based CNSs carry a full clinical caseload, often without physician supervision. This is despite prevailing state laws specifically allowing CNSs to prescribe and dispense medications, based on a written collaborative agreement with a physician. In light of this, nurses in these merged roles are beginning to present their practices at conferences, and although some problems continue to be identified, the roles are largely working in the settings in which they are being tried.

## References:

- DOCKS at The University of North Carolina at Greensboro, N. C. & "Randy" Rasch, R. (1996). Advanced practice nursing: Conceptual issues. [PDF]
- Kilpatrick, K., Savard, I., Audet, L. A., Kra-Friedman, A., Atallah, R., Jabbour, M., Zhou, W., Wheeler, K., Ladd, E., C. Gray, D., Henderson, C., A. Spies, L., McGrath, H., & Rogers, M. (2023). A global perspective of advanced practice nursing research: A review of systematic reviews protocol. [ncbi.nlm.nih.gov](https://ncbi.nlm.nih.gov)
- M. Gordon, J., D. Lorilla, J., & A. Lehman, C. (2012). The Role of the Clinical Nurse Specialist in the Future of Health Care in the United States. [PDF]
- Sanders, R., Letley, K., Folliard, K., Applegate, M., Tweedie, K., & Crozier, K. (2024). Developing a career and education framework for advanced clinical practice in midwifery. [ncbi.nlm.nih.gov](https://ncbi.nlm.nih.gov)
- Gustin, C. (2018). Cutting the Cords: Provider, Payer, Policy and Maternity Outcomes in Selected U. S. States. [PDF]
- Fitzgerald, C., Kantrowitz-Gordon, I., Katz, J., & Hirsch, A. (2011). Advanced Practice Nursing Education: Challenges and Strategies. [ncbi.nlm.nih.gov](https://ncbi.nlm.nih.gov)
- Oldenburger, D., Helena De Bortoli Cassiani, S., Bryant-Lukosius, D., Kristina Valaitis, R., Baumann, A., Pulcini, J., & Martin-Misener, R. (2017). Implementation strategy for advanced practice nursing in primary health care in Latin America and the Caribbean. [ncbi.nlm.nih.gov](https://ncbi.nlm.nih.gov)
- G. Stewart, J. (2003). APRN: What Does it Stand For?. [PDF]
- Wilson Hood, L. (2018). Nurse Practitioner Clinical Education: Evaluation of a Clinical Residency Model. [PDF]
- L Ryskina, K., Liang, J., Z Ritter, A., Spetz, J., & Barnes, H. (2024). State scope of practice restrictions and nurse practitioner practice in nursing homes: 2012–2019. [ncbi.nlm.nih.gov](https://ncbi.nlm.nih.gov)
- F. Haupt, E. (2016). Predictors for Florida Nurse Practitionersu27 Characterization of Organizational Climate. [PDF]
- M. Beck, M. (1995). Improving Americau27s Health Care: Authorizing Independent Prescriptive Privileges for Advanced Practice Nurses. [PDF]
- J. Brousseau, H. (2014). APRNs27 Confidence to Prescribe. [PDF]
- M. Parker, J. & N. Hill, M. (2017). A review of advanced practice nursing in the United States, Canada, Australia and Hong Kong Special Administrative Region (SAR), China. [ncbi.nlm.nih.gov](https://ncbi.nlm.nih.gov)
- Elizabeth Liego, M. (2013). Improving the Implementation of the Acute Care Nurse Practitioner (ACNP) Role: Development of ACNP Role Implementation Guidelines. [PDF]
- van der Biezen, M., Wensing, M., Poghosyan, L., van der Burgt, R., & Laurant, M. (2017). Collaboration in teams with nurse practitioners and general practitioners during out-of-hours and implications for patient care; a qualitative study. [ncbi.nlm.nih.gov](https://ncbi.nlm.nih.gov)
- Htay, M. & Whitehead, D. (2021). The effectiveness of the role of advanced nurse practitioners compared to physician-led or usual care: A systematic review. [ncbi.nlm.nih.gov](https://ncbi.nlm.nih.gov)
- J. Rose, A., Witt, D., Azran, C., & Nissan, R. (2021). Seven key parameters that facilitate clinical pharmacy practice: a comparison between Israel and the United States. [ncbi.nlm.nih.gov](https://ncbi.nlm.nih.gov)