© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

CHAPTER 3

The DNP Graduate as Expert Clinician

Lisa Astalos Chism

Many doctor of nursing practice (DNP) graduates will return to various advanced-practice nursing or clinician roles in clinical settings after they complete their programs. Several years after the development of the DNP degree, one of the most frequently asked questions remains, "How will the clinician's role change or benefit from earning a DNP degree?" This question is often followed by, "If I am in clinical practice, why should I earn a DNP degree?" The latter question may be addressed in part by evaluating the many aspects of clinical practice that are enhanced by the expertise garnered through a DNP degree.

The Institute of Medicine (IOM) has recommended that to meet the changing demands of healthcare, healthcare professionals should gain increased knowledge in evidence-based practice (EBP), information technologies, and interprofessional collaboration (Greiner & Knebel, 2003). To meet these changing demands of healthcare, the American Association of Colleges of Nursing (AACN) and the National Organization of Nurse Practitioner Faculties (NONPF) have developed the curriculum standards for the DNP degree, which include guidelines for coursework designed to address the evaluation, integration, translation, and implementation of EBP, healthcare information systems, and collaboration across healthcare teams and disciplines (AACN, 2006; NONPF, 2006). In addition, clinical practice may also be improved in more subtle ways through completion of a DNP degree. Mentoring and precepting future nurses and other healthcare professionals are also enhanced through the expertise garnered by earning a DNP degree. Nurses in every setting may frequently be involved in the evaluation and translation of EBP, information systems, interprofessional collaboration, and mentoring or precepting, but the DNP degree serves to augment these experiences and provide additional expertise to further develop skills in these areas. Hence, the expert clinician's knowledge base in these areas is broadened as a culmination of previous experiences and the knowledge and expertise garnered through a DNP degree. Finally, participation in scholarship is expected of all DNP graduates, especially those in clinician roles.

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

This chapter reviews the AACN essentials, the NONPF competencies, and the National Association of Clinical Nurse Specialists (NACNS) core competencies that pertain to specific areas that are likely to improve the delivery of healthcare and healthcare outcomes in clinical practice. Advanced nursing practice and advanced-practice nursing may be confusing terms, and therefore clarification is provided. The APRN Consensus Model will be reviewed because it has implications for advanced-practice registered nurses (APRNs). EBP will be discussed with emphasis on DNP graduates' evaluation and translation of EBP in clinical settings. Information technology is addressed in relation to how newer technologies can enhance clinical practice from a DNP graduate's perspective. Although nurses frequently collaborate with others in various healthcare settings, interprofessional collaboration, as it relates to DNP graduates' and other healthcare professionals' effect on improved healthcare outcomes in clinical practice, is addressed. In addition, there is a greater responsibility to mentor and precept others when one earns a terminal degree in his or her field. Therefore, DNP graduates' roles as mentors in clinical practice settings are discussed.

Curriculum Standards Related to Clinical Practice

The AACN's published *Essentials of Doctoral Education for Advanced Nursing Practice* includes specific curriculum requirements that pertain to improving nursing practice. Essential III: Clinical Scholarship and Analytical Methods for Evidence-Based Practice addresses the need for increased expertise in the critical evaluation, integration, translation, and implementation of EBP. This essential also specifies the need for advanced nursing practice professionals to evaluate practice outcomes, design and evaluate methodologies that improve quality of care, develop practice guidelines based on best-practice findings, and work collaboratively with research specialists (AACN, 2006). The NONPF competency area that addresses the requirement for this area of practice is scientific foundation (NONPF, 2006). The NACNS also addresses the need for APRNs to evaluate and translate EBP within its published *Core Practice Doctorate Clinical Nurse Specialist Competencies* (NACNS, 2009).

Essential IV: Information Systems—Technology and Patient Care Technology for the Improvement and Transformation of Health Care addresses the need for increased expertise in information technologies that improve overall patient care. Specifically, this essential requires that DNP graduates garner experience in data-mining techniques, design and implementation of technologies that improve quality of care, and provision of health consumer information (AACN, 2006). The NONPF competency area that addresses this area of expertise is technology and information literacy (NONPF, 2006). The NACNS also addresses the need for APRNs to "evaluate and improve system-level programs based on the analysis of information from relevant sources such as databases, benchmarks, and epidemiologic data" within the *Core Practice Doctorate Clinical Nurse Specialist Competencies* (NACNS, 2009, p. 13).

Essential VI: Interprofessional Collaboration for Improving Patient and Population Health Outcomes pertains to developing expertise in collaboration across disciplines to improve patient care. Expertise in this area includes analyzing complex practice or organizational issues through participation and leadership of interprofessional teams, acting as a consultant to interprofessional teams, and participating in the

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

development of practice models and policies (AACN, 2006). The NONPF competency area of health delivery system addresses collaboration and related skills to improve healthcare outcomes (NONPF, 2006). The NACNS emphasizes interprofessional collaboration and the role of APRNs in the *Core Practice Doctorate Clinical Nurse Specialist Competencies* (NACNS, 2009).

Finally, Essential VIII: Advanced Nursing Practice addresses the requirements for practicing as an advanced nursing practitioner in various specialty areas. This essential includes development of proficiency in comprehensive health assessment, implementation of therapeutic interventions, development of therapeutic relationships with patients and other healthcare professionals, and development of advanced clinical decision-making skills (AACN, 2006). The NONPF competency area of independent practice requires proficiency in these areas as well (NONPF, 2006). The NACNS includes conducting a "comprehensive assessment of client health care needs, integrating data from multiple sources which include the client and interprofessional team members" within the *Core Practice Doctorate Clinical Nurse Specialist Competencies* (NACNS, 2009, p. 11).

Advanced Nursing Practice and Advanced-Practice Nursing: Let's Clear This Up

The terms *advanced nursing practice* and *advanced-practice nursing* are often used interchangeably (Brown, 1998; Styles & Lewis, 2000); however, these terms actually have different meanings. Providing a definition of *nursing* will assist in the clarification of these terms. *Nursing* was defined by Nightingale (1859) as having "charge of the personal health of somebody and what nursing has to do is to put the patient in the best condition for nature to act upon him." In 1980, the American Nurses Association (ANA) defined nursing as "the diagnosis and treatment of human responses to actual or potential health problems" (ANA, 1995, p. 6). The ANA acknowledges that "nursing philosophy and science have been influenced by a greater elaboration of the science of caring and its integration with the traditional knowledge base for diagnosis and treatment of human responses to health and illness" (ANA, 1995, p. 6). Therefore, contemporary nursing practice is defined as having these four essential features:

1. Attention to the full range of human experiences and responses to health and illness without restriction to a problem-focused orientation;
2. Integration of objective data with knowledge gained from an understanding of the patient's or group's subjective experience;
3. Application of scientific knowledge to the processes of diagnosis and treatment; and
4. Provision of a caring relationship that facilitates health and healing. (ANA, 1995, p. 6)

Nursing practice describes what nurses do when they provide nursing care (Bryant-Lukosius, DiCenso, Browne, & Pinelli, 2004). To clarify further, advanced nursing practice describes what one does in various specialized roles, such as clinical practice, education, research, and leadership. The domain of advanced nursing practice is defined by the type of specialization area one pursues. Put another way, advancement has been defined in nursing as "the integration of theoretical, research-based,

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

and practical knowledge that occurs as part of graduate nursing education" (ANA, 1995, p. 14). Davies and Hughes (1995) expanded on this to explain that "the term advanced nursing practice extends beyond roles. It is a way of thinking and viewing the world based on clinical knowledge, rather than a composition of roles" (p. 157). *Advanced nursing practice* is therefore a broad term that describes what nurses do in their various advanced nursing practice roles.

Advanced-practice nursing, on the other hand, describes the "whole field of a specific type of advanced nursing practice" (Bryant-Lukosius et al., 2004, p. 522). Advanced-practice nursing includes several specialty roles in which nurses function at an advanced level of practice (ANA, 1995; Brown, 1998). The APRN "acquires specialized knowledge and skills through study and supervised practice at the master's or doctoral level in nursing" (ANA, 1995, p. 14). APRNs utilize their advanced knowledge and skills within their specialty roles to provide care to individuals, families, and communities.

Hence, the DNP degree is the terminal degree for nursing practice, which includes roles in leadership, clinical practice, education, research, and health policy advocacy. Within the domain of advanced nursing practice are the roles defined as APRNs or clinician roles. These roles include nurse anesthetist, nurse–midwife, clinical nurse specialist, and nurse practitioner. This chapter is focused primarily on the ways in which the DNP degree augments the roles of DNP graduates who are in clinician roles.

APRN Consensus Model

The APRN Consensus Model is a regulatory model for APRNs. The APRN Consensus Model (APRN Joint Dialogue Group, 2008) was developed in 2008 to define advanced-practice nursing regulation formally. This regulatory model defines APRN licensure, accreditation, certification, and education (LACE). The electronic platform created to facilitate the implementation and ongoing communication among the regulatory entities is called the LACE network. This model also formally defines APRN, describes the roles within advanced-practice nursing, and defines APRN educational standards and certification standards. The model was developed by the APRN Consensus Workgroup and National Council of State Boards of Nursing APRN Advisory Committee and has been endorsed by many nursing organizations.

The APRN Consensus Model defines advanced-practice roles as nurse anesthetists, nurse–midwives, clinical nurse specialists, and nurse practitioners (APRN Joint Dialogue Group, 2008). These roles are related to specific population foci defined as family (across the life span), adult–gerontology, neonatal, pediatrics, women's health, and psychiatric–mental health (APRN Joint Dialogue Group, 2008). Specialty roles are also addressed within the model and are defined as "focus of practice beyond roles and population focus linked to health care needs" (APRN Joint Dialogue Group, 2008, p. 10). Examples of specialty roles include (but are not limited to) oncology, palliative care, orthopedics, and nephrology.

The APRN Consensus Model clearly defines APRN education, certification, and licensure requirements as well. Details can be found within the report (APRN Joint Dialogue Group, 2008). The implications for DNP graduates are related primarily to the educational requirement of all APRNs. Broad-based APRN education is defined as formal education with a graduate degree (master's or doctorate) or postgraduate certificate awarded by an academic institution that is accredited by a nursing or

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

nursing-related accrediting organization (APRN Joint Dialogue Group, 2008). The educational requirements for APRNs include preparing the graduate to practice within one of the four delineated APRN roles. Therefore, the APRN Consensus Model will influence the development of DNP degree curricula, particularly the post-BSN DNP curricula for the four APRN roles.

Evidence-Based Practice

Evidence-based practice (EBP) "[denotes] disciplines of health care that proceed empirically with regard to the patient and reject more traditional protocols" (McKean, 2005)). EBP in nursing has been defined as "integration of the evidence available, nursing expertise, and the values and preferences of the individuals, families, and communities who are served" (Sigma Theta Tau International, 2004, p. 69). Congruent with the aims of the DNP degree, Gibbs (2003) related that evidence-based practitioners adopt a process of lifelong learning that involves continually asking clients questions of practical importance, searching for the current best evidence relative to each question, and taking appropriate action that is guided by the evidence. The overall goal of EBP is therefore to promote optimal healthcare outcomes, which are based on critically reviewed clinical evidence, for individual patients, families, and communities.

Although all DNP graduates are expected to evaluate and apply EBP in their settings, DNP graduates in the clinician role have a vantage point of EBP due to their direct impact on care in the clinical setting. Practicing in the clinical setting provides an environment for the DNP graduate clinician to develop and utilize skills pertaining to evaluating and applying new knowledge. The most recent AACN (2015) report, "The Doctor of Nursing Practice: Current Issues and Clarifying Recommendations," reiterated that DNP graduates contribute to the discipline of nursing by translating new science through evaluation and application. Jennings and Rogers (1988) recognized that, "while certain aspects of the research process can be shared, it is those nurses in the clinical realm who have the sole opportunity to use research to guide practice" (p. 754).

Barriers to Evidence-Based Practice

It is evident throughout the literature that when EBP is used to deliver care, the best patient outcomes are achieved (Melnyk & Fineout-Overholt, 2005; Melnyk, Fineout-Overholt, Feinstein, Sadler, & Green-Hernandez, 2008). Despite this, EBP is often met with resistance in the clinical setting. Pravikoff, Pierce, and Tanner (2005) found that when 1,097 nurses were surveyed, approximately half were not familiar with the term *EBP*, and most did not know how to search information databases for literature. Perhaps nurses lacked computer and library training that is necessary to search the literature for scientific validation (Fink, Thompson, & Bonnes, 2005; Melnyk, 2005; Pravikoff et al., 2005).

Nurses have also been noted to resist new practice patterns despite evidence that EBP improves patient care outcomes. Nurses regularly practice a certain way because of tradition, past experiences, and intuition rather than utilizing scientific validation (Egerod & Hansen, 2005; Pravikoff et al., 2005). This may be a function of the lack of knowledge about EBP (Melnyk et al., 2004) and lack of belief regarding the influence

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

BOX 3-1 Summary of Barriers to Evidence-Based Practice

- Lack of computer training
- Lack of library resources and library training
- Resistance to change due to reliance on tradition, past experience, and intuition
- Lack of knowledge about the positive influence of EBP on outcomes
- Lack of belief that EBP will positively influence outcomes
- Poor motivation to investigate EBP

of EBP on positive outcomes (Melnyk & Fineout-Overholt, 2005). Refer to **BOX 3-1** for a summary of barriers to EBP. DNP graduates have the opportunity to change these barriers and provide education to other healthcare professionals regarding the positive outcomes achieved when EBP patterns are employed. DNP graduates may also improve the perceptions about EBP by role-modeling and adopting EBP patterns themselves. Mentoring others on EBP includes role-modeling and actively engaging healthcare professionals in activities that promote the use of EBP.

Reducing Barriers to Evidence-Based Practice

Although employing EBP methods in their own clinical practice is paramount, DNP graduates in clinician roles also have a responsibility to reduce the EBP barriers within their practice settings. DNP graduates' expertise in information systems technology, leadership, clinical decision making, and EBP evaluation and application places them in the perfect position to reduce EBP barriers in the clinical setting. Therefore, the challenge for DNP graduates in the clinician role lies not only in overcoming their own barriers regarding the adoption of EBP patterns but also in providing the leadership and role-modeling necessary to promote EBP in the clinical setting.

What interventions will enable DNP graduates to foster the use of EBP in their own practice settings and overcome the barriers to EBP? Research has shown that defining EBP for all who provide care is essential (Hudson, Duke, Haas, & Varnell, 2008). In addition to providing a clear definition of EBP, DNP graduates must provide the knowledge and skills necessary to evaluate EBP critically. Hudson and colleagues (2008) state, "Nurses must have the knowledge and skills to critically question and assist with correcting misguided, inaccurate, or insufficient guidelines in practice" (p. 414). Others have also agreed that barriers to EBP can be overcome with additional education that strengthens knowledge regarding methods to evaluate and integrate EBP (Melnyk & Fineout-Overholt, 2005; Melnyk et al., 2004; Sheriff, Wallis, & Chaboyer, 2007). Specifically, learning how to navigate information systems databases is a valuable tool to locate and evaluate pertinent EBP information (Melnyk et al., 2004). In their programs, DNP graduates gain proficiency in information technologies and are therefore ideal consultants in this area. Research also suggests that interactive workshops were shown to be effective pedagogical techniques to increase knowledge and understanding of EBP (Sheriff et al., 2007). DNP graduates' leadership and collaboration skills facilitate the development and provision of in-service programs and workshops regarding EBP in the clinical setting.

The literature also suggests that it is not enough to have knowledge about EBP; one must believe that EBP actually has a positive effect on outcomes (Melnyk, 2002;

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

BOX 3-2 Tips for DNP Graduates to Reduce Barriers to Evidence-Based Practice

- Define EBP to others in the healthcare setting.
- Provide education regarding EBP that emphasizes positive outcomes through in-service training and workshops.
- Provide consultation regarding information systems, including searching databases for pertinent answers to clinically formulated questions.
- Increase belief in the benefits of EBP by mentoring others in the healthcare setting and providing exemplars through case studies.
- Mentor others in EBP methods, such as searching databases and critically reviewing and evaluating research findings.

Melnyk & Fineout-Overholt, 2005). Hence, DNP graduates in the clinician role may convince others through specific exemplars that adopting EBP patterns is worth the effort. Increasing belief in EBP may also be achieved through mentoring and role-modeling the use of EBP. In a study by Melnyk and colleagues (2004), nurses reported increased use of EBP was directly influenced by "support from faculty, clinical nurse specialists, nurse practitioners, library resources and personnel, administrators, research departments, peer researchers, and specific mentors or clinical experts, as well as time for discussion and use of current research" (p. 191). DNP graduates are often viewed as mentors and role models and are therefore in an ideal position to influence others regarding the use of EBP. **BOX 3-2** provides tips for DNP graduates to reduce barriers to EBP.

DNP Graduates Evaluating and Applying Evidence-Based Practice

DNP graduates in clinician roles are perfectly positioned to ask questions directly from the clinical setting. Asking questions is the first and most important step toward evaluation and applying EBP to clinical practice. Asking clinically relevant questions is essential to the development of new knowledge in a field. After the question has been asked, answers may be evaluated in the clinical setting, which allows for direct application of EBP. It has been suggested in various dialogues about EBP that it may take up to 18 years to adopt practices based on clinical evidence. Reducing this amount of time to evaluate and apply EBP is essential and well within the domain of DNP graduates. Vincent and colleagues (2010) described DNP graduates as "practitioner-researchers" and reiterated DNP graduates' role in "closing the gap between research and practice" (p. 28). As "practitioner-researchers," DNP graduates have an important role in knowledge translation; the application of synthesized knowledge to improve health outcomes (Vincent et al., 2010). DNP programs are integrating translational science into curricula to familiarize DNP graduates with the process by which new knowledge is transformed into clinical practice (AACN, 2015).

In the clinical setting, DNP graduates may begin encouraging the evaluation and application of EBP by evaluating research articles in journal clubs, developing in-service programs and workshops that teach evaluation and application of research findings, and conducting and reviewing literature searches of the most current evidence.

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

BOX 3-3 Tips for DNP Graduate Clinicians to Employ Evidence-Based Practice Within Their Own Practices

- Formulate questions when providing care, especially when you don't know if the treatments or recommendations are based on clinical evidence.
- Conduct literature reviews regarding treatments or topics you are interested in or if you question the best practices.
- Start a journal club in your area of clinical practice, and meet regularly to discuss pertinent literature.
- If you are in an organization with a library or related resources, ask the reference librarian to conduct searches or automatically alert you regarding pertinent topics you encounter in practice.
- Communicate with other healthcare professionals, and ask questions about whether certain practices are based on evidence or if those practices are simply what has always been done.
- Organize in-service programs for staff members and others about how to search for evidence and find the best answers to questions.
- Identify unmet healthcare and societal needs and develop evidence-based solutions to fulfill these unmet needs.

In addition, asking questions that arise from clinical practice may also lead to the identification of gaps in service. These gaps may take on the form of an unmet need in healthcare and in society. DNP graduates are well equipped to create evidence-based solutions, such as the development of new practice programs that fulfill unmet healthcare and societal needs. **BOX 3-3** provides tips for DNP graduates to evaluate and translate EBP within their own practices.

Case Scenario of a DNP Graduate Clinician's Experience with Evidence-Based Practice

Dr. C. is a DNP graduate clinician (certified nurse practitioner) working in a hospital-based internal medicine ambulatory care setting. Dr. C. was a graduate student in a DNP program when she accepted this position. While in school, Dr. C. inquired about resources within the institution that might help her apply the latest research findings to patient care. Dr. C. received assistance from the reference librarian at this institution and began obtaining literature regarding pertinent patient issues.

Sifting through the information was difficult at first. The myriad results, discussions, and literature reviews made it difficult to decipher what information was accurate and pertinent to best-practice recommendations. Through her graduate program, Dr. C. attended a methodology workshop (part of the DNP curriculum) that clarified how to review a research article critically and determine whether the information was indeed valuable. Upon finishing her DNP program, Dr. C. became more proficient at locating and evaluating EBP information. Now, when Dr. C. reviews EBP articles, she critically evaluates the information for sample sizes, accuracy of statistical analyses, and ability to generalize the results to the given population. As a clinician, Dr. C. is able to apply the EBP patterns she researches and validate effectiveness in her setting.

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

Taking this knowledge and added expertise a step further, Dr. C. suggested to the physician she practices with that they start a journal club in their setting. Dr. M. was enthusiastic about this and offered to assist with presentation of pertinent topics, even contributing his "Journal Watch" articles for review. Dr. C. also regularly precepts students from various advanced-practice nursing programs and now integrates the review of EBP techniques as part of her students' clinical experiences. Dr. C. has found that, as she becomes more proficient at reviewing the information, it actually takes her less time to incorporate EBP activities into her day.

Information Technology

Following a discussion about EBP, the literature is clear that proficiency in information technology is essential to foster the use of EBP (Carroll, Bradford, Foster, Cato, & Jones, 2007; Peck, 2005; Zytkowski, 2003). Others refer to the knowledge explosion taking place in healthcare and state that "there has been increasing pressure for health care systems to improve efficiency while standardizing and streamlining organizational processes and maintaining care quality" (Carroll et al., 2007, p. 39). The amount of information now being accessed to improve quality and healthcare outcomes requires that nurses embrace nursing informatics in every healthcare setting. Curran (2003) relates that "health and knowledge are increasing at a rapid rate. Both the ability to manage information and skilled use of technology are basic tools for practice" (p. 320).

Information technology is also referred to in the nursing literature as nursing informatics. *Nursing informatics* is defined as "a combination of computer science, information science, and nursing science designed to assist in the management and processing of nursing data, information, and knowledge to support the practice of nursing and the delivery of nursing care" (Graves & Corcoran, 1989, p. 227). The International Medical Informatics Association's Nursing Informatics Special Interest Group (1998) offers a similar definition that includes the "integration of nursing, its information, and information management with information processing and communication technology, to support the health of people worldwide." From these definitions, it may be extrapolated that the purpose of nursing informatics is to develop systems that manage, organize, and process health information (Zytkowski, 2003) in an effort to improve quality of care and healthcare outcomes.

Nursing informatics has become so essential to improving quality and healthcare outcomes that in 1992 the ANA designated nursing informatics as an approved nursing specialty (Zytkowski, 2003). The ANA (2001) refers to nursing informatics as "a specialty that integrates nursing science, computer science, and information science to manage community data, information, and knowledge in nursing practice" (p. vii). For the purpose of this discussion, the broader term *information technology*, which includes nursing informatics, is used.

Is Nursing Overcoming Technophobia? Embracing Information Technology

Traditionally nursing has been somewhat reluctant to embrace information technology (Gaumer, Koeniger-Donohue, Friel, & Sudbay, 2007; Peck, 2005; Simpson, 2004). Due to the need for improvement in quality and healthcare outcomes, however, nursing

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

has begun the challenge of integrating information technologies into patient care. The IOM's call for improvement in quality and healthcare outcomes specifically designates proficiency in information systems as a requirement for healthcare professionals (IOM, 2001). The IOM's report *To Err Is Human: Building a Safer Health System* (Kohn, Corrigan, & Donaldson, 1999) was the initial call for a decrease in medical errors. *Crossing the Quality Chasm: A New Health System for the 21st Century* (IOM, 2001) followed this report and specifically called for an emphasis on information technology to improve healthcare outcomes and reduce errors. In 2003, the IOM published a report outlining the requirements for healthcare professionals' education and recommended that information technologies be included as a core competency for all healthcare professionals (Greiner & Knebel, 2003). These reports, and nursing's desire to improve patient care outcomes, have contributed to nursing's increasing acceptance of information technology.

Consequently, recent research has shown that nursing noted improved care through the adoption of information technology. A study by Gaumer and colleagues (2007) described the use of information technologies by APRNs. Seventy percent of the APRNs surveyed reported that they were able to perform their jobs better due to information technologies. Eighty-seven percent of the APRNs stated that their time was spent more efficiently because of information technology. Eight-one percent perceived that patient safety was improved through information technologies. Overall, 75% responded that their caregiving was improved by the use of information technologies.

Simpson (2004) also stated that information technology improves nursing practice by "counteracting human error, by improving human behavior, and by putting nurses where they need to be to be more effective" (p. 303). Information technology has the potential to improve more specific aspects of nursing. Recruitment and retention are improved due to increased job satisfaction through information technologies, such as electronic charting, electronic mobile devices, and innovative devices such as smart intravenous pumps (Simpson, 2005). Patient care is improved by information technologies that facilitate the "data-to-information-to-knowledge continuum" (Simpson, 2005, p. 346). EBP is more accessible via information technologies and is therefore adopted more quickly by nursing. Overall, the use of information technology to evaluate and implement EBP improves quality and patient-care outcomes.

Specific to advanced nursing practice, Zytkowski (2003) relates that information technology has an impact on nurse practitioners' practices by influencing "access to individual health information, reimbursement, and practice based on evidence from research" (p. 278). Nurse practitioners are responsible for improving patient care while adhering to organizational standards for scope of practice. These demands depend on access to real-time resources and information (Zytkowski, 2003). Information technology provides this information in the most up-to-date fashion through Internet resources.

More Than Just Nuts and Bolts: Technology Used to Improve Clinical Practice

Information technology is used by nurses in many specialty areas related to nursing practice, such as leadership roles (computer software for management of health information), education roles (distance education technologies), and clinician roles (handheld mobile devices loaded with specialized applications). The employment of

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

information technology in nursing practice is becoming commonplace. Many nurses, especially in the clinical environment, are using various information technologies and do not realize they are doing so.

Nursing leaders use information technology to perform data mining. This technique enables the sorting of data from large populations to reveal healthcare-related patterns that may improve the quality of care and healthcare outcomes. Nursing leaders may also use software that organizes large amounts of systems information to streamline the management of systems issues. Information technology through the Internet may also be used by nurse leaders to communicate information to large groups of people who are not in the same location.

Nursing educators use information technologies to share information with students. Online coursework, email, and interactive live meetings are now essential aspects of distance education. These technologies allow the sharing of information to those not able to attend courses on campus.

Nurses in the clinical setting are inundated with data related to patient care and frequently use very innovative types of information technologies. Handheld mobile devices with specialized applications are often found in the pockets of many nurses in the clinical setting. These devices may be loaded with applications designed to provide information in the palm of one's hand. Some of these applications are free and may be downloaded immediately. Clinical pharmacists endorse the use of specialized applications by nurses in the clinical setting and find that they provide general management and data collection; drug referencing for side effects; adverse reactions; compatibility; dose-specific reactions; and clinical references relating to diagnoses, disease management, and laboratory referencing (Shneyder, 2002). Applications such as Epocrates offer pharmacology, diagnostic, and symptom information. Epocrates also offers a medical dictionary, International Classification of Diseases (ICD) and Current Procedural Terminology (CPT) codes for accurate terminology, and billing codes for diagnoses and procedures.

Another example of clinical nurses employing informatics is the use of telehealth technologies. *Telehealth* is defined as "the use of electronic information and telecommunication technologies to support long-distance clinical health care, patient and professional health-related education, public health, and health administration" (Sharp, 1998, pp. 68–69). Nursing tends to prefer telehealth because of the emphasis on patients' long-term wellness, self-management, and health (Peck, 2005). Telehealth can be used as an interactive technique or as a method to track patient data. As access to patient-care data improves, patient care improves as well (Peck, 2005). Telehealth also includes care that is provided despite distance. For example, nurses and healthcare providers may now use applications such as Skype, Google Hangout, Vsee, UberConference, GoToMeeting, Webex, Voca, Viber, oovoo, jitsi, and Facetime to connect to patients and other healthcare professionals, Collaboration between physicians and APRNs frequently takes place between separate geographic locations. Home-care companies are also employing telehealth by providing nurses in the field with handheld mobile devices so they can take photos of wounds and upload them to a website, and an APRN can view the photos through an online portal. The patient's status is evaluated and care is provided without the APRN leaving his or her clinical setting.

APRNs may also integrate information technology into patient education. Internet resources can provide patient information quickly and easily. APRNs can access this information for patients quickly and print patient education resources that are

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

frequently available on various health-related websites. APRNs can decipher information for patients while advising them what information is accurate and appropriate for patient education. Knowing what information is appropriate and deciphering it for patients is a form of information technology (Curran, 2003).

DNP Graduates Navigating the Information Highway

As information technology specialists, how do DNP graduates in clinician roles utilize nursing informatics to improve quality and health care outcomes? Many of the answers are reviewed in this chapter. It should also be mentioned that nurses in all clinical settings frequently use information technology. Of the information technologies reviewed, however, some are essential proficiencies for DNP graduates who are most directly involved in patient care.

The use of handheld mobile devices is vital for the provision of up-to-date, efficient, and accurate information to DNP graduates in the clinician role. The use of this technology improves access to information regarding medications, treatment regimens, and billing and coding information. This information improves quality of care, safety, and cost.

Techniques to provide patient information that can be accessed on the Internet are also essential for DNP graduates in the clinician role. Advising patients about accurate health-related websites is appreciated by patients who do not feel comfortable looking for this information themselves. Simply utilizing a search engine to print information for patients, in their language, is a nursing informatics skill that is often overlooked as information technology. However, this skill improves patient education, and therefore quality and patient-care outcomes are improved.

It should also be mentioned that patients are now accessing their health-related information via patient portals. The use of telehealth is also a valuable tool to improve nursing practice by allowing care to be more accessible. APRNs can utilize Internet portals to view patient data and modify care as the data change to allow for seamless, efficient, and improved care. Telehealth as a means to share information is also essential for DNP graduates in clinician roles. Physician–DNP graduate collaboration may be improved through telehealth technologies by providing consultation in rural areas.

Partnering with nursing administration to perform data-mining techniques also allows DNP graduates in clinician roles to observe patterns in large amounts of patient data. This information provides insights about patient patterns regarding their health status and facilitates solutions to improve patient care. Data mining also facilitates the development of EBP patterns.

Exhibiting an overall comfort with the utilization of information technology will enable DNP graduates in clinician roles to influence others' comfort with technology. Teaching others how to access information on the Internet, sharing information obtained on personal data devices (handheld mobile devices, laptops, tablets), and participating in the development of in-service training regarding nursing informatics encourages others to become involved in learning about and using these technologies. It is widely known that participation in the design, development, and use of information technology increases the likelihood that it is accepted (Carroll et al., 2007; Courtney, Demiris, & Alexander, 2005).

Refer to **BOX 3-4** and **BOX 3-5** for lists of ways that DNP graduates can use information technology and websites regarding information technology.

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

BOX 3-4 Utilization of Information Technology for DNP Graduates in Clinician Roles

- Use handheld mobile devices, laptops, or tablets to access up-to-date information regarding medications, diagnostics, and symptoms.
- Use Internet search engines to access patient information materials.
- Review websites for patients to determine if the most accurate and appropriate information is being relayed.
- Utilize reference librarians at your institution or locally to obtain information technology resources and assist with literature searches.
- Become familiar with the various resources available to provide telehealth such as Skype, Google Hangout, Vsee, UberConference, GoToMeeting, Webex, Voca, Viber, oovoo, jitsi, and Facetime.
- Partner with administration to become involved in data mining to evaluate patterns in patient data.
- Provide in-service training to other healthcare professionals regarding information technology.
- Role-model and utilize information technologies in your clinical setting, and share what technologies improve your clinical practice.

BOX 3-5 Websites for Information Technology in Nursing

- Healthcare Information and Management Systems Society (HIMSS) (www.himss.org/ASP/topics_nursinginformatics.asp): This website provides information from the Healthcare Information and Management Systems Society Nursing Informatics Task Force.
- Computers Informatics Nursing (CIN) (www.cinjournal.com): This is the website for the *Computers, Informatics, Nursing* journal.
- *Online Journal of Nursing Informatics* (www.ojni.org).
- Nursing Informatics Online (www.informaticsnurse.com): This website lists informatics nursing jobs and miscellaneous nursing informatics information.
- Nursing Informatics (www.nursinginformatics.com): This website provides information regarding education and continuing education courses about nursing informatics.
- American Nursing Informatics Association (www.ania.org).

Case Scenario: A DNP Graduate Clinician's Experiences with Information Technology

As one can see, information technology can be integrated into the clinical setting in various ways to improve quality and patient outcomes. Dr. A. is a DNP graduate and nurse practitioner who works in an off-site hospital outpatient setting. Dr. A. utilizes various information technologies throughout his day while seeing patients.

Dr. A. frequently utilizes his hospital reference librarian to obtain new information technologies that are available within his system and in any healthcare setting.

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

When caring for patients, Dr. A. frequently uses a search engine to obtain patient information while patients are in the clinic. Dr. A. believes this empowers patients and provides much-needed information at a time when patients are vulnerable.

Dr. A. also uses a laptop loaded with Epocrates software. He uses Epocrates regularly to check for medication interactions and obtain information about specific diagnoses. In addition, Dr. A. recently upgraded his Epocrates software and can obtain ICD and CPT codes to ensure accurate billing.

Recently Dr. A. became aware of a local home-care company that equips its nurses with laptops to document patient care while at the bedside. These home-care nurses also have the capability to photograph wounds, upload the photos to the secure home-care website, and provide a portal for healthcare professionals to view the photos from the clinical setting. Dr. K., the physician who works with Dr. A., was not interested in sampling this website with the home-care agency until Dr. A. convinced him to view the wound photos on the site. Both Dr. A. and Dr. K. now regularly consult this home-care company and are able to update the plan of care while they are still in their clinical setting.

Because of the expertise in information technology Dr. A. garnered while in a DNP program, he is comfortable discovering and utilizing new information technologies within his clinical setting. Prior to his DNP program, Dr. A. shared some of the same reluctance many others express with regard to information technologies. However, Dr. A.'s awareness of the IOM's call for improved healthcare through the utilization of information technologies and the importance of obtaining up-to-date information that is available through information technologies confirmed for him that it is necessary to become comfortable with these technologies.

Interprofessional Collaboration in the Clinical Setting: More Than Just Getting Along

Interprofessional collaboration was discussed previously in Chapter 2 as it relates to DNP graduates in leadership or potential leadership roles. The current discussion regarding interprofessional collaboration relates specifically to DNP graduates in clinician roles. The recognition that one caregiver alone is unable to support the complexity of current healthcare delivery led to the IOM's recommendation that interprofessional collaboration be included in the educational standards of healthcare professionals in the future (Greiner & Knebel, 2003). Given the additional preparation in this area garnered through a DNP program, the DNP graduate in a clinician role is in a perfect position to influence and exemplify interprofessional collaboration.

Interprofessional collaboration from the clinician's perspective involves more than just getting along with your collaborating physician. The word *collaborate* is derived from the Latin word *collaborare*, which means "to work with one another" (*Webster's Concise English Dictionary*, 2004). ANA (1995) has defined collaboration as a partnership with shared power, recognition, and acceptance of separate and combined practice spheres of activity and responsibility; mutual safeguarding of the legitimate interests of each party; and a commonality of goals.

The Interprofessional Education Collaborative Expert Panel published a report titled *Core Competencies for Interprofessional Collaborative Practice* in 2011 and

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

updated it in 2016. This set of core competencies is currently supported by 15 various organizations, such as the AACN, American Association of Osteopathic Medicine, American Association of Colleges of Pharmacy, American Dental Education Association, Association of Medical Colleges, Association of Schools of Public Health, American Association of Podiatric Medicine, American Council of Academy Physical Therapy, American Council of Occupational Therapy, American Psychological Association, Association of American Veterinary Medical Colleges, Association of School and Colleges of Optometry, Association of Schools of Allied Health Professions, Council on Social Work Education, and Physician Assistant Education Association. This list has grown significantly since 2011, when this report was originally published, which demonstrates the depth of healthcare professionals who value interprofessional collaboration.

The original *Core Competencies for Interprofessional Collaborative Practice* were organized into four domains to reflect the Institute of Medicine's five core competencies (Interprofessional Education Collaborative Expert Panel, 2011):

- Values/ethics for interprofessional practice
- Roles/responsibilities
- Interprofessional communication
- Teams and teamwork

Since the original publication in 2011, these core competencies have been updated to recognize that educators have used these Core Competencies for Interprofessional Collaborative Practice for development of curricula in healthcare professions' education models related to interprofessional collaboration (Interprofessional Education Collaborative [IPEC], 2016). One change includes placing all four core competencies under the umbrella of interprofessional collaboration rather than as separate entities, and the second change includes integrating population health competencies (IPEC, 2016). The revised core competencies are as follows:

- Competency 1: Work with individuals of other professions to maintain a climate of mutual respect and shared values. (Values/Ethics for Interprofessional Practice)
- Competency 2: Use the knowledge of one's own role and those of other professions to appropriately assess and address the health care needs of patients and to promote and advance the health of populations. (Roles/Responsibilities)
- Competency 3: Communicate with patients, families, communities, and professionals in health and other fields in a responsive and responsible manner that supports a team approach to the promotion and maintenance of health and the prevention and treatment of disease. (Interprofessional Communication)
- Competency 4: Apply relationship-building values and the principles of team dynamics to perform effectively in different team roles to plan, deliver, and evaluate patient/population-centered care and population health programs and policies that are safe, timely, efficient, effective, and equitable. (Teams and Teamwork) (IPEC, 2016, p. 10)

In addition, subcompetencies are included in the revised document to help guide the integration and demonstration of each of the core competencies in practice and leadership. DNP graduates are encouraged to review and become familiar with the updated 2016 Core Competencies for Interprofessional Collaborative Practice to ensure proficiency in interprofessional collaboration in both clinician and leadership roles.

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

Interprofessional collaboration has been shown repeatedly to decrease healthcare costs and improve both quality of care and healthcare outcomes. Cowan and colleagues (2006) found that collaborative relationships between physicians and nurse practitioners reduced hospital length of stay without altering readmissions or mortality. McKay and Crippen (2008) also found that instituting a collaborative practice model decreased length of hospital stay and overall healthcare costs. Schmalenberg and colleagues (2005) also noted that interdisciplinary collaborative relationships between nurses and physicians were linked to improved quality of care. Finally, Knaus, Draper, Wagner, and Zimmerman (1986) reported that when collaborative relationships were present in hospitals, a 41% lower mortality occurred than the predicted number of deaths.

Although evidence clearly supports interprofessional collaboration, others have reported barriers. Stein-Parbury and Liaschenko (2007) reported that interprofessional collaboration was hindered when physicians dismissed nurses' knowledge, clinical assessment skills, and concerns about patients. Another frequently noted barrier was lack of recognition regarding other healthcare professionals' roles or knowledge base (Yeager, 2005). The overwhelming solution presented in the literature regarding these barriers was improved communication among healthcare professionals (Gerardi & Fontaine, 2007; McKay & Crippen, 2008; Rossen, Bartlett, & Herrick, 2008; Stein-Parbury & Liaschenko, 2007). Other antecedents to interprofessional collaboration included shared vision among healthcare professionals (Hallas, Butz, & Gitterman, 2004; Yeager, 2005) and trust and respect regarding fellow healthcare professionals' knowledge and expertise (Stein-Parbury & Liaschenko, 2007).

Creating the Bridge: The Challenge for DNP Graduate Clinicians

What does this all mean for the DNP graduate clinician? Although fostering collaboration is related to leadership, one may begin to see how the roles of DNP graduates are truly integrated. The DNP graduate in a clinician role may not be in a formal leadership position; however, the same set of skills is required to promote interdisciplinary collaboration in the clinical setting. These skills enable DNP graduates in a clinician role to create a bridge between all members of the healthcare team.

Gerardi and Fontaine (2007) described collaboration in relation to the American Association of Critical-Care Nurses (2005) publication titled *Standards for Establishing and Sustaining Healthy Work Environments*. Six key components were found to be essential for a healthy work environment, including true collaboration. Gerardi and Fontaine (2007) state that "true collaboration is a way of being and a way of working" (p. 10). These are words for DNP graduates to live by. Gerardi and Fontaine (2007) also related that true collaboration is a "continuum of engagement" that involves "self-reflection, information sharing, negotiation, feedback, conflict, engagement, conflict resolution, and finally forgiveness and reconciliation" (p. 10).

DNP graduates in clinician roles engage in balancing acts daily when collaborating with other healthcare professionals. Communication techniques that include open listening, understanding multiple perspectives, and developing patient-oriented solutions negotiated together within a team have been repeatedly noted to foster interdisciplinary collaboration (Goleman, Boyatzis, & McKee, 2002; Hamric, Spross, & Hanson, 2005).

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

Apker, Propp, Zabava Ford, and Hofmeister (2006) explored how nurses communicate professionalism while collaborating with other healthcare team members. These authors noted that displaying professionalism can lead to beneficial outcomes for patients, nurses, and organizations. They also found that four specific types of communication fostered collaboration and enabled nurses to display professionalism. They were named the "Four C's of Professional Nurse Communication in Health Care Team Interactions" and included collaboration, credibility, compassion, and coordination (p. 183).

Collaboration was further elaborated on as updating team members regularly and preparing appropriately before presenting the information. Nurses who had their ducks in a row when collaborating were viewed as being professional as well. Nurses who engaged in dialogue with physicians to identify solutions for problems and shared in decision making also displayed professionalism and effective collaboration.

Credibility was further described as how nurses display their proficiency while collaborating with other healthcare team members. Establishing credibility when collaborating may also reduce barriers to collaboration associated with lack of recognition of team members' knowledge and expertise. Nurses who displayed credibility effectively while adjusting their communication style depending on varied roles, personalities, and situations were viewed as effectively collaborating with other healthcare team members. Terms such as "sensing the environment" and "adapting to the situation" were used to describe nurses who displayed credibility while collaborating (Apker et al., 2006, p. 184). These terms are similar to emotional intelligence competencies that improve communication and leadership.

Compassion was described as showing consideration for all team members, especially those who were considered novices (Apker et al., 2006). Mentoring and demonstrating social support to newer team members were key to displaying professionalism and compassion. Advocacy was another behavior noted to be associated with compassion. Respondents stated that when other team members were advocated for, compassion was displayed. Communication that included an optimistic, supportive, and positive attitude was also noted to display compassion (Apker et al., 2006).

The final communication skill set included coordination. The manner in which nurses coordinate healthcare delivery speaks to nurses being the center of the healthcare team (Apker et al., 2006, p. 185). This communication skill demonstrates the leadership that nurses must assume every day when providing care. The ability to coordinate care while collaborating with the healthcare team also demonstrates nursing professionalism.

With regard to DNP graduates, Apker and colleagues' (2006) work describes valuable insights for collaboration and professionalism in nursing. DNP graduates have earned the terminal degree in their field. Therefore, demonstrating professionalism through effective collaboration is vital to their success in every role they assume.

Realizing that "true collaboration is a way of being" (Gerardi & Fontaine, 2007, p. 10) will enable DNP graduates to build bridges successfully among all healthcare disciplines. Knowing how to communicate effectively while collaborating will enable DNP graduates to collaborate and build bridges among healthcare disciplines. Building these bridges will facilitate interprofessional collaboration and enable DNP graduates to improve quality and healthcare outcomes continually in an ever-changing, complex healthcare environment. Refer to **BOX 3-6** for bridge-building tips.

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

BOX 3-6 Tips for Building Bridges Among Healthcare Disciplines

- Respect the knowledge and expertise of other members of the healthcare team in the clinical setting.
- Seek input and feedback from other members of the healthcare team, especially members in other disciplines.
- Provide accurate and complete information when discussing patients or patient-care issues with members of the healthcare team.
- Organize team meetings with members of the healthcare team to focus on new treatment guidelines and EBP.
- Communicate effectively by utilizing active listening, compassion, and empathy.
- Use emotional intelligence competencies to assess accurately the needs of the healthcare team and feel the room's emotional environment.
- Mentor new team members and provide social support through compassion and empathy.

Case Scenarios of Interprofessional Collaboration

The following case scenarios describe two types of interprofessional collaboration: one in which the DNP graduate is unsuccessful in building a collaborative relationship and one in which the DNP graduate experiences interprofessional collaboration.

Case Scenario 1: An Attempt to Build a Bridge

Dr. L. is a new graduate from a BSN-to-DNP program. His experience with collaboration involves working with physicians in a small rural emergency room (ER) setting. His specialization in his DNP program prepared him to become certified as an acute-care clinical nurse specialist. Upon graduating, Dr. L. took a position as an ER nurse practitioner and began working with the same healthcare team he previously worked with.

Dr. L. attempted early to develop a grand rounds program in the ER that would include case presentations with input from all disciplines in the ER setting, including pharmacy, nursing, and medicine. Unfortunately, this idea was met with much resistance from the ER staff physicians. In addition, when attempting to collaborate with the physicians regarding patient care, Dr. L. was treated poorly and was frequently questioned in an accusatory fashion when he suggested different evidence-based treatments. Dr. L. overheard staff physicians making statements such as, "Who does he think he is, recommending this treatment?" The medical staff members treated him disrespectfully in front of other staff members and patients. As a result, the nursing staff did not exhibit trust in his abilities.

Dr. L. approached the nurse manager of the ER and was again met with resistance regarding additional educational programs for staff members. Instead of the physicians and nurse manager providing mentoring, Dr. L. was left to fend for himself. Hospital administration offered no assistance and did not have previous experience dealing with the issues related to advanced nursing practice. Eventually Dr. L. left the hospital and relocated to work in a large university setting with other APRNs. Dr. L. felt he would get the support and mentoring he needed to grow as an APRN and a valued

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

member of the healthcare team. Sadly, the small rural hospital lost a DNP graduate who attempted to improve quality of care and patient outcomes through collaboration.

Case Scenario 2: A Bridge Built

Dr. N. is a DNP graduate working as a nurse–midwife in a university-affiliated outpatient clinic. Dr. N. began to notice that she had been caring for an increasing number of patients who had previously undergone bariatric surgery and are now pregnant. Upon doing a literature search to obtain information regarding caring for this unique population, Dr. N. noted that there was a paucity of EBP guidelines pertaining to pregnant postbariatric surgery patients.

Dr. N. took the first step to integrating EBP and asked a question: "What are the increased risks to both mother and baby when the mother has had bariatric surgery?" Dr. N. requested a grand rounds meeting with the departments of obstetrics, surgery, and dietary. She contacted her reference librarian, who provided her with literature regarding bariatric surgery and postsurgical complications, including risks that persist well after surgery. Dr. N. also contacted the information technology department, and with their assistance, she was able to arrange a satellite meeting with another teaching institution that had recently begun a clinical trial involving pregnant patients who had previously undergone bariatric surgery.

The grand rounds meeting was well attended by nursing, medicine, obstetrics, surgery, and dietary. Many questions were raised regarding how to care for this population, including how to address their unique nutritional needs. The team initiated steps to develop a research program in their institution, and Dr. N. was able to participate actively in this endeavor. Dr. N. used the knowledge she had garnered in her DNP program to integrate EBP, utilize information technologies, and build a bridge between disciplines. This process had started with her simply asking a question while caring for a patient.

Interviews with Healthcare Professionals Outside the Nursing Discipline

The following interviews are with healthcare professionals outside the discipline of nursing. Dr. Sharon Helmer is a radiologist who has worked with DNP-prepared nurses and offers valuable insights related to interprofessional collaboration. Ms. Nancy Iles is a clinical social worker and works with DNP-prepared nurses and provides social work consultation. Mr. Steve Smith is executive director of pharmacy services in his setting and has also worked with DNP-prepared nurses to provide consultation and collaboration on pharmacy-related projects. These interviews provide interesting exemplars of interprofessional collaboration and the importance of professionals working together to improve healthcare delivery.

Courtesy of Sharon Helmer

Sharon R. Helmer, M.D., Radiologist

Dr. Helmer, could you please describe your professional and educational background, including your current position?

I am a radiologist. I was a general radiologist for nearly 20 years with a specialty in ultrasound and breast imaging. I was a program director for 14 years for a radiology residency. I spent the past 7 years of my career in a breast center dedicating my practice 100% to breast imaging. I recently took a position in a VA facility as the

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

section chief for ultrasound and women's imaging and am planning a women's imaging center at this facility.

Dr. Helmer, the Health Professions Education Committee (responding to the Institute of Medicine) has outlined the need for collaboration across healthcare disciplines as a specific competency aimed at improving healthcare (Greiner & Knebel, 2003). As a healthcare professional, do you agree with this recommendation, and how essential do you feel interprofessional collaboration is within your practice setting?

Interprofessional collaboration has been a vital part of my skill set as a mammographer.

Breast imaging as a subspecialty in radiology and mammography, especially, has been highly regulated for a long time. Because of this, we have established quality and performance benchmarks that are now becoming role models for other areas in medicine such as lung screening. During the 1990s, federal laws regarding mammography quality adopted almost verbatim the American College of Radiology standards that had been developed to establish imaging standards in mammography. This resulted in accreditation programs that assured that women who chose to have mammographic screening were receiving high-quality imaging at the lowest possible radiation doses, performed by certified trained technologists and interpreted by trained radiologists that met accepted standards for experience, education, and outcomes. This had never been done in medicine! I tell you all of this because the logical next step was then to look at how these standards fit into a standard of care for patients. It naturally led both providers and patients to realize that they could expect more from the healthcare system. Timeliness of care standards were established as mammographers worked to make sure patients had access to breast screening. As technology improved, it became critical for radiologists to move from strictly interpreting images to recommending biopsy and then to performing biopsy in order to expedite diagnosis and appropriate care. This paradigm shift in medicine moved radiologists into a more direct relationship with the patient and the referring primary-care provider. Minimally invasive biopsy moved the mammographer into a diagnostic role that eliminated the long wait time for open surgical biopsy for the large percentage of benign breast biopsies that were being performed. We were forced to develop strong and trusting relationships with the primary-care provider and the surgeons.

Dr. Helmer, how valuable is it within your setting to develop relationships and build bridges with other healthcare professionals?

It is a critical skill to be seen as helpful, accessible, and trustworthy within any healthcare setting. You must believe that everyone in the patient's line of service is there to do the best for the patient. Each care provider has a different perspective, but you must develop a relationship with the provider to be the most effective advocate for the patient. In my experience, having these relationships makes it possible to establish your role as value added. It also makes it possible to have difficult conversations regarding errors, delays in care, patient complaints, or requests to expedite care. It also leads to opportunities to be recommended and supported for leadership and planning roles in your institution.

Dr. Helmer, what techniques do you frequently employ when establishing and developing relationships with other healthcare professionals within your setting?

As a radiologist, I have faced entrenched biases as both a woman and a stereotype that radiologists are not "real" physicians and do not have patient-care skills. My approach has always been based on the philosophy that I am in a service profession. My goal is to make my service to a provider valuable by the quality of care and kindness I show the patient and by enhancing the reputation and service of the referring provider. This requires direct communication, and it takes time out of your day. It means developing processes that

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

expedite care and communicating with your patients and providers. It means staying late or adding patients on or enduring insults and criticism of your specialty, colleagues, department, or institution. It means you take all the responsibility when something goes wrong and give credit to your team when things go right. It takes time but will pay off in big ways.

Dr. Helmer, do you work with DNP-prepared nurses within your setting and, if so, how do you envision your role collaborating with these professionals?

While I was practicing at a cancer center, I had the privilege of working with and supporting the role of our DNP-prepared nurses in their role as providers in a wellness clinic. It was my first exposure to this degree. It was an extremely successful collaboration as we served as immediate support for imaging results and same-day services for their patients. I saw my role as a resource and educator as well as an imaging provider. In addition, they provided the immediate clinical assessment that could direct our images choices more accurately and appropriately.

Dr. Helmer, can you cite any specific examples from your experience in your setting where you felt that interprofessional collaboration improved patient care?

There are numerous examples but, in general, we were able to work together to direct a personalized, expedited care in a model that supported each other. We often called on the DNP to assist us when a clinical finding on a patient required care beyond our service. They appreciated our immediate interpretation and biopsy of patients that would have likely been lost to follow-up otherwise or who had delayed care or were terribly anxious. In addition, the patient benefitted from hearing the same recommendation from both of us. We supported each other's role in the care of the patient and [the patient] saw us as a well-organized team.

I am currently in a position where the NP and DNP staff have not had a model of collaboration. This results in a culture of acceptance of patient-care delays due to inappropriate and duplicative orders. This erodes patient confidence and loss of respect by a large number of the members of the healthcare team.

Dr. Helmer, do you have any advice for DNP-prepared nurses for building relationships and collaborating with other healthcare professionals?

Seek education from everyone. Don't buy into the biases you hear from the various specialties in medicine. Don't order everything because you don't know what to do. Don't be afraid to call someone and ask.

Follow your patient through the process. If you order an examination such as a mammogram or a CT study, review the images with your radiologist. You will learn or review the anatomy and learn about the disease process. Ask your consultants what is best to order and why on each patient. Observe a surgery or a procedure. You will be better able to explain to your patient, and you will greatly expand your knowledge of when and why to order a study.

Give your consultants specific history and indications. They will respect and appreciate this information as it allows them to give you more informed opinions. Don't be afraid or intimidated to ask questions. Your nursing background has given you a unique care perspective that is very different from the educational process that an M.D. or D.O. goes through. Your degree will require you to develop into a more independent clinical provider as a DNP-prepared nurse. As an M.D., I was never made aware of the well-defined competencies that have been outlined in your literature. Staying focused on these competencies will give you a road map allowing you to feel confident as you expand your clinical skills.

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

Courtesy of Nancy Iles

Ms. Nancy Iles, MA, LMSW, Medical Oncology Social Worker, Karmanos Cancer Institute

Ms. Iles, could you please describe your professional and educational background, including your current position?

I have a BS degree in criminology and a minor in psychology. I have an MA degree from Wayne State University in counseling. I began my career at Harper Hospital in Detroit, Michigan, as a unit manager and worked on several nursing units. I pursued my master's degree during this time. I then worked as a social worker at Harper Hospital in the neurology and neurosurgery units. I transferred to Karmanos Cancer Institute in 2006 and began practicing as an outpatient oncology social worker. My current responsibilities include providing counseling, crisis intervention, psychosocial assessments, and . . . resources to patients and families.

Ms. Iles, the Health Professions Education Committee (responding to the Institute of Medicine) has outlined the need for collaboration across healthcare disciplines as a specific competency aimed at improving healthcare (Greiner & Knebel, 2003). As a healthcare professional, do you agree with this recommendation, and how essential do you feel interprofessional collaboration is within your practice setting?

Collaboration across healthcare disciplines is imperative to improve quality of care delivered to patients. Each discipline has a unique set of skills that, when shared, increase the success of a patient's treatment and recovery. In the outpatient oncology setting, we have excellent collaboration among disciplines, which helps engage the patients and the staff.

Ms. Iles, how valuable is it within your setting to develop relationships and build bridges with other healthcare professionals?

Creating positive relationships with other staff promotes the development of strong interprofessional teams. The teams are the anchor of the institution and promote a sense of competency and accomplishment.

Ms. Iles, what techniques do you frequently employ when establishing and developing relationships with other healthcare professionals within your setting?

When establishing relationships, it is essential to incorporate good communication, be able to set boundaries, promote the strengths of coworkers, and utilize the gift of humor to ease stress.

Ms. Iles, do you work with DNP-prepared nurses within your setting and, if so, how do you envision your role collaborating with these professionals?

I work with DNP-prepared nurses, and I see my role as supportive and collaborative. Being able to identify psychosocial issues early in treatment helps the DNP create treatment plans that address all the needs of the patient.

Ms. Iles, can you cite any specific examples from your experience in your setting where you felt that interprofessional collaboration improved patient care?

I have been able to identify patients who were at risk of being noncompliant secondary to mental illness. I was able to locate support services and mental health services to assist staff and patients.

Ms. Iles, do you have any advice for DNP-prepared nurses for building relationships and collaborating with other healthcare professionals?

Every DNP whom I have worked with has exhibited a spirit of inclusion and respect for staff. My only advice is to continue down the same path.

Courtesy of Nancy Iles.

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

Courtesy of Stephen Smith

Stephen Smith, MS, RPh, FASHP Director, Pharmacy Services, Karmanos Cancer Center

Mr. Smith, could you please describe your professional and educational background, including your current position?

I graduated for the University of Michigan College of Pharmacy in 1979 with a bachelor of science in pharmacy. In July 1979, I began employment at Harper Hospital as the bone marrow transplant pharmacist. After several years in that position, I had the opportunity to work in information services on pharmacy computer systems for the Detroit Medical Center. In 1988, I completed my master of science in hospital pharmacy administration at Wayne State University. Thereafter, I held a variety of jobs both at the DMC and in other health systems, computer pharmacist-analyst; pharmacy supervisor, pharmacy manager and then pharmacy director. In 2004, I was recruited back to the DMC to transition oncology pharmacy services out of the DMC into a freestanding cancer hospital, Karmanos Cancer Center. I was appointed director pharmacy services (my current position) in 2005. Along the way, I have participated in several certification programs in pharmacy administration and hospital administration from ASHP (American Society of Health Systems Pharmacists), the Academy Fellowship program, to other pharmacy association programs. Additionally, I have been very involved in local, state, and national pharmacy organizations serving as executive officer and board member. I've also been involved in national and state committees on pharmacy technician certification, hazardous waste handling, and other issues of interest to the practice of pharmacy.

Mr. Smith, the Health Professions Education Committee (responding to the Institute of Medicine) has outlined the need for collaboration across healthcare disciplines as a specific competency aimed at improving healthcare (Greiner & Knebel, 2003). As a healthcare professional, do you agree with this recommendation, and how essential do you feel interprofessional collaboration is within your practice setting?

I do indeed agree with this recommendation. Some professional programs (pharmacy, nursing, medicine) have started to establish either classes or rotations with other healthcare professionals. The intent is to begin teaching our students the benefits and in fact the need to work with other disciplines in a close, collaborative fashion. It helps students understand the frame of reference of other professionals, so the hope is that it will break down walls of communication to foster better communication and understanding of other professionals. I think these types of opportunities, whether in school or at places of employment, are essential to the safe delivery of new and emerging, cutting-edge therapies.

Mr. Smith, how valuable is it within your setting to develop relationships and build bridges with other healthcare professionals?

I would find it impossible to provide services without collaborative professional practice. Each healthcare professional brings a unique set of skills/knowledge to the treatment of the patient; it is critical to be able to respect each other's expertise and to call on one another to craft programs and services that are the very best for our patients. Communication between healthcare professionals is critical to good patient care as the patient transitions across the continuum of care.

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

Mr. Smith, what techniques do you frequently employ when establishing and developing relationships with other healthcare professionals within your setting?

Within a hospital, the opportunity to participate on a variety of committees is a primary way to meet and establish relationships. I also routinely do rounds on my patient nursing units and clinics to visit with nurse managers, meet any new APRNs and physician assistants, and new physicians. The pharmacy department does a new orientation for providers and also a "meet and greet" with new department directors. My staff and I would not hesitate to reach out to a new provider or practitioner if we needed to; the practice of oncology is so complex and precise with its many treatment modalities, the better we understand each other's concerns and roles, the better and safer it is to take care of our patients.

Mr. Smith, do you work with DNP-prepared nurses within your setting and, if so, how do you envision your role collaborating with these professionals?

Regardless of the practice or title, the DNP is a healthcare professional involved in the care of our patients; therefore, they would be brought into the oncology practice and integrated in a collaborative fashion.

Mr. Smith, can you cite any specific examples from your experience in your setting where you felt that interprofessional collaboration improved patient care?

Many times, APRNs, physician assistants, and DNPs will call the pharmacy department to assist in medication dosing with unusual patient situations (adjusting chemotherapy doses, altered renal/hepatic function, and the usual approaches/medications are not working). I see a very collaborative, collegial interchange of information to address that individual patient situation. The other area that I see routinely is in the transitions of care where the DNP needs help in medication, prior authorization, or unusual needs to discharge the patient from the hospital. The DNPs call the retail pharmacy directly and work collaboratively with staff to accomplish the goal of getting the patient home.

Mr. Smith, do you have any advice for DNP-prepared nurses for building relationships and collaborating with other healthcare professionals?

Reach out to others in your practice site. There are many healthcare professionals who, just as you are, are passionate in their care of our patients. Learn from them, teach them, and work with them to establish quality services for the patient.

Mentoring: DNP Graduates Shaping the Future of Clinician Roles

Mentor has been defined as a trusted counselor or guide (McKinley, 2004; *Webster's Concise English Dictionary*, 2004). The term originated in Greek mythology and refers to Odysseus's trusted counselor, who became his son Telemachus's teacher (*Webster's Concise English Dictionary*, 2004). Odysseus entrusted the care of his son to Mentor while he went to fight in the Trojan War. Mentor's job was not just to teach Telemachus but also to help him develop as a man and prepare him for the responsibilities he would assume (McKinley, 2004). In the professional realm, mentoring involves helping others achieve goals and offering support in a nonthreatening way. Hence, the clinical setting is an ideal place for DNP graduates to mentor and shape the future of nursing.

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

DNP Graduates: From Experts to Novices and Back to Experts

Mentoring involves the mentor having a certain level of expertise. A discussion about expertise and mentoring would not be complete without mentioning Patricia Benner's (1984) book *From Novice to Expert*. Dr. Benner's work is derived from the Dreyfus Model of Skill Acquisition. This model posits that while developing a set of skills, one progresses through five levels of proficiency: novice, advanced beginner, competent, proficient, and expert (Benner, 1982; Dreyfus & Dreyfus, 1980). Dr. Benner has maintained that these levels of skill development may be used to describe how nurses develop proficiency as experts. Dr. Benner's premise was that experience results in expertise. Nurses begin their careers as novices and move through the levels by gaining experience in the clinical setting. Expertise has been characterized as knowing the vision of what is possible (Benner, 1982). In other words, knowing the goals and possible outcomes from an expert's interventions is what allows a nurse to move from proficiency to expertise.

By definition, DNP graduates are in a position of expertise. DNP graduates are acutely aware of the goals of healthcare delivery and various interventions to improve these goals. However, many of the new skills that are introduced (or reinforced) to DNP graduates place them in the position of novice after spending perhaps years in the position of expert. Concepts such as EBP, information technologies, leadership skills, interprofessional collaboration, and research methodology may be less familiar to many DNP graduates who may be functioning at high levels of expertise in the clinical setting. Therefore, garnering newer, sophisticated skills in a DNP program may make many DNP graduates feel less like experts and more like novices.

Despite this, many DNP graduates will find themselves in the role of mentor. However, the wealth of clinical expertise many DNP graduates possess may allow them to move from novice to expert quite easily. The new skills DNP graduates garner in their programs are integrated into their nursing practice. The skills acquired in a DNP program enable graduates to develop an enlarged view of healthcare delivery and design ways to improve healthcare outcomes, which will foster expertise in nursing practice. Dracup and Bryan-Brown (2004) relate that "the expert has gone beyond the tasks and responds to the whole picture" (p. 449). DNP graduates are well beyond the tasks of nursing and are able to envision the whole picture.

The Robert Wood Johnson Foundation Executive Nurse Fellows program has identified five competencies that are essential for mentoring (Thomas & Herrin, 2008). These competencies may be related to ways in which DNP graduates increase their level of expertise and eventually provide mentoring. The first competency is the ability to translate a strategic vision into a motivating message. Each time a DNP graduate expresses why he or she returned to school for a DNP degree, a strategic vision is shared, which serves to motivate others. This author is often told that she has inspired others to return to school either for nursing or for a graduate degree in nursing.

The second competency is risk taking and creativity. Again, earning a new, innovative degree demonstrates risk taking and creativity. The ability to complete a research project that is grounded in clinical practice displays creativity.

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

The third competency is the ability to understand and develop oneself with regard to self-knowledge and individual motivation. DNP graduates are challenged through their DNP programs to know themselves and their individual motivation, as well as their own personal leadership styles. The choice to earn a DNP degree illustrates awareness of the need for additional knowledge to meet the changing demands of healthcare. The additional leadership skills they garner enable DNP graduates to develop awareness regarding their own strengths and weaknesses. DNP graduates are experts at knowing what they do not know and discovering ways to enrich their knowledge base.

The fourth competency is inspiring and leading change. DNP graduates will be leaders regardless of their area of expertise. They will be called on to inspire and guide others in times of change.

The final competency is effective communication and interpersonal effectiveness. DNP graduates will mentor through their ability to engage in mutual and equal relationships. Many DNP graduates have had previous experiences that involved hierarchical relationships with other healthcare professionals. These experiences will serve to remind DNP graduates that successful mentoring relationships are built on empathy, compassion, respect, and nurturing behaviors. Therefore, DNP graduates will have sensitivity regarding what type of mentoring relationship is mutual and equal.

Precepting: The Ideal Opportunity to Mentor

For the DNP graduate in a clinical setting, precepting is often integrated into the clinical role. Precepting is a time-limited commitment that evolves into a teaching–learning relationship between student and preceptor. However, "mentoring is more than just training or precepting" (McKinley, 2004, p. 207). Mentoring has been described as a way to assist in human development, where one invests time, energy, and personal knowledge to enable another to grow and develop (McKinley, 2004). Although precepting differs from mentoring, precepting offers a perfect opportunity for DNP graduates in clinical settings to become mentors.

Hayes (1998) studied the stories of students who felt they had experienced a mentoring relationship with their clinical preceptor. Specific descriptors were cited by the students related to their experiences. These descriptors included the following: a vested interest in the student; a love for teaching; openness; friendship; trust; acting as a life jacket; patience; sharing job advice; and role-modeling kind, empathetic, competent patient care (Hayes, 1998). These characteristics mirror many leadership attributes. When DNP graduates think of a teacher, preceptor, or clinical instructor who inspired, led, and truly made a difference in their lives, many recall similar experiences. Hence, self-reflection, previous experiences, and the skills garnered in a DNP program will enable DNP graduates to seize the opportunity to build mentoring relationships in the clinical setting.

McKinley (2004) wrote about mentoring in nursing and related three steps to the mentoring process that may foster successful mentoring relationships both in and outside the clinical setting: reflecting, reframing, and resolving. Reflecting involves the creation of the relationship (McKinley, 2004), including sharing personal information to build common ground and discussing the goals of the relationship. DNP graduates in a preceptor role may share their personal

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

journeys in nursing as a way to inspire and guide. Also, DNP graduates may ask students what their expectations are for the semester and share what they hope to accomplish while teaching. This author often advises students she precepts to ask all the silly questions, not just questions about clinical scenarios. Frequently questions about certification, relationships with staff, and how to interview for a job are cited among the most valuable pointers students received during a clinical rotation.

Reframing encourages connecting and allows the mentor to challenge the student (McKinley, 2004). DNP graduates may use their broadened knowledge base about information technologies to encourage students to look outside the box for information. This may also be done by challenging students to integrate EBP when developing a plan of care. At this time, the DNP graduate may demonstrate these skills to the student and reinforce learning in an ongoing process. Melnyk and colleagues (2004) found that EBP increased with mentorship from others who utilize EBP. These behaviors strengthen the relationship between mentor and student and allow the student to grow (McKinley, 2004).

Resolving involves the mentor empowering the student to develop solutions (McKinley, 2004). It occurs when the foundation built by reflection and reframing is put into action. The DNP graduate allows the student to examine the options and consequences of the options. Previously it was mentioned that expertise means knowing the vision of what is possible (Benner, 1982). DNP graduates may have experienced this type of learning from mentors while acquiring new skills in their DNP programs. These experiences will allow DNP graduates to let the students own their solutions. This process is similar to DNP graduates developing and owning their solutions through their own evidence-based research projects—a process that came to fruition through the mentoring they once received.

A Word About Scholarship

The DNP-prepared clinician most assuredly has a very complex role. DNP-prepared clinicians may also blend additional roles, much like this author. The challenge lies in integrating scholarship into these roles. The DNP degree may open the clinician's eyes and be his or her springboard to scholarship. DNP graduates' perspectives will change, and their views will be broadened. Therefore, scholarship may be the avenue to share this enhanced perspective and broadened view with the discipline of nursing and the world. DNP-prepared clinicians have a responsibility to maintain scholarship as it applies to their clinical practice or other areas of interest.

Conclusion

The ways in which DNP graduates may shape the future of nursing through mentoring are numerous (refer to **BOX 3-7**). In the clinical setting, DNP graduates are at the forefront of healthcare and therefore in a position to improve quality and healthcare outcomes. Mentoring new nurses, APRNs, and other healthcare professionals ensures that the DNP graduates' focus on improved healthcare delivery will be a priority of the future of nursing practice.

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

BOX 3-7 Tips for DNP Graduates Mentoring in the Clinical Setting

- Express an interest in students personally.
- Share personal experiences, especially personal setbacks or failures.
- Express a love for teaching.
- Stay open to ideas, input, and suggestions.
- Be willing to give advice about jobs, interviewing, and creating good staff relations.
- Role-model empathetic and compassionate patient care.
- Motivate students to have a vision, especially a vision of themselves when they complete their degree.
- Challenge students to think of their own solutions and empower them to own their solutions.
- Allow students to be wrong, and give constructive, noncritical feedback when they are wrong.
- Create opportunities to be creative and utilize EBP or information technology to develop solutions.
- Role-model effective interdisciplinary collaboration by demonstrating or role-playing the discussion of care with other disciplines.

Interview with a DNP-Prepared Clinician

Chidiebere Onyishi DNP, APRN, BC, is a DNP-prepared nurse practitioner who recently completed a post-BSN degree DNP program and currently is practicing as a nurse practitioner within the Women's Wellness Clinic, Karmanos Cancer Institute, Detroit, Michigan. Dr. Onyishi shared her personal perspectives and insights as a new DNP graduate and nurse practitioner.

Courtesy of Dr. Chidiebere Onyishi

Dr. Onyishi, could you please describe your current and past positions as a nurse practitioner as well as your educational background? Did you complete a post-BSN or post-MSN DNP program?

Having worked with advanced-practice nurses, I became highly interested in enriching and expanding my clinical abilities. To determine the right path for me, I interviewed advanced-practice nurses with different advanced degrees and researched various graduate programs. The doctor of nursing practice degree was most appealing to me. The more I learned about the DNP degree, the more eager and excited I became.

I completed a post-BSN DNP program from at the University at Buffalo, New York, in May 2014. This was one of the most remarkable experiences of my life. It was challenging and demanding, yet rewarding and gratifying. Upon graduation, I relocated my family to Michigan, where I worked at a community medical center, St John-Providence, in metropolitan Detroit, Michigan. This first role as nurse practitioner was in care management. This was a great experience in which I employed the complete range of the advanced skills I had gained in my program: assessment, diagnosis, and collaboration with inpatient, outpatient, and home-care providers, patients, and families. In this position, my critical thinking and assessment skills sharpened and broadened to include family dynamics, social influences, and lifestyle. It gave me the confidence to pursue and obtain my current position in the Women's Wellness Clinic at Karmanos Cancer Institute, Detroit, Michigan,

Courtesy of Dr. Chidiebere Onyishi.

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

a comprehensive cancer center. In this position, I provide breast cancer screening and health promotion for patients at average or elevated breast cancer risk. My role includes diagnosing and management of benign breast disorders, such as pain, lumps, discharge, infections, abnormal imaging, elevated breast cancer risk, and breast cancer. When I diagnose a malignancy, appropriate referrals are made to the breast cancer treatment team. I collaborate with onsite breast radiologists, which enhances optimal workup and same-day imaging results. This is a wonderful opportunity to learn and grow in the field of oncology.

Dr. Onyishi, what made you decide to return to school to earn your DNP degree?

Obtaining my BSN from the University at Buffalo was one of my greatest achievements, surpassed only by my DNP. It prepared me to provide comprehensive nursing care. I was part of a team that cared for and managed multiple disease processes, which solidified my knowledge of a broad range of pathological conditions and individualized care plans.

In caring for and educating my patients, my curiosity and zeal to learn continued to grow. I gained a great appreciation for gaps in the healthcare system, including the lack of adequate numbers of providers and patients' challenges in accessing care. Working with nurse practitioners and observing the difference they make in patients' health solidified my decision to earn my DNP.

Dr. Onyishi, how has the DNP degree affected your practice as a nurse practitioner? What specific skill sets do you think you have developed as a result of earning a DNP degree?

The DNP degree has led me to truly embrace the field of nursing and to take pride in our contribution to healthcare. It has expanded the depth of care that I provide. It emphasized excellence in patient-focused care and in accessing and implementing evidence-based interventions. These expanded skills and knowledge challenge me to assume new roles. The DNP gave me a solid base from which to grow and mature as a clinician and to consider other roles as well.

The doctorate of nursing practice has enhanced my leadership skills and my confidence in embracing new challenges, such as entering the field of oncology. These have contributed significantly in establishing my practice in my current multidisciplinary specialty clinic. It supports both my personal and professional growth while being able to care for family members, patients, and my community at large.

As a DNP candidate, I worked in many different settings, including schools, clinics, hospitals, and community events. This created an avenue for increased interpersonal interactions, scientific and collegiate debates and knowledge, and cultural sensitivity. These skills are essential for serving diverse healthcare populations with whom I now work. Most important, it exposed me to multiple disciplines, with many individuals collaborating and cooperating together toward the common goal—excellent, effective, and efficient patient care.

Dr. Onyishi, what are your goals for the next 5 years as a DNP-prepared nurse practitioner? Do you envision yourself developing new roles as a result of your DNP degree?

My goal for the next 5 years is to be the best nurse practitioner that I can be. I am a very passionate and driven individual, who truly enjoys the art of patient care. The best patient care sometimes does not involve a prescription pad but rather communicating with and relating to the patient. I would like to pass this on to others, particularly new graduates or new staff on all levels. These populations are often impressionable and would benefit immensely from clear, meaningful, and expert direction. It is important to support their optimal development. It also may also increase staff retention. I would also like to get involved in community programs and improve access to healthcare services while

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

promoting healthy behaviors. Ultimately, I would like to assume more clinical management responsibilities and get more involved in the leadership roles while taking care of my patients, which is always where my passion lies.

I absolutely could envision myself developing new roles. The DNP degree gave me the skills and tools required to be an expert. It has also provided the confidence to educate and collaborate with other professionals. As my experience broadens, I envision myself being involved in policy, leadership, and academia.

Dr. Onyishi, do you have any advice for other clinicians regarding returning to school to earn a DNP degree?

The dynamics of our healthcare system are always changing. With nurses being at the forefront of the healthcare industry, it becomes crucial that we continue to expand our knowledge toward optimal patient care and a strong impact on the entire healthcare industry. Nurses return to school to further their professional practice but also to explore and attain the roles of educators, supervisors, clinicians, policy makers, and ethical consultants, to name a few. I would encourage all clinicians to continue to expand their knowledge and keep moving nursing to the forefront of healthcare.

Why a DNP for Clinicians?

In the beginning of the chapter, the following question was posed: "How will the clinician's role change or benefit from earning a DNP degree?" After a discussion regarding the many aspects of the DNP graduates' role as clinician, it is this author's anticipation that a broader understanding has developed. Many readers will turn to this section to discover why clinicians should seek a DNP degree. As a DNP graduate who finished her degree 10 years ago, this author has realized the answer to this question is somewhat complex. Healthcare delivery is improved through expertise in evaluating and applying EBP, information technology, interprofessional collaboration, and mentoring. However, one may not fully appreciate the benefits of the DNP degree until sometime after graduation. The experience of doctoral study also shapes and defines how clinicians' roles are actualized after graduation. Clinicians should understand that realizing the benefits of a DNP degree is a process that will continue to unfold years after graduation. Be assured, however, that this process is worthwhile, rewarding, and exciting. Nursing is uniquely positioned to improve healthcare through increased knowledge and education. As a colleague, Dr. Kathleen Payson, so accurately stated, "Education is power and the highway to make a difference" (K. Payson, personal communication, May 2008).

SUMMARY

- The terms *advanced-practice nursing* and *advanced nursing practice* are often used interchangeably, but they actually have different meanings. Advanced nursing practice describes what nurses do when they provide nursing care. Advanced-practice nursing describes the whole field of specific types of nursing practice (Bryant-Lukosius et al., 2004).
- The APRN Consensus Model defines advanced-practice nursing and the regulations for LACE of APRNs.

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

- EBP serves to promote optimal healthcare outcomes, which are based on critically reviewed clinical evidence for individual patients, families, and communities.
- Although all DNP graduates are expected to evaluate and apply EBP to their particular settings, DNP graduates in clinician roles have a vantage point of EBP due to their direct impact on care in the clinical setting.
- Barriers to EBP exist and include resistance to change, lack of preparation regarding EBP, lack of resources for EBP, lack of belief in EBP, and poor motivation to investigate EBP.
- DNP graduates in the clinical setting and other settings can reduce barriers to EBP by defining EBP to others, providing education regarding EBP, providing consultation in researching EBP, and mentoring others regarding EBP outcomes.
- DNP graduates can evaluate and apply EBP by asking relevant questions in the clinical setting, reading literature reviews regarding pertinent topics, starting a journal club in their practice setting, communicating to others regarding EBP, and organizing educational programs to increase the knowledge of other healthcare professionals in their setting.
- Information technologies serve to manage, organize, and process health information (Zytkowski, 2003) in an effort to improve the quality of care and healthcare outcomes.
- IOM reports in 1999, 2001, and 2003 expressed an increased need for healthcare professionals to increase their proficiency in information technologies to meet the complex demands of healthcare.
- Nursing uses information technologies to improve care; improve care delivery; and provide accurate, up-to-date information to patients. This is done through the use of handheld mobile devices, telehealth technologies, and reference librarians for consultation regarding information technology resources.
- Interprofessional collaboration is more than just getting along. DNP graduates are perfectly positioned to influence and exemplify interprofessional collaboration.
- The Interprofessional Education Collaborative Expert Panel (2011, 2016) published its *Core Competencies for Interprofessional Collaborative Practice*.
- Improved communication has been shown to be the most effective avenue to decrease barriers to interprofessional collaboration.
- DNP graduates will be looked to as mentors in healthcare. This involves DNP graduates in clinician roles displaying expertise, even when they may feel like novices regarding the new skills they have learned in their DNP programs.
- Precepting students presents the ideal opportunity for DNP graduates in the clinical setting to act as mentors.
- DNP graduates may shape the future of nursing and influence the improvement of healthcare outcomes by mentoring others in the healthcare arena.
- The DNP degree may open the clinician's eyes and be his or her springboard to scholarship. DNP-prepared clinicians have a responsibility to maintain scholarship as it applies to their clinical practice or other areas of interest.

REFLECTION QUESTIONS

1. Do you think you understand the importance of EBP in nursing and in healthcare?
2. Do you think you evaluate and apply EBP to your nursing practice?
3. What ways can you think of to evaluate and apply EBP in your nursing practice?
4. Do you think nursing has embraced information technologies?

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

5. In what ways do you think you could utilize information technologies in your nursing practice?
6. Do you think interprofessional collaboration is important to meet the demands of a complex healthcare system?
7. In what ways can you improve interprofessional collaboration in your setting?
8. Do you have or have you had a mentor? If so, how can your experience with a mentor improve your ability to mentor others?
9. In what ways do you think DNP graduates in clinician roles, and other roles, have the opportunity to shape the future of nursing?
10. Do you think scholarship can be developed while in a clinical practice? If so, how? What are your scholarship interests?

Suggested Group Activity

In small groups of four, review the new Core Competencies for Interprofessional Collaboration (2016). Each person in the group should choose a subcompetency and develop a case scenario where this subcompetency could be used to exemplify interprofessional collaboration. Discuss the case scenarios among the group members, and include problem-solving techniques related to each subcompetency.

References

American Association of Colleges of Nursing. (2006). *Essentials of doctoral education for advanced nursing practice.* Retrieved from http://www.aacn.nche.edu/publications/position/DNPEssentials.pdf

American Association of Colleges of Nursing. (2015). *The doctor of nursing practice: Current issues and clarifying recommendations.* Retrieved from http://www.aacn.nche.edu/aacn-publications/white-papers/DNP-Implementation-TF-Report-8-15.pdf

American Association of Critical-Care Nurses. (2005). *AACN standards for establishing and sustaining healthy work environments: A journey to excellence.* Retrieved from http://www.aacn.org:88/WD/HWE/Docs/HWEStandards.pdf

American Nurses Association. (1995). *Nursing's social policy statement.* Washington, DC: Author.

American Nurses Association. (2001). *Scope and standards of nursing informatics practice.* Washington, DC: Author.

Apker, J., Propp, K., Zabava Ford, W., & Hofmeister, N. (2006). Collaboration, credibility, compassion, and coordination: Professional nurse communication skill sets in health care team interactions. *Journal of Professional Nursing*, *22*(3), 180–189.

APRN Joint Dialogue Group. (2008). *Consensus model for APRN regulation: Licensure, accreditation, certification & education.* Retrieved from http://www.aacn.nche.edu/education-resources/APRNReport.pdf

Benner, P. (1982). From novice to expert. *American Journal of Nursing*, *82*(3), 402–407.

Benner, P. (1984). *From novice to expert: Excellence and power in clinical nursing practice.* Menlo Park, CA: Addison-Wesley.

Brown, S. J. (1998). A framework for advanced practice nursing. *Journal of Professional Nursing*, *14*(3), 157–164.

Bryant-Lukosius, D., DiCenso, A., Browne, G., & Pinelli, J. (2004). Advanced practice nursing roles: Development, implementation, and evaluation. *Journal of Advanced Nursing*, *48*(5), 519–529.

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

Carroll, K., Bradford, A., Foster, M., Cato, J., & Jones, J. (2007). An emerging giant: Nursing informatics. *Journal of Nursing Management*, *38*(3), 38–42.

Courtney, K., Demiris, G., & Alexander, G. (2005). Information technology: Changing nursing processes at the point-of-care. *Nursing Administration Quarterly*, *29*(4), 315–322.

Cowan, M., Shapiro, M., Hays, R., Abdelmonem, A., Vazitani, S., Ward, C., & Ettner, S. (2006). The effect of a multidisciplinary hospitalist/physician and advanced practice nurse collaboration on hospital costs. *Journal of Nursing Administration*, *36*(2), 79–85.

Curran, C. (2003). Informatics competencies for nurse practitioners. *AACN Clinical Issues*, *14*(3), 320–330.

Davies, B., & Hughes, A. M. (1995). Clarification of advanced nursing practice: Characteristics and competencies. *Clinical Nurse Specialist*, *9*(3), 156–160.

Dracup, K., & Bryan-Brown, C. (2004). From novice to expert to mentor: Shaping the future. *American Journal of Critical Care*, *13*(6), 448–450.

Dreyfus, S., & Dreyfus, H. (1980). *A five stage model of the mental activities involved in directed skill acquisition* (Unpublished doctoral study supported by the Air Force Office of Scientific Research, USAF, contract F49620-79-C0063). University of California, Berkeley, CA.

Egerod, I., & Hansen, G. M. (2005). Evidence-based practice among Danish cardiac nurses: A national survey. *Journal of Advanced Nursing*, *51*(5), 465–473.

Fink, R., Thompson, C. J., & Bonnes, D. (2005). Overcoming barriers and promoting the use of research in practice. *Journal of Nursing Administration*, *35*(3), 121–129.

Gaumer, G., Koeniger-Donohue, R., Friel, C., & Sudbay, M. (2007). Use of information technology by advanced practice nurses. *Computers, Informatics, Nursing*, *25*(6), 344–352.

Gerardi, D., & Fontaine, D. (2007). True collaboration: Envisioning new ways of working together. *AACN Advanced Critical Care*, *18*(1), 10–14.

Gibbs, L. (2003). *Evidence-based practice for the helping professions: A practical guide with integrated multimedia.* Pacific Grove, CA: Brooks/Cole Thomson Learning.

Goleman, D., Boyatzis, R., & McKee, A. (2002). *Primal leadership: Realizing the power of emotional intelligence.* Boston, MA: Harvard Business Review Press.

Graves, J., & Corcoran, S. (1989). The study of nursing informatics. *Image: Journal of Nursing Scholarship*, *21*(4), 227–231.

Greiner, A. C., & Knebel, E. (Eds.). (2003). *Health professions education: A bridge to quality.* Washington, DC: National Academies Press.

Hallas, D., Butz, A., & Gitterman, B. (2004). Attitudes and beliefs for effective pediatric nurse practitioner and physician collaboration. *Journal of Pediatric Health Care*, *18*(2), 77–86.

Hamric, A., Spross, J., & Hanson, C. (2005). *Advanced practice nursing: An integrative approach* (3rd ed.). St. Louis, MO: Elsevier Saunders.

Hayes, E. (1998). Mentoring and self-efficacy for advanced practice nursing practice: A philosophical approach for nurse practitioner preceptors. *Journal of the American Academy of Nurse Practitioners*, *10*(2), 53–57.

Hudson, K., Duke, G., Haas, B., & Varnell, G. (2008). Navigating the evidence-based practice maze. *Journal of Nursing Management*, *16*(4), 409–416.

Institute of Medicine. (2001). *Crossing the quality chasm: A new health system for the 21st century.* Washington, DC: National Academies Press.

International Medical Informatics Association Nursing Informatics Special Interest Group. (1998). *Nursing informatics definition.* Retrieved from http://www.imiani.org

Interprofessional Education Collaborative Expert Panel. (2011). *Core competencies for interprofessional collaborative practice: Report of an expert panel.* Washington, DC: Author. Retrieved from http://www.aacn.nche.edu/education-resources/ipecreport.pdf

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

Interprofessional Education Collaborative Expert Panel. (2016). *Core competencies for interprofessional collaborative practice: Report of an expert panel.* Washington, DC: Author. Retrieved from https://ipecollaborative.org/uploads/IPEC-2016-Updated-Core-Competencies-Report_final_release_.PDF

Jennings, B. M., & Rogers, S. (1988). Merging nursing research and practice: A case of multiple identities. *Journal of Advanced Nursing*, *13*(6), 752–758.

Knaus, W., Draper, E., Wagner, D., & Zimmerman, J. (1986). An evaluation of outcome from intensive care in major medical centers. *Annals of Internal Medicine*, *104*(3), 410–418.

Kohn, L. T., Corrigan, J. M., & Donaldson, M. S. (Eds.). (1999). *To err is human: Building a safer health system*. Washington, DC: National Academies Press.

McKay, C., & Crippen, L. (2008). Collaboration through clinical integration. *Nursing Administration Quarterly*, *32*(2), 109–116.

McKean, E. (Ed.). (2005). *New Oxford American dictionary* (2nd ed.) [Computer software]. New York, NY: Oxford University Press.

McKinley, M. (2004). Mentoring matters: Creating, connecting, empowering. *AACN Clinical Issues*, *15*(2), 205–214.

Melnyk, B. (2002). Strategies for overcoming barriers in implementing evidence-based practice. *Pediatric Nursing*, *28*(2), 159–161.

Melnyk, B. (2005). Advanced evidence-based practice in clinical and academic settings. *Worldviews on Evidence-Based Nursing*, *2*(3), 161–165.

Melnyk, B., & Fineout-Overholt, E. (2005). *Evidence-based practice in nursing and healthcare: A guide to best practice.* Philadelphia, PA: Lippincott Williams & Wilkins.

Melnyk, B., Fineout-Overholt, E., Feinstein, N., Li, H., Small, L., Wilcox, L., & Kraus, R. (2004). Nurses' perceived knowledge, beliefs, skills, and needs regarding evidence-based practice: Implications for accelerating the paradigm shift. *Worldviews on Evidence-Based Nursing*, *1*(3), 185–193.

Melnyk, B., Fineout-Overholt, E., Feinstein, N., Sadler, L., & Green-Hernandez, C. (2008). Nurse practitioner educators' perceived knowledge, beliefs, and teaching strategies regarding evidence-based practice: Implications for accelerating the integration of evidence-based practice into graduate programs. *Journal of Professional Nursing*, *24*(1), 7–13.

National Association of Clinical Nurse Specialists. (2009). *Core practice doctorate clinical nurse specialist competencies.* Retrieved from http://www.nacns.org/docs/CorePracticeDoctorate.pdf

National Organization of Nurse Practitioner Faculties. (2006). *Practice doctorate nurse practitioner entry-level competencies.* Retrieved from http://c.ymcdn.com/sites/www.nonpf.org/resource/resmgr/competencies/dnp%20np%20competenciesapril2006.pdf

Nightingale, F. (1859). *Notes on nursing: What it is and what it is not.* London, England: Harrison and Sons.

Peck, A. (2005). Changing the face of standard nursing practice through telehealth and telenursing. *Nursing Administration Quarterly*, *29*(4), 339–343.

Pravikoff, D., Pierce, S., & Tanner, A. (2005). Evidence-based practice readiness study supported by academy nursing informatics expert panel. *Nursing Outlook*, *53*(1), 49–50.

Rossen, K., Bartlett, R., & Herrick, C. (2008). Interdisciplinary collaboration: The need to revisit. *Issues in Mental Health Nursing*, *29*(4), 387–396.

Schmalenberg, C., Kramer, M., King, C., Krugman, M., Lund, C., Poduska, D., & Rapp, D. (2005). Excellence through evidence: Securing collegial/collaboration nurse–physician relationships, part 1. *Journal of Nursing Administration*, *35*(10), 450–458.

Sharp, N. (1998). From "incident to" to telehealth: New federal rules and regulations affect NPs. *Nurse Practitioner*, *23*(8), 68–69.

Sheriff, K., Wallis, M., & Chaboyer, W. (2007). Nurses' attitudes to and perceptions of knowledge and skills regarding evidence-based practice. *International Journal of Nursing Practice*, *13*(6), 363–369.

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.

Shneyder, Y. (2002). Personal digital assistants (PDAs) for the nurse practitioner. *Journal of Pediatric Health Care*, *16*(6), 317–320.

Sigma Theta Tau International. (2004). Evidence-based nursing: Rationale and resources. *Worldviews on Evidence-Based Nursing*, *1*(1), 69–75.

Simpson, R. (2004). The softer side of technology: How IT helps nursing care. *Nursing Administration Quarterly*, *28*(4), 302–305.

Simpson, R. (2005). From tele-ed to telehealth: The need for IT ubiquity in nursing. *Nursing Administration Quarterly*, *29*(4), 344–348.

Stein-Parbury, J., & Liaschenko, J. (2007). Understanding collaboration between nurses and physicians as knowledge at work. *American Journal of Critical Care*, *16*(5), 470–477.

Styles, M., & Lewis, C. (2000). Conceptualizations of advanced nursing practice. In A. Hamric, J. Spross, & C. Hanson (Eds.), *Advanced nursing practice: An integrative approach* (pp. 33–51). Philadelphia, PA: Saunders.

Thomas, J., & Herrin, D. (2008). The Robert Wood Johnson Executive Nurse Fellows Program: A model for learning in an executive master of science in nursing program. *Journal of Nursing Administration, 38*(3), 112–115.

Vincent, D., Johnson, C., Velasquez, D., & Rigney, T. (2010). DNP-Prepared nurses as practitioner-researchers: Closing the gap between research and practice. *The American Journal for Nurse Practitioners*, *14*(11/12), 28–34.

Webster's concise English dictionary. (2004). New Lenark, Scotland: David Dale House.

Yeager, S. (2005). Interdisciplinary collaboration: The heart and soul of health care. *Critical Care Nursing Clinics of North America*, *17*(2), 143–148.

Zytkowski, M. (2003). Nursing informatics: The key to unlocking contemporary nursing practice. *AACN Clinical Issues*, *14*(3), 271–281.

© Jones & Bartlett Learning LLC, an Ascend Learning Company. NOT FOR SALE OR DISTRIBUTION.