
Abstract

The credibility of Advanced Nursing Practice is based on the educational preparation that the advanced practice nurse receives. Defining educational preparation at an advanced level provides a basis to differentiate advanced practice from that of the generalist and specialist nurse while also building on basic nursing education. This chapter describes and discusses core issues to consider when developing or refining a program. Topics include program planning, curriculum design, teaching methods, criteria for student selection, and qualifying requirements for faculty/staff/student preceptors. Emphasis is placed on reaching a decision on the role and function expected of the APN in the healthcare workforce linking expected role competencies to the planning of an educational course or program. It is not within the scope of this chapter to provide in-depth coverage of all aspects for ANP education but to discuss the essential principles to consider.

Keywords

Program planning • Curriculum design • Student criteria • Teaching methods • Qualified educators • Preceptors

The credibility of Advanced Nursing Practice is based on the educational preparation that the advanced practice nurse receives. Defining educational preparation at an advanced level provides a basis to differentiate advanced practice from that of the generalist and specialist nurse while also building on basic nursing education. This chapter describes and discusses core issues to consider when developing or refining a program. Topics include program planning, curriculum design, teaching methods, criteria for student selection, and qualifying requirements for faculty/staff/student preceptors. Emphasis is placed on reaching a decision on the role and function expected of the APN in the healthcare workforce linking expected role competencies to the planning of an educational course or program. It is not within the scope of this chapter to provide in-depth coverage of all aspects for ANP education but to discuss the essential principles to consider.

4.1 Characteristics of Advanced Nursing Practice Education

Education beyond the preparation of the generalist nurse is critical in providing a sound basis for preparation of a nurse for the APN role. Pulcini et al. [24] in conducting an international survey found that education varies widely from short certificate or diploma courses to graduate degrees. However, the survey demonstrated that increasingly ANP education is occurring at a master's level. ICN [14] suggests standards to consider when developing educational programs for ANP and recommended master's education as entry level into practice. The ICN guidelines include the following:

- Programs prepare the student, a registered/licensed nurse, for practice beyond that of a generalist nurse by including opportunities to access knowledge and skills as well as demonstrate its integration in clinical practice as a safe, competent and autonomous practitioner
- Programs prepare the authorized nurse to practice within the nation's healthcare system to the full extent of the role as set out in the scope of practice
- Programs are staffed by nursing faculty who are qualified and prepared at or beyond the level of the student undertaking the program of study
- Programs are accredited/approved by the authorized national or international credentialing body
- Programs facilitate lifelong learning and maintenance of competencies
- Programs provide students access to a sufficient range of clinical experience to apply and consolidate, under supervision, [information learned in] the theoretical course content

(ICN [14], p. 21)

Issues impacting ANP education are multifactoral. Educators and program planners undertake matters from designing a curriculum to envisioning resources needed for long-term sustainability. Challenges include seeking financial resources, recruiting qualified educators, selecting appropriate clinical sites, identifying mentors/role models, and planning a suitably balanced program linked to identified competencies for APN practice. National nursing associations, regulatory authorities, governmental agencies, and academic institutions will likely have a say in the establishment of the standards for ANP education that in turn contribute to legitimizing the APN roles.

4.1.1 Identifying Competencies: A Guide for Education Development

Identified APN competencies focuses on the outcome of a learning experience and refers to the performance of the practitioner [26]. Competencies refer to the ability of an APN to do something to a defined standard with core competencies expected of all students upon completion of an educational program for entry into practice. Chapter 3 introduces the topic of competence as it relates to APN practice. This section focuses on the topic of competencies and its relevance to ANP education.

Hamric [12] suggests that direct clinical care is the central competency for ANP that informs all others. Six additional competencies are mentioned that are viewed to further define ANP “regardless of role function or setting” and are as follows:

- Guidance and coaching
- Consultation
- Evidence-based practice
- Leadership
- Collaboration
- Ethical decision-making

(Hamric [12], p. 76)

Each of the competencies is defined in relation to the context where the APN expects to practice. Students do not graduate fully prepared in all competencies but will strive to develop an interaction of competencies over time. It is not the intent of the author to elaborate on extensive details of each competency but to depict the complexity of how competencies are identified for ANP. Achieving the expected competencies is acquired through supervised and mentored/precepted experiences emphasizing the development of analytical skills. These skills are the basis for evaluating and providing evidenced-based patient-centered healthcare services that include advanced knowledge of healthcare delivery.

4.2 Variations in Educational Philosophy and Approach

Setting master’s level education as a goal for ANP preparation is an international trend [14, 24] aligned also with a bachelor’s degree required by many countries as entry level into the nursing profession. In initial stages of planning and development, graduate education may be a goal to strive for in refining an educationalist approach for ANP. Scarce financial and human resources, limited opportunities for advanced nursing education, shortage of qualified nursing educators, and lack of recognition of nursing as a profession detract from the likelihood of reaching this criterion immediately. When no APNs or APN models exist in the country, human resources may include expert nurses with extensive experience along with medical consultants and other healthcare professionals able to lend their expertise (e.g., pharmacy). Coordination of diverse expert resources can guide the educationalist foundation until a presence of APNs and qualified nursing educators is established. Competing priorities on a country’s healthcare or workforce agenda may dictate a need to set graduate level ANP education as a standard to attain as plans evolve and education strategies progress.

In describing nurse practitioner development in the United States [28] noted that over time education evolved from a postregistered nurse certificate to master’s degree level. Medical schools, hospitals, and schools of nursing commonly offered continued education options initially. Educational progress evolved in response to healthcare needs and educational developments. Curricula has become more refined and standardized as to content and clinical requirements [3]. Based on recommendations

from professional associations, entry level education for ANP has, for the most part, progressed to Doctor of Nursing Practice (DNP) [2] in the country.

In Botswana in 1981, the Institute of Health Sciences (IHS) established a Family Nurse Practitioner diploma program that focused on primary healthcare [27]. Originally designed as 1 year of study the program progressed to 18 months and in 2007/2008 established a four-semester format. In addition, the University of Botswana offers a master's of nursing degree that includes an advanced practice clinical choice. It is hoped that the two programs will develop greater "program articulation" to allow students or graduates from the IHS program to enter the master's program at the University of Botswana [23]. Similarly, in an effort to meet country healthcare needs and with support of the World Health Organization, a 1-year Advanced Diploma of Nursing was established in 1992 in Samoa for post-basic training to enhance clinical assessment and decision-making skills of experienced nurses as community-based nurse practitioners [31].

In contrast to an evolving approach to ANP education over time, New Zealand's framework [21] for nurse practitioner endorsement established a requirement of a clinically focused master's education, or its equivalent, for entry level to practice at the start of the initiative. Updated requirements [22] continue to require an NCNZ approved clinical master's degree program that includes demonstration of advanced practice competencies. Likewise, APN education at the National University of Singapore was launched from the start as a Master of Science in Nursing (MScN) degree in 2003. Prior to this time, the only option for a graduate degree or ANP preparation was to complete a study out of the country. The MScN education program for APNs has been successful in attracting students from Singapore and with its success has expanded specialty options [25].

Canada presents a situation of dual roles using advanced nursing practice as the umbrella term (clinical nurse specialist [CNS] & nurse practitioner [NP]). As a result, the country has a history of dual levels of education. The hospital-based CNSs have been educated mainly at the graduate level since the 1980s. Education for NPs, who practice mainly in primary health care settings, has been uneven ranging from a postbaccalaureate diploma in some jurisdictions to a master's degree in others [16]. Arguments supporting a graduate level degree for all NPs in Canada have been proposed; however, access to this level of education in rural and remote areas of the country is a continuing concern [18].

Illustrations of variance in country philosophy and approach to ANP education highlight the influence of regional and country contexts. In developing an educationalist program, it is important to start with a curriculum- or competency-based framework relevant to the expected function of the APN. The following section discusses planning a curriculum and creating a curriculum design.

4.3 Curriculum Development

When planning curricula for ANP defining basic elements of the projected content and level of education is key. The current status of education for the generalist nurse in the country should be taken into account. Since ANP education builds on the

foundation of education in place for the generalist nurse, program planners need to consider what knowledge and skills the student will need to acquire to transit to an advanced level of practice including in an area of specialized practice. Content based on and linked to the definition defined scope of practice and identified competencies for the expected APN roles form the basis for understandable and sustainable curriculum goals. Nurse educators designing curricula should have the qualifications, expertise, and have an understanding of the APN scope of practice to take on program development and curriculum design in order to establish relevant requirements for ANP education.

4.3.1 Curriculum Framework

Utilizing a curriculum framework as a guide is helpful in identifying key components to consider in curriculum planning. A suggested framework based on three conceptual cornerstones – curriculum goals, healthcare needs, and health policy – is represented in Fig. 4.1 [10]. The flow of the framework promotes a continuous interface between the three cornerstones allowing for adjustments and adaptation to the country setting and respective healthcare environments. It should be noted that describing role definition, scope of practice, and APN competencies are the foundation for identifying curriculum goals. (See Chap. 3 for an explanation of scope of

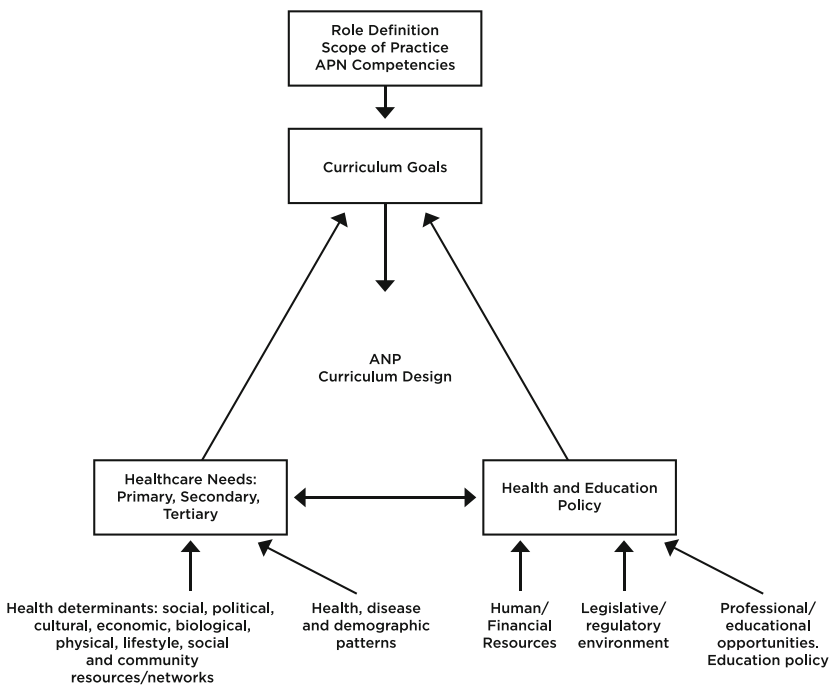


Fig. 4.1 Advanced nursing practice framework for curriculum development (Adapted from Schober and Affara [26], p. 123)

practice and Sect. 4.4 for a discussion of competency statements and core competencies).

A literature review conducted by Schober [25] revealed that various publications are accessed when educational institutions design curricula for ANP with a dominant use of literature originating in the United States. Countries using these resources are then in a position to adapt and modify these aids to fit country context and higher education/healthcare culture. Guidelines, recommendations, and educational frameworks appear to be based mainly on informed and collective academic thinking rather than substantive evidence. No rationale was found in the literature demonstrating outcomes that a specific curriculum was sounder than another for ANP education. Guidelines commonly utilized worldwide appear to be based on advice and/or publications from reputable organizations and sources with an increasingly diverse international representation.

4.3.2 Curriculum Design: Content Distribution

Design and content of a curriculum should be sensitive to the level of advanced practice implicit within the described scope of practice and expected competencies of the program graduates. Identifying fundamental core components at the national level promotes consistency for ANP education within the country across all settings where APNs are envisioned to practice. Figure 4.2 illustrates categories to take into account for the development of a comprehensive and context-sensitive curriculum.

The theory core focuses on the theoretical basis for advanced practice. The clinical core focuses on fundamental clinical modules/courses including in-depth clinical experience in the field. A third category of specialty courses can be tailored to

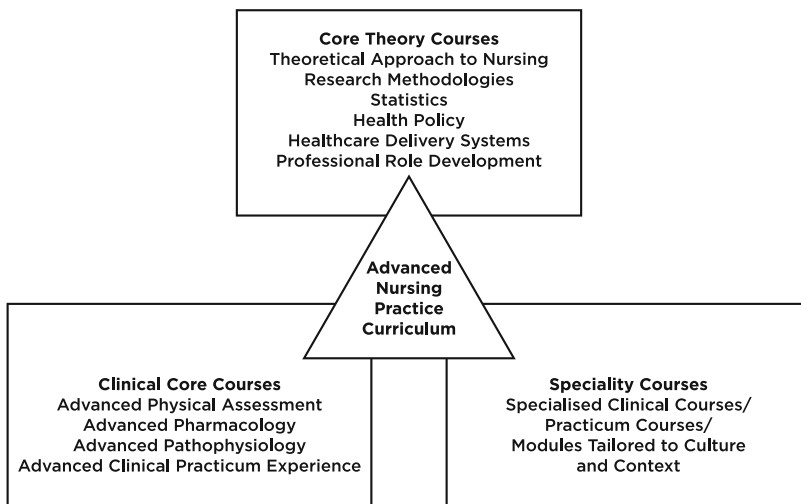


Fig. 4.2 Advanced practice curriculum: course/module distribution [1]

country context or specialty practice (e.g., epidemiology, infectious disease, informatics, mental health, oncology, community health). Adapting ANP education to healthcare needs of the country is imperative. In surveying 14 programs in Australia and New Zealand courses varied but study of pharmacology, research and advanced assessment were common to all [11]. The author acknowledges there is a variety of models and frameworks for ANP education. It must be emphasized that a variety of resources should be reviewed in the developmental process to ensure a context-sensitive approach.

4.4 Program Planning

The international growth of ANP is characterized by diverse requirements for educational preparation as well as the length of requisite study. Programs may consist of select updating modules/courses intended to refine the skills of the generalist nurse to restrictive requirements to qualify for a full academic program. A program manager that has an understanding of the potential scope of practice for APN roles, criteria for student selection, and recruitment of qualified teaching expertise is key to program planning. The following sections discuss student criteria, identification of qualified faculty/teaching staff, teaching strategies, and selection of sites for clinical experience.

4.4.1 Student Criteria

Student criteria for ANP educational preparation vary by country and are based on the level or status of generalist/basic nursing education available. Various studies ([17], [24]) have reported on some of these differences that in turn influence criteria for selecting students. To become an APN, first of all, requires preparation as a generalist nurse. Additional criteria include length of experience as a nurse and experience in a chosen specialty. With the trend toward master's level education and beyond, there is often a requirement to have acquired a bachelor's degree plus clinical experience for entrance into an ANP program. The academic/teaching institution or country standards sets the specific admission criteria.

4.4.1.1 Flexible Criteria Adapted to Context

In the early stages of introducing ANP, it is essential to take into account flexible educational options based on country circumstances. Flexibility in planning and diverse educational pathways allows for continual review, evaluation, and adaptation of APN requirements as ANP and resources evolve. As an initiative is launched, there may be nurses who have worked in APN-like positions without graduate level qualifications but who have acquired competence through appropriate experience and approved diploma or post-basic nursing courses. Country context and healthcare situations will dictate an approach to consider these circumstances. For example, a qualified nurse might be asked to present a portfolio of experiences and be

asked to take specified modules/courses to bridge the gap in order to achieve the equivalence of a master's level qualification. Such a strategy acknowledges the presence of existing nursing capacity while also satisfying education and regulatory authorities.

Nurses are essential to provision of healthcare services in sub-Saharan Africa, but few publications were found regarding ANP in this context. In a qualitative study of ten nurses in Kenya [9], all study participants reported that they were engaged in the delivery of expert-evidenced-based care; however, only two interviewed reported practicing at a level of autonomy similar to that described in the international literature and ICN [14] definition of ANP.

Interestingly, study findings revealed that nurses practicing with the greatest autonomy were generally those with the lowest educational qualifications. Highly qualified nurses tended to choose management and education career paths and saw little opportunity for advancement in a clinical or clinical-academic career. As a result, study findings implied that with no obvious incentive to undertake nursing master's degree participants looked at other options. Lack of a clinical career pathway, scarce access to education opportunities, minimal basic nursing qualifications, and an unsupportive infrastructure present a challenging situation. These issues suggest that flexibility is needed to bridge the education gaps while also attracting young nurses to consider advanced clinical practice.

4.4.1.2 Self-selection

It is common practice in some countries for students to independently select their options for ANP education. In the case of self-selection, a potential student applies to the program and is ultimately accountable and responsible for seeking funding for their education. Academic institutions at times provide assistance to explore options for financial support, but usually the educational institutions themselves do not directly fund fees for study. The United States is an example of a predominantly self-selection application process.

4.4.1.3 External/Institutional Selection

The funding and support within a county can influence the selection of and thus composite of ANP students. When program development falls under the authority of governmental agencies, the selection of students may be coordinated with academic institutions. Supervisors or managers who are familiar with the nurses' work in general practice and/or specialty identify and propose student candidates. Singapore provides an illustration of such a system where the Ministry of Health (MOH) has been pivotal to the feasibility and sustainability of ANP education [25]. An employer (hospital, polyclinic, or healthcare institution) identifies a potential candidate from their current nursing staff. Once selected, the nurse must progress through the university system for graduate student application. Following acceptance and enrollment in the program university fees are funded by the MOH. The employing institution pays a full salary during the time the nurse is an APN student. The nurse applicant agrees to a bonding period with the employer following graduation [25].

4.4.2 Qualified Faculty, Educators, and Teaching Staff

In the beginning stages of an ANP initiative, it is important to explore and remain flexible in the process of identifying professionals qualified to provide expertise to educate nurses for the APN roles. First of all, it is vital that educators, staff, instructors, mentors, and preceptors have an understanding of the scope of practice and competencies for which they are providing education and preparation.

4.4.2.1 Collaborative/Complimentary Educators and Teaching Staff

Environments that lack role models and institutions lacking qualified educators to carry out this role may have to utilize expertise from countries with ANP experience to fill in the gaps, while national educators acquire the necessary competence. Collaborative partnerships with countries or institutions with established success for role development, use of well-informed consultants, and access to a growing body of resources can promote progression to self-sufficiency and sustainability for newly emerging programs. Outside expertise can be considered until a critical mass of national educators are in place.

4.4.2.2 Nursing, Medicine, Other Healthcare Professionals

Internationally there is a widespread concern about the ability to introduce and sustain new ANP programs given the scarcity of qualified educators and staff. Recommendations for suitable teaching staff advise that educators should have a “strong theoretical and practice base in the field in which they teach” (AACN [1], p. 4). Even countries with a successful history of ANP educational programs are facing what some consider human resource crises. In addition, institutions that have educators or staff prepared at the graduate level may not have the knowledge base or the desired level of clinical expertise to teach to the ANP level.

As programs emerge and stabilize their plans and curriculum, healthcare professionals from medicine, nursing, and pharmacy with identified expertise linked to specific modules/courses may be integrated into the teaching profile of the institution to assist in providing learning experiences for APN students. This approach requires assessment and evaluation periodically to determine if teaching strategies are meeting program objectives. In the interim processes for educator/staff enhancement and recruitment are critical for long-term planning and sustainability.

4.5 Teaching Methods

Educators face a complex environment where human and financial resources are scarce and demands are increasing for advanced nursing and multidisciplinary education. The World Health Organization (WHO) has provided guidance for developing relevant education and scaling up the quality of education for healthcare professionals [30]. Taking note of country differences, the WHO document suggests that strategies can vary widely as long as the needs of the country, institution, and learner are taken into consideration. Options or a combination thereof include

ad hoc learning situations, class room based teaching, real-life clinical sites, face-to-face interaction, Internet or televideo formats, simulation techniques, and distance learning. Sections 4.5.1 and 4.5.2 discuss e-learning and simulation strategies. It is acknowledged that educators have experience and exposure to other more classic and traditional teaching methods.

4.5.1 Simulation and e-Learning

In the era of technological advancement, e-learning and simulation methods have been increasingly introduced in the educational programs of healthcare professionals including APNs. In informal discussions with educators worldwide, an opinion emerges that these options, while providing exciting new promise for education, should be integrated but not replace all aspects of education and clinical practicum that form the basis for ANP preparation.

4.5.1.1 Simulation

Simulation activities are useful for practicing procedures and techniques that otherwise are not done for practical or ethical reasons. Simulation options are activities using simulation aides to replicate clinical scenarios and can include high and medium fidelity manikins, standardized patients, role-play, computer-based critical thinking simulation, and skill stations. These techniques require experienced staff, space, high-tech equipment, and extensive financial resources. When used, there is evidence that students acquire skills and accelerated learning in a less threatening environment [30].

In a study that looked at the use of simulation as a substitute for traditional clinical experience for undergraduate students, outcomes were similar under the right circumstances to those for traditional clinical teaching [13]. The conclusion from this study was that up to 50% simulation could be effectively substituted for traditional clinical experience in all core courses in various programs across geographic areas in urban and rural settings. The appropriate circumstances for use of simulation include adequately trained educators, adequate numbers of faculty, dedicated simulation labs, meaningful debriefing, and the funding to sustain this educationalist option.

4.5.1.2 e-Learning

e-Learning (electronic learning) is a combination of content and instructional methods delivered via computers to facilitate a building of knowledge and skills. It assists acquisition and comprehension of knowledge by both offline and online interactive technologies. There are a variety of technologies utilized in e-learning, i.e., Internet, intranets, videos, interactive TV, and CD-ROM. There are several approaches to e-learning including: online learning or web-based instruction, computer-assisted instruction, and virtual classrooms [15].

The use of online education for ANP is dependent on well-structured, interactive, and substantive programs. From specific online modules to complete online ANP

programs to Internet access for evidence-based practice cases and study, the age of technology influences education. Desktop computers to hand held devices have made information easily available in many countries. Educators are challenged to continually assess and evaluate the changing learning needs of APN students as newly developing teaching strategies are integrated into curricula. Increasingly students are asked to learn how to locate information efficiently on the Internet, as well as evaluate the validity and relevance of the information. Strategies that teach students' skills in using Internet support are critical in an age of evidence-based practice.

In some countries, complete online modules or courses are offered. A study conducted by Dalhem and Saleh [6] concluded that e-learning, when combined with more traditional methods, had positive outcomes. Duke University in the United States provides one example of this option. In their master's degree (MSN) for ANP, core courses are offered online at least one semester per year. All majors in the MSN program are taught as distance-based or online. While most of the content in a distance-based program is delivered via distance technology, the curriculum includes on-campus intensive sessions that are delivered in a face-to-face, simulation, or hands on format [8].

4.5.2 Clinical Practicum

Clinical on-site student experiences provide opportunities for the student to develop expertise in direct advanced clinical care to individuals, families, or communities. Experiences for clinical learning are significant components of ANP education. Identifying and providing qualified supervision at appropriate clinical sites for the APN students poses challenges for both established and emerging programs. In early phases of program planning, there is a tendency to schedule clinical experiences that are mainly observational. Promoting international visiting to observe practice in countries that have successful and visible APN roles is helpful to gain real-life knowledge of role potential. However, restricting student clinical exposure to observation only does not allow the student to develop the competence expected of a nurse in the APN role.

In addition, in initial phases of ANP education, there may be a reliance on physicians to teach and supervise clinical course/module components and for qualified nursing educators to teach theoretical components that relate to role acquisition and a theoretical approach to nursing. Over time a blending of these approaches leads to interdisciplinary teaching. As a program matures, there will be options for qualified nursing educators/staff to teach most theoretical program components and for APNs to supervise clinical practicum, acting as role models and preceptors. As preceptors and mentors experienced in the role, APNs provide insight for the direction of attaining the knowledge base and skills essential for entry level ANP.

In planning classroom-based courses that prepare for clinical practicum thought should be given to the adequacy of physical space in relation to number of students and accommodation of teaching methods. Adequate space will be needed for

demonstration models, clinical simulation experiences, and surrogate patient models when included as teaching strategies. In an era of high-tech teaching methods, it is most advantageous when preparing student clinical learning experiences to provide students access to audiovisual aids, information technology, and Internet access. The opportunity to access resources to expand their technological skills as needed should be considered. The author acknowledges that where resources are limited the resourcefulness of educators will be challenged in providing quality clinical experiences.

4.5.2.1 Preceptors and Mentors: Developing APN Competence

Clinical practice facilitated by a preceptor or a mentor provides APN students real-life experiences to practice clinical skills such as history taking, performance of physical assessments, practice under supervision of diagnostic and care management plans. Management within the clinical setting can include management of acute and chronic illness, health promotion interventions, and referrals to other resources and healthcare professionals. Students entering a specialty clinical practicum are scheduled based on their experience, specialty interest, and available preceptors/mentors. Preceptorship can be identified as:

a formal one-to-one relationship of pre-determined length, between an experienced [preceptor] and a novice [preceptee] designed to assist the novice in successfully adjusting to a new role...domain or setting [CNA [4], p. 13].

At the start, physicians with expertise in the field or specialty can be called upon to function as preceptors or mentors with guidance from the nursing program manager. Physician preceptors/mentors may be unaccustomed to educating nurses to an advanced level or being evaluated on their performance as a preceptor. Approaching these situations diplomatically is always wise. Provision of a preceptor manual or handbook with guidelines [19, 29] plus periodic meetings with the preceptors can provide helpful direction for teaching, supervising, and evaluating students. It is crucial that preceptors and mentors recognize that the essence of ANP education differs from that provided for the generalist nurse and that it overlaps with but differs from medical practice. In clinical sites, senior or experienced nurses can add to clinical experiences in initial stages. Over time, with an increase of qualified educators and staff plus a presence of APNs, reliance on physicians as preceptors and senior staff nurses as clinical advisors will likely decrease.

4.5.2.2 Clinical Sites

Achieving identified clinical learning objectives necessitates introduction to a variety of healthcare practitioners and clinical sites. Clinical experiences should be varied to ensure that the students meet educational objectives. Sites should be assessed for appropriateness and evaluated periodically for quality of learning and to make sure sites are not being overloaded with a disproportionate number of students [20]. The following issues can offer difficulty in identifying sites for clinical experiences [7]. Program managers alert to these challenges can in turn develop anticipatory strategies for coordination and planning. Potential problems include:

- Limited suitable clinical sites
- Competition for clinical sites with other healthcare students
- Diverse educational objectives for rural, remote, and urban settings
- Limited understanding of expected ANP competencies
- Inadequate communication of projected clinical learning outcomes
- Uncertain and uneven quality of supervision, precepting, and mentoring

(Doucette [7])

Experience, extensive site visits, and observations by the author are consistent with these concerns. One approach to encourage positive clinical experience is to develop written agreements that clarify expectations for the student experience and responsibilities for the sites providing the experiences.

Conclusion

To promote advanced practice nurses as a credible and acceptable addition to the healthcare workforce, high-quality educational programs are essential. This chapter discusses principles that form the foundation for education consistent with a defined scope of practice and competencies for advanced nursing practice. A curriculum framework is suggested along with recommendations for selecting clinical experience sites and identifying appropriate preceptors and mentors for advanced clinical practicums. Emphasis is placed on role preparation that is reflective of the population(s) needing healthcare services.

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