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#### The DNP Degree & Capstone Project

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## Preface

**T**HIS book focuses on the Doctor of Nursing Practice (DNP) degree as a terminal degree in nursing. The questions, "*What is a Doctor of Nursing Practice degree*?" and "*How does a DNP differ from other terminal degrees in nursing*?" are addressed. The DNP capstone project is explored and demystified. A guide to the DNP student on how to approach, plan, develop, and complete a successful DNP capstone project is provided.

Historically, nurses seeking a terminal degree have a choice among research degrees. Some choose degrees within nursing, while others choose degrees outside of nursing. The most popular of these degrees have been PhD, DSN, DNS, and EdD degrees. Nurses graduating from a program that offers a research degree explore an area of interest. A research dissertation that investigates a question pertinent to nursing is conducted. The result is professional outcomes that build or test theory. This information is extremely useful to our profession, and it is hard to imagine that there ever will come a time when these forms of degrees are not needed. However application of this information at times can be delayed, and the question continues as to who would oversee the application of this information to clinical practice.

The hole that was left in applying research and theory to practice has been a big one. With the expansion of health care and health care delivery the continued growth of knowledge in the areas of nursing and health care, together with a need for an advanced practitioner with the credentials to mirror those of other health care professions, the requirement for a practice degree within nursing was well documented. This text describes how the DNP degree evolved. It also explores how a DNP prepared nurse can take information generated from research and theory and apply it to a specific problem within health care. Identification of and management of teams that oversee correction of such health care dilemmas also fall within the role and are discussed.

Specific information that has been requested by DNP students, such as how to prepare and complete a Capstone project, how to seek out writing and presentation opportunities, and how to apply the DNP degree to a variety of nursing settings, have been explained in detail.

DNP prepared nurses can offer influence, consultation, and direction in a variety of arenas. Politics, education, traditional clinical practice, and community service are a few of the areas where a DNP can provide expertise. With this relatively new degree, the DNP nurse has an option to explore a variety of settings in which to practice. This book addresses how DNPs can function in these areas. To achieve such a voice, direction on how to present information is included. Specifics on preparation for presentation, executive summaries, and journal articles are provided. Ways to seek out these opportunities are explored, and thoughts as to how to make the information standout are highlighted.

The one area that tends to be a sticking point in DNP education is clarification of a DNP capstone project and how it differs from a dissertation. In addition to offering specific direction in approaching and completing a capstone project, the editors have sought out DNP professionals and scholars to provide specific exemplars of what a stellar DNP project looks like. Having commentary and multiple examples affords the student and professional alike a means to understand how DNP capstone projects differ from a research focused doctorate and MSN thesis. Exemplars are provided in a variety of nursing specializations, and are complete in their presentation within this book. As DNP program developers and educators, the editors sought to have some specific information that can be applied in both online and traditional DNP programs.

This book will be of interest to a nursing student considering a DNP. The book provides useful and practical guidance for a DNP student, and the discussion of the direct application of the information will also benefit the DNP practitioner.

The editors and writers are passionate about nursing, and we believe as nurses we have both the right and responsibility to provide the best nursing care available. This book offers the pieces that can support such an effort.

> MARY BEMKER BARB SCHREINER

### Introduction

MARY BEMKER, PhD, PsyS, MSN, RN, LPCC, CADC BARB SCHREINER, PhD, APRN, CPLP, CDE, BC-ADM

#### WE'VE ONLY JUST BEGUN ...

**T**HE world continues to change, and the demands placed on nursing continue to expand and advance. Best practices, national initiatives, and accreditation efforts demonstrate the path that is currently nursing. Like medicine, pharmacy, and many other health care professions, nursing is practice-focused. Concern about the status of health care in the United States and beyond is at the fore of many discussions, and nursing is in a prime position to meet such requirements.

Having a practice-focused doctorate in nursing prepares nurses to apply current research to specific demands within health care. Regardless whether the setting is academic-, hospital-, community-, political-, or global-based, the ability to apply what is known to the specific needs of a population allows nurses to make a positive impact on the outcomes of health care delivery.

The specific degree assigned this advanced practice role is the Doctor of Nursing Practice (DNP). Currently, or soon to be, accredited by all three nursing accreditation bodies (CCNE, CNEA, and ACEN), the scope of practice for the DNP is directed by essentials or standards set out by each of the accrediting bodies. These essentials or standards speak to the expected competencies of a DNP graduate, yet debate continues about the differences and similarities among the DNP, EdD, and PhD.

This text is written for the DNP student who wants to make a significant change in practice, and for the faculty and mentors who will guide the student's preparation. The text provides a history of doctoral education in nursing and reviews where we are and where we are heading within the scope and role of advanced nursing practice. A description of the evolution of the nursing doctorate, and a comparison between the DNP and the PhD in nursing is offered. Insights into accreditation essentials as well as the scope and role of a DNP-prepared nurse are discussed.

Having a more complete understanding of the DNP, the reader will be encouraged to reflect on how the DNP impacts nursing care delivery. The capstone project, a DNP project that demonstrates professional competence related to the practice of a DNP, is described in detail. How a capstone differs from traditional research and the terminology and focus of such is outlined and described. Choosing a topic based on evidence-based practices and adapting that topic to the desired clinical setting is also included in this work.

The DNP project differs greatly from what is presented in a PhD or EdD dissertation. What the differences are and how they apply to nursing are specifically addressed in this text. The skills and competencies that DNP students need in order to successfully complete and disseminate the results of their capstone projects are presented in step by step detail. The text affords the reader a roadmap to the successful completion of a DNP project by providing plentiful examples, resources, and tips. While some academic requirements may differ across institutions, the basic foundation of a DNP project remains the same. It is these directives-and means to obtain them-that are of particular interest in this text. Having years of experience building nursing programs and watching students struggle with such issues provided the editors with their own roadmap for what needed to be included. By combining these experiences with current research and professional mandates, the editors offer content that is exciting and challenging. We knew it was very important that the book's content was practical for both students and new practitioners and supported their drive to be successful as a DNP.

Specific examples of DNP projects with focus in a variety of areas within nursing are also included. So many times students just want some examples to see what a DNP intervention looks like and how to construct the project. These project offerings allow the reader to see what a quality improvement or practice change project looks like and also to confirm the differences between a capstone project and a research study.

Specific means of disseminating findings so that others can benefit

from the DNP project are offered. Skillsets needed for each form of dissemination are identified. Directions specific to professionalizing the finished product allow the reader to prepare for submission to a variety of venues. Specific guidelines related to how a finished product needs to look, sound, or otherwise be presented rounds out this section of the text.

DNP projects are considered in relation to national and international mandates for nursing and health care. Practice application related to education, leadership, politics, and health care delivery is discussed. This area supports the reader both as a student and as a new practitioner. It offers direction as to how the DNP project can be readily utilized within the scope of nursing.

While some may not be aware of what the potential for a DNP practitioner happens to be, the outcomes of a DNP practitioner can easily be identified. This text will support both DNP students and practitioners on their quest for maximizing their potential. As nurses we must support utilization of DNP prepared nurses with the application of evidencedbased information to practice. As consumers we must support DNP prepared nurses as quality improvement agents for services that we utilize.

In summary, this text is written for the DNP student who is approaching his or her DNP project. It will also fill the DNP faculty's need for project examples and steps in designing and conducting a practice change initiative. Finally, the text will remind practicing nurse leaders and clinicians about the importance of carefully planned quality improvement projects as tools for advancing nursing practice.

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# Understanding and Characterizing the Doctor of Nursing Practice

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#### 1.1. WHAT IS THE DNP?

THE development of the doctorate of nursing practice (DNP) as a L terminal degree is fairly recent and dynamic. The DNP emphasizes advanced clinical nursing practice (AACN, 2006a; ANA, 2011) in a variety of settings, across the lifespan, and in a variety of roles. The initial clinical doctorate in nursing was the Nursing Doctorate (ND) (AACN, 1996), however the practice doctorate has evolved and transformed into the DNP. The DNP degree addresses the changing health care climate and needs of society, specially related to advanced clinical leadership, a focus on patient-centered care, and improving health care systems to improve patient safety. The transformation of the practice doctorate in nursing parallels a swift growth in the number of DNP programs available. Due to health care reform and recommendations by the Institute of Medicine (2003a), the DNP degree prepares nurses to lead in complex health care systems to improve patient outcomes. Some have raised concerns about the roles of the DNP, such as the faculty role (Kelly, 2010). The faculty role was not one of the original roles for the DNP. However, the intent of the Doctor of Philosophy (PhD) was for the research role, so many PhD programs do not provide nurse educator courses, therefore graduates of both programs wishing to pursue the faculty role may take additional nurse educator courses as needed (AACN, 2006). Chapter 1 addresses what is the DNP is and what it is not. Also included is a background discussion of the DNP topic, including a historical perspective of doctoral degrees in nursing, the types of

EdD	Educational Doctorate
PhD	Doctor of Philosophy in Nursing
DNSc	Doctor of Nursing Science
DSN	Doctor of Science of Nursing
DNS	Doctor of Nursing Science
ND	Nursing Doctorate
DNP	Doctorate of Nursing Practice

TABLE 1.1. Doctoral Education for Nurses.

doctorate degrees for nurses, and history of events leading up to the DNP. Sample final DNP student projects, which relate to the American Association of the Colleges of Nursing (AACN) (2006) DNP essentials, are included. Additionally, DNP roles, practice settings, DNP outcomes, and future work are given.

#### **1.2. TYPES OF DOCTORATE DEGREES FOR NURSES**

There are several doctorate degrees for nurses (see Table 1.1). The evolution of these degrees is important to understand the context of how the DNP came about. Nursing education has an active role in the development and advancement of the discipline of nursing.

#### **1.2.1. Educational Doctorate**

The Educational Doctorate (EdD) has a variety of majors, such as a major in Educational Leadership, Nursing Education, or Education of Health Care Professionals. The first doctorate in nursing, an EdD in Nursing Education, started in 1933 at the Teacher's College, Columbia University (Dreher, 2010; Fitzpatrick, 2008). The EdD is a terminal degree. The EdD varies from a practice degree to a research degree, depending on the program and institution. The EdD dissertation may be practice oriented or original research to discover new knowledge. Graduates of the EdD are prepared for the faculty role and focus on teaching practice and research to advance the science of education. Today, there are several EdD programs for nurse educators. For example, at the University of Alabama, the EdD in Instructional Leadership for Nurse Educators focuses on preparation of graduates in designing instructional programs using technology, educational evaluation, and research related to nursing education (Graves et al., 2013).

#### 1.2.2. Doctor of Philosophy in Nursing

The Doctor of Philosophy in Nursing (PhD), a terminal degree, is research oriented and prepares graduates with the skills to discover new knowledge (AACN, 2010). In the 1930s, the first PhD program in nursing started at New York University (Fitzpatrick, 2008). It was originally an EdD program, but became a PhD in nursing program in 1934 (Fitzpatrick, 2008). The PhD did not become a commonly existing degree until after the development of the practice doctorate (Frances Payne Bolton School of Nursing, 2013). Fitzpatrick (2008) explains that rapid growth of PhD programs in nursing occurred between 1975 and 1990.

#### 1.2.3. Doctor of Nursing Science

The Doctor of Nursing Science (DNSc) degree was an early approach to develop a clinical nursing doctorate (Dreher, 2010). It was started at Boston University in 1960 and later dispersed to University of California at San Francisco (UCSF), Rush, Columbia, Yale, and Widener (Dreher, 2010). Many DNSc program have faded from operation. The University of Medical Sciences Arizona is the only institution that continues to offer the DNSc degree. The program focuses on preparing graduates with research skills and the ability to provide expert patient care, including knowledge in "scholarship, clinical leadership, and organizational skills" (University of Medical Sciences Arizona, 2013).

#### 1.2.4. Doctor of Science in Nursing

The next approach to address the need for a clinical doctorate in nursing was the Doctor of Science in Nursing (DSN). This terminal degree was first at the University of Alabama in Birmingham in 1975. This degree was later at East Tennessee State, University of Texas Health Sciences-Houston, and West Virginia (Dreher, 2010). The DSN was similar to PhD programs and was more of a research degree instead of a clinical degree. According to the University of Alabama, School of Nursing website, all graduates of the DSN program may convert their degree to a PhD (2013).

#### 1.2.5. Doctor of Nursing Science

The third wave of clinical doctorate programs in nursing was the

Doctor of Nursing Science (DNS). This degree was also a terminal degree and was first at Indiana University in 1976. According to Fitzpatrick (2008), the DNS programs were very similar to the PhD programs. The DNS degree is still currently offered at Louisiana State University Health New Orleans (2014), Kennesaw State University (2014), and the Sage Colleges (Sage Graduate Schools, 2014). The DNS program at the City University of New York (CUNY) is no longer accepting new students but is still in operation for students completing their degree (CUNY, 2014). According to the AACN (2001) position statement for indicators of quality in research-focused doctoral programs in nursing the same quality indicators are used for the PhD or DNS degree.

#### **1.2.6.** Nursing Doctorate

The first nursing doctorate (ND) was pioneered by Frances Payne Bolton School of Nursing at Case Western Reserve University in 1979 (AACN, 2004; Frances Payne Bolton School of Nursing, 2013). The ND focused on clinical practice instead of research (Bellack, 2002). The degree model was similar to the medical degree (MD) with a requirement of a baccalaureate degree to enter a ND program and then a four-year doctoral level nursing program that produced graduates for entry-level practice in nursing. However, for nurses wanting a practice doctorate and advanced practice specialization, the early ND did not meet both of these goals (AACN, 2004) because the preparation was in general nursing. Other schools that offered the ND were Rush University, The University of Colorado, and the University of South Carolina (O'Sullivan, Carter, Marion, Pohl, & Werner, 2005). Later, Case Western Reserve University added an advanced practice nursing aspect to the ND and subsequently revised the ND offering to a DNP program (Tibbitts, 2005). O'Sullivan et al. (2005) report the schools that offered the ND accepted the AACN recommendation to end the ND and modify the offering to a DNP program.

#### 1.2.7. The Doctor of Nursing Practice (DrNP)

Drexel University began offering the DrNP degree, which is a clinical research program (Dreher, Donnelly, & Naremore, 2006). It incorporates practice and research similar to a doctorate in public health (DrPH). Dreher et al. (2006) report that the Drexel University faculty was aware of the developments with the DNP, however chose the DrNP degree that focuses on practice and research. Therefore, the main difference between the DrNP and the DNP is the DrNP focuses on clinical research and practice, whereas the DNP focuses on leadership practice and use of research evidence in practice. Later, Drexel changed to the current DNP offering (Drexel University, 2014).

#### **1.2.8.** The Doctorate in Nursing Practice

The doctorate in nursing practice degree prepares the nurse with advanced skills in clinical nursing practice and leadership to practice in the dynamic health care world. The intent of the DNP degree is to prepare the nurse with advanced leadership skills and to practice at the highest level of nursing practice. The DNP focuses on the translation of research into practice settings. DNP educational programs should prepare nurses in at least one area of advanced clinical nursing expertise, or an organizational focus, or both (AACN, 2006b). The DNP is a terminal degree.

In 2004, the AACN voted to approve the DNP as entry level into advanced practice nursing (instead of the MSN), effective 2015. The position statement suggests using the phrase practice doctorate, instead of clinical doctorate in nursing. Key differences in the DNP should focus less on theory and meta-theory and research methods, and should focus on a final or capstone project instead of dissertation approach. The position statement notes that the term dissertation may have various meanings. More of a focus should be on practice experience, practice improvement, practice interventions and evaluations, health policy, and leadership (AACN, 2004).

The DNP experienced dramatic growth in a short time. In 2014, the AACN reported 241 DNP programs in the United States and an additional 59 programs in the planning phase. By 2014 there were more doctor of nursing practice programs than research-focused doctorates of nursing in the United States (AACN, 2014).

#### **1.3. THE DNP FINAL STUDENT OR CAPSTONE PROJECT**

The DNP program culminates in the final student or capstone project to demonstrate the competencies of the education (Kirkpatrick & Weaver, 2013). For the purposes of Chapter 1, the reference to the final project is as the DNP student project. Each university has a requirement for the DNP student project based on program outcomes. Essentially, theory courses and clinical courses prepare the DNP learner for the student project, prior to graduation for practice in health care. The CCNE Essentials support a student project. Eight areas essential for DNP education programs to include are (AACN, 2006a):

- 1. Scientific underpinnings for practice
- 2. Organization and system leadership/management, quality improvement, and system thinking
- 3. Clinical leadership and analytical methods for evidence-based practice
- 4. Information systems/technology and patient care technology for the improvement and transformation of health care
- 5. Health care policy for advocacy in health care
- 6. Interprofessional collaboration for improving patient and population health outcomes
- 7. Clinical prevention and population health for improving the nation's health
- 8. Advanced nursing practice

In the next sections, project examples illuminate the essentials and give examples from final DNP student projects (see Table 1.2). Keep in mind that DNP student projects vary from one institution to another, but often demonstrate competency in multiple essentials. Therefore, recognize that DNP student projects demonstrate multiple essentials, however the examples focus on the illustration of each essential (see Table 1.2).

#### 1.3.1. Scientific Underpinnings for Practice

The AACN essentials (2006) support the DNP student project. Essential I is "Scientific Underpinnings for Practice." DNP learners study and incorporate a wide variety of scientific theories such as biology, organizational theories, psychology, and genomics to guide practice and benefit patient outcomes (AACN, 2006). A student project on the topic of the process and implementation of electronic medical records (EMRs) in a rural health care setting by Smith (2013) is an applied example of the AACN DNP essentials. The scientific foundation used for the project was Keshavjee's EMR framework. Three major concepts incorporated in the framework are people, process, and technology. Keshavjee's EMR framework has three phases, the pre-implementation, implementation, and post-implementation phase. The application of

Ess	ential	Project and Author
Ι.	Scientific Underpinnings for Practice	Implemented EMR to improve patient health care in rural setting (Smith, 2013).
11.	Organizational and Systems Leadership for Quality Improvement and Systems Thinking	Initiated an on-going quality improvement program on value-based purchasing in health care organization (Heard, 2012).
.	Clinical Leadership and Analytical Methods for Evidence-Based Practice	Developed an evidence-based guideline for school nurses to use in determining exclu- sion from school for head lice (Myer, 2012).
IV.	Information Systems/Technology and the Transformation of Health Care	Led a quality improvement project to use smartphones by nurses in acute care (Whit-low, 2013).
V.	Health Care Policy for Advocacy in Health Care	Studied community service organizations' positions on sharing a client record (Friberg, 2010).
VI.	Interprofessional Collaboration for Improving Patient and Population Health Outcomes	Developed and implemented a perfor- mance improvement project to track patients with spinal cord stimulator implants to track outcomes (Rajala, 2013).
VII.	Clinical Prevention and Population Health for Improving the Nation's Health	Designed and led intervention to prevent prediabetes from becoming diabetes in adult population (Bolinger, 2012).
VIII.	Advanced Nursing Practice	Clinical scholarship project to introduce rural NPs to the use of telehealth video (Langley, 2012).

TABLE 1.2. DNP Final Student Projects and Essentials.

change theory in the health care organization was present. For example, in Keshavjee's pre-implementation phase, hospital and clinic staff was actively involved and received training for use of the new software program. The project was evidence-based because the project included a review of evidence on barriers to EMR implementation and improved clinical outcomes with EMR implementation and application throughout the project. Collaboration between the disciplines and departments was present in all phases of the implementation project. The EMR included complete and accurate information in a format easy to access and Smith (2013) reported that this improved the rural population health outcomes. One specific example given by Smith (2013) was a small group of diabetic patients that had improvement from pre- to post-EMR implementation in terms of glucose control. The application of Keshavjee's EMR framework to address a clinical problem is a strong aspect of this project.

#### 1.3.2. DNPs, Leadership, and Performance Improvement

Graduates of DNP programs are well versed in exploring practice questions from a performance improvement standpoint. The AACN Essential II, Organizational and Systems Leadership for Quality Improvement and Systems Thinking, is a critical skill to improve patient outcomes (AACN, 2006) such as decreasing medical errors. DNPs are clinical scholars who have the expertise to ask clinical questions and use quality improvement models and information technology to improve patient outcomes (Nickitas, 2011). A specific example is the DNP student project by Heard (2012) on the topic of initiating valuebased purchasing to set the organization up for an ongoing quality improvement project. The purpose of the student project was to provide education and consultation for organizational nurse executives about Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) and Value-Based Purchasing (VBP). Robbs' framework for value-based purchasing consultation guided the project. The focus is on Essential II, Organizational and Systems Leadership for Quality Improvement and Systems Thinking and Essential V, Health Care Policy for Advocacy in Healthcare (Heard, 2012).

#### **1.3.3.** Clinical Leadership and Analytical Methods for Evidence-Based Practice

In the third AACN (2006) Essential, Clinical Leadership and Analytical Methods for Evidence-Based Practice, the DNP scholar identifies a problem and applies nursing practice scholarship to address the problem. Myer (2012) developed an evidence-based guideline for school exclusion related to head lice. Since school exclusion policies influence a student's attendance, it is best to base decisions on accurate information and evidence. To develop the exclusion guideline, Myer used current clinical guidelines, a review of the literature, grading of the literature, and a Delphi process to seek expert opinions. After the Delphi process, a guideline for exclusion from school for head lice was developed. This project is an example of using evidence to develop health policies.

## **1.3.4.** Technology for the Improvement and Transformation of Health Care

Essential IV is Information Systems/Technology and the Transfor-

mation of Health Care (AACN, 2006). DNPs use technology and informatics to organize and maintain health care information and measure effectiveness of technology related to patient care. Whitlow (2013) completed a quality improvement project in which nurses used smartphones at the bedside to increase communication times between nurses and physicians in the acute care setting. The project design was pre-test/ post-test. The use of smartphones decreased patient interruptions, decreased wait times between nurse and physician communication, and increased the time nurses spent with patients. Whitlow concluded the smartphone technology improved nurse-physician communication response time related to patient management and granted nurses more time with patients.

#### **1.3.5.** Health Care Policy

The DNP essential V is Health Care Policy for Advocacy in Health Care (AACN, 2006) and focuses on policies that can improve health care practices or facilitate provider services. A DNP student project by Friberg (2010) identified interest from community service organizations about the use of a shared client record in the elderly population. Aday's framework for health policy evaluation and open systems theory guided the project, which focused on functional assessments in the community. All participating community organizations (n = 15) reported interest in a shared client record. Friberg (2010) concluded the use of shared functional assessment data would increase the effectiveness of patient care services provided. The shared client record has health care policy implications.

#### **1.3.6.** Interprofessional Collaboration to Improve Patient and Health Care Outcomes

Interprofessional Collaboration for Improving Patient and Population Health Outcomes is the AACN (2006) DNP essential VI. A multidisciplinary team followed patients with spinal cord stimulator implants (SCSI) to track improvement of patient's outcomes, specifically implant longevity and efficacy (Rajala, 2013). The student DNP-led final project focused on performance improvement. Rajala (2013) created a database for information related to the SCSI, such as device information and patient outcomes gathered from medical records and a questionnaire. The team completed an analysis of the data to study areas for improvement and having met the desired outcome. Rajala led a multidisciplinary approach to address patient needs related to improving outcomes, such as SCSI reprogramming to provide better pain management (2013).

#### 1.3.7. Clinical Prevention and Population Health

The ACCN (2006) DNP essential VII, Clinical Prevention and Population Health for Improving the Nation's Health, targets promoting health and reducing risks for health concerns in the U.S. population. The evaluation of a practice change to prevent diabetes by identification and treatment of pre-diabetes is the topic for a DNP student project by Bolinger (2012). Adults 25-70 years of age in Wirt County with prediabetes were the population of focus in the project. Rogers Diffusion of Innovations Theory provided the theoretical framework for the education session with staff and EMR reminders for health care. Evidence from the literature was the basis for the intervention plan and took place in a health care facility that had three sites. Interprofessional collaboration took place between facility administration, medicine, nursing, project champions at each site, a clinical nurse midwife, laboratory services, and a pharmaceutical company. All key stakeholders received education about the EMR reminders. The EMR reminders serve as use of technology to improve health care, AACN essential IV. Data collection and analysis for outcomes took place. The project objectives were met or partially met. Bolinger (2012) reports screening, education, and actions to prevent diabetes.

#### 1.3.8. Advanced Nursing Practice

Essential VIII addresses Advanced Nursing Practice. DNP graduates have preparation in a clinical area and advanced role (AACN, 2006), such as nurse practitioner, nurse midwife, nurse anesthetist, and clinical nurse specialist. Langley (2012) recognized the clinical problem of the elderly receiving timely and economical health care from nurse practitioners in rural Mississippi to address in her DNP student project. This is an example of an advanced nursing practice project to improve health care to a population. Clinical scholarship in the project involved the application of a new technology (clinical video telehealth) in a clinical practice situation by nurse practitioners (NPs). Lee and Kotler's social marketing framework guided the project. Langley (2012) used a focus group survey technique to gather data from 12 NPs in Mississippi. Langley reported success with using social marketing to educate NPs about clinical video telehealth use (2012).

#### 1.4. HISTORY OF THE DNP (OR THE PROLOGUE TO THE DNP)

#### 1.4.1. Origin of the DNP

In 2001, the AACN had serious deliberations about the doctorate of nursing practice degree. The development of the DNP has been through a stimulating path to where it is today. This section includes a prologue story to the revolutionary development of the DNP to add background and context.

#### 1.4.2. Driving Forces for Development of the DNP

The Institute of Medicine (IOM) Report, To Err is Human: Building a Safer Health System, (1999) is a significant driving force in the development of the DNP degree because it called attention to patient safety and medical errors. This report opened the eyes of many nurse leaders that it was time for a progressive and innovative approach. Up to 98,000 people die each year in the United States from medical errors (IOM, 1999). The report concluded that health systems (including hospitals) need to put systems in place to reduce medical errors. The recommended systems would require advanced clinical education for leaders and the DNP was a solution to provide education for leaders to develop the skills to put the needed solutions in operation in health systems.

The IOM Report, Crossing the Quality Chiasm (2001), called for rethinking and the restructuring of health care to improve the safety, effectiveness, efficiency, and timeliness of patient care. In addition, the report also recommended patient centered care practice. The provision of equitable care was also a key point addressed and included quality care that did not vary due to age, gender, ethnicity, socioeconomic status, or geographical location (IOM, 2001). The DNP prepares a nurse to improve health care delivery systems and to improve the quality of patient care and reduce medical errors (Chism, 2009).

A task force by the AACN to revise the *Quality Indicators for Doctoral Education* found that the indicators applied to PhD or DNS degrees (AACN, 2001). This spurred further discussion of the practice doctorate in nursing. Also in 2001, a *Practice Doctorate Task Force* 

## DNP Contributions to the Future of Nursing Practice, Nursing Education, and Health Care Policy

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**T**HE DNP was established to prepare nurses with an advanced practice focus that promotes the care and accountability for specific populations, including aggregate/systems/organizational focus, health care policy, and other population-based specialties (AACN, 2004). In response to such, the education of nursing is experiencing a paradigm shift, most notably at the graduate level (Tri-Council for Nursing, 2010). Several landmark publications emerged which influences nursing education and scope and standards within nursing practice.

The Institute of Medicine (IOM) has released several publications that address health care delivery. In 2001, the IOM published *Crossing* the Chasm: A New Health System for the 21st Century. In this report it was acknowledged that additional skills may be required to meet the specific aims of safe, evidence-based, patient-centered, timely, efficient, and equitable care. This report was followed with a 2003 publication in which the IOM recommended that all health care professionals be educated to deliver such care through an interdisciplinary team composition. This allows for drawing on the strengths of each profession in a way that best benefits the patient. In addition, evidence based, patientcentered, quality improvement strategies that include emerging technology and informatics were encouraged to be integrated into health care delivery. By 2010, the IOM released the Future of Nursing report specifically calling for advanced practice nurses to practice at the full scope of their education and expertise as partners in health care reform and health care delivery.

During this same period, the National Research Council of the Na-

tional Academies (2005) recommended that a nonresearch based doctorate in nursing was needed to address practice needs and nursing education. Quality and Safety Education for Nurses (QSEN) began in the same year. The focus of QSEN remains to address the mandate for preparing future nurses with the knowledge, skills, and attitudes (KSAs) essential to the practice of nursing. These mandates address the quality and safety of health care systems in which nurses find themselves (QSEN, 2014).

The American Association of Colleges of Nursing (AACN) (2004), in response to the IOM reports and others, published a Position Statement on the Practice Doctorate in Nursing whereby the DNP was recognized as the terminal practice degree in nursing. The AACN further delegated that advanced practice be moved from the masters level to the doctoral level by 2015 (AACN, 2006). Both the National Organization of Nurse Practitioners Faculties' (NONPF) Practice Doctorate Nurse Practitioner entry-Level Competencies (2011) and AACN's Essentials of Doctorate Education for Advanced Nursing Practice (AACN, 2006) support educating doctoral level nurses as experts in synthesizing and applying evidence-based systems and procedures, utilizing emerging technologies and information systems, and participating in interprofessional collaboration and consultation. The American Organization of Nurse Executives, while supporting the DNP as a terminal degree, asserted in their position statement that there continues to be a need for both specialists and generalists being educated at the master's level (AONE, 2007).

#### 8.1. CONDUCTING REAL WORLD PROJECTS AS A DNP

As was previously noted, the DNP degree supports advanced practice in a clinical area that specifically speaks to projects that reflect the needs of individuals, communities, and other groups in which the DNP interacts.

While for some the scope of practice is purely clinical, many program specializations address leadership, education, and political advocacy (e.g., Capella University, 2014; Touro University of Navada, 2014; Rush University, 2014).

#### 8.1.1. Education

The National League for Nursing (NLN), in its Vision series (NLN, 2013), and the American Association of Colleges of Nursing (AACN,

2006) speak to a need for doctoral prepared faculty within nursing. The NLN indicates that both DNP and PhD programs need to prepare their graduates with the knowledge and skill necessary to be a successful educator. This NLN mandate requires that the nurse educator be adept in providing leadership for transforming education and health care systems to meet the current and future demands. Doctoral prepared nurses are needed both in academic and practice settings to develop, implement, and evaluate the impact of evidence-based nursing approaches that expand nurses' understanding of patient and other population centered care and team-based coordination of health care interventions.

Rather than focusing on the educational requirements of faculty, the AACN addresses the area of practice specialization in the *Essentials of Doctoral Education* (2006). However, the AACN does note that educators need additional preparation in pedagogy that will enhance the DNP's ability to promote the science of nursing which they teach. Patient education is also called out as a skill set needed by DNP prepared nurses. Like the NLN position statement, AACN believes that a nurse educator requires experience in teaching methods, curriculum development and design, and program evaluation; however the DNP program is not required to focus on the preparation of nurse educators according to the AACN Essentials.

By all noted accounts, the faculty shortage among those educated to teach nursing is still evident (NLN, 2009, 2010). Minnick, Norman, Donaghey, Fisher, and McKirgan (2010) conveyed that approximately 20% of doctoral research programs in nursing prepare their graduates for faculty roles. Minnick, Norman, and Donaghey (2013) reported that DNP programs offer even fewer courses to prepare nurse educators than their PhD counterpart. To meet this growing need, the NLN recommends that double the number of nursing faculty receive a doctoral degree by 2020 while supporting the inclusion of formal academic preparation for the nurse educator role in doctoral programs. This will require educator models that foster greater diversity in doctoral program (NLN, 2013).

DNP prepared educators need to have advanced preparation in both didactic and a clinical area of expertise. In order to be effective as educators, DNPs must be able to identify current needs and trends within the profession and within the clinical setting. They must be able to translate and employ educational and clinical findings derived from their exploration as well as findings noted in current research. In response to such needs, DNP educators need to be committed to design and to implement curricula that speak to the individual needs of those being educated. Information technology and other technological advances are important inclusions when educating students, patients and clients.

Some DNP programs are including a specialization in nursing education. South Alabama University (2014) is one example of this dynamic change in focus. The very essentials addressed by the CCNE are noted in program design, and graduates are equipped with the skills and knowledge to create and deliver quality education that meets the specific needs of their population. Either in the hospital or in an academic setting, a DNP prepared nurse can influence the academic arena and clinical education. With a focus on improving the education of student, client, or patient, the DNP prepared nurse identifies an area of investigation or improvement. The specific dynamics of a current system is explored and a new program, learning strategy, or outcome is designed. Analysis of the resulting interventions affords the DNP practitioner insights into implications for practice.

Education is the clinical specialization for some DNP practitioners. As such, it is important the necessary knowledge, understanding, and skills are enhanced within the DNP experience. With many nursing organizations forecasting and promoting that clinical education occurs at the DNP level, it is more essential than ever that DNP prepared educators receive the knowledge and academic skills needed to design, implement, and assess the outcomes of educational interventions in a variety of clinical settings. As a profession, nursing requires DNP prepared educators to apply research, assess clinical and academic needs, and to develop strategies to meet these mandates within an academic program. Having the knowledge and skills necessary to attain these objectives can be fostered within a DNP program that focuses on nursing education. Often the solution to a program, clinical, or systems problem is educating employees, colleagues, or providers. The clinically-focused DNP will need skills in developing and delivering effective education, and in evaluating learning outcomes.

#### 8.1.2. Clinical Practice

The traditional, advanced clinical practitioner is what often comes to mind when addressing the role of the DNP prepared nurse. With the mandate that all advanced practice nurses receive a DNP degree starting in 2015, the clinical role is front and center among many DNP practitioners (AACN, 2004). While scope and practice are now mandated on a state by state basis, there are some general standards that speak to the advanced clinical role held by many DNP prepared nurses who also have attained advanced licensure.

The translation of research to practice may take from 8 to 30 years according to Squires et al. (2011). One of the goals of the DNP degree is to minimize the interval between discovery of information and direct application in the clinical setting. Practice knowledge is deduced from the evidence presented in research and in turn is translated into common application based on best practices. This "next step"—or practice inquiry—is a new dynamic within the realm of scholarship in clinical practice (Benner, Sutphen, Leonard, & Day, 2009), and this domain is where the DNP clinical practitioner can excel.

Increasingly complex health care systems, quality care, and patient safety are all foundations for the change in educational requirements for advanced practitioners. With the need for immediacy in disseminating and applying information, having a nurse with a practice doctorate is important. Let's consider the clinical roles for a DNP prepared nurse.

The most common Advanced Practice Registered Nurse (APRN) is the nurse practitioner. The U.S. Department of Labor (2013) estimates there are currently 113,370 Nurse Practitioners licensed in the United States. In this role, a nurse can provide extensive primary and acute services. These services include diagnosis and treatment of mental and physical conditions. In most states, nurse practitioners can write prescriptions and admit patients to hospitals. In 2014, the Veterans Health Administration made the determination that nurse practitioners may function independently within their health care system without the oversight of a physician (Beck, 2014). Some physicians' groups are pushing back on this potential change, yet the Veterans Health Administration believes this is an area worth exploring.

With the potential change in nursing practice, it will be important for the DNP clinical practitioner to be educated within the role of a Nurse Practitioner and to develop the knowledge and expertise to look at current research and apply it to her or his practice. Having this foundation provides for expediency in making a determination as to what is best practice within the DNP's advanced scope of practice. Understanding the transition between research to practice affords him or her the opportunity to provide the most current care available.

A Clinical Nurse Specialist (CNS) addresses the structure, processes, and outcomes of nursing care in a variety of settings (Baldwin, Clark, Fulton, & Mayo, 2009). The scope and role of the CNS allows for in-

quiry into specific conditions and dynamics seen in the clinical setting. Assessment, application of current research, interventions, and evaluation of the application are all well within the scope of the CNS role. In addition to educating patients in the area of specialization, the DNP prepared CNS can serve as an educator for other nurses and health care professionals, as well as consultant, expert clinician within a population and/or specialty area of practice, and change agent within organizations.

The DNP also serves as a consultant within and outside of her or his organization. Being an expert within a population or specialty area of practice, the DNP serves both as a practitioner and a resource for other professionals seeking information and clarity about a specific health concern. For example, a DNP can serve as a medical expert for a psychologist treating adolescents for eating disorders. Working in collaboration, the DNP may be the consultant as to medical concerns related to an anorexic, pediatric patient, while the psychologist focuses on the mental health issues related to treatment. Having a DNP involved will decrease the potential for complications that can arise when addressing an eating disorder, and the DNP can provide valuable information related to if and when further medical care (i.e., hospitalization) might be warranted.

Being a change agent is well within the role of a DNP. Serving as a practitioner who integrates research into practice, the DNP can serve as a catalyst for moving an organization toward best practices. This can be done in his or her current practice setting, as a manager of a clinic or on a broader scope. Operating from the "C" Suite, a DNP can also use those skillsets to look at the big picture of an organization and work to develop a strategic plan that meets current and future needs of a health care organization.

The same dynamics can be seen when exploring the role of the nurse midwife and the nurse anesthetist. DNP preparation expands the base for exploration; this coupled with the knowledge and skills of applying research to practice, offers the opportunity to take research findings and implement them within the clinical setting. Once again, the timeline between research and application can narrow, and best practices can be evaluated and implemented in a timely manner.

Thus in any clinical setting, the DNP prepared advanced practice nurse can offer expediency of best practices, identify areas for further investigation, and integrate new knowledge and skills into quality care and patient safety (AACN, 2014). In addition, policies and procedures can be clarified and changed based on need and the evidence presented.

#### 8.1.3. Nurse Leaders

Over the last few decades, health care has grown in complexity due, in part, to increasing technology, advances in research, and a changing health care paradigm. These changes cast significant light into the need for competent and capable nursing leaders who can communicate a vision and foster leadership in a time of ever present change and at times, chaos. The DNP practitioner can respond to this evolving need by applying research to current problems, identification of specific needs, and guiding nurses and multidisciplinary teams to address current issues in health care. The potential for leadership impact is limitless and necessary.

In 2004, the American Association of Colleges of Nursing (AACN) adopted a position regarding the emergence of the DNP degree. The DNP degree provides graduates with the skills necessary to enter the advanced nursing work force as leaders within organizations and government structures. Nurses with advanced degrees such as those holding a DNP have the opportunity to work in a business environment where they are immersed in nursing leadership roles that require a specific skill-set. These roles can include Chief Nursing Office, Chief Operations Officer, Clinical Nurse Leader, Vice President of Patient Care Services, and Unit Based Managers. What is important to understand however is that employers are not often as aware of what it means to hire a nurse with a DNP degree. The DNP education brings great value to the graduate, but the graduate must often help employers translate this education into a meaningful skill-set that can bring value to the organization. The process of educating employers is not something that will happen overnight, rather, it will take time and effort on the part of DNP graduates from across the country serving in roles where the DNP can establish value as a contributing member of the executive leadership staff. This level of education is not unlike what Nurse Practitioners needed to do when they began to assume primary care roles in communities and health care organizations. Despite the challenges today, Nurse Practitioners are recognized as valuable and contributing members of the health care industry.

As DNP graduates enter the workforce in large numbers, these nurses have opportunities to assume roles within local, state, and federal government. These roles can include policy makers, advisors, consultants, health care experts, and many more. It is important for the DNP graduate to recognize the contribution he or she can make within government through the specialized knowledge acquired not only by experience, but by an advanced nursing education. Government officials need skilled nurses working with them in an effort to bring meaning and understanding to health care related legislation. Once again, the value of this degree will take time to be understood. But, through consistent education and the demonstration of value, DNP graduates have an opportunity to work within government structures and advance health care through evidence-based practice standards, while promoting the role of the DNP prepared nurse.

There is little research on the role of the DNP prepared nurse. Despite the lack of empirical evidence, there is relational evidence that would support the overall notion that as nurses move forward in their education, the role they play as consultant for complex health care issues is very important. Nurses that hold a terminal practice doctorate are perfectly situated to be considered the experts in health care policy and policy development that can impact individuals, families, communities, populations, and aggregates. To this end, it is critically important that nurses take an active role in government, policy development, and national health care issues as a means to bring value to the contribution that nurses can make on health care in general. This becomes equally as important for the DNP prepared nurse because these nurses possess the education on the utilization of evidence as a means to foster safe patient care and translational architecture that serves to utilize empirical understanding as a means to define best practices and promote higher health care standards.

There is no better example of nursing engagement in the political process than the movement for appointment of a National Nurse. The national nurse movement was started as a means to promote nurses and their ability to manage public health issues. The appointment of a national nurse serves many different purposes, but most importantly, this movement provides education to society that nurses have the education, interest, and ability to help lead and direct national health care campaigns that can save lives and improve the health of individuals, families, communities, populations, and aggregates effectively. While the national nurse campaign does not specify the need for a national nurse that holds a DNP degree, DNP graduates are well positioned through their education to assume roles that help to lead the nation's health care initiatives and foster preventative and wellness care across the country. In addition, nurses who hold a terminal practice doctorate degree are well situated to offer counsel and advice to government officials on matters of health care policy.

The most significant challenge for the DNP graduate is securing a position that permits the graduate to utilize the education he or she has earned. Many nurses enter doctoral education as a personal choice to complete the terminal degree. Some must earn a terminal degree as part of their job requirements, while others complete doctoral education in an effort to open new doors of opportunity. For those graduates already working, the DNP education affords them skills that will enhance their career. For others, the DNP degree affords the ability to compete in a tight labor market.

The Bureau of Labor Statistics (BLS, 2014) projects that health care leadership roles will grow over 22% by 2018. These roles include Chief Nursing Officers and positions in health care leadership. This level of growth is significant for nurses graduating with a DNP degree and provides a reasonable forecast for future career growth. It is important to also understand that nurses coming out of school with a DNP degree need to demonstrate their ability to capitalize on this education by engaging in activities that promote the use of evidence-base practice, joining professional organizations that promotes the DNP prepared nurse, and engaging in networking from across the country. Further, DNP graduates are well situated to partner with other doctorally prepared nurses in an effort to advance the body of nursing science through translational practice change.

Effective engagement as a DNP prepared nurse demonstrates the nurses overall commitment to the role of the DNP and helps to promote the DNP role as a means of educating employers and stakeholders that would serve to utilize nurses with this level of nursing education. Swanson and Stanton (2013) conducted a survey regarding perceptions of the DNP education by Chief Nursing Officers across the country in an effort to determine if these participants believed the DNP served as a valuable education for nurses in executive leadership roles. According to the authors, the DNP is generally viewed as an appropriate terminal degree for nurses in executive leadership roles. They went on to say "according to the data, CNOs perceive the DNP as an appropriate terminal degree option for current and future nurse executives; however, they do not necessarily support it to be the only terminal degree option (Swanson and Stanton, 2013)." While the overall perceptions of nurse executives is very positive in relationship to the DNP prepared nurse, it is clear that terminal degree options in health care administration, business administration, and education are considered of equal value for nurses in this level of nursing leadership. Conversely, one could argue that the newness of the DNP degree may impact what a nursing professional thinks of the skillset of graduates. Clearly, as this level of education becomes the standard for advanced nursing practice and nurses demonstrate the value of a DNP education, these perceptions may change.

Educating the nursing workforce, employers, government, and the public about the role of the DNP remains a significant consideration and a priority for graduates. Yet, despite these challenges, nurses who graduate with a DNP education are well positioned and well situated to assume significant roles that involve nursing leadership on many different levels. Determining the best way to leverage this doctoral education will determine the future of the DNP graduate and ultimately, the future of advanced nursing education in the United States.

Opportunities for the DNP graduate will be plentiful as long as graduates understand the importance of bringing value to the education. However, it is important to understand that while a graduate of a DNP program may possess the skills necessary to be successful in nursing leadership and politics, educating the public on this new degree is of upmost importance. This education is accomplished through active engagement in health care organizations, networking with constituents, involvement with community health care events, and most importantly, a commitment to demonstrating the value and worth of this degree through publishing and translating evidence to foster practice changes that improve patient outcomes. In time, employers, government, and stakeholders in general will come to value the role of the DNP and recognize the importance of this terminal nursing education.

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