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A snapshot of clinical educational experiences for advanced practice nurses worldwide

***Abstract:** Using a convenience sampling, nurse educators representing 10 countries were surveyed to describe required clinical education for advanced practice beyond basic traditional nursing education. This article explores the many factors currently influencing the structure and diversity of these clinical experiences worldwide.*

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There is continuous demand for healthcare resources and a call for expert nursing capacity and transformed health services.[1,2] One strategy is to prepare an advanced practice nursing workforce worldwide. In newly published 2020 guidelines, the International Council of Nurses defines the advanced practice nurse (APN) as a "generalist or specialised nurse who has acquired, through additional graduate education (minimum of a master's degree), the expert knowledge base, complex decision-making skills and clinical competencies for Advanced Nursing Practice, the characteristics of which are shaped by the context in which they are credentialed to practice (adapted from ICN, 2008). The two most commonly identified APN roles are clinical nurse specialist (CNS) and NP."[3] Globally, barriers to the APN role have been identified by Pulcini and colleagues and include great disparity in APN titles, limited access to APN education, and differing educational requirements and degree variability.[4] Despite these challenges, there has been an increase in the number of new opportunities for APNs globally.

As options for advanced practice expand, developing standards and best practice in APN education should be a priority. Despite the lack of clarity, nurse educators continue to address this goal within the global context. The ICN Nurse Practitioner/Advanced Practice Nursing Network (NP/APNN) was launched in 2000 as an international resource for nurses practicing in NP or APN roles.[5] This article is the product of the ICN NP/APNN 2016-2018 education committee. The members recognized the need to focus on the important clinical component of APN education with the aim of gaining a better understanding and beginning to identify the elements of best practice. This paper presents a "snapshot" view of the unique and diverse approaches to APN clinical education within 10 countries as collated and described by the 13 members of this committee.

Background

Apprenticeship experience was the hallmark of clinical education in nursing well into the 20th century, when on-site training was the rule as opposed to formal education. In his history of the first Nightingale Training School, the original diploma hospital-based model of nursing education articulated by Nightingale, which was open from 1860 to 1996 in London, England, Wake

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noted that changing times and trends in health and social care warranted new directions for nursing clinical education.[6] Despite a 60-year history since the emergence of APNs in the US, the challenge to educate this advanced role persists. Contributing factors worldwide include lack of consensus on what constitutes advanced nursing, the absence of clarity and consistency in nursing education, increasing complexity and morbidity, changing demographics of populations, and the growing demand to meet the need for an APN workforce.[7,8]

Overview

Ambiguity regarding the role of APNs in different countries significantly impacts the associated educational content and appropriate clinical experiences.[4] However, considering the limitations of role definitions and regulation, some progress has been made in terms of standardization of APN education. Savrin compared the role of the APN to Erikson's stages of growth and development.[9] (See *Savrin model.*) She observed that the developmental process of the APN role globally "mirrors" Erikson's epigenetic theory in which each of the developmental stages is predicated by successfully mastering the challenges of the previous stage. Savrin asserts that these stages occur across cultures beginning with the infancy stage of "learning the role." As with human development, the order of the stages is constant, but the pace differs among individual countries. This infancy stage would apply to countries such as Iran, Israel, and Saudi Arabia in the Middle East where there exists a lack of progress toward acceptance of the APN role.[2,4,10,11] In countries where the APN role is more delineated along this developmental continuum, namely the US, Canada, New Zealand, and Australia, there exists alignment between clear title protection and nationally standardized education requirements.[2,4,12,13]

Savrin model

Erikson's developmental stages	NP developmental stages
1. Infancy (trust)	1. Infancy (learning the role)
2. Toddlerhood (autonomy)	2. Establish independence (autonomy)
3. Preschool (initiative)	3. Expanding (initiative)
4. School age (industry)	4. Consolidation (industry)
5. Adolescence (identity, intimacy)	5. Rebellion (identity)
6. Early adulthood (generativity)	6. Reaching out (generativity)
7. Later adulthood (integrity)	7. Integrity

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APN roles are slowly developing but show significant variety in role descriptions, educational requirements, and deployment structures. Many countries fall in the middle of Savrin's continuum. European countries best reflect the identity confusion of the adolescent stage where the sporadic development of new roles has resulted in a wide variety of terminologies and levels of APN education programs. The European Higher Education Area and the European Union, influenced by the Bologna Process, established a system of comparable qualifications and educational requirements across Europe to enter nursing.[14] Subsequently, although each European country has its own context and health policies, many efforts have been made to collaborate and build comparable nursing degrees. Lahtinen and colleagues analyzed European nursing education programs and revealed that most member countries offered bachelor's degrees or equivalent full academic pathways with widely available access to master's and doctoral degrees. However, differences among countries were observed when contrasting education systems, regulation, and titles awarded.[15] Although Lahtinen's study did not include APN education, because APN education is built on basic nursing education, it is significant and demonstrates that consensus is possible.

Several countries in Asia, where establishing identity is hindered by role confusion, also fall within the adolescent stage of Savrin's model. Schober, Gerrish, and McDonnell studied the development of the APN in Singapore, noting that policy development was well promoted and achieved, but a coherent process of standardization of titles and implementation of the role was lacking.[16] Inconsistencies and lack of reliable APN nursing education information continue to result in slow and unstable implementation of APN roles globally. This discrepancy in terminology creates confusion when developing nursing education among countries.

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Methodology

The intent of this project was to present a snapshot perspective of how a select number of countries address clinical experiences that encompass the knowledge, skills, and competencies needed beyond traditional nursing education for advanced practice. For consistency, we distinguished between advanced practice nursing defined as nurses practicing in an advanced clinical capacity and advanced nursing practice, which is a more global term referring to advanced clinical nursing practice beyond the entry level.[17]

Using a survey design, we examined the many issues in clinical education that encompass the knowledge, skills, and competencies needed beyond basic traditional nursing education for advanced practice. The university review board determined this to be a quality improvement education project.

The convenience sample of advanced practice nursing educators who were members of the ICN NP/APNN education committee between 2016 and 2018 were asked to respond to a series of three general open-ended questions, in regard to best practices and distinguishing features of the clinical components of advanced practice nursing programs.

Results

Brief country narratives describe the distinguishing features of the clinical education within that environment. Seven countries (Australia, France, Israel, New Zealand, Saudi Arabia, South Africa, and Spain) represented by one member each and three countries (Canada, the United Kingdom, and the US) by two members each (countries represented, N=10) provide an eclectic snapshot of clinical education globally, summarizing the many competing factors influencing the responses to the subsequent questions.

What methodologies are used to teach clinical skills and competencies? This question produced the least variability in responses. Methods of teaching skills and competencies were listed without ranking utilization. All countries reported using a variety of modalities such as standardized patients, simulation, videography, objective structured clinical examinations, and health assessment exercises to some degree regardless of the level of nursing programs. The major difference identified was in the use of such tools with the majority reporting that these methods were most often utilized to teach physical assessment and specialized skills. Technology tools are becoming a common pedagogy with low fidelity simulation being the most common, but high fidelity showing increasing frequency. Less frequently reported were critical thinking activities utilizing videotaped scenarios and "thinking on your feet" case study exercises in simulation scenarios. (See *Methodologies used to teach clinical skills and competencies.*)

Methodologies used to teach clinical skills and competencies

- Health assessment lab and exercises
- Standardized patients
- Low- and high-fidelity simulation
- Videography
- Objective structured clinical examinations (OSCEs)
- Critical thinking scenarios

Questions examined the number and types of experiences, variety of settings, criteria for supervision/mentorship, the role of faculty and employers, and the process for authority to practice, if any. Content analysis was used to extract major themes reflected in the narrative responses through independent review by three team members with expertise in data analysis. Recurring themes were coded, verified, and grouped into major categories after any discrepancies in coding were resolved. This resulted in succinct descriptions of actual experience, number of clinical hours, number and type of clinical placements, and clinical hours oversight in country snapshots. (See *Advanced practice nursing clinical education snapshots by country.*) Extensive diversity exists depending largely on regulation of role and education by government.

Describe actual clinical experiences. First, members were asked to describe in one or two sentences the academic program's clinical experience requirement. Most country descriptions recognized the need for including a precepted clinical aspect with an advanced practice nursing role model but depending upon the stage of advanced practice nursing development, several still expressed dependence primarily on physicians, with two noting an interprofessional option. The query regarding clinical hours was divided into two parts. Members were asked to indicate if any nursing experience is required

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Advanced practice nursing clinical education snapshots by country

Extensive diversity exists among countries depending largely on regulation of education and role.

1. **Australia**
   Practice pathway: Two pathways to practice prior to endorsement as APN by Nursing and Midwifery Board of Australia (NMBA); MS degree program or NMBA deemed equivalent program
   Prerequisite RN experience: minimal 3 years full time or 5,000 hours within past 6 years
   APN program clinical: No set hours, varies; usually conducted at place of employment; APN or MD supervision; university and preceptor joint final evaluation; clinical is employer-driven, but university faculty have ultimate responsibility
   Notes: Well established, still varies

2. **Canada**
   Practice pathway: Degree and licenses vary between provinces, most require master's degree; however, diploma and other degrees still exist
   Prerequisite RN experience: Required amount varies between provinces, 4,000–5,000 hours or equivalent (2–3 years full-time practice)
   APN program clinical: Varies, mandatory minimal 700-950 hours in specialty area; APN or MD supervision; preceptor evaluates, university ratifies decision with ultimate responsibility; APN clinical is not employer-driven
   Notes: Well established with variations at provincial level; many challenges for distance education programs, mainly payment and placement issues between provinces

3. **France**
   Practice pathway: Accredited by Ministry of Higher Education according to degree and certification.
   Notes: APN (based on NP profile) role introduced January 2018 into French Public Health Code, no specification of degree required
   Prerequisite RN experience: 3 years RN to practice as APN
   APN program clinical: 2 clinical placements required, minimum total 6 months; team level experience also required; APN, MD, or combination supervision; university and clinical tutors evaluate; university final authority; APN clinical is not employer-driven
   Notes: Education programs in place before legislation; clinical nurse specialist (CNS) programs offered by nonacademic educational organizations prior to 2009; after 2009, MS programs were CNS, not NP-based; early implementation of APN programs in progress.

4. **Israel**
   Practice pathway: Regulated by Israel Ministry of Health Nursing Division with licensing and certification. Midwifery has certification and exam pathway, does not require master's degree. Nurse Specialist role requires master's degree with certification and exam. Most programs use continuing-education model, newer programs use an academic model.
   Prerequisite RN experience: At least 2 years in area of expertise
   APN program clinical: 400-450 hours depending on specialization; APN or MD supervision; most programs are continuing education without degree, more recent programs include a master's degree; preceptors have final authority
   Notes: More new certificate programs have opened recently for 10 total nurse specialist roles

5. **New Zealand**
   Practice pathway: Nursing Council of New Zealand authorizes practice with degree and certification, sets standards for master's degree programs and required clinical hours
   Prerequisite RN experience: minimum 3 years clinical experience
   APN program clinical: 500 hours, practice based with links to the academic program, most students employed in practice site at least part time during education, usually conducted at place of employment, APN or MD supervision; university faculty have final authority; clinical is not employer-driven
   Notes: Established specific scope of practice for APNs

6. **Saudi Arabia**
   Practice pathway: No protected titles, no regulatory framework or licensing. Three pathways: general APN = master's degree from university program, clinical practicum supervision; some specialty options at master's level; international student study and experience
   Prerequisite RN experience: University pathway—BSN with 2 years clinical experience; other pathways require master's degree
   APN program clinical: University pathway—two placements, no set hours, APN or MD supervision; clinical is not employer-driven
   Notes: Early implementation in progress; KSA 2030 Vision-advancing nursing practice particularly in community

(Continues)

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Advanced practice nursing clinical education snapshots by country *(Continued)*

7. South Africa
Practice pathway: Combination degree and certification
Prerequisite RN experience: 2 years clinical experience
APN program clinical: 720 hours, APN or MD supervision, university faculty have final evaluation; clinical is not employer-driven
Notes: Implementation in progress

8. Spain
Practice pathway: Specialty title bestowed by Ministry of Science, Innovation and Universities despite training being accomplished by accredited clinical units by the Ministry of Health. APN master's degree programs also exist; however, no standardized national academic program; no official practice pathway since no national legal recognition
Prerequisite RN experience: none
APN program clinical: Two pathways
1. Nursing specialties: 2 years nonacademic internship supervised by specialist nursing mentors
2. APN master's degree: no requisite clinical program, none to 250 hours, advised to work in specialty area; not employer-driven

Notes: Very slow progress

9. United Kingdom
Practice pathway: No title protection or formal authority to practice in APN role, there is a voluntary APN national directory; England, Scotland, Wales, and Northern Ireland have all produced their own frameworks or toolkits setting standards for APN: In most programs, academic institution maintains control, with joint collaboration between university and workplace to agree on workplace competencies; however, there are now also apprenticeship routes where the healthcare organization delivers final evaluation. Although BS and MS degrees are recommended and exist since the 1990s, nonstandardized continuing education is available as well for nurses working in advanced roles, ranging from 1-day courses to full academic modules
Prerequisite RN experience: none but usually most have 5 years RN experience.
APN program clinical: No set APN clinical hours, APN or MD supervision; university faculty usually have final evaluation; clinical is employer-driven
Notes: Early established role but still not regulated; prescriptive authority is a separate interprofessional process open to all RNs and other healthcare professionals such as physical therapists and paramedics.

10. United States
Practice pathway: National certification as APN is the norm with individual state licensure in role, master's degree, doctorate of nursing practice (DNP) is anticipated future requirement
Prerequisite RN experience: No prerequisite RN clinical experience but can vary with specialty; for example, 1–2 years acute care experience may be prerequisite for acute care
APN program clinical: APN clinical preceptor model with university oversight, 500-hour minimum but may increase with specialty, mainly APN supervision, may be MD; university faculty have final evaluation; clinical is not employer-driven
Notes: Well established, issues still exist = recent refocus on residency, immersion experiences, DNP, faculty practice models

prior to entering the advanced practice nursing program. Interestingly, this question did not elicit the clear response anticipated. Eight of the 10 countries require some type of clinical experience prior to admission but four do not require any prerequisite nursing experience. However, there is significant variation between and within countries in the number of hours required and types of experiences accepted. There is even more diversity regarding experience required during the academic program. Although most countries require some amount of clinical experience (n = 8), few report a national standard.

The next set of responses pertained to clinical practice oversight. The wording of this question caused the most confusion. Members noted that even though they had agreed upon the terminology, the term "employee driven" was interpreted differently by some members. It was meant to clarify the role of the workplace in clinical oversight versus the academic institution and explore issues such as contracts, supervision, salary, assessment, and evaluation. Traditional apprenticeship preceptor experiences remain the dominant model in the US. The US stands out for the high degree of academic institution accountability for all aspects of the educational

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process. Although academic institutions play significant roles in many countries, such as Canada and the United Kingdom, clinical education pertaining to clinical experiences is more often implemented through partnerships between academic institutions and government and private employers. The lack of advanced practice nursing role and practice clarity in other countries combined with the complex nature of academic-government-employer partnerships made this the most difficult question posed to members. The majority (n = 8) indicated joint oversight responsibility between preceptors and the university.

Identify what pathway provides authority to practice in the advanced practice nursing role? Degree, certification, licensure, combination, or not applicable. Members identified the diverse pathways authorizing practice in the advanced practice nursing role, dependent largely upon regulation of advanced practice nursing education and practice by the government. In many countries the lines of authority are vague or multitiered in nature resulting in complex relationships between government and academia. Those countries with the clearest regulatory mechanisms articulated clearer pathways to practice.

Discussion

These results continue to support the historical development of the role. Although much has evolved globally since Savrin first proposed a developmental model of advanced practice nursing development, the basic trajectory she described is reflected in the information shared in this endeavor.[9] As noted in the country snapshots, the more developed the role is within the country, the more standardized the education process. However, even in those countries with well-developed roles, geographical and governmental barriers still present challenges.

The narrative descriptions are consistent with what Thompson and Astin describe as a "snapshot" of international development of the advanced practice nursing role as reflected in the Organisation for Economic Cooperation and Development (OECD) report.[7,18] Both the OECD and our snapshots reveal a broad range of development among countries surveyed with many similarities in findings. The OECD highlighted the US, United Kingdom, Canada, Australia, and New Zealand models as highly developed examples of the advanced practice nursing education and role, similar to the findings of this survey, as well as Finland, which was not included in this survey. Both the OECD and this survey identified France as an emerging country but limited by lack of education programs and clinical opportunities. Currently, in France, following completion of a nursing diploma and a few years of experience, registered nurses can pursue further training in some specializations and become specialist nurses or ANPs. Consistent with the narratives, Albloushi and colleagues observe that Saudi Arabia, as with many other Middle Eastern countries, finds itself limited in its efforts to develop the advanced practice nursing role imposed by societal and cultural barriers.[10] Lahtinen and colleagues in their comprehensive review of progress in Europe since the Bologna Process concluded that the goal of establishing comparable degrees in the participating countries is significantly challenged by individual country legislation, culture, healthcare needs and philosophies, and structural and economic situations.[15] Thompson and Astin further question the fitness of advanced practice nursing education worldwide, citing that a lack of understanding or universal agreement about the role continues to result in wide variation in regulation, education, licensing, and credentialing.[7] Bryant-Lukosius and colleagues propose a universal evaluation framework to inform stakeholders that the effective utilization of APNs across countries has positive implications for education as a means of resolving these issues.[12]

Schober and Stewart recognize the need to bring more clarity and substance to the ICN's original position on advanced practice nursing.[1] These experts assert that the advancement of the nursing role is very intertwined with the professional status of nursing and access to an adequate level of education within individual countries. However, even the countries with superior advanced practice nursing development struggle with the educational model. The US is experiencing major challenges with preceptor availability and the transition to the DNP degree. In addition, the disconnect between state and federal legislation limits the APN's authority to practice, which prevents APNs from practicing to their fullest potential as encouraged by the Future of Nursing report.[19] However, in the US, the 2008 APRN Consensus Model put forth a standard model of APNs that links

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roles, titling, licensure and certification, education, and accreditation of educational institutions. Although this document raised new challenges, it represented a major milestone in reaching agreement between the many advanced practice nursing roles within the US, and as of 2020, has been endorsed by approximately 48 professional nursing organizations.[20] Although not prescriptive, the model provides structure for advanced practice nursing education programs and has potential to be adapted and adopted by other regions globally.

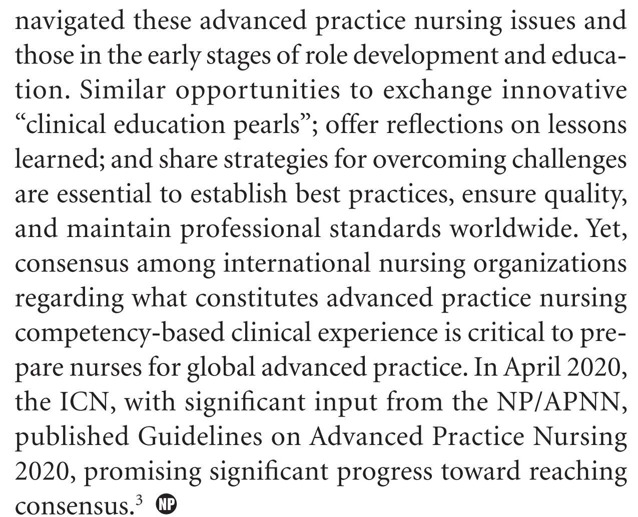
Recognizing that lessons learned from the implementation of the APRN Consensus Model raised many issues that continue to call for new and creative solutions, the American Association of Colleges of Nursing published a report from a task force charged with the goal of advancing new strategies and models to reenvision clinical education in the US for all APNs. Although it is generally agreed that the US has a highly developed model of advanced practice nursing education and practice, it is clear there is still a need for consistency of standards and implementation.[21]

Limitations

This project was intended to be a snapshot of advanced practice nursing in the identified countries. The responses are limited to membership of the 2016-2018 committees and reflect the perspectives of the individual country representatives. The intent is to query all future new members on these issues. Exploring how clinical education is configured globally will help regions identify the best match within their advanced practice nursing education systems. Insight into the developmental stage of advanced practice nursing in a region can serve to structure relevant clinical education.

Summary

Preliminary data on this survey were shared at the 9th and 10th NP/APNN conferences in Hong Kong and Rotterdam, respectively. These opportunities offered interactive forums for sharing ideas and innovative strategies and creative modalities in clinical education across the continuum of advanced practice nursing development globally, which further enhanced our exploratory project by providing clarification and insight as we prepared this manuscript. More such dialogue is needed between those countries that have successfully



navigated these advanced practice nursing issues and those in the early stages of role development and education. Similar opportunities to exchange innovative "clinical education pearls"; offer reflections on lessons learned; and share strategies for overcoming challenges are essential to establish best practices, ensure quality, and maintain professional standards worldwide. Yet, consensus among international nursing organizations regarding what constitutes advanced practice nursing competency-based clinical experience is critical to prepare nurses for global advanced practice. In April 2020, the ICN, with significant input from the NP/APNN, published Guidelines on Advanced Practice Nursing 2020, promising significant progress toward reaching consensus.[3]

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